FERRARI TRANSPORTER



Pack 02

BUILD INSTRUCTIONS

STAGE 12: BUILDING THE RIGHT CHASSIS RAIL AND THE REAR AXLE BUMP STOPS

STAGE 13: ATTACHING THE CHASSIS CROSSMEMBER, THE ANTI-ROLL BAR LINKS AND THE ENGINE MOUNTS

STAGE 14: ATTACHING THE CAB TILT HINGE PARTS, THE CHASSIS CROSSMEMBERS AND THE AIR RESERVOIRS

STAGE 15: ATTACHING THE FRONT AXLE, THE LEAF SPRINGS AND THE ANTI-ROLL BAR

STAGE 16: ATTACHING THE FRONT WHEELS AND THE STEERING LINKAGE

STAGE 17: BUILDING THE REAR AXLE AND THE DRIVESHAFT

STAGE 18: ASSEMBLING THE REAR WHEELS

STAGE 19: ATTACHING THE REAR AXLE, THE DRIVESHAFT AND THE REAR WHEELS

STAGE 20: BUILDING THE FUEL AND ADDITIVE TANKS

STAGE 21: ATTACHING THE CAB SUSPENSION AND THE TRACTOR-TRAILER CABLE ASSEMBLY

STAGE 22: ATTACHING THE BATTERY COMPARTMENT, THE AIR FILTER AND THE CATALYTIC CONVERTER

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Advice from the experts

Spare screws are included with each part. Occasionally, you may be instructed to keep spare or unused screws for a later stage. Keep these spares in a safe place and label them correctly.

Please make sure you don't mix up the screws. They look quite similar, but the threads do vary slightly. Using the wrong screws may damage the parts. Only use the correct-size screwdriver that fits the screw head securely.

When securing parts together with multiple screws, fit each screw loosely to ensure all parts are correctly aligned, then gently tighten them firmly but not overtight, in the order in which you placed them.

The screwdriver can be magnetised by stroking it with a magnet (e.g. a fridge magnet), enabling it to hold screws and make assembly easier.

If a screw is tight going into a metal part, do not force it, as you may shear the head off. Remove it and apply a tiny smear of Vaseline, soap, or light oil to the thread. That will lubricate it and make it easier to tighten.

Some parts will require a little glue for assembly. Please apply glue sparingly and use a cocktail stick so that you don't use too much nor apply the glue too heavily. We recommend superglue gel or Extra Thin Liquid modelling glue. Where possible, parts should be test-fitted in place before glueing.

Make sure you have good ventilation when using adhesives and to replace caps firmly.

Use a magnet to help find screws that have fallen on the floor.

Use masking tape to hold parts temporarily in place.

Cut parts from a sprue (framework) with side cutters or a craft knife. Side cutters tend to be easiest.

During the course of this build, you will receive many pieces that you will assemble immediately – following the instructions in the corresponding stage – and other pieces that you should store safely to one side, for use in future assembly stages.

Always protect the paint finish on components by placing a cutting mat, a sheet of white paper, or a soft cloth on your work surface.

When plugging wires in, ensure the power is switched off. Tweezers can be used to fit the PVC wires by gripping carefully around 5mm from the end of the wire. If a wire needs to be removed from a socket, do not pull on the wire as this could damage the connection. Grip the plug with tweezers to remove it.

Left and Right! When building your Ferrari Transporter, the left- or right-hand side refers to that side as if you were sitting in the cab.

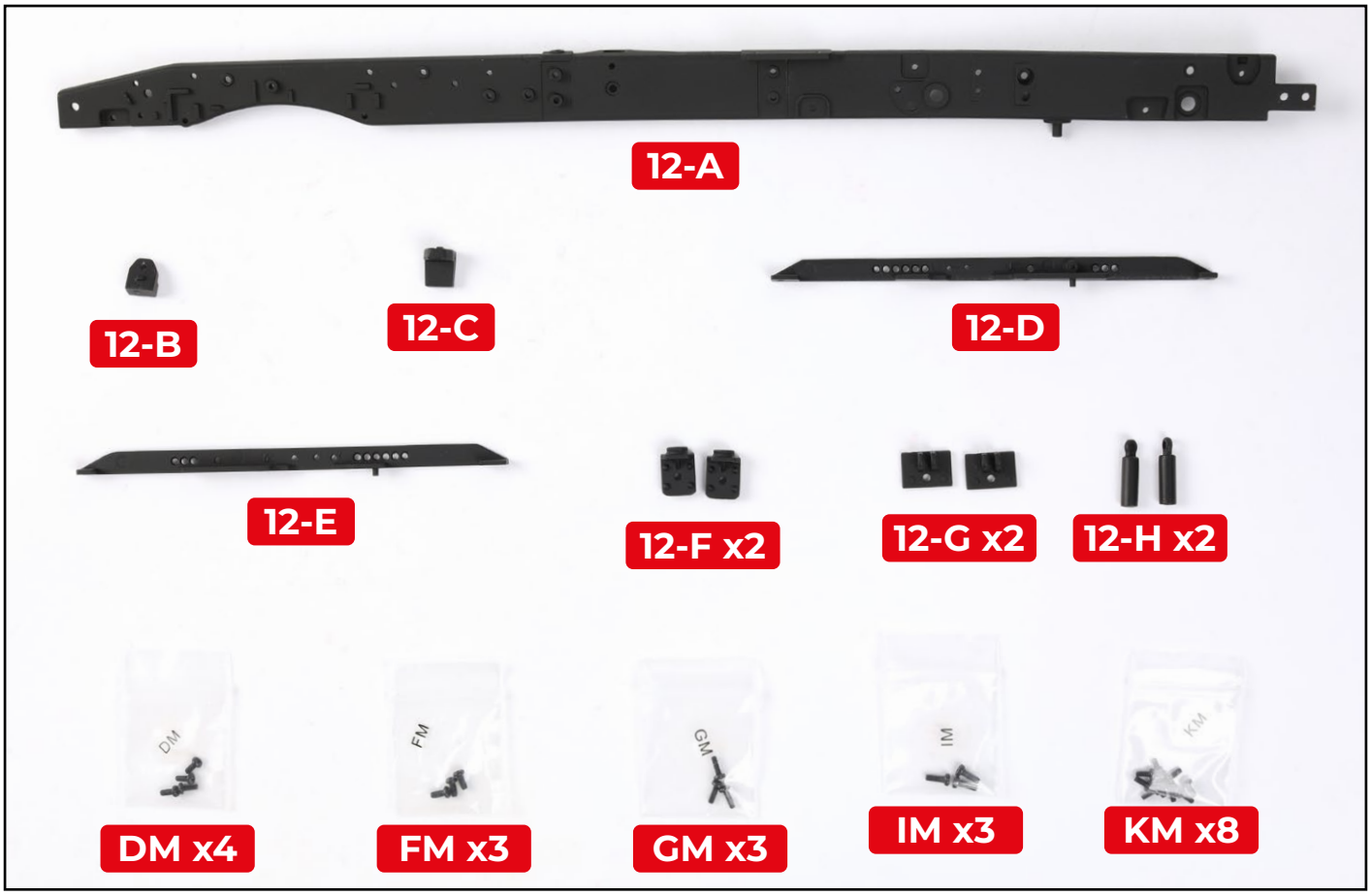
When you see this symbol, pay attention to the instruction text in bold and check the orientation of the parts in the image, as this will be particularly important for assembly in later stages.

This is not a toy. Not suitable for children under 14 years old due to small parts. Adult supervision required.

WARNING: Some parts are assembled using magnets. These magnets can cause serious injury if they are swallowed. Keep away from children. If you suspect a magnet has been swallowed, seek medical help straight away.

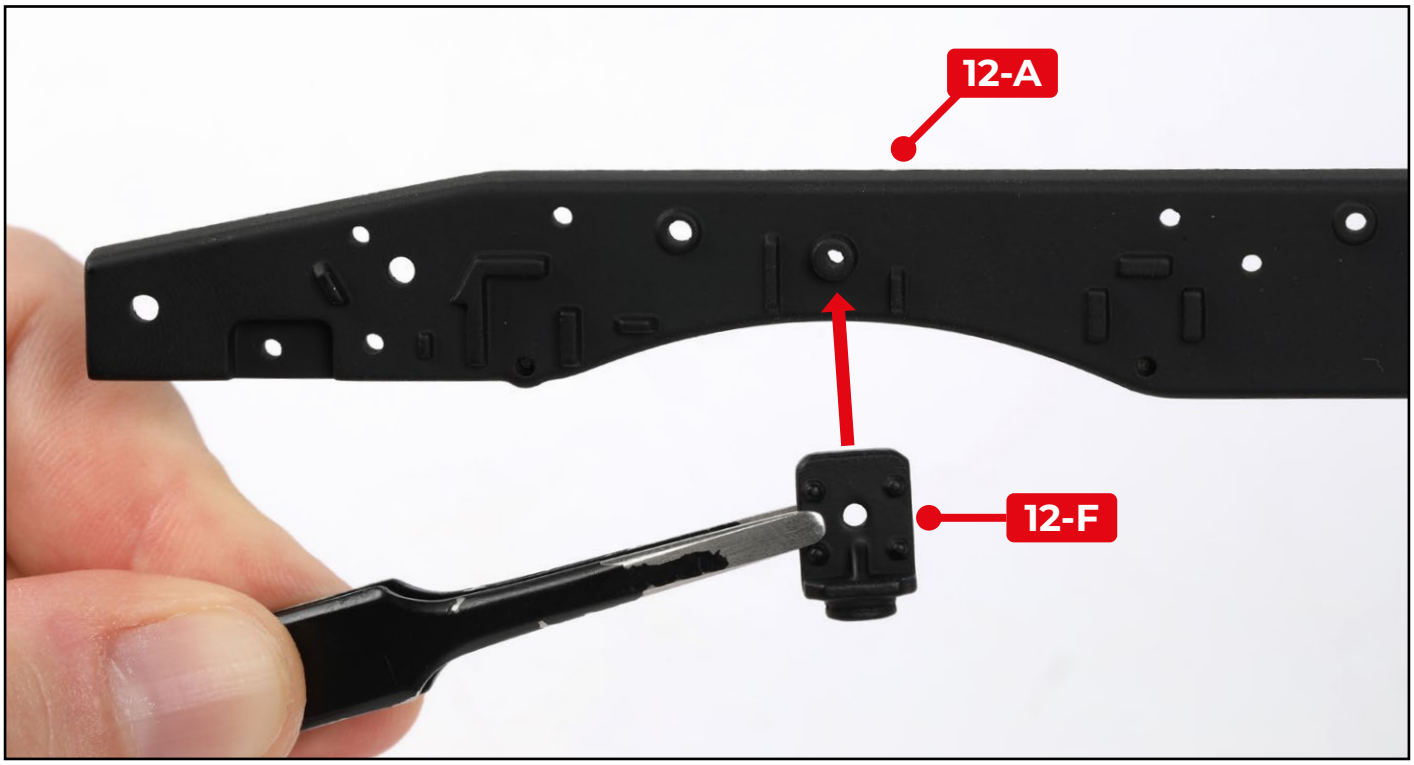
Stage 12: Building the right chassis rail and the rear axle bump stops

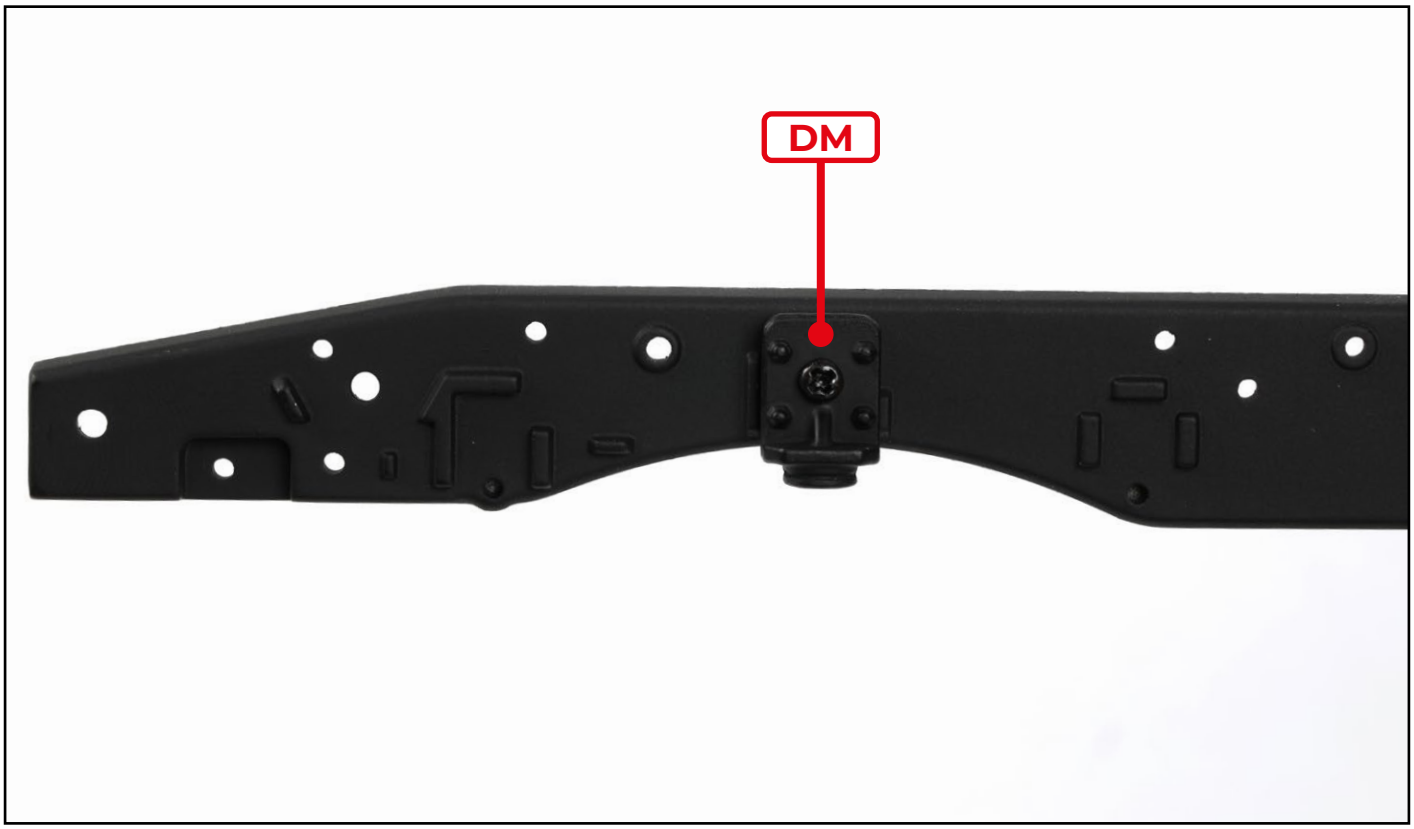
STAGE 12 PARTS



12-A: Right tractor chassis rail
12-B: Left bracket
12-C: Right bracket
12-D: Left fifth-wheel platform support
12-E: Right fifth-wheel platform support
12-F: Rear axle bump stop
12-G: Rear suspension upper shock absorber mount
12-H: Rear suspension shock absorber body
DM: 4 screws
FM: 3 screws
GM: 3 screws
IM: 3 screws
KM: 8 screws

Stage 12: Building the right chassis rail and the rear axle bump stops

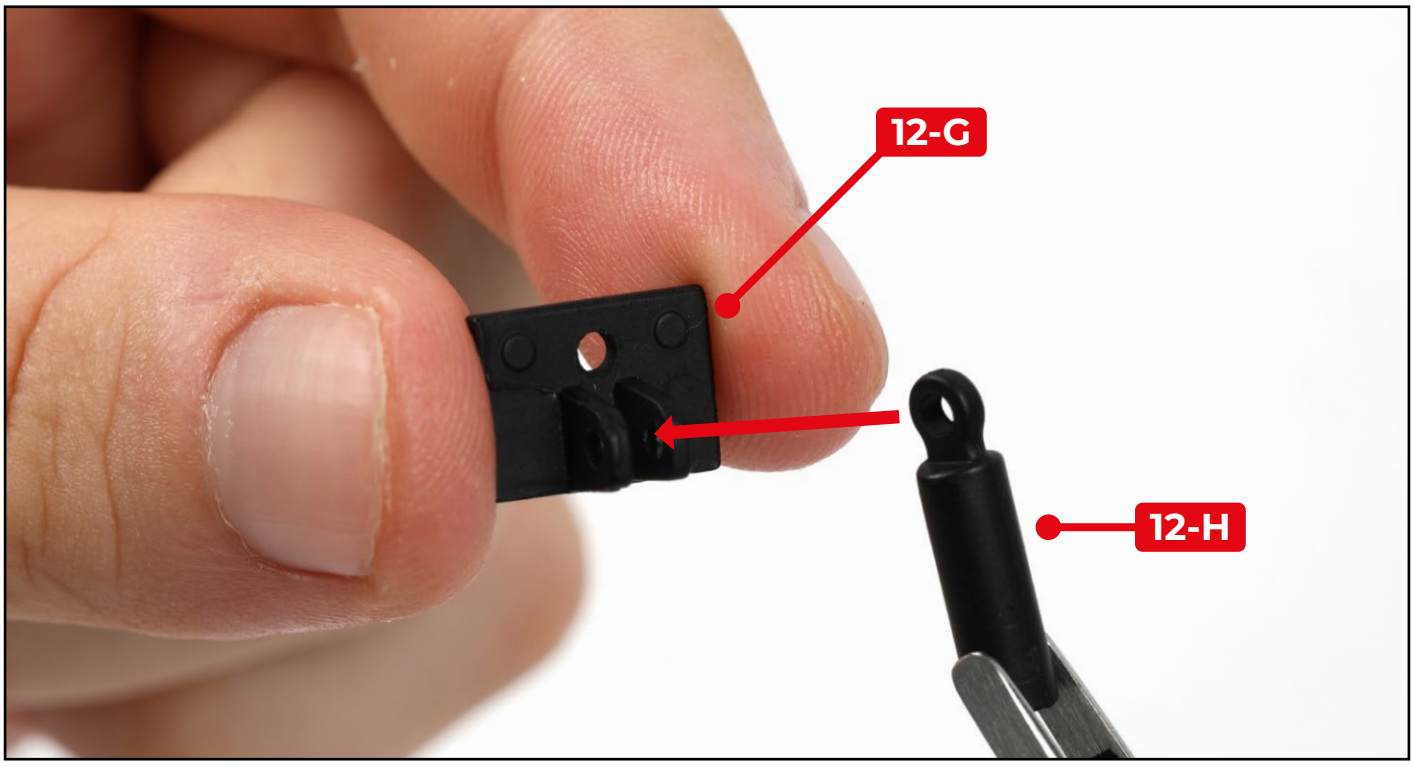


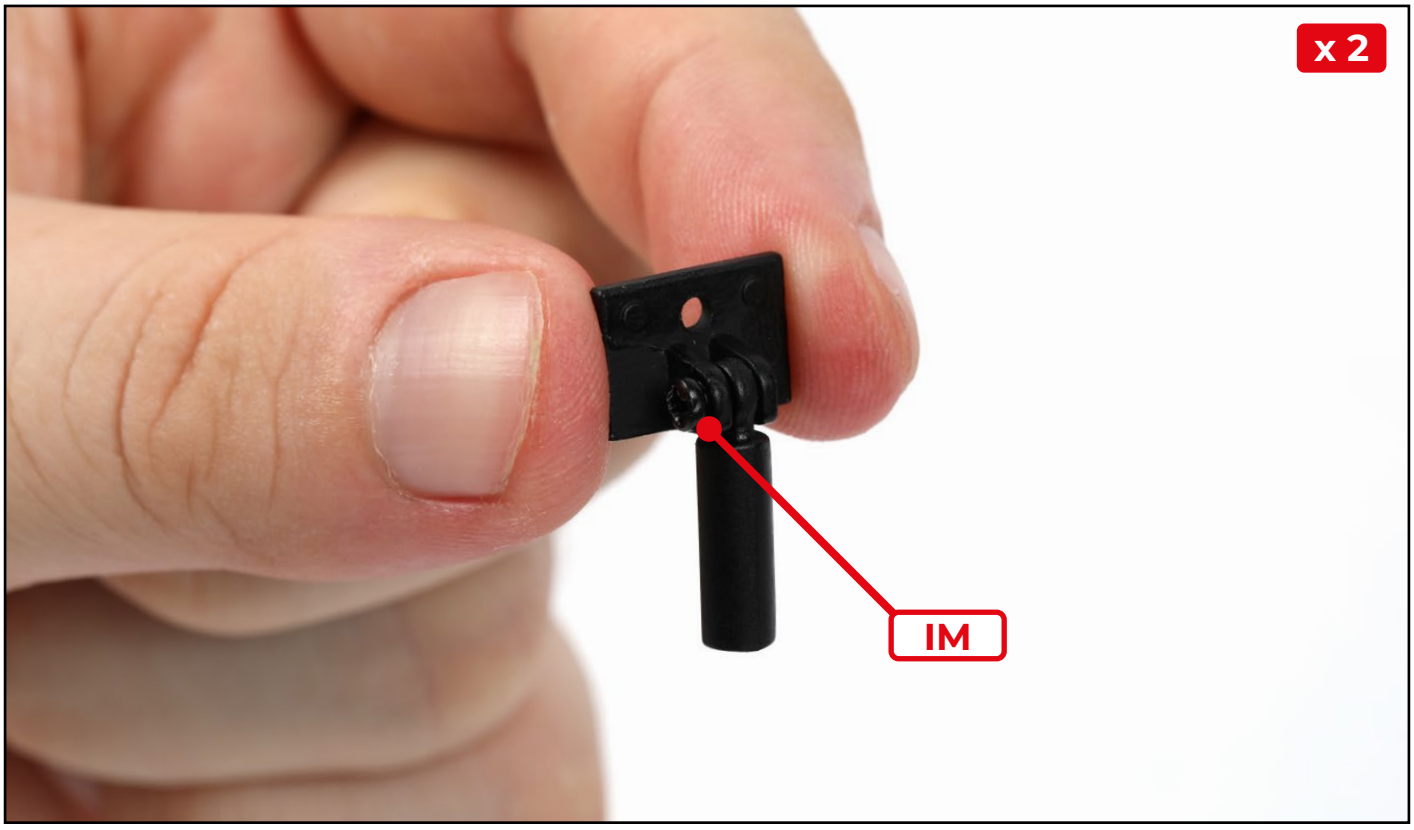


Step 1

Locate the mounting point for rear axle bump stop 12-F on right tractor chassis rail 12-A. Position rear axle bump stop 12-F as shown, then secure it with one DM screw.

Stage 12: Building the right chassis rail and the rear axle bump stops

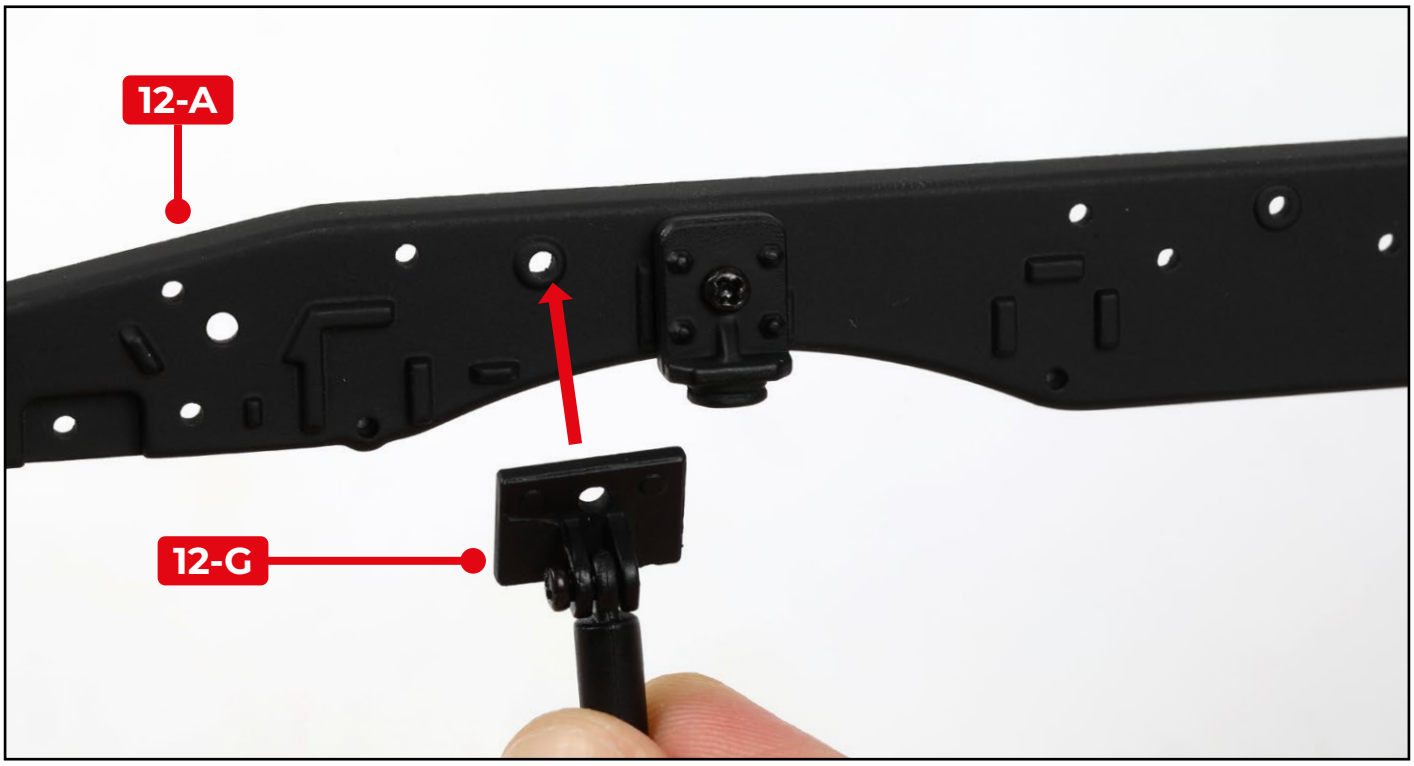


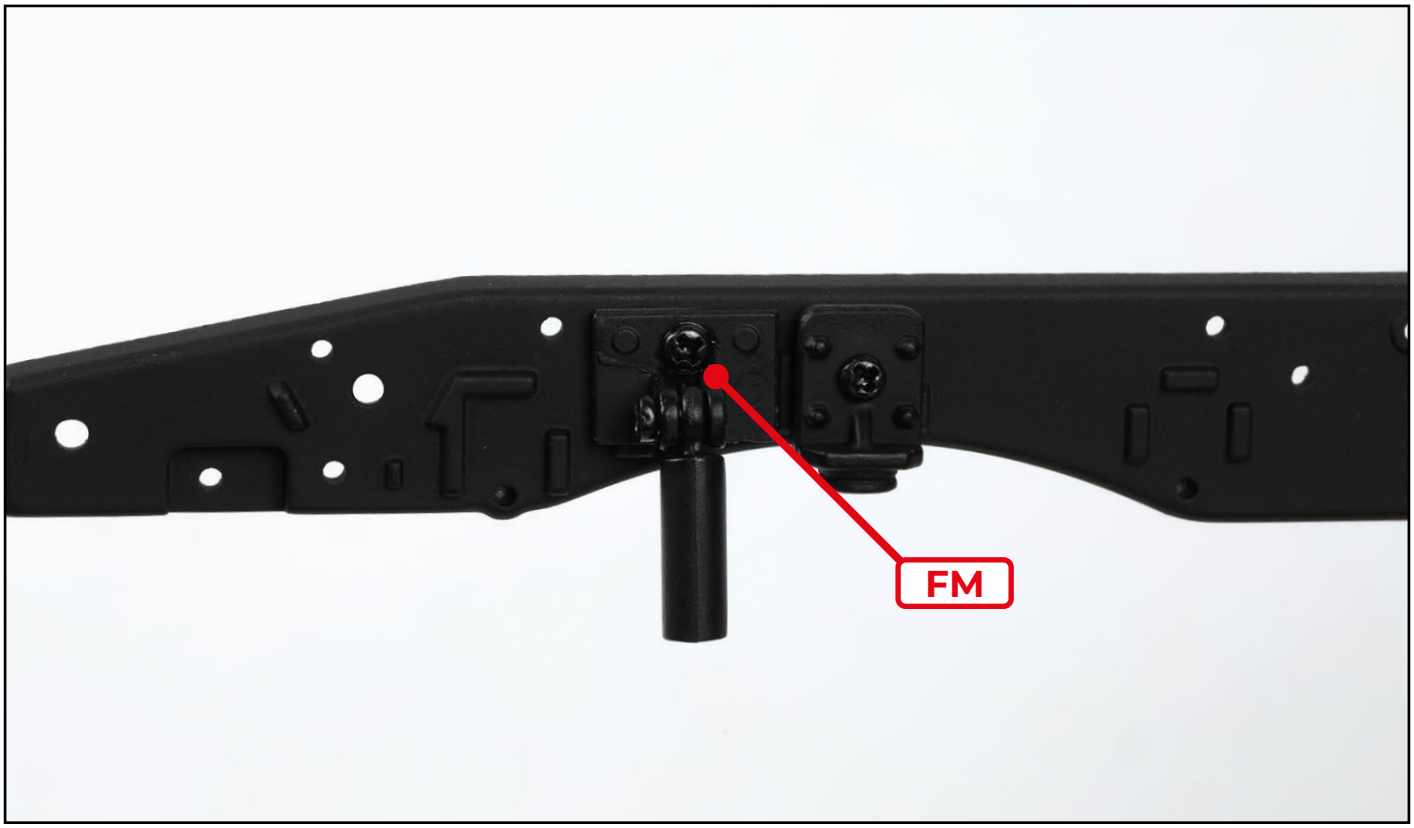


Step 2

Fit each rear suspension upper shock absorber mount 12-G to a rear suspension shock absorber body 12-H, as shown. Secure each assembly with one IM screw.

Stage 12: Building the right chassis rail and the rear axle bump stops

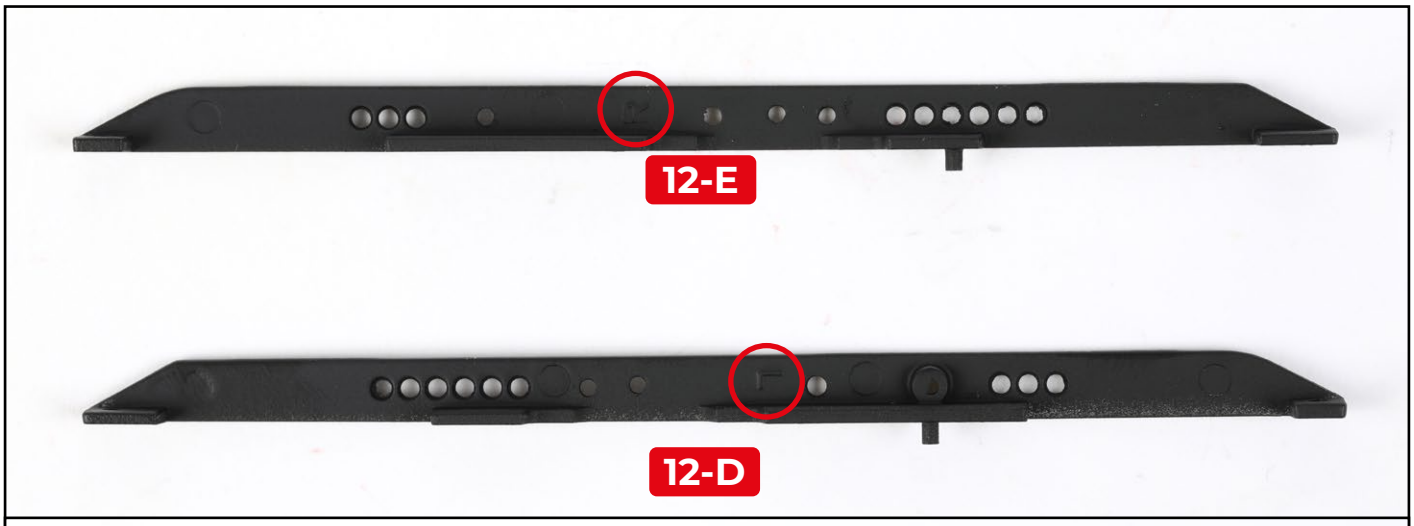


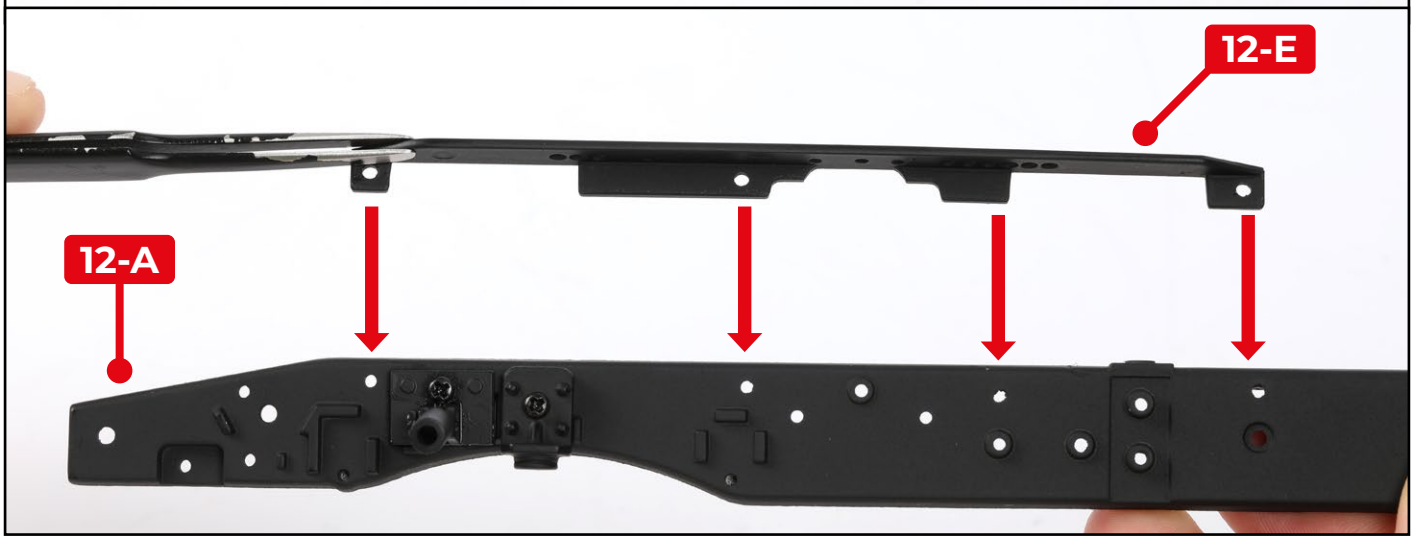


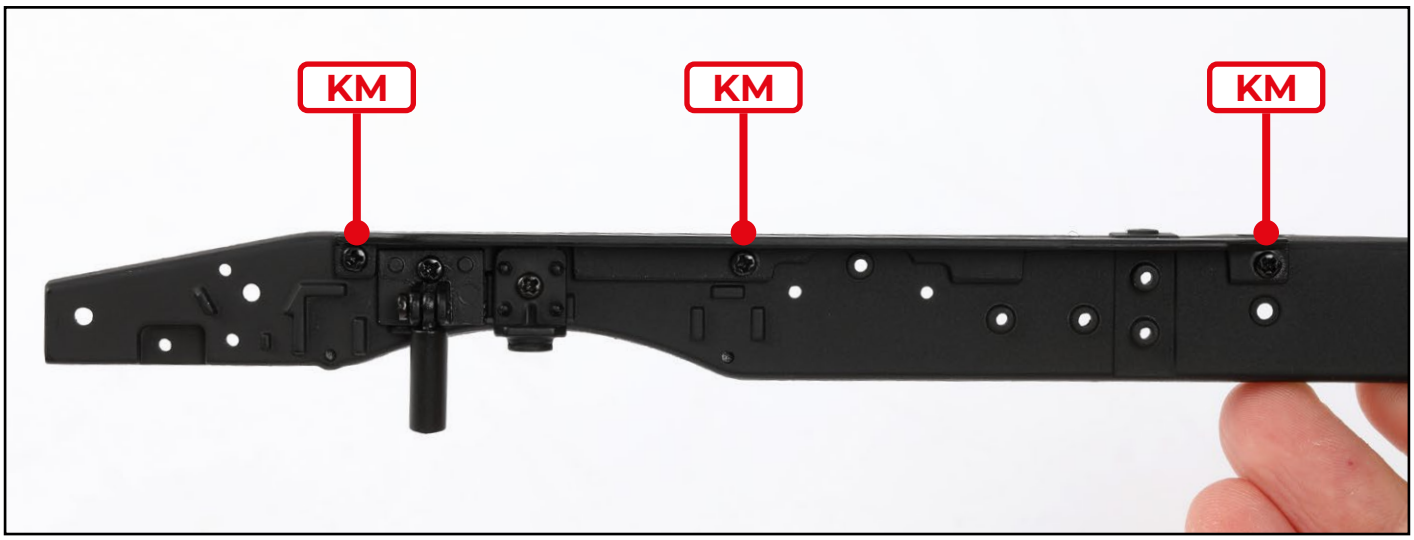
Step 3

Position one assembled rear shock absorber 12-G/12-H on right tractor chassis rail 12-A, then secure it with one FM screw.

Stage 12: Building the right chassis rail and the rear axle bump stops



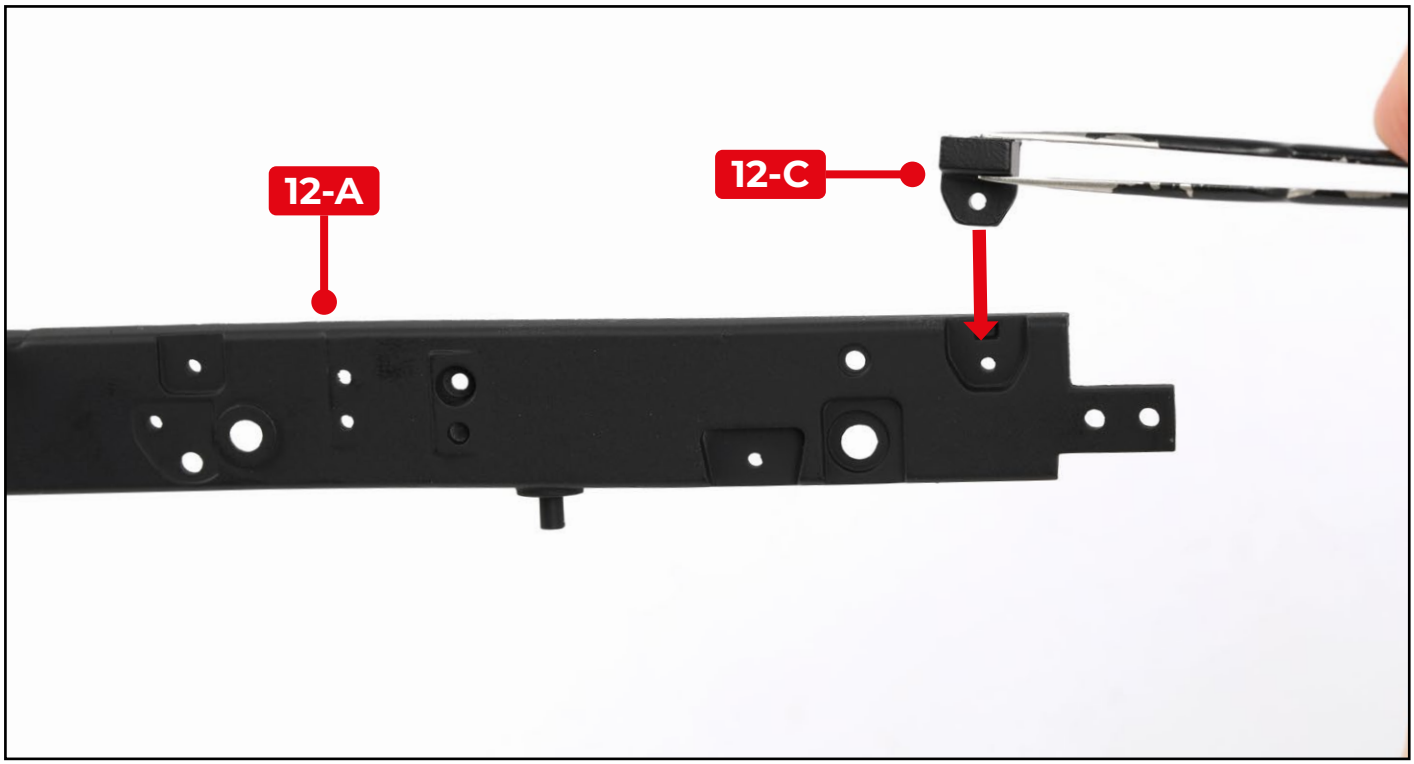


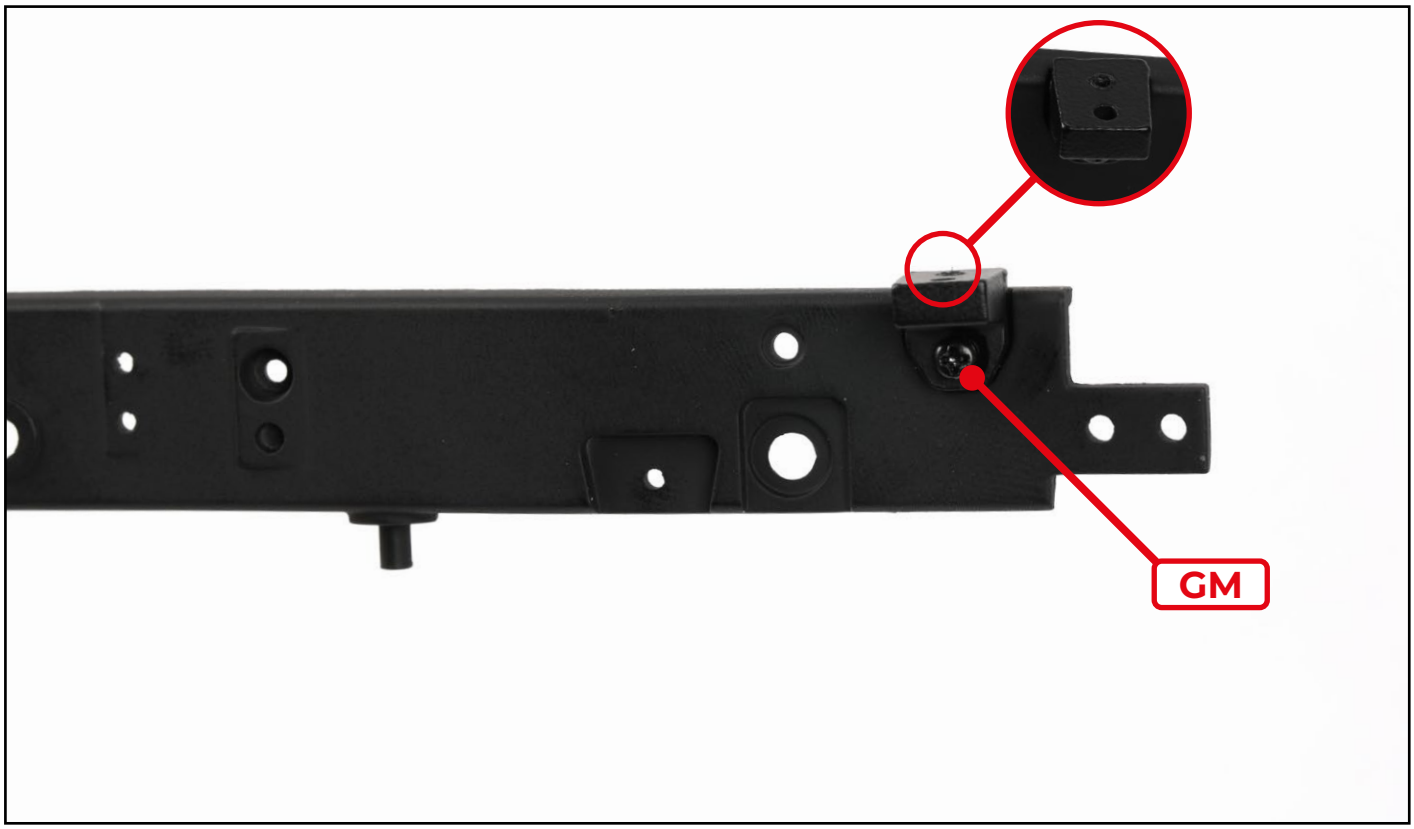


Step 4

Position right fifth-wheel platform support 12-E on right tractor chassis rail 12-A as shown, then secure it with three KM screws.

Stage 12: Building the right chassis rail and the rear axle bump stops

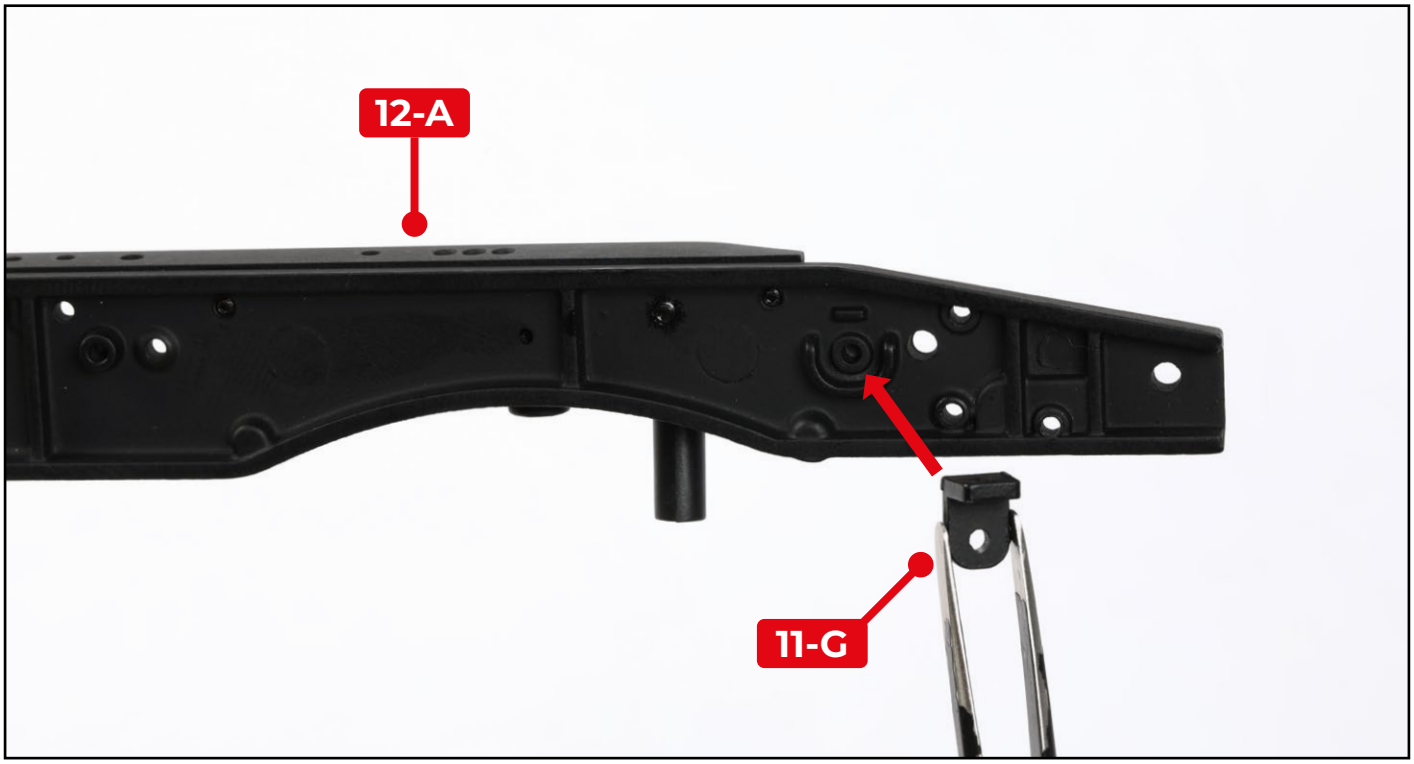


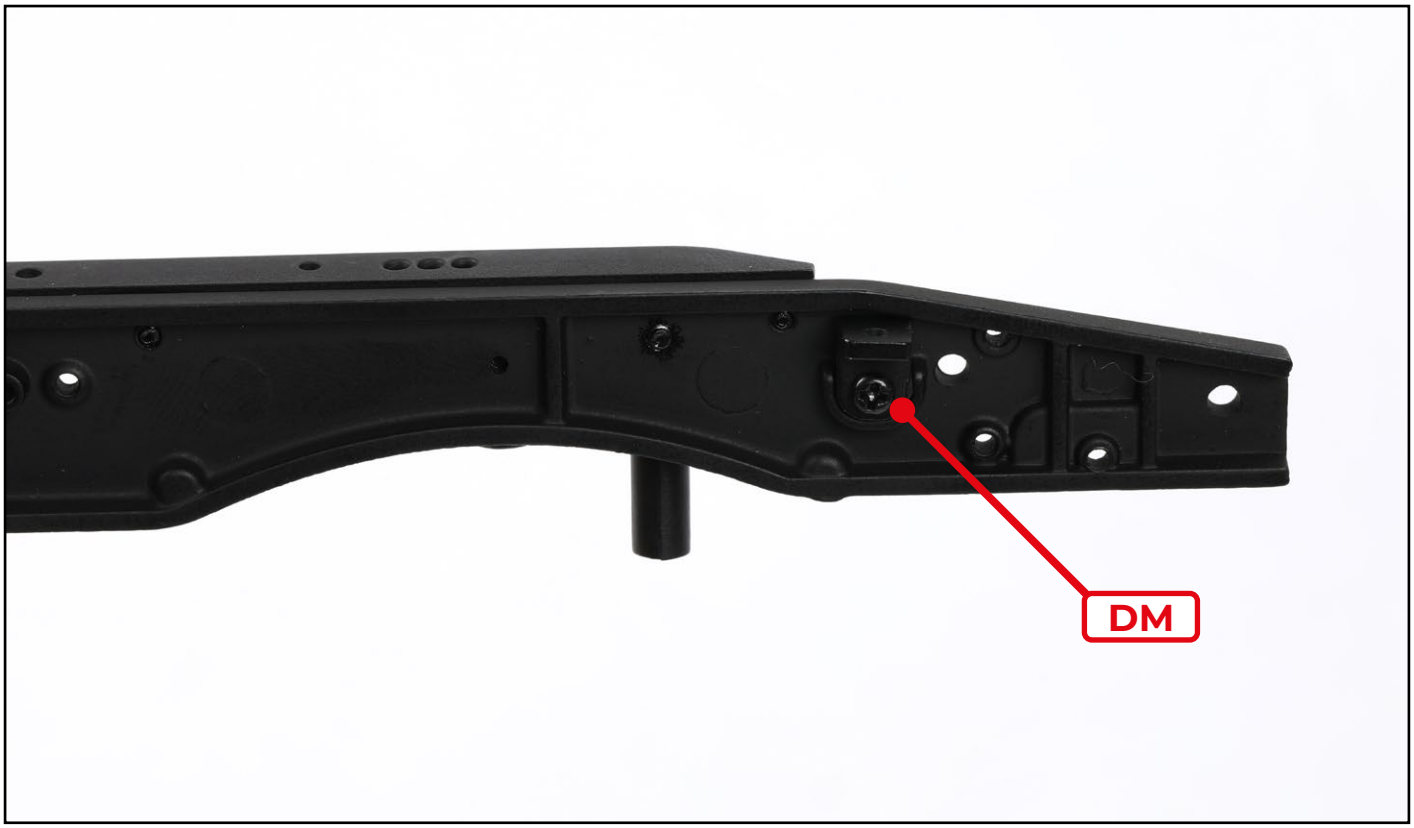


Step 5

Position right bracket 12-C at the opposite end of right tractor chassis rail 12-A, then secure it with one GM screw.

Stage 12: Building the right chassis rail and the rear axle bump stops

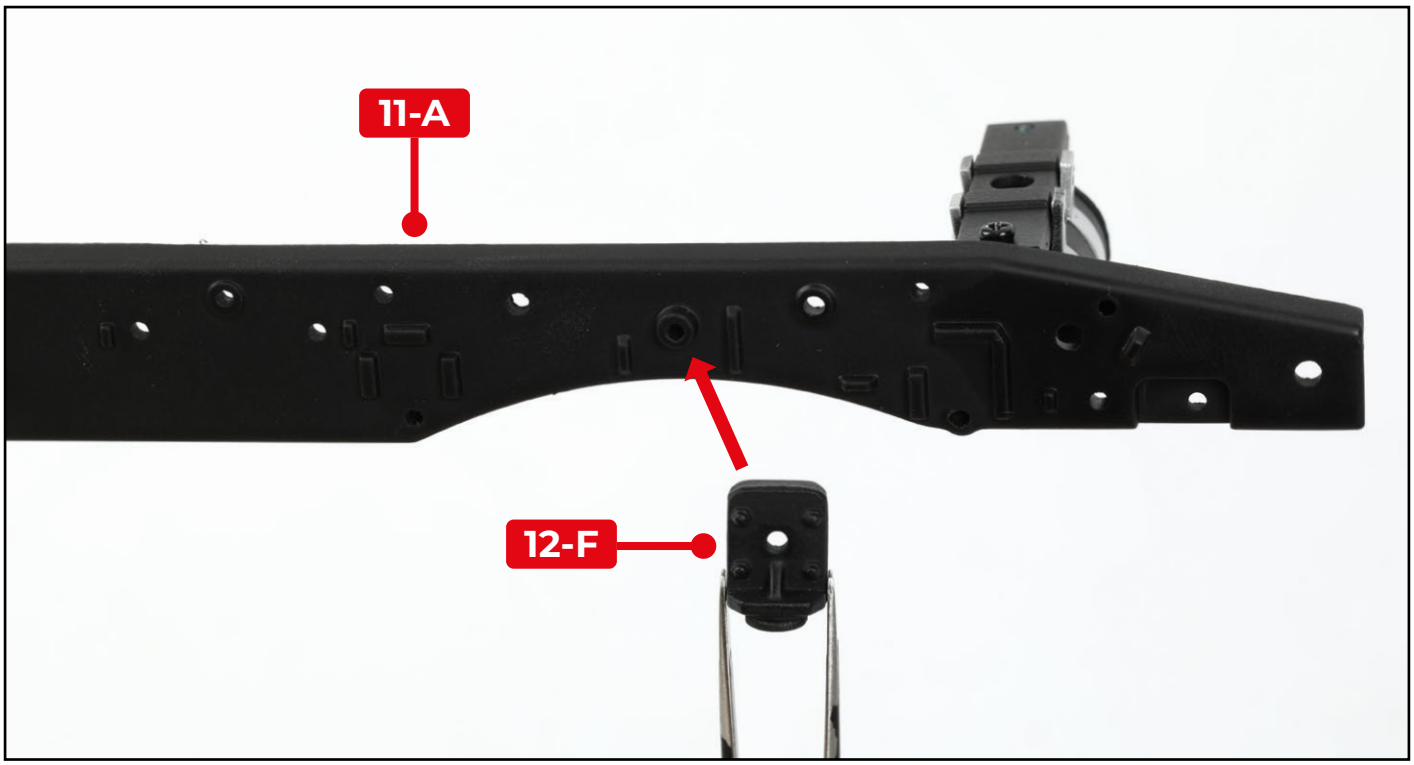


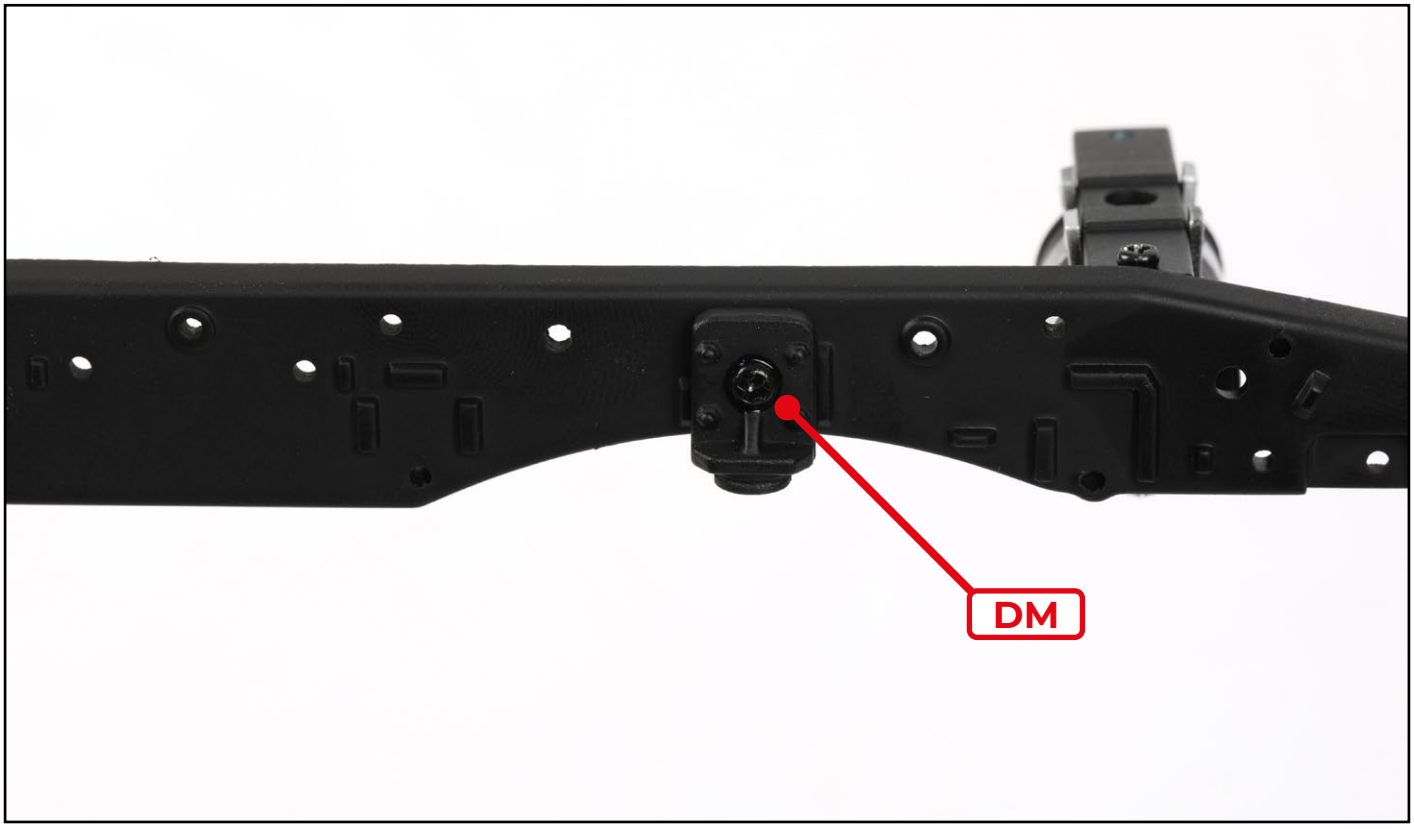


Step 6

Retrieve mounting clamp 11-G from Stage 11. Position mounting clamp 11-G on right tractor chassis rail 12-A as shown, then secure it with one DM screw.

Stage 12: Building the right chassis rail and the rear axle bump stops

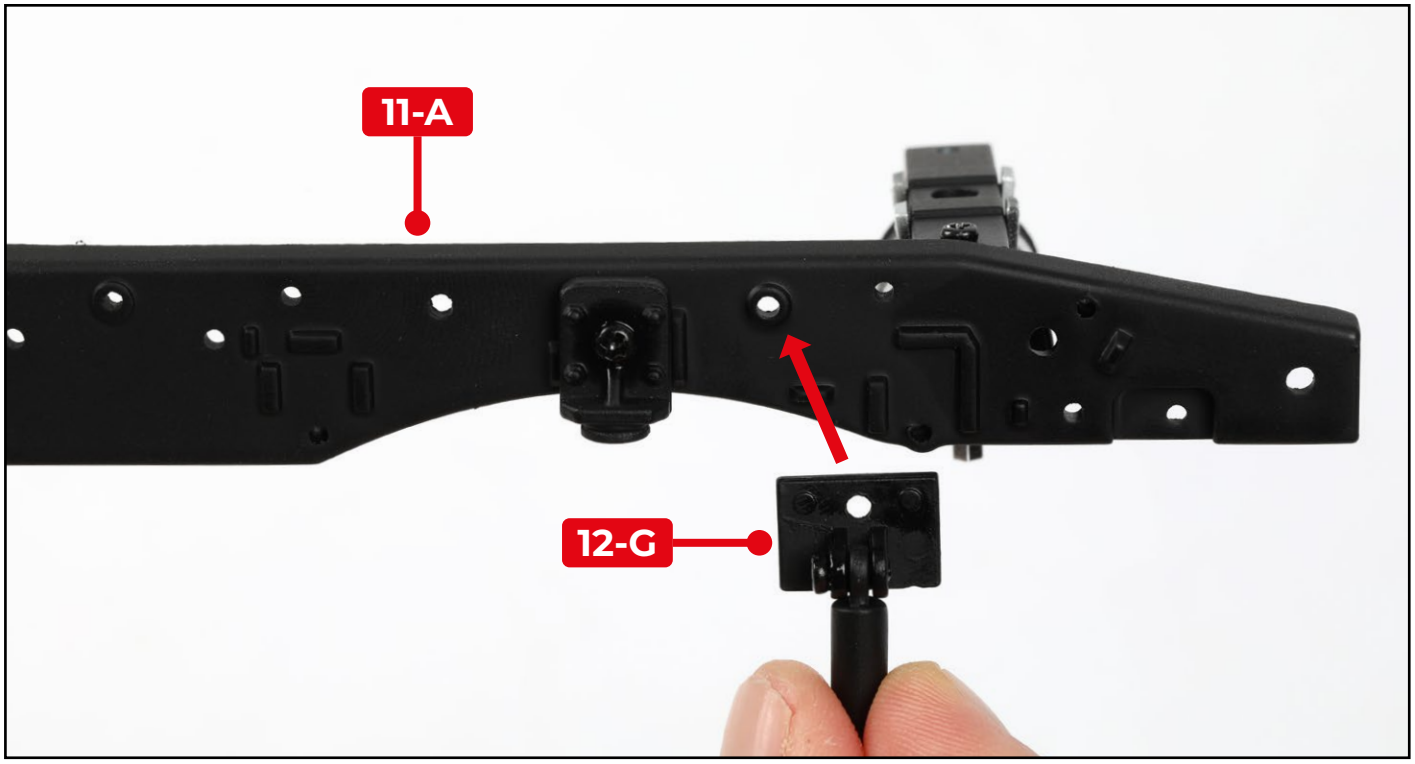


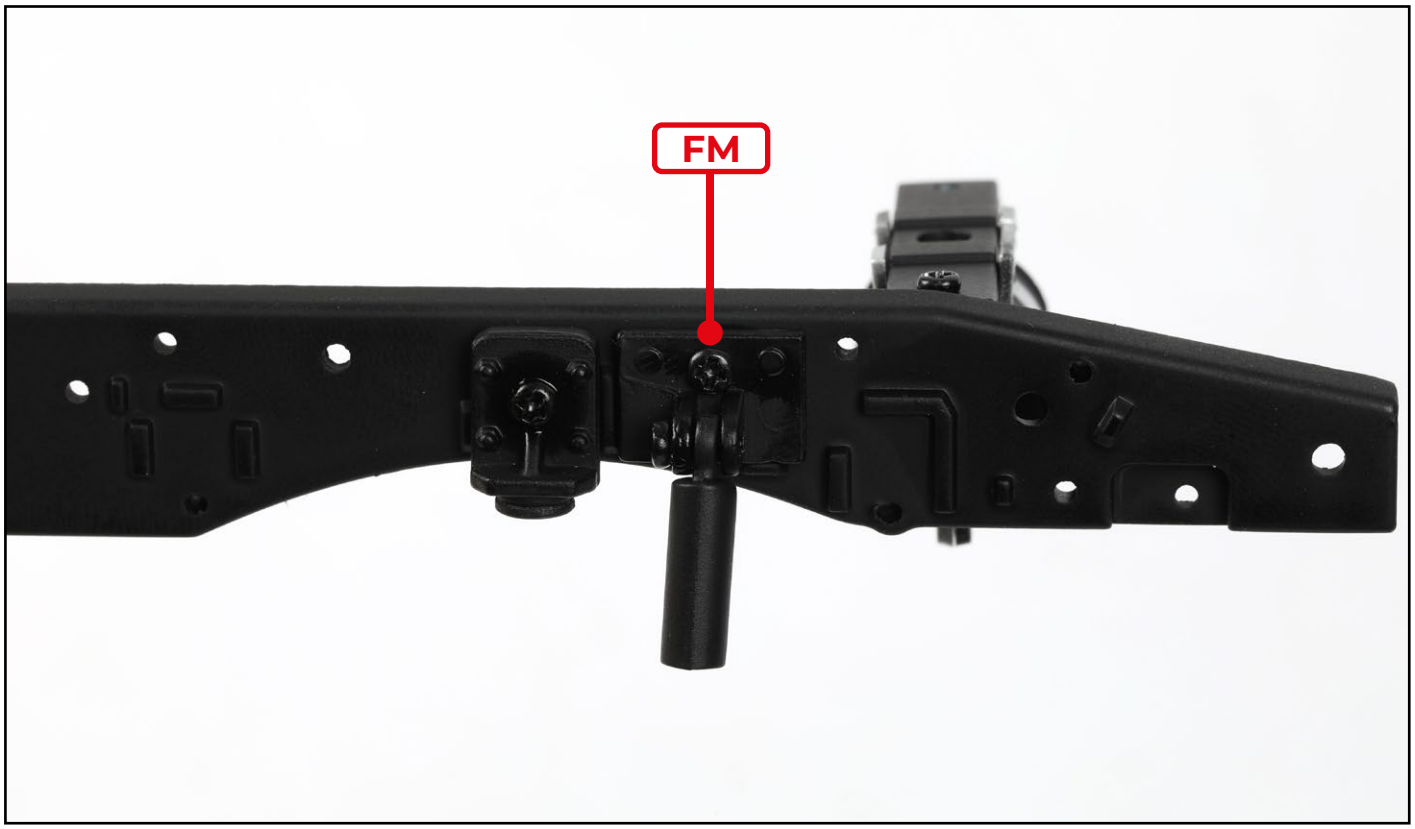


Step 7

Retrieve left tractor chassis rail 11-A from Stage 11. Position the remaining rear axle bump stop 12-F as shown, then secure it with one DM screw.

Stage 12: Building the right chassis rail and the rear axle bump stops

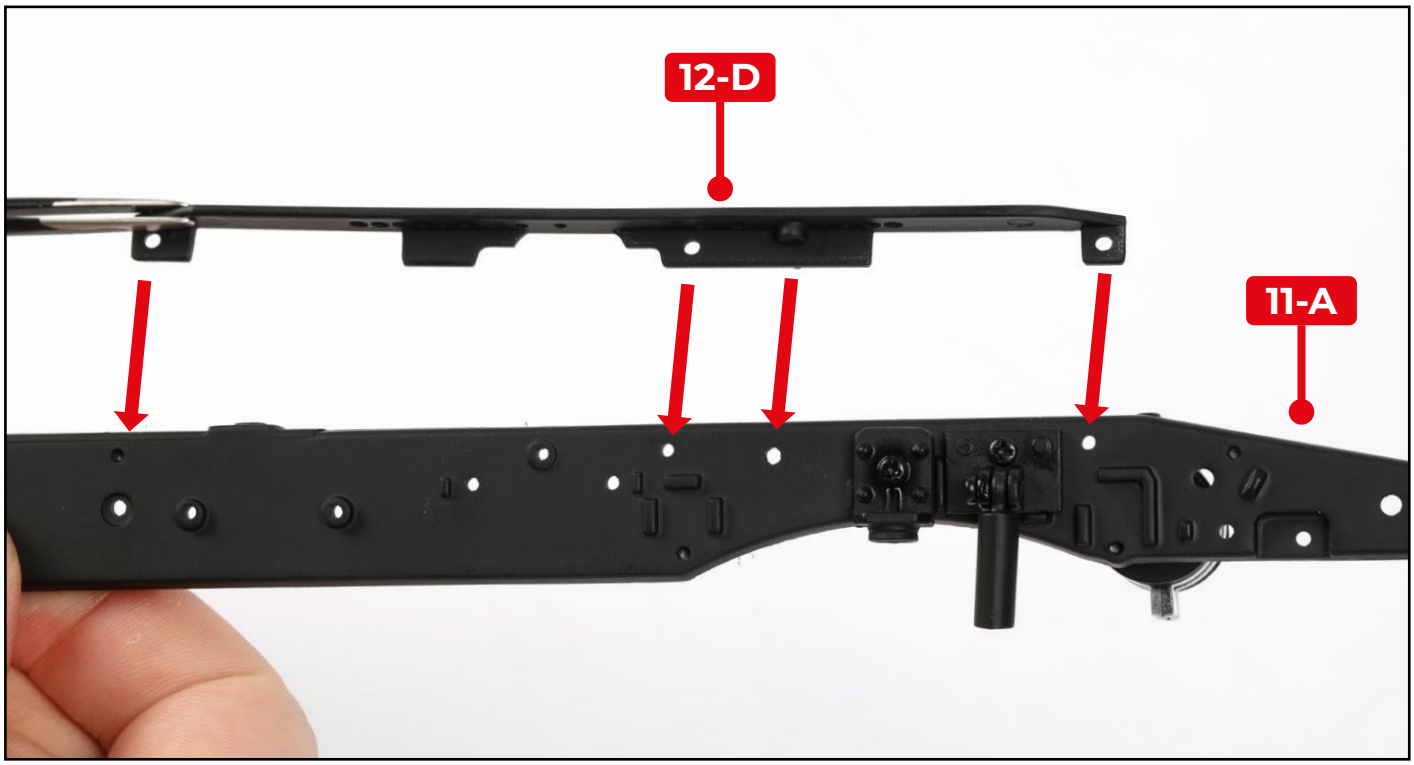


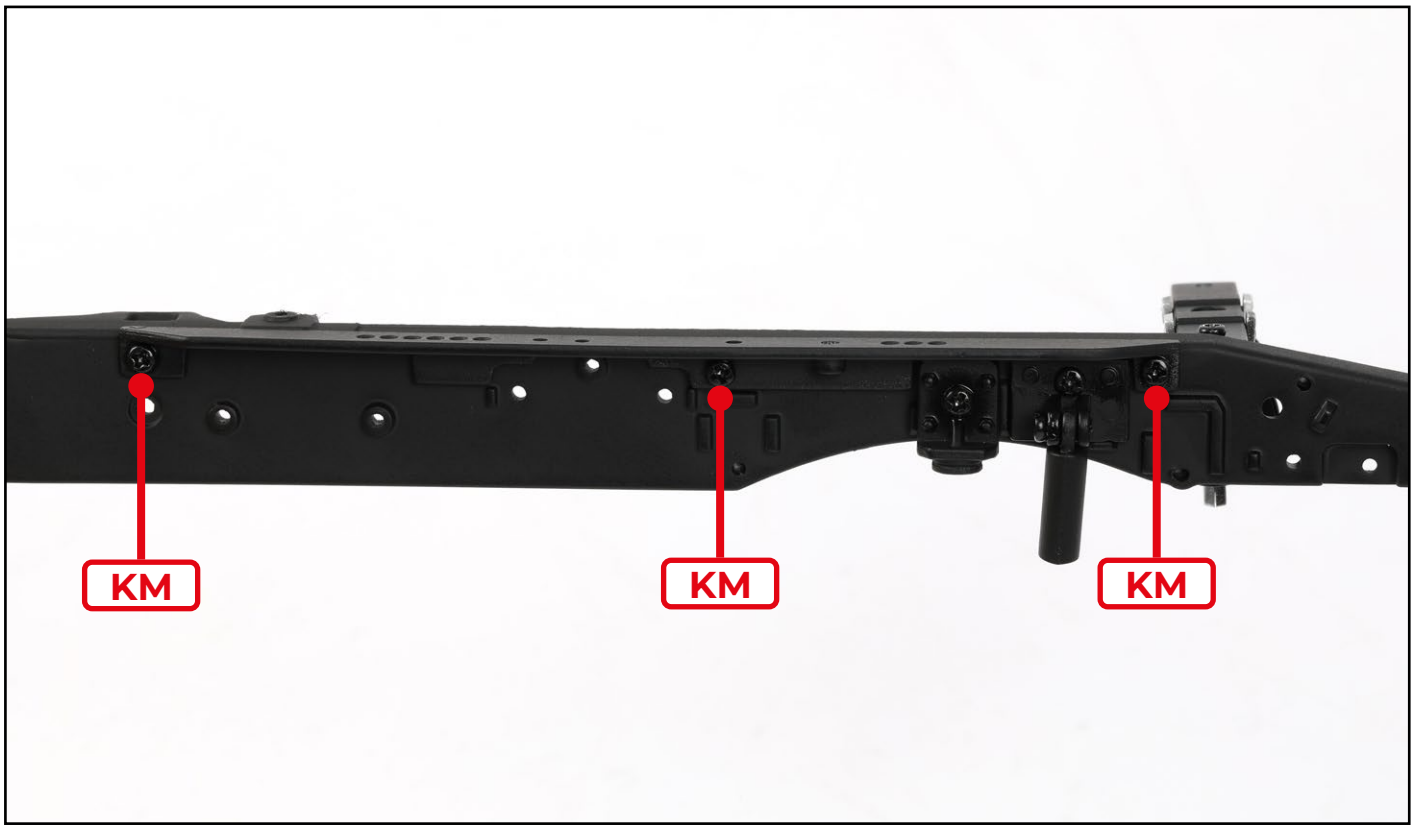


Step 8

Locate the mounting point for the second assembled rear shock absorber 12-G/12-H on left tractor chassis rail 11-A. Position the rear shock absorber as shown, then secure it with one FM screw.

Stage 12: Building the right chassis rail and the rear axle bump stops

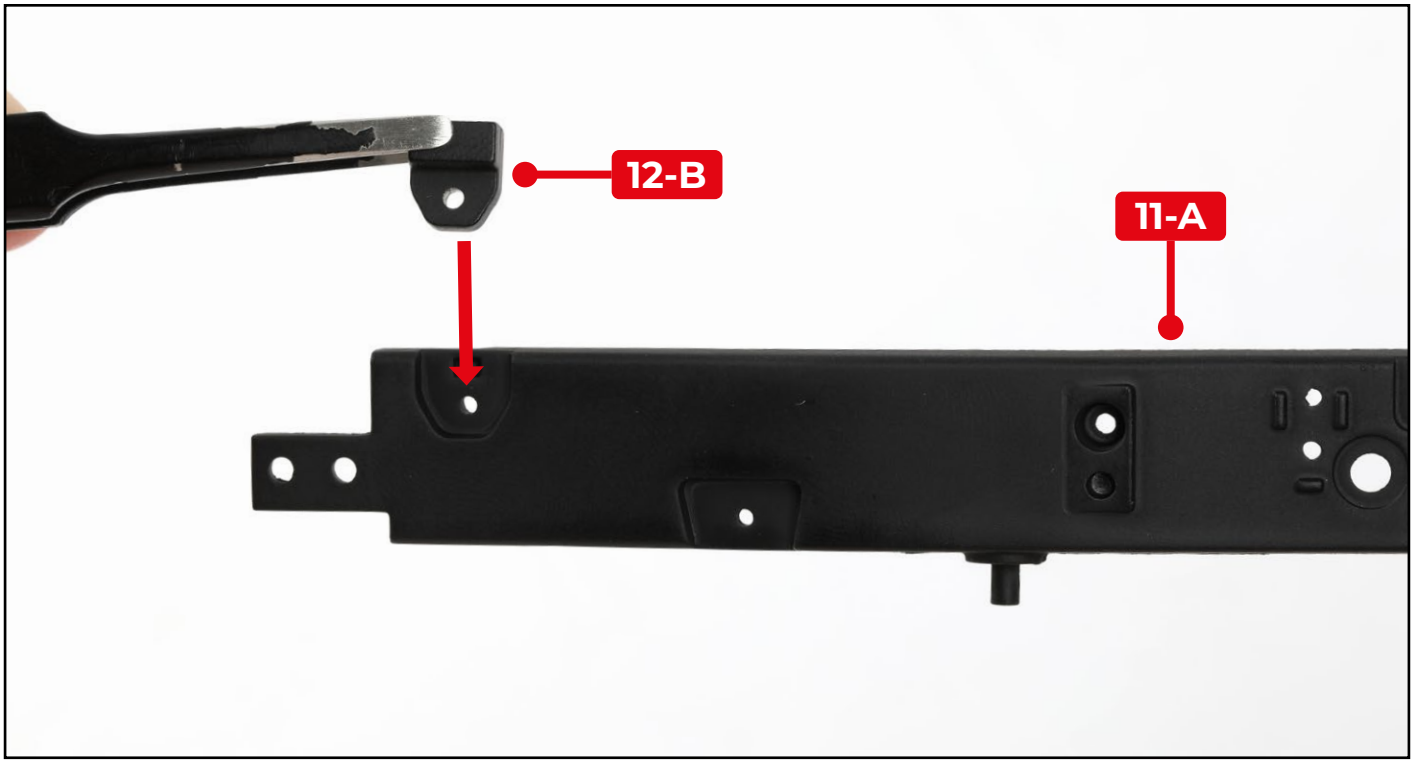


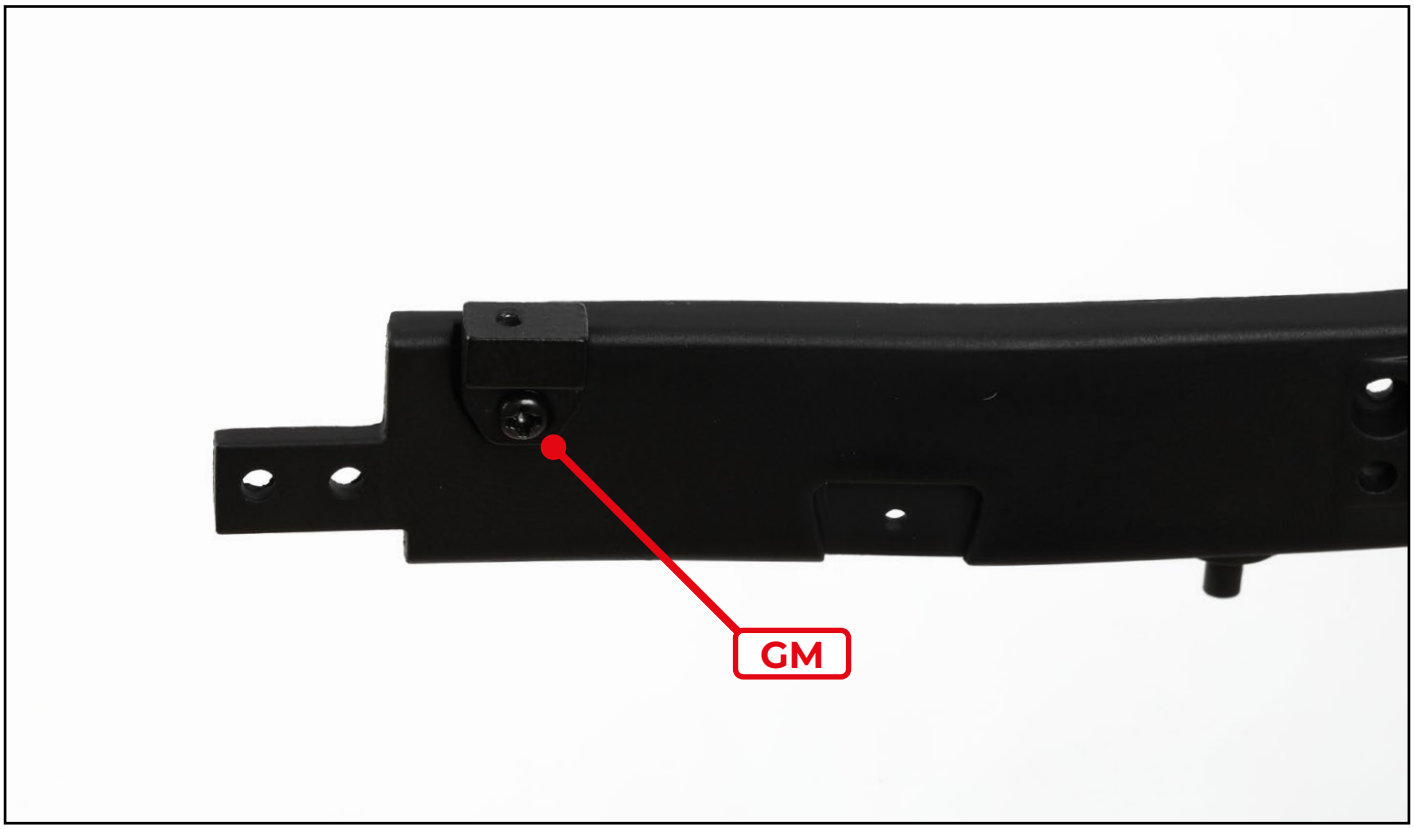


Step 9

Position left fifth-wheel platform support 12-D on left tractor chassis rail 11-A as shown, then secure it with three KM screws.

Stage 12: Building the right chassis rail and the rear axle bump stops





Step 10

Position left bracket 12-B on left tractor chassis rail 11-A as shown, then secure it with one GM screw.

Stage 12: Building the right chassis rail and the rear axle bump stops

STAGE 12 COMPLETE



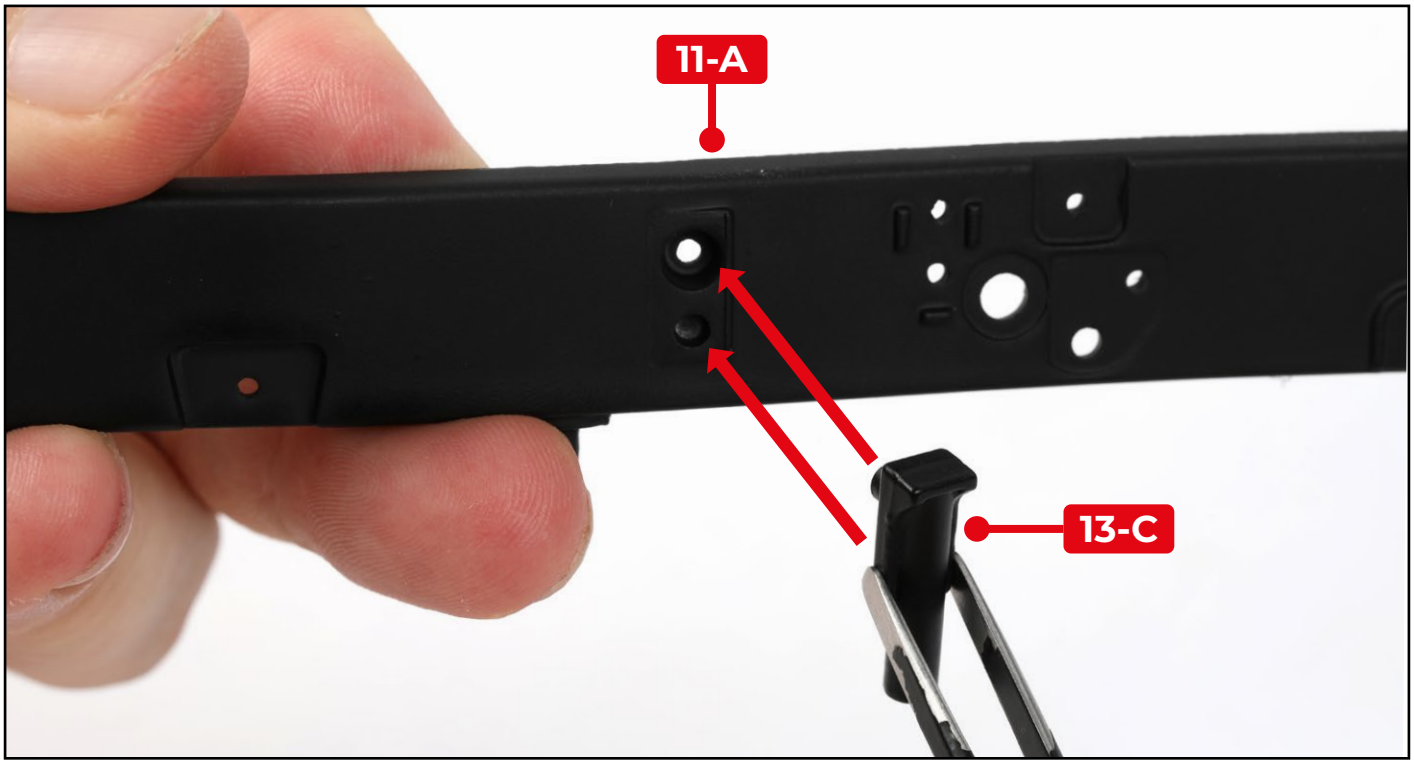
Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts

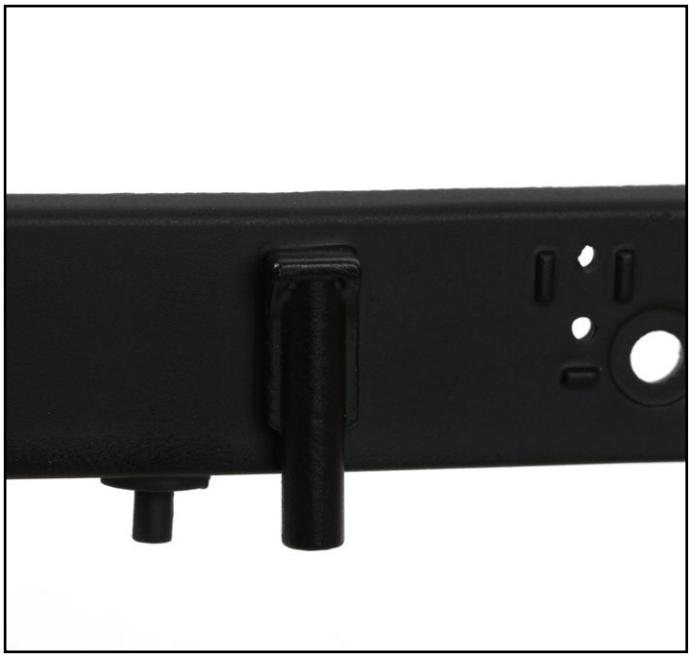
STAGE 13 PARTS

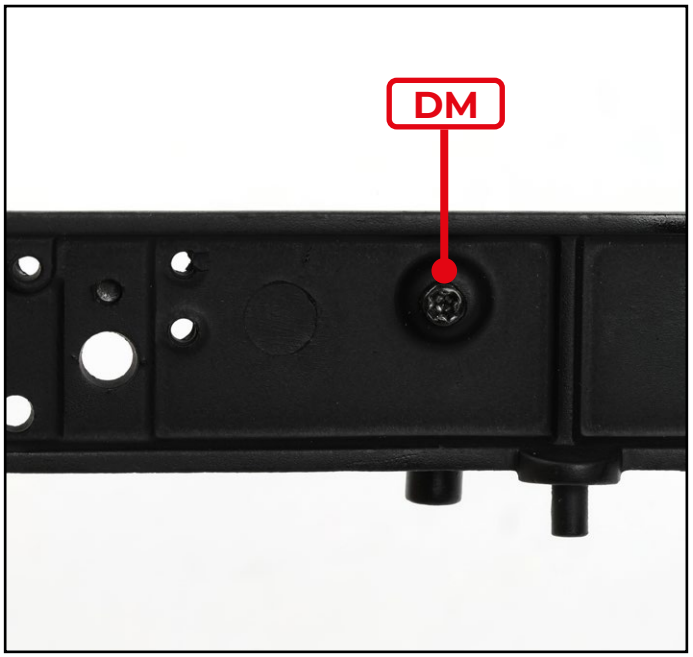


13-A: Tractor chassis crossmember
13-B: Air relay valve
13-C: Front suspension upper shock absorber mounts
13-D: Left front suspension anti-roll bar link
13-E: Right front suspension anti-roll bar link
13-F: Front suspension leaf spring shackles
13-G: Left front chassis engine mount
13-H: Right front chassis engine mount
13-I: Left chassis engine mount
13-J: Right chassis engine mount
13-K: Left front suspension leaf spring hanger
13-L: Right front suspension leaf spring hanger
DM: 10 screws
JM: 5 screws
MM: 3 screws

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts



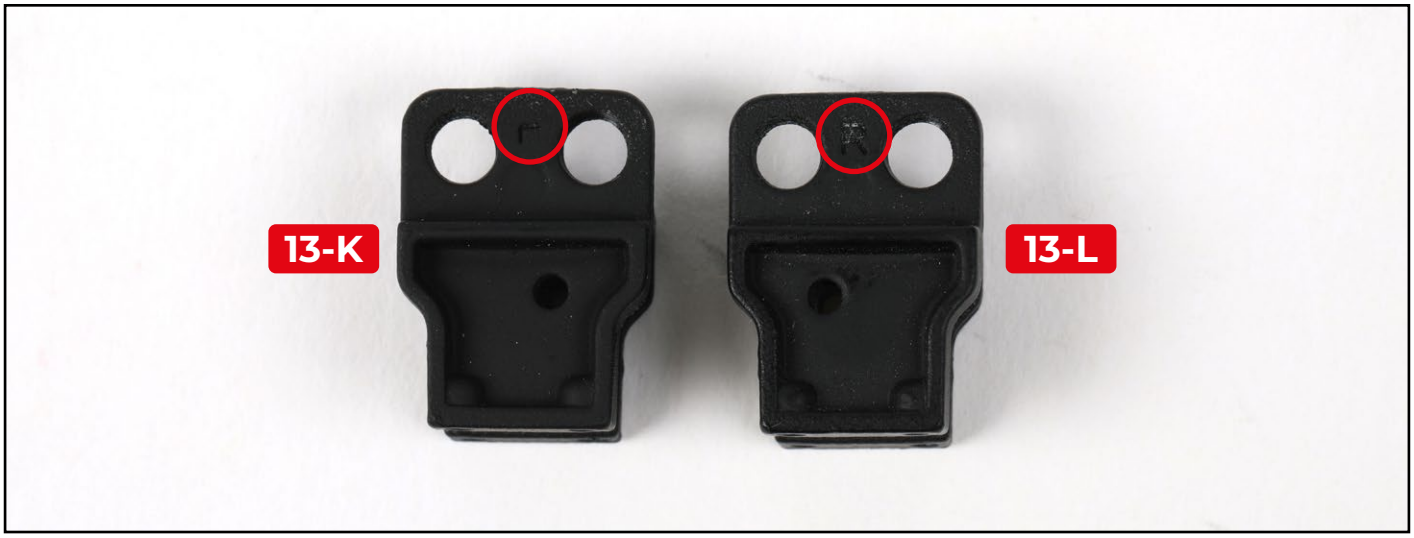


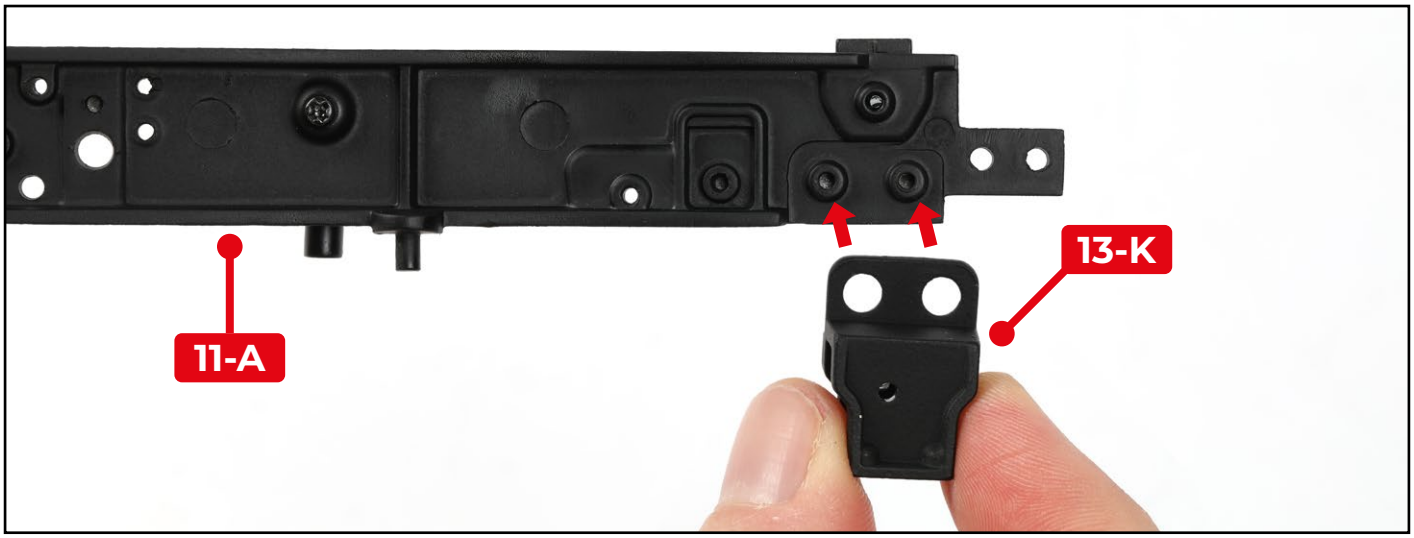


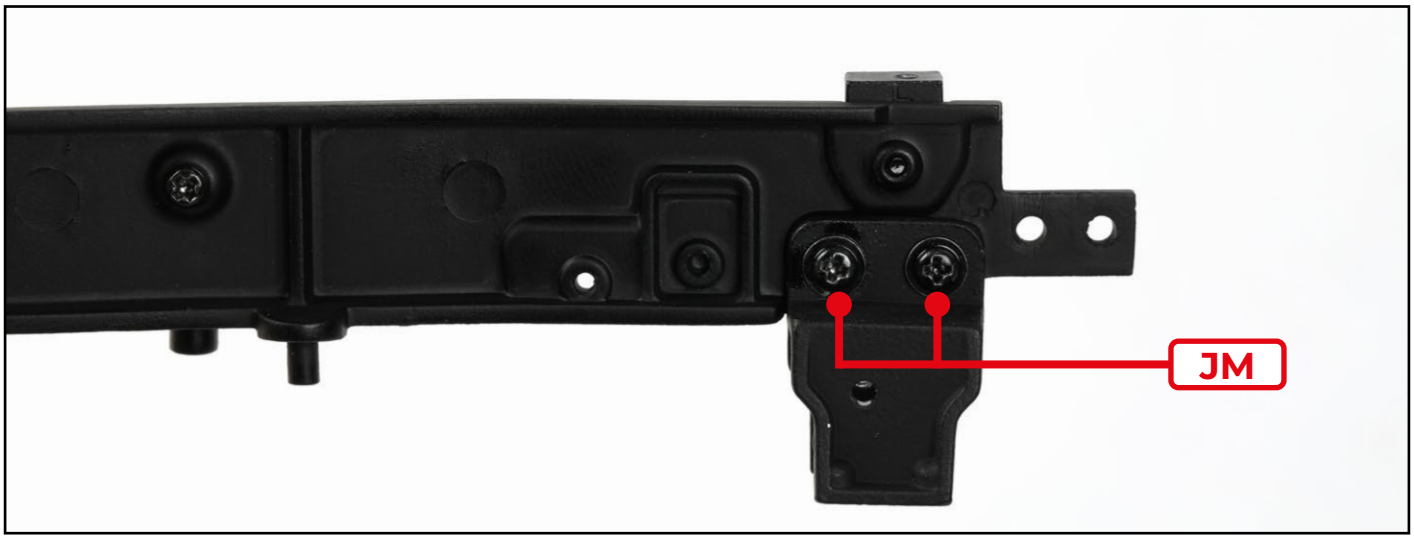
Step 1

Retrieve left tractor chassis rail 11-A from Stage 11. Locate the mounting point for front suspension upper shock absorber mount 13-C. Position front suspension upper shock absorber mount 13-C as shown, then secure it with one DM screw.

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts



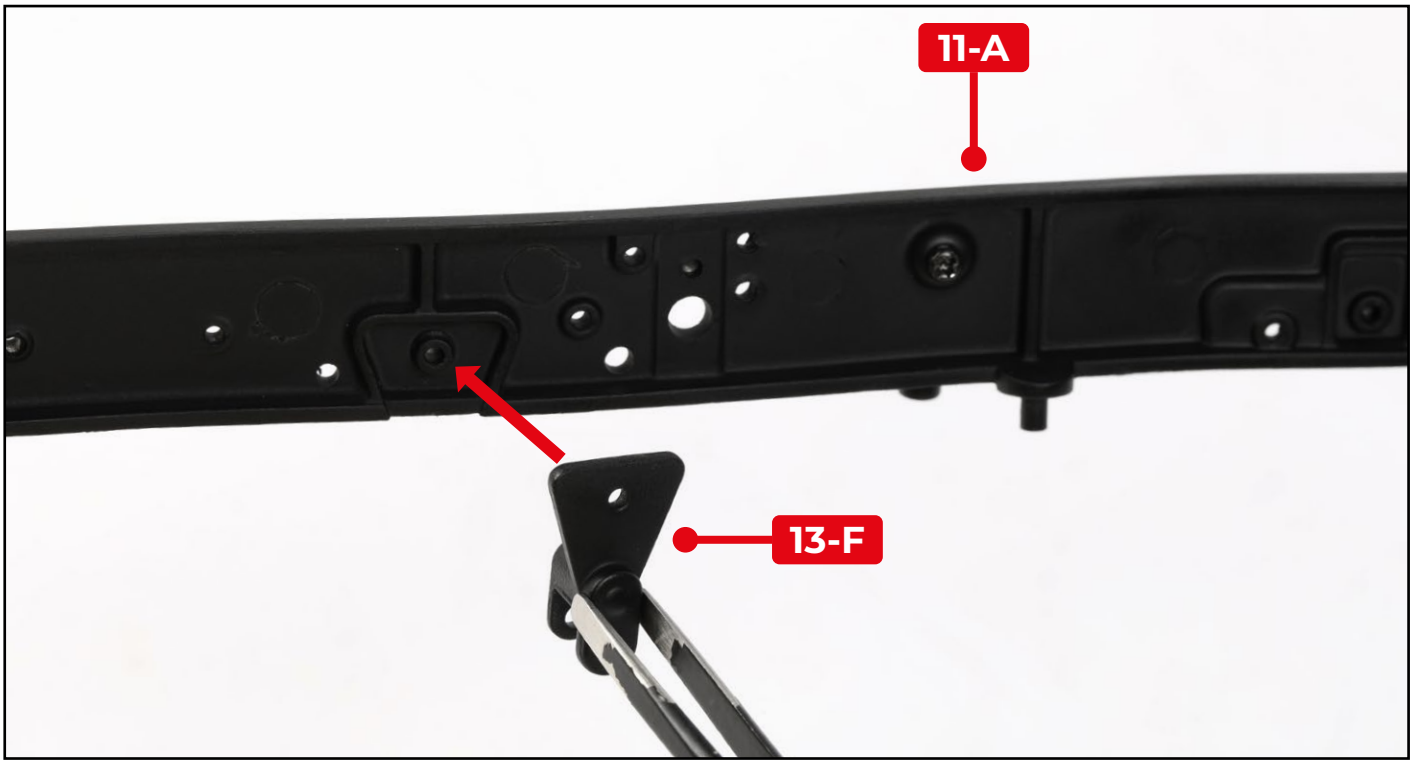


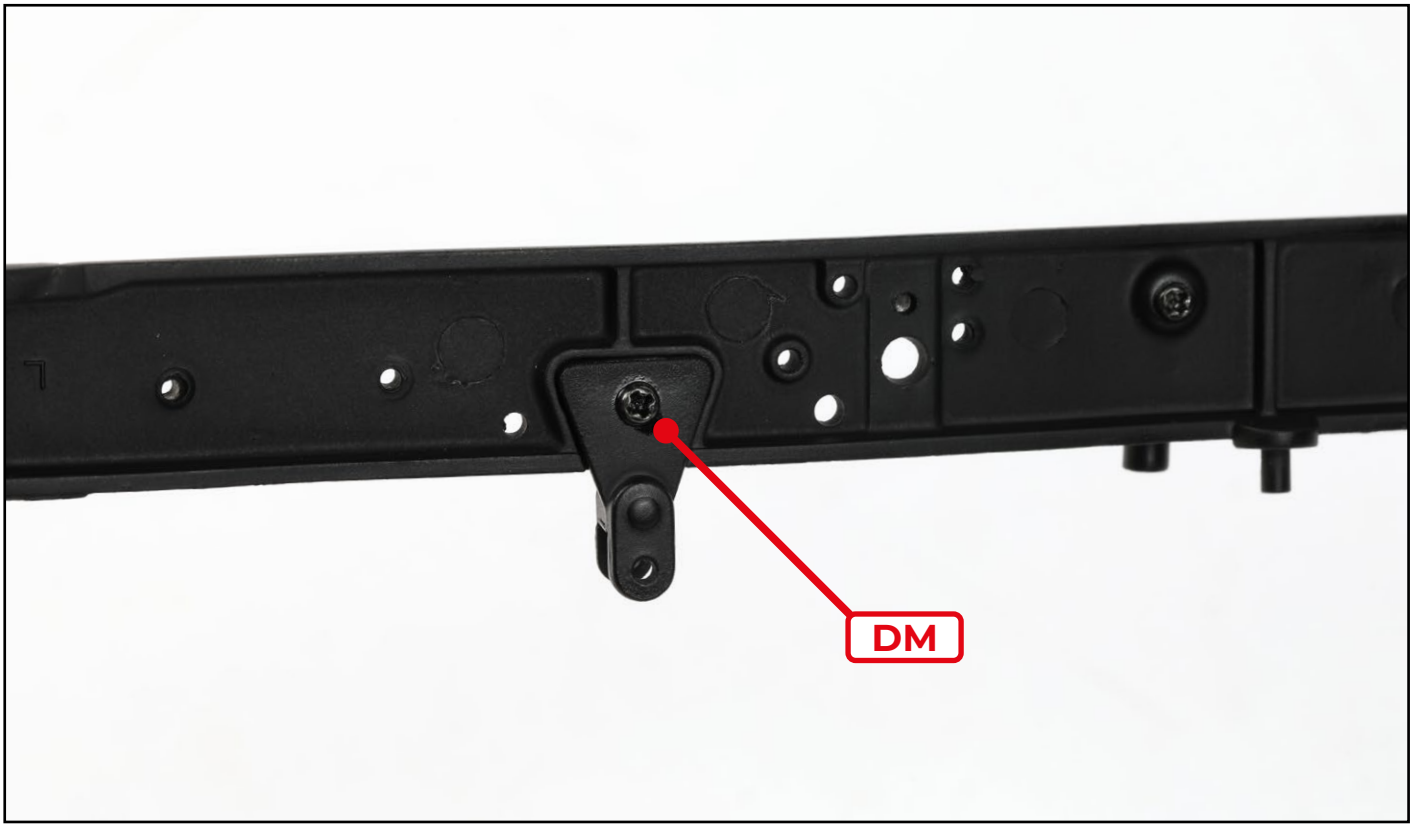


Step 2

Identify left front suspension leaf spring hanger 13-K by the L marking. Position left front suspension leaf spring hanger 13-K on left tractor chassis rail 11-A as shown, then secure it with two JM screws.

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts

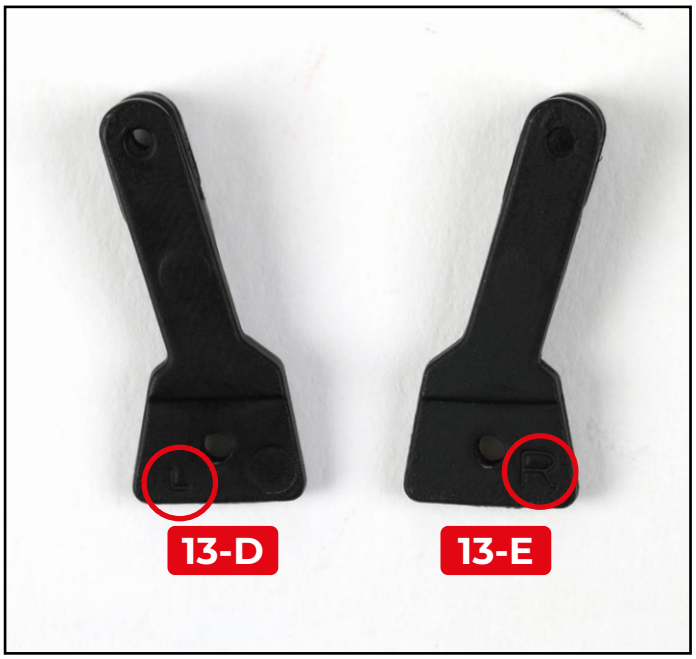


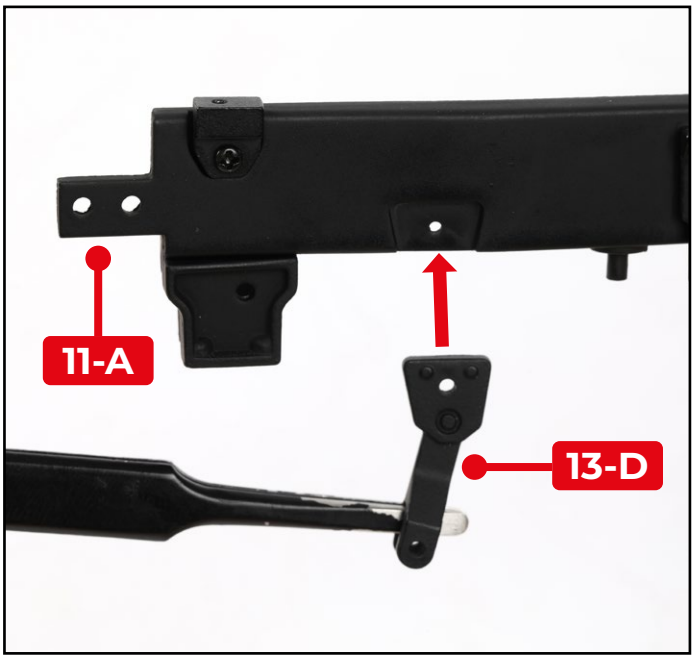


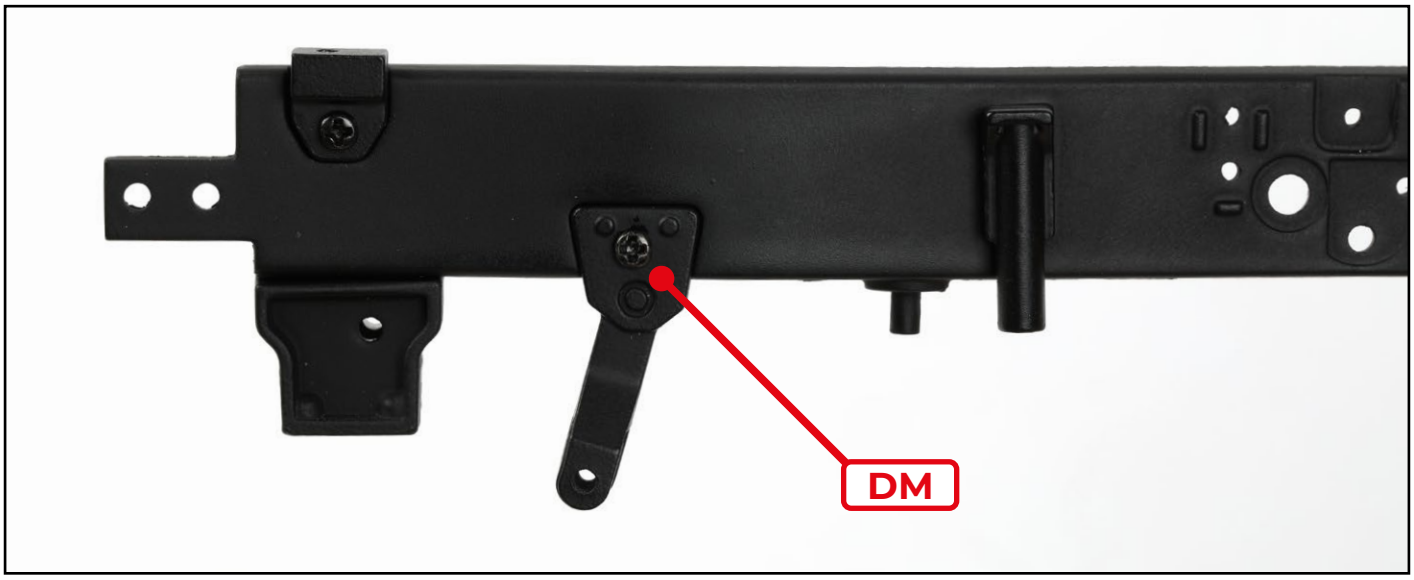
Step 3

Position one front suspension leaf spring shackle 13-F on left tractor chassis rail 11-A, then secure it with one DM screw.

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts



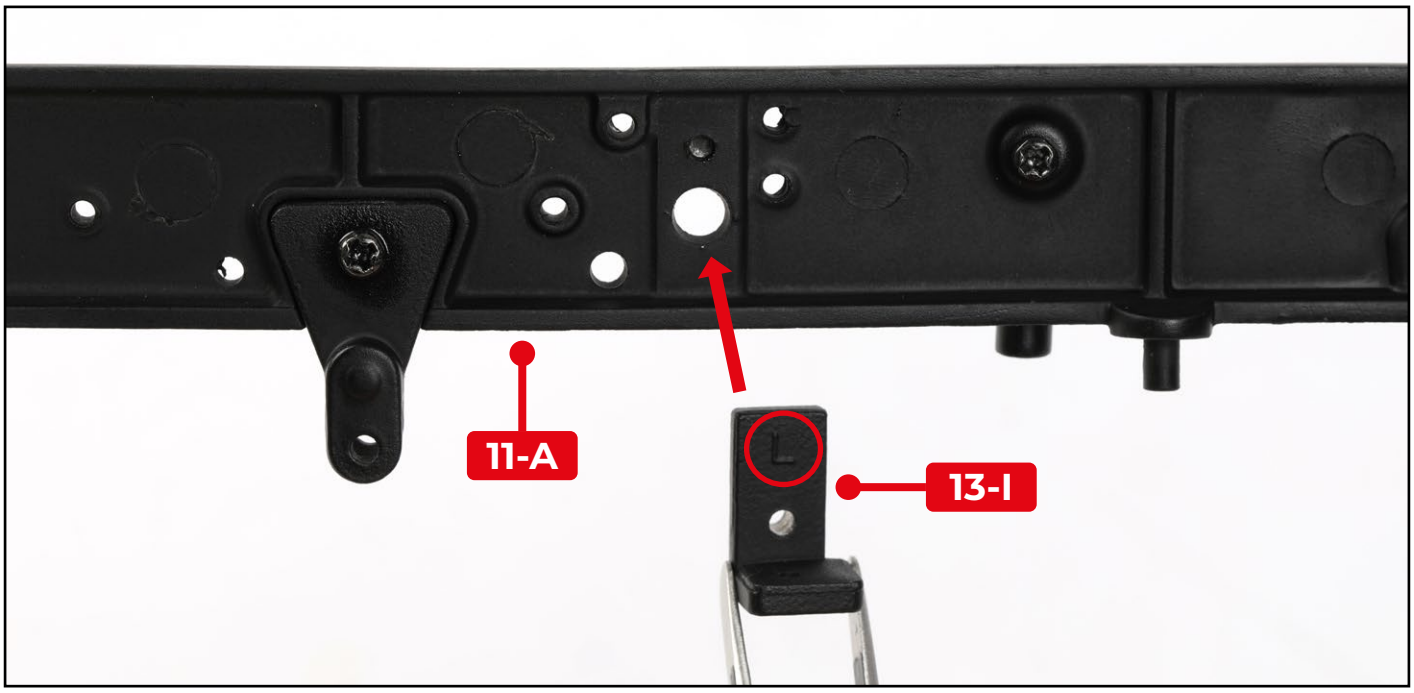




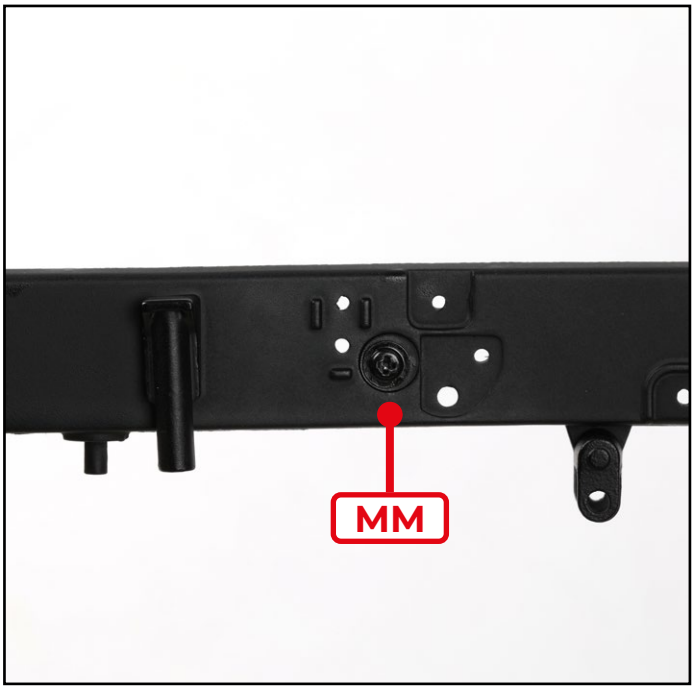
Step 4

Identify left front suspension anti-roll bar link 13-D by the L marking. Position left front suspension anti-roll bar link 13-D on left tractor chassis rail 11-A as shown, then secure it with one DM screw.

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts



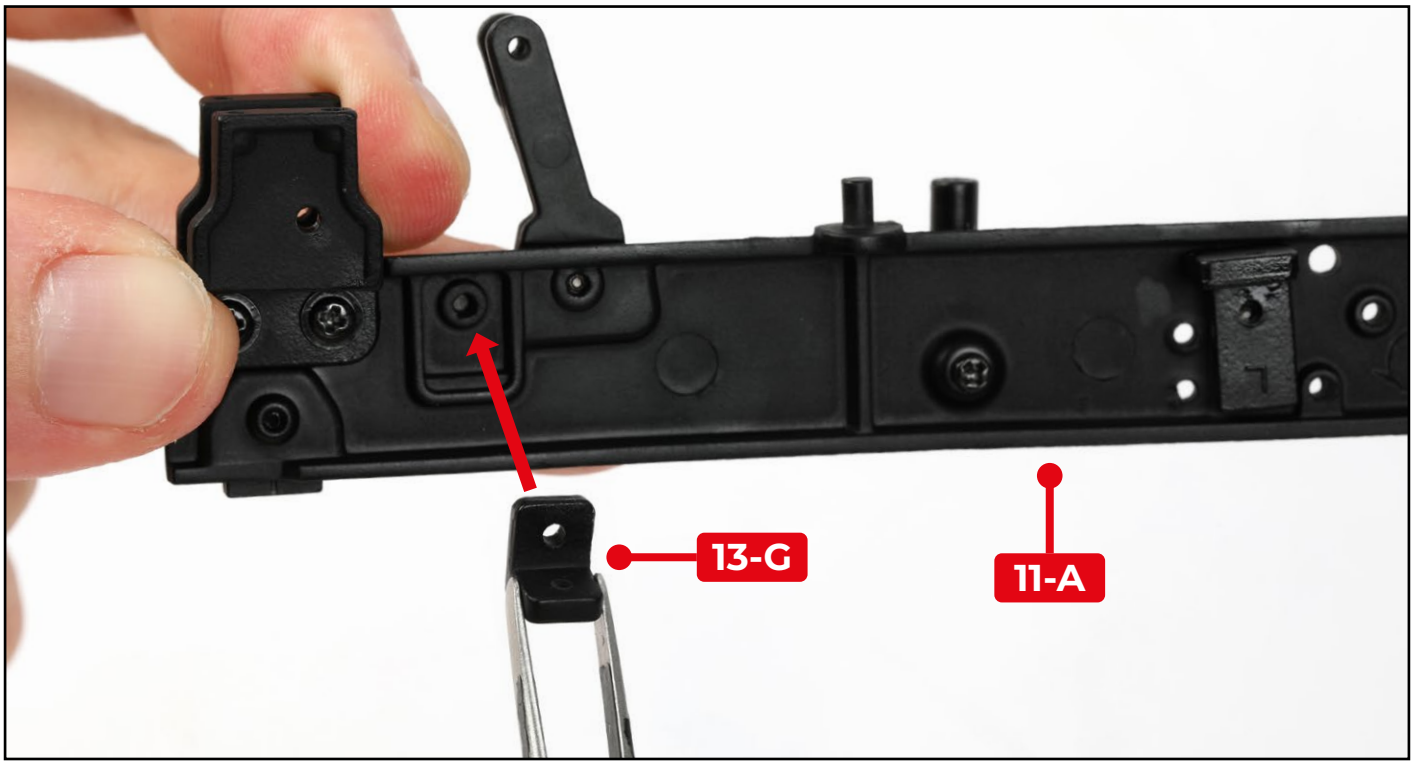


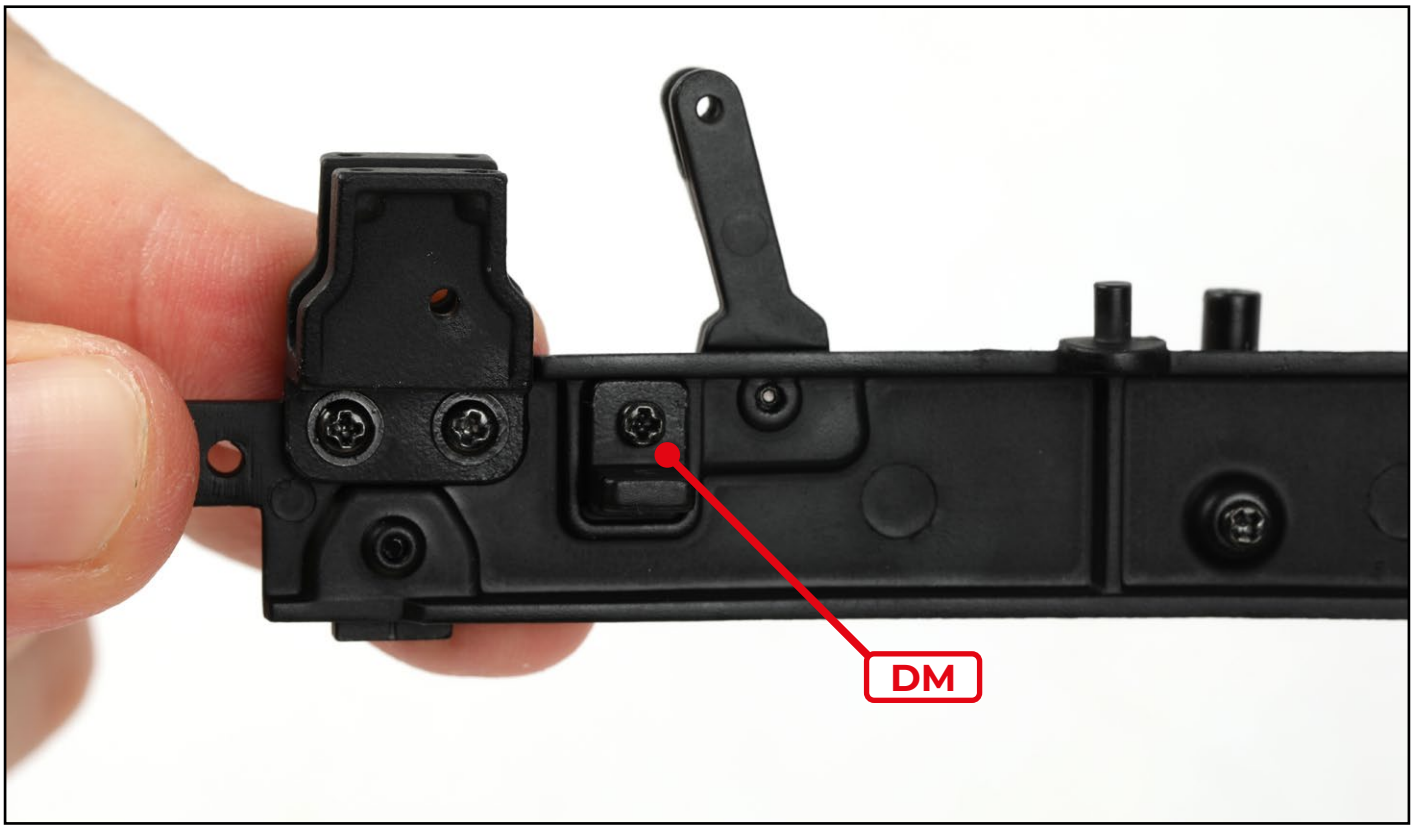


Step 5

Locate the mounting point for left chassis engine mount 13-I on left tractor chassis rail 11-A. Position left chassis engine mount 13-I as shown, then secure it from the opposite side of the chassis rail with one MM screw.

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts

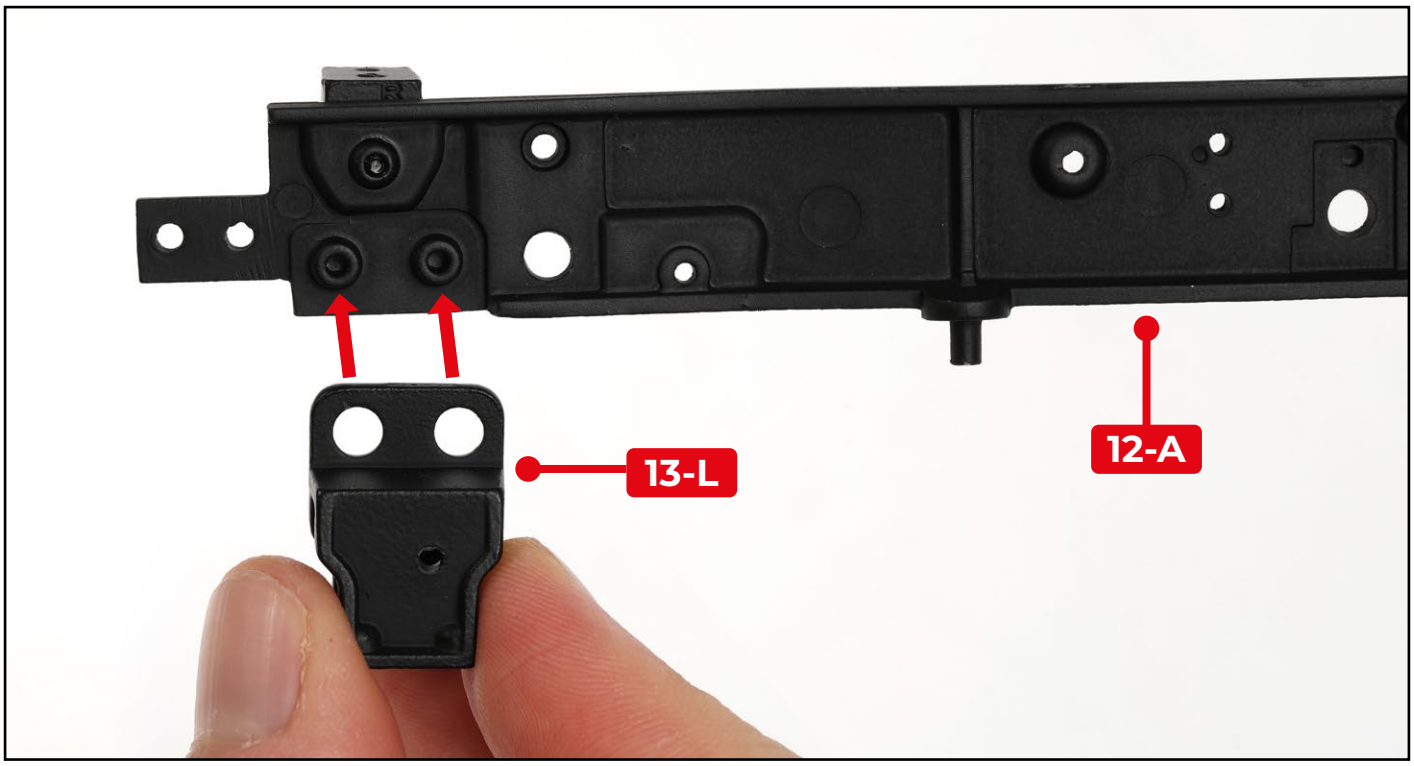


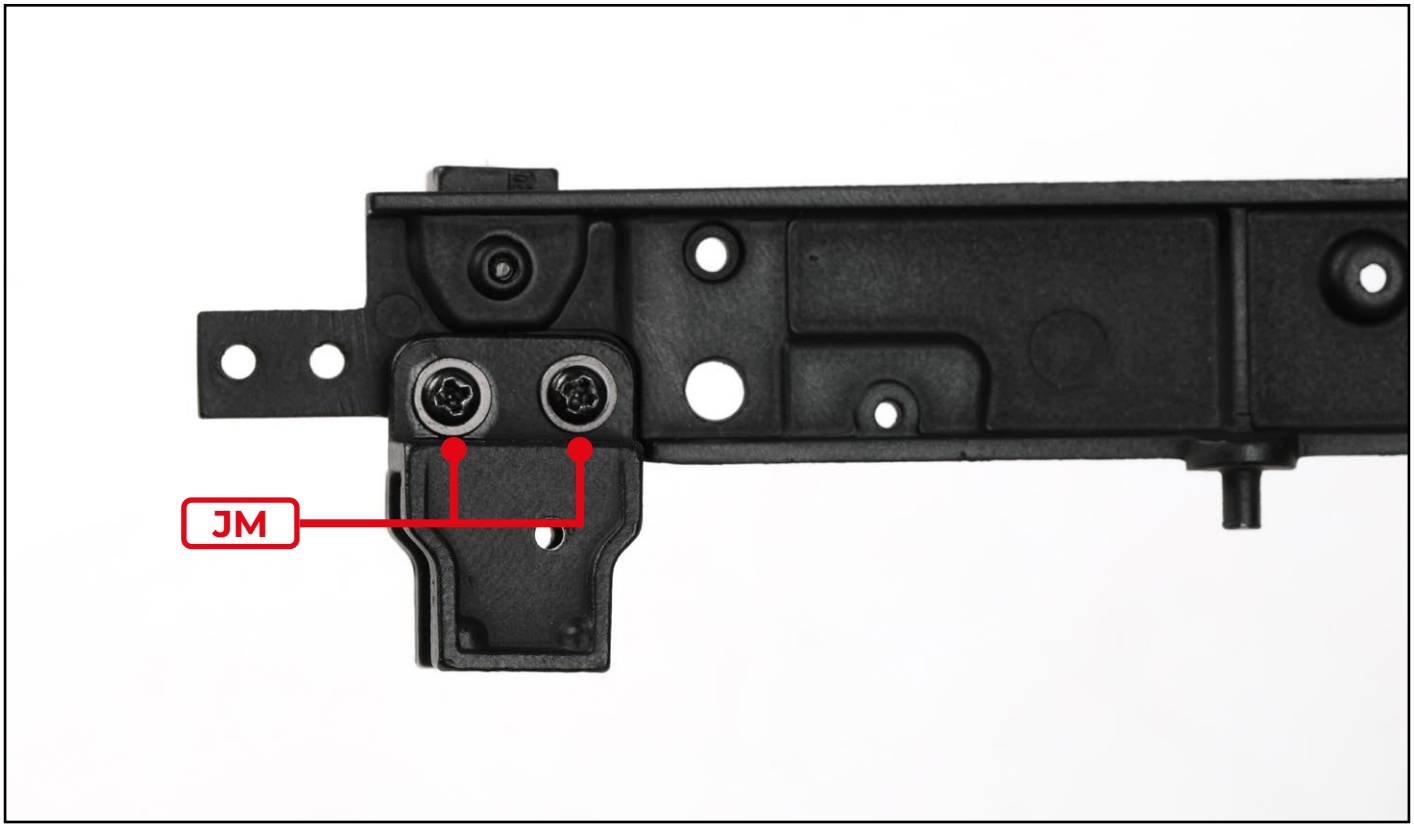


Step 6

Position left front chassis engine mount 13-G on left tractor chassis rail 11-A as shown, then secure it with one DM screw.

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts

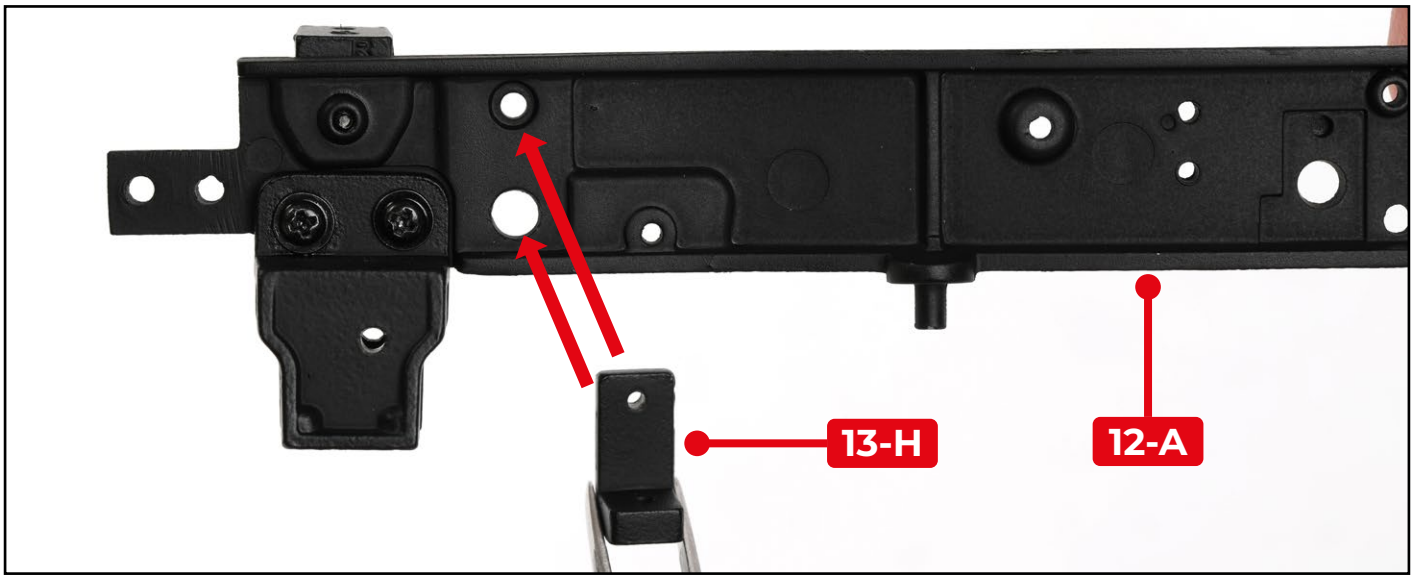


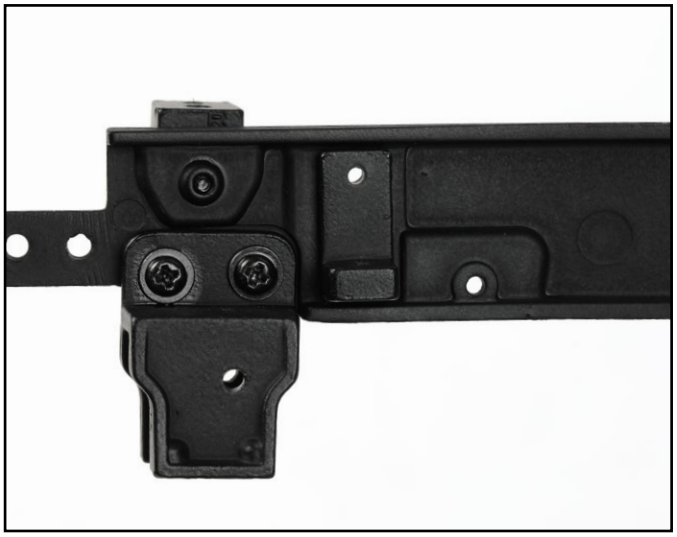


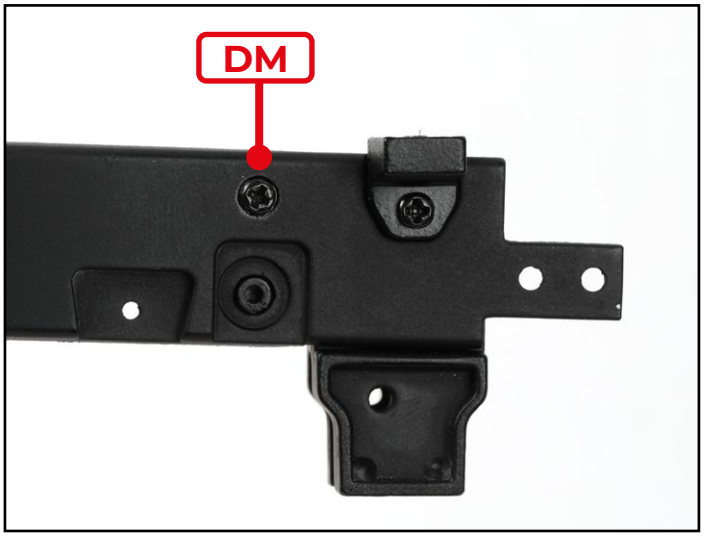
Step 7

Retrieve right tractor chassis rail 12-A. Identify right front suspension leaf spring hanger 13-L by the R marking. Position right front suspension leaf spring hanger 13-L as shown, then secure it with two JM screws.

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts



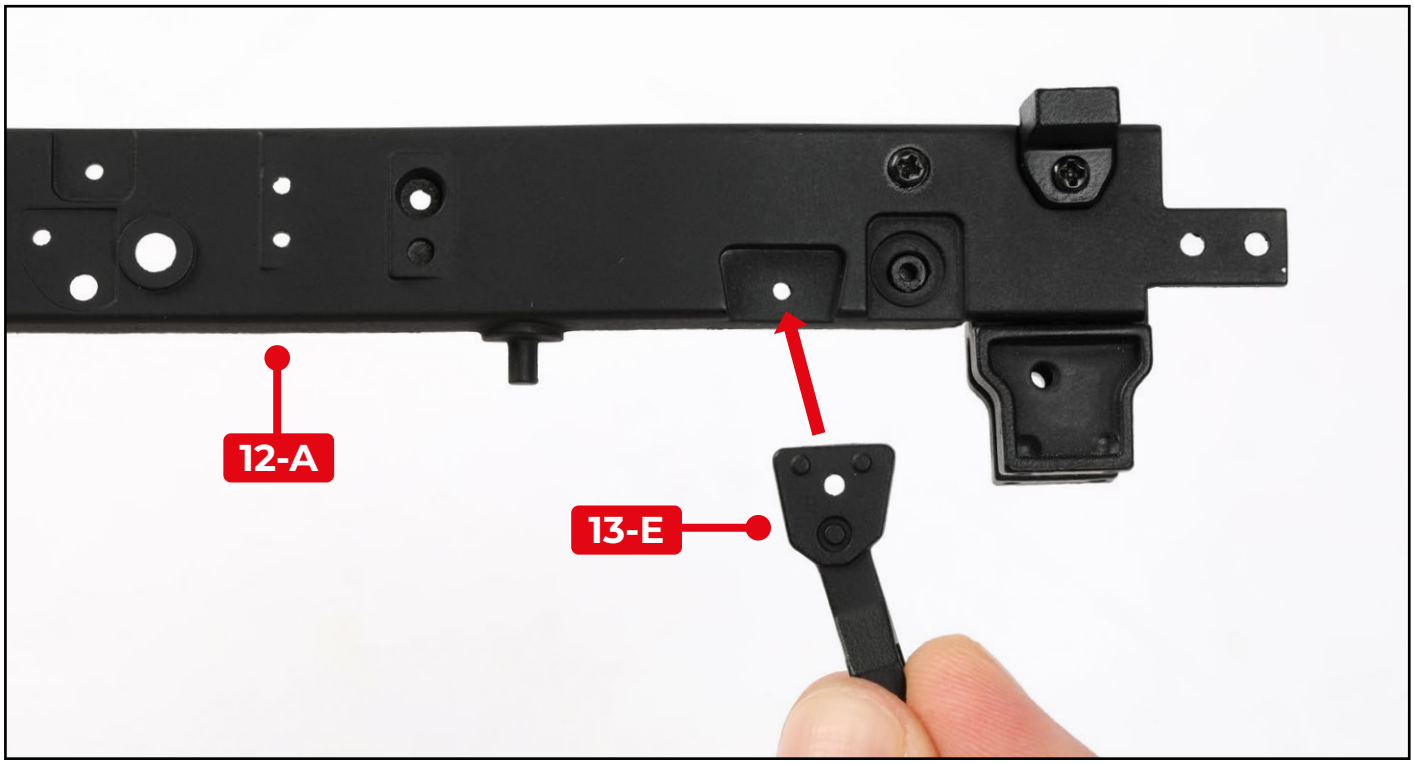


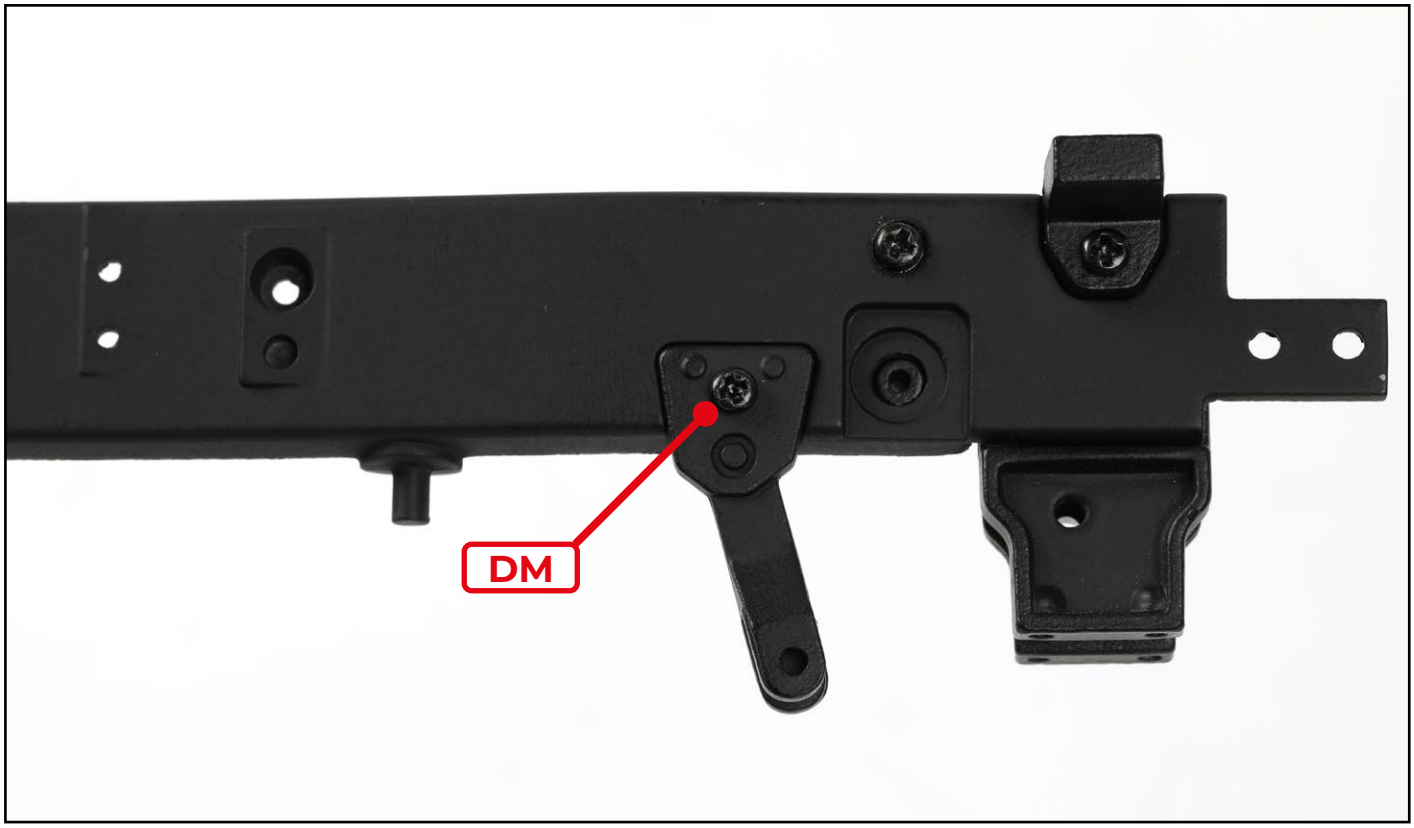


Step 8

Position right front chassis engine mount 13-H on right tractor chassis rail 12-A as shown, then secure it from the opposite side of the chassis rail with one DM screw.

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts

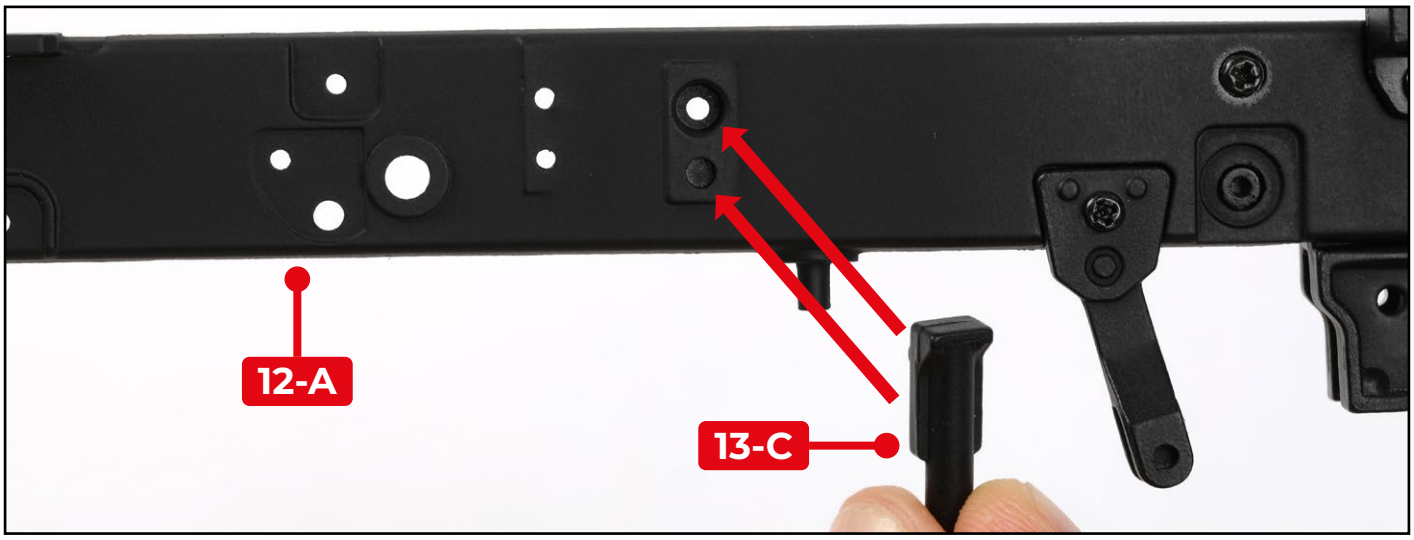




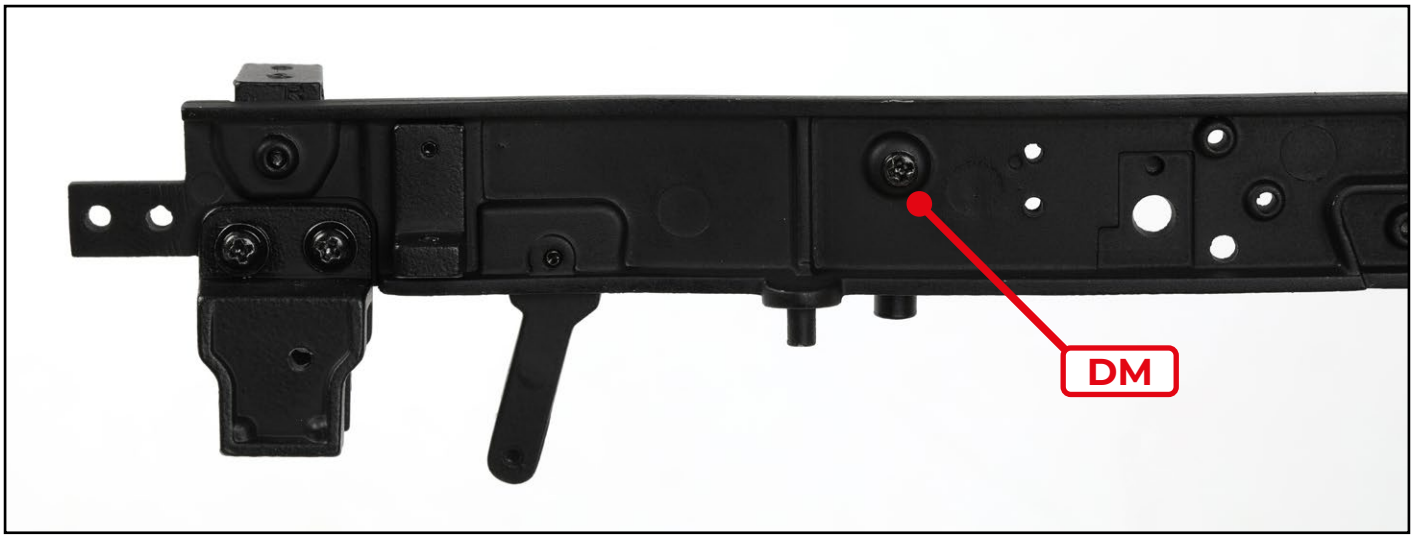
Step 9

Position right front suspension anti-roll bar link 13-E on right tractor chassis rail 12-A as shown, then secure it with one DM screw.

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts



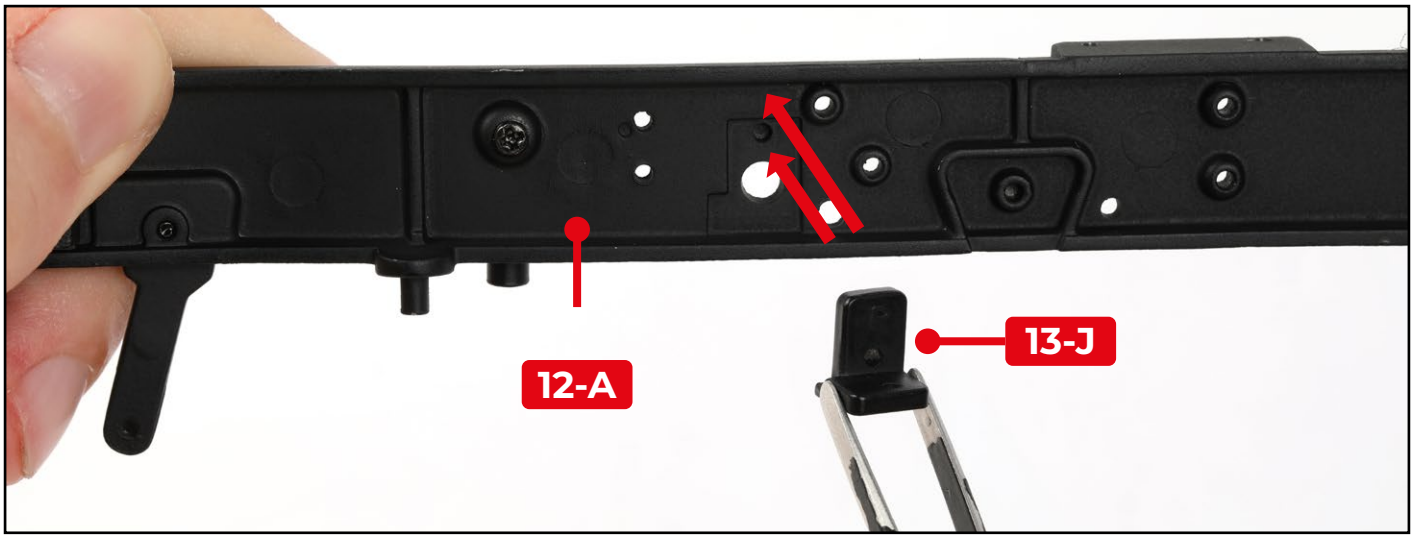


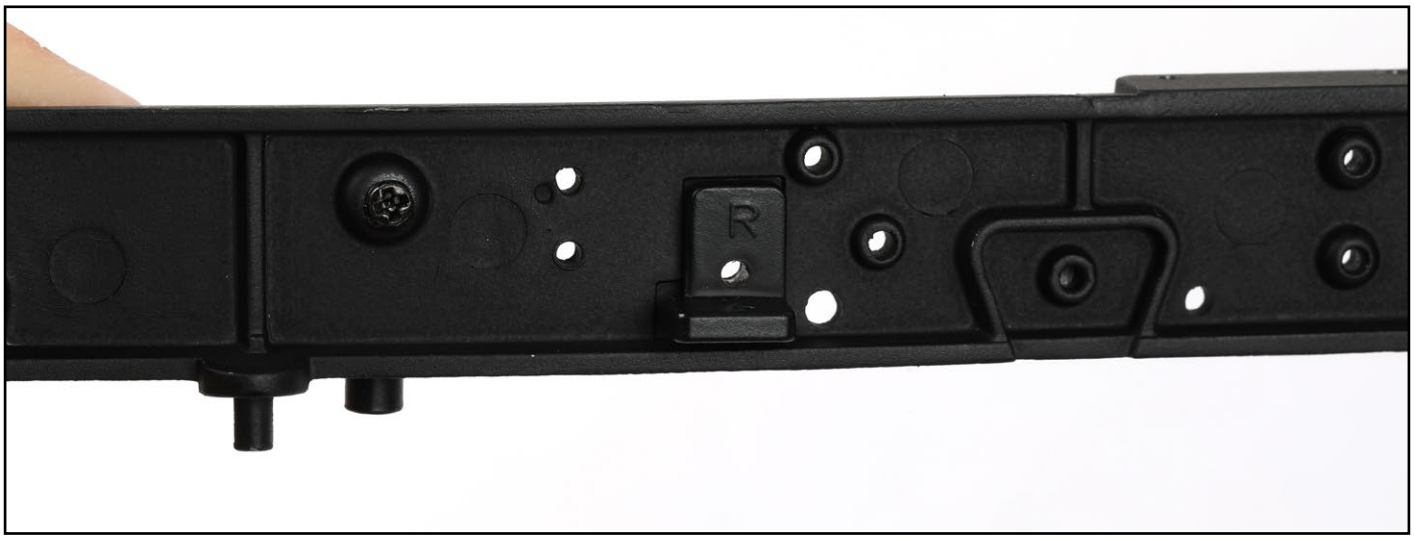


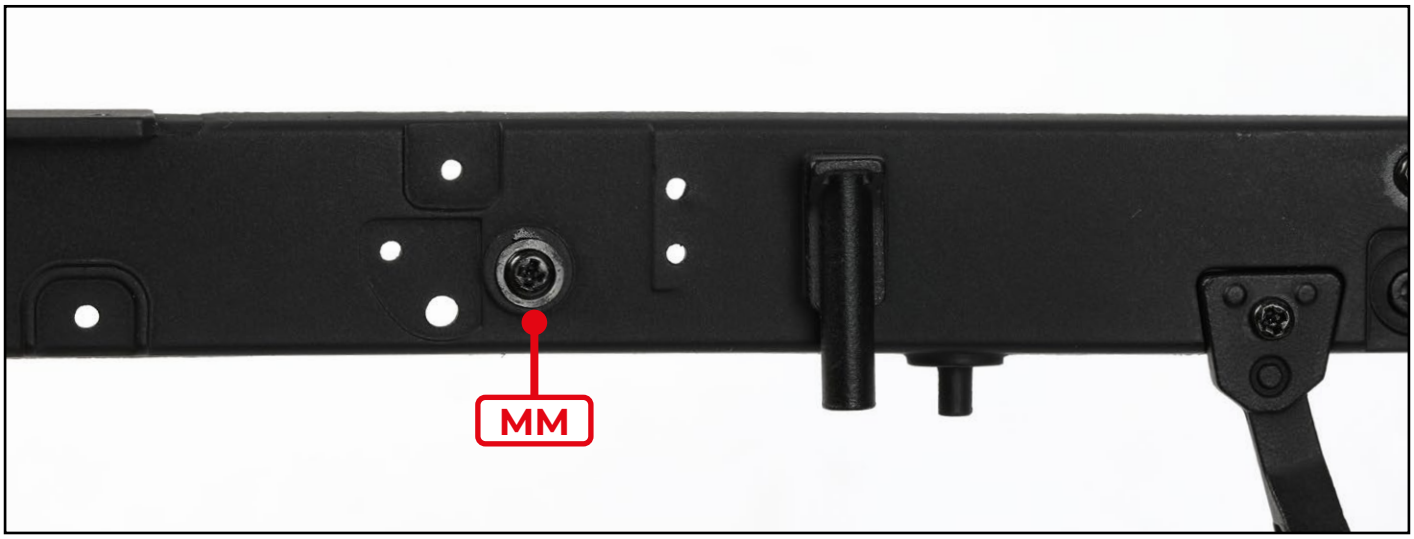
Step 10

Position the second front suspension upper shock absorber mount 13-C on right tractor chassis rail 12-A as shown, then secure it with one DM screw.

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts



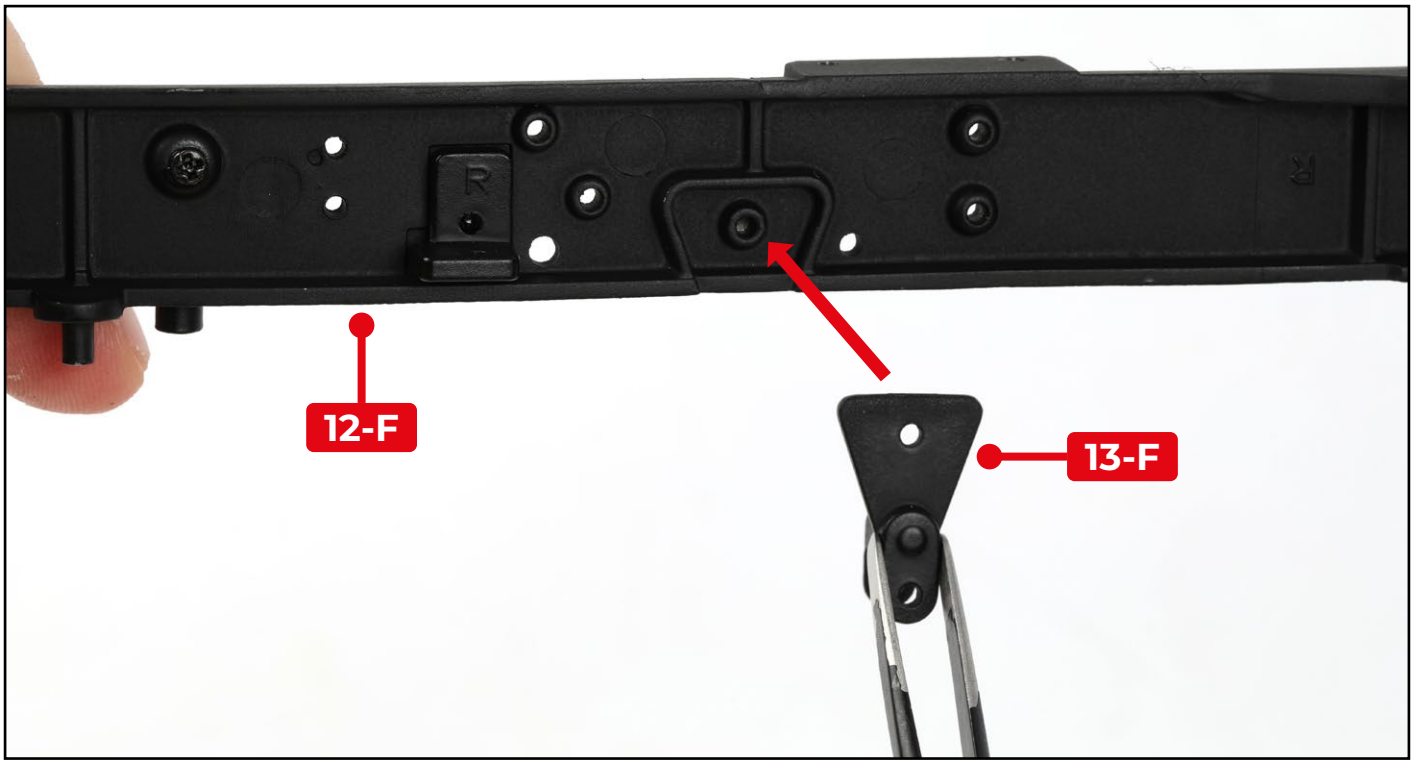


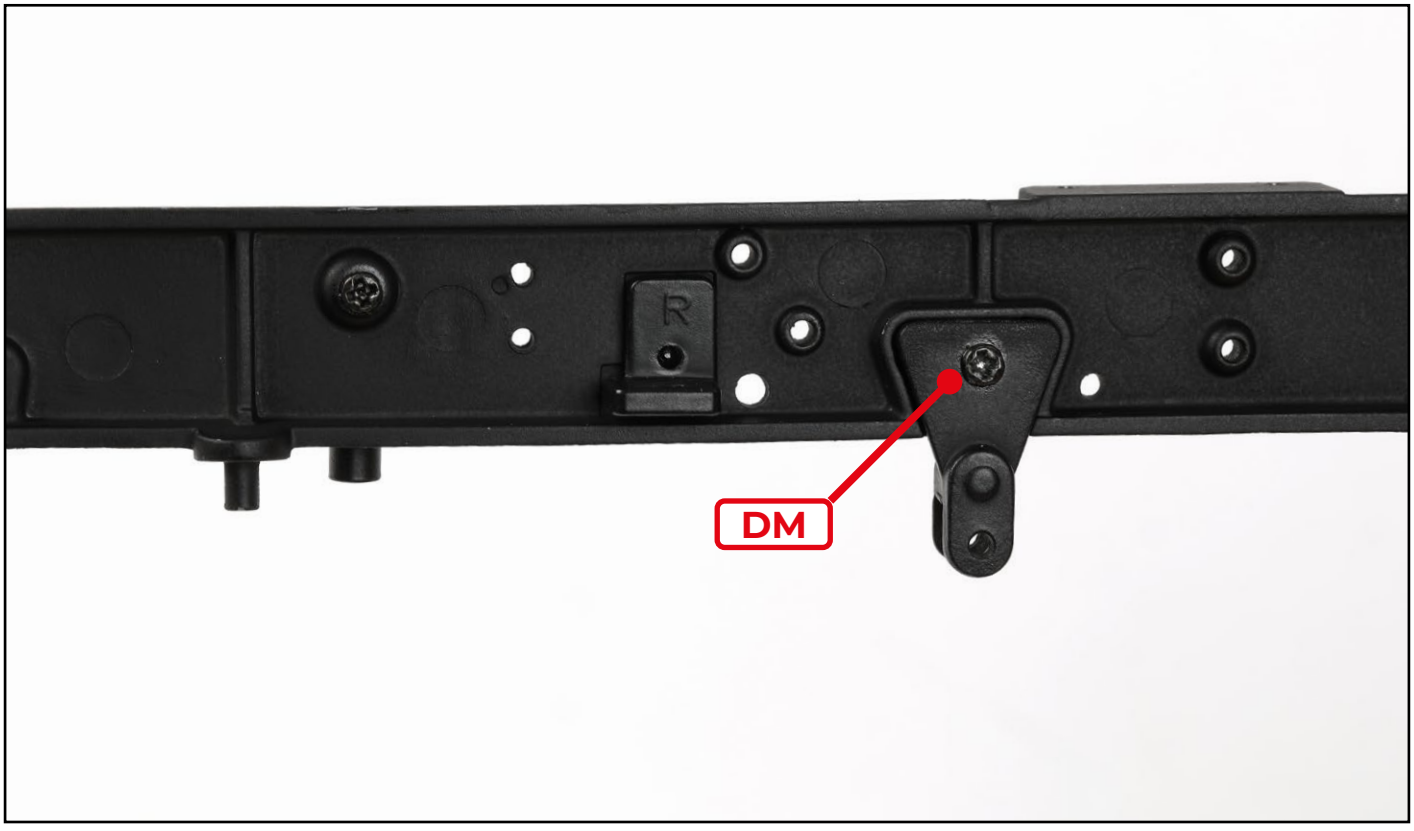


Step 11

Position right chassis engine mount 13-J on right tractor chassis rail 12-A as shown, then secure it from the opposite side of the chassis rail with one MM screw.

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts

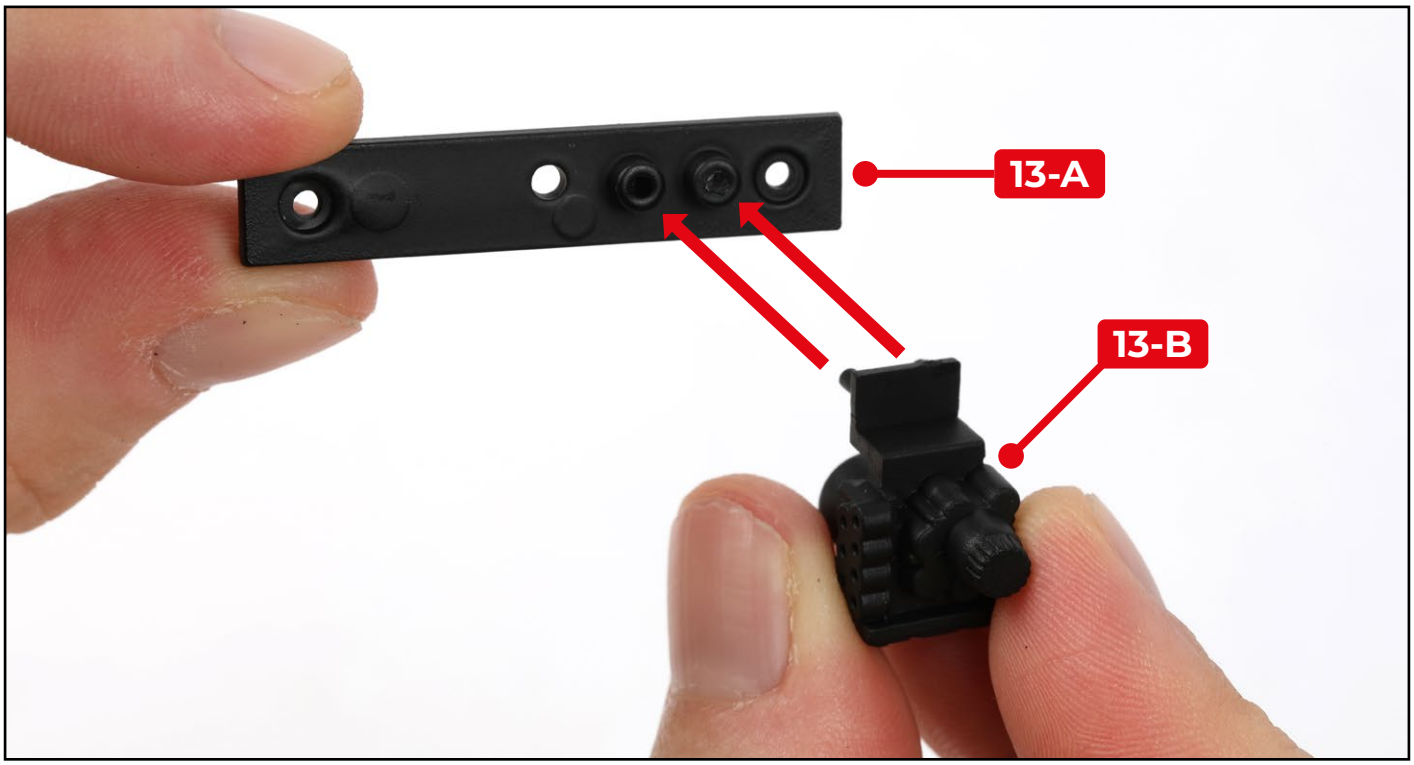




Step 12

Position the second front suspension leaf spring shackle 13-F on right tractor chassis rail 12-A, then secure it with one DM screw.

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts





Step 13

Press air relay valve 13-B onto tractor chassis crossmember 13-A as shown.

Stage 13: Attaching the chassis crossmember, the anti-roll bar links and the engine mounts

STAGE 13 COMPLETE



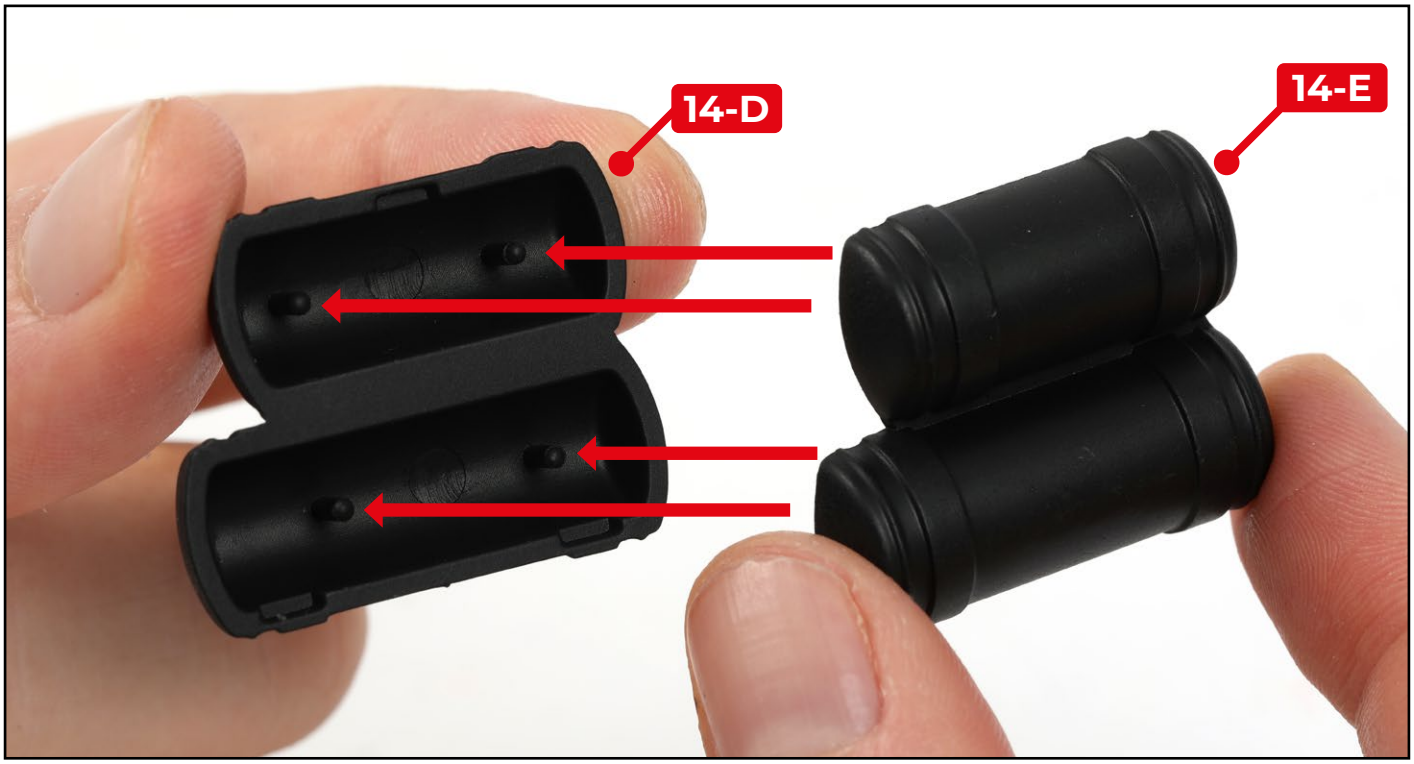
Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs

STAGE 14 PARTS



14-A: Cab tilt hinge rod
14-B: Upper chassis crossmember
14-C: Lower chassis crossmember
14-D: Tractor air reservoir 1
14-E: Tractor air reservoir 2
14-F: Rear axle air modulator 1
14-G: Rear axle air modulator 2
14-H: Hydraulic line support
14-I: Cab tilt cylinder
14-J: Cab tilt cylinder bracket
DM: 18 screws
FM: 5 screws
GM: 3 screws

Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs

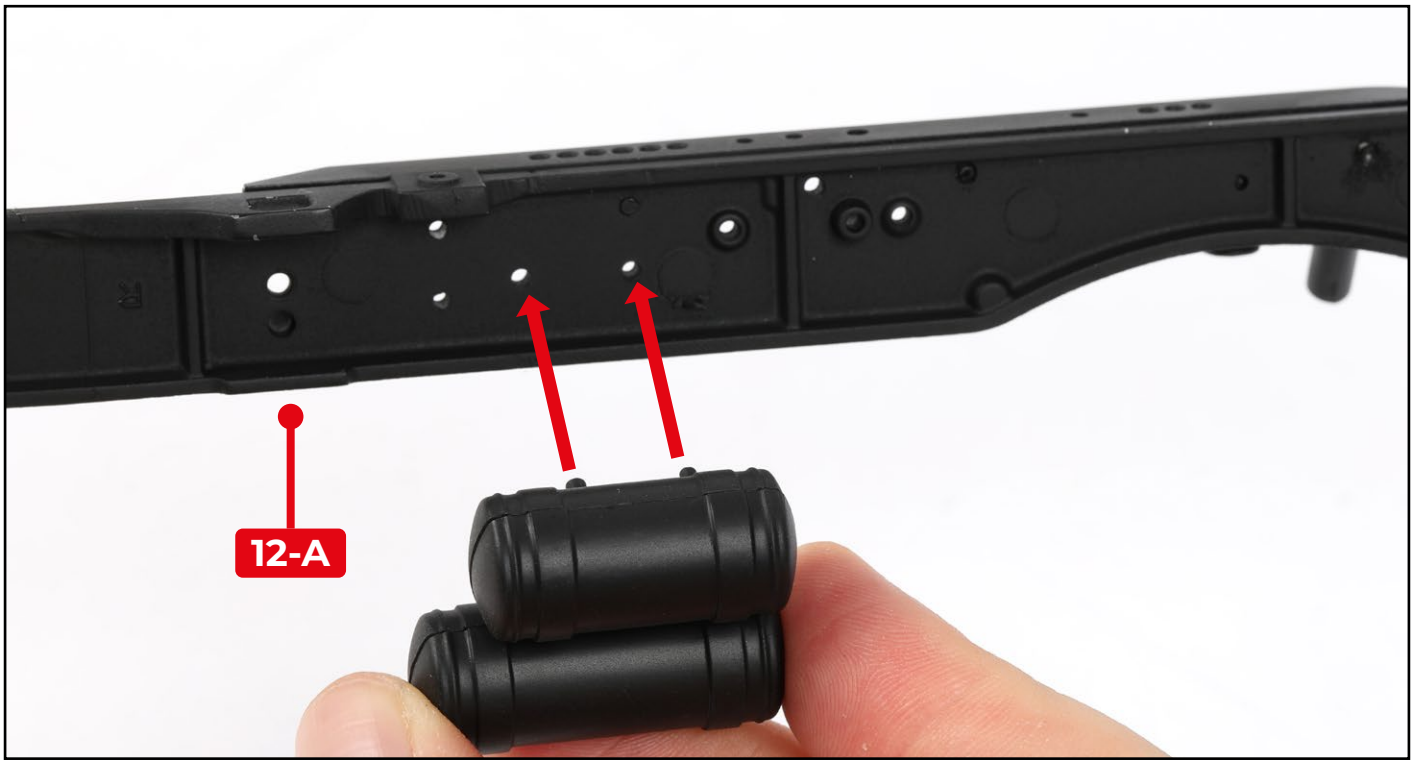




Step 1

Press tractor air reservoir parts 14-D and 14-E together.

Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs

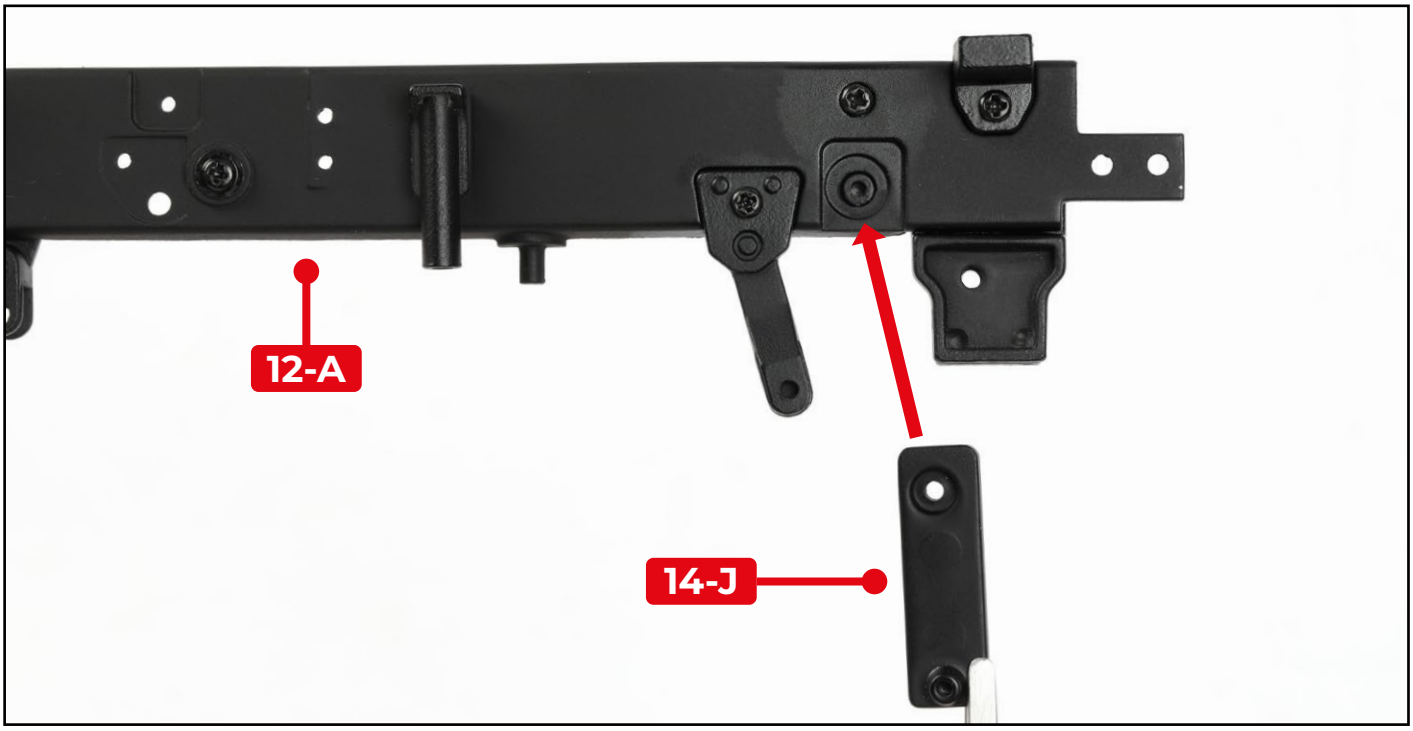


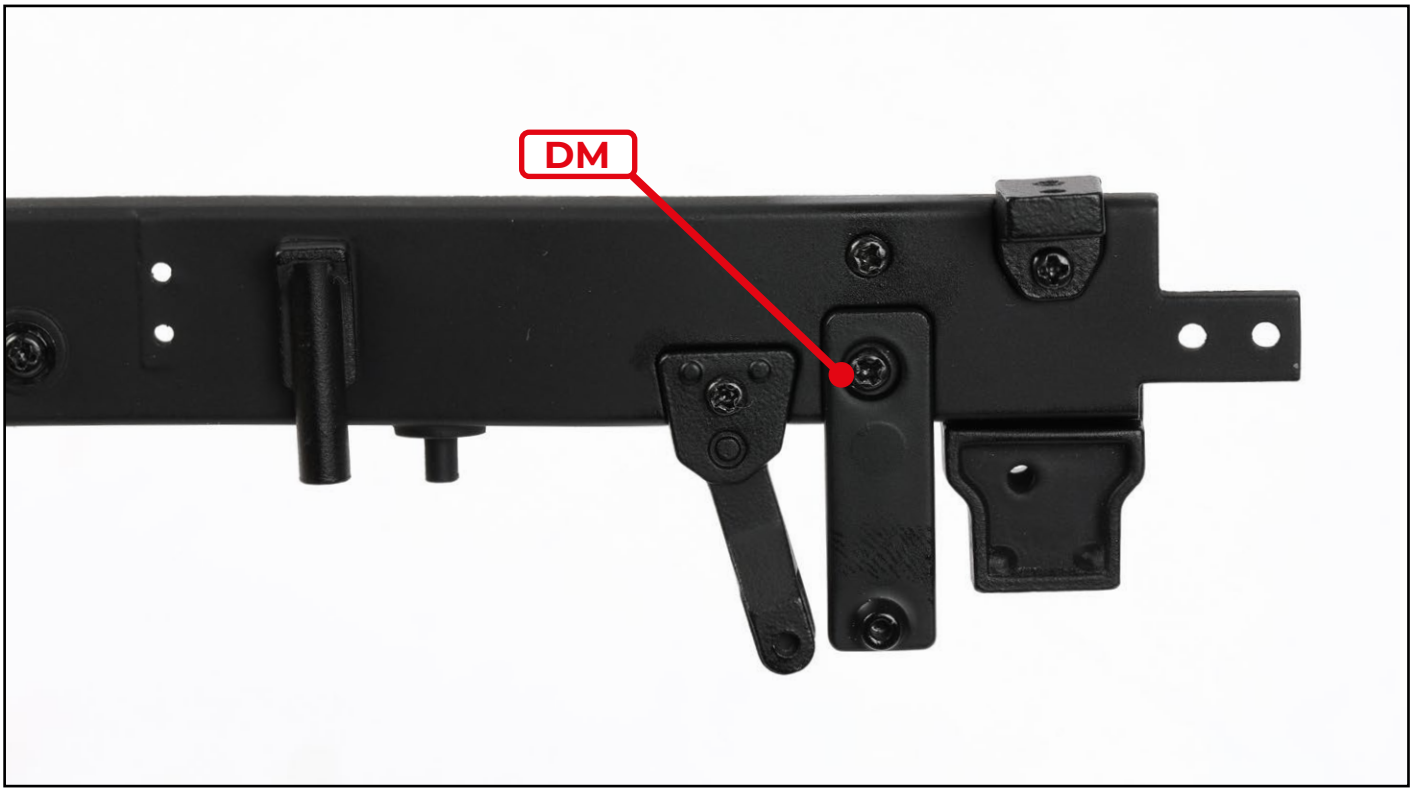


Step 2

Press the assembled tractor air reservoir onto right tractor chassis rail 12-A as shown.

Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs

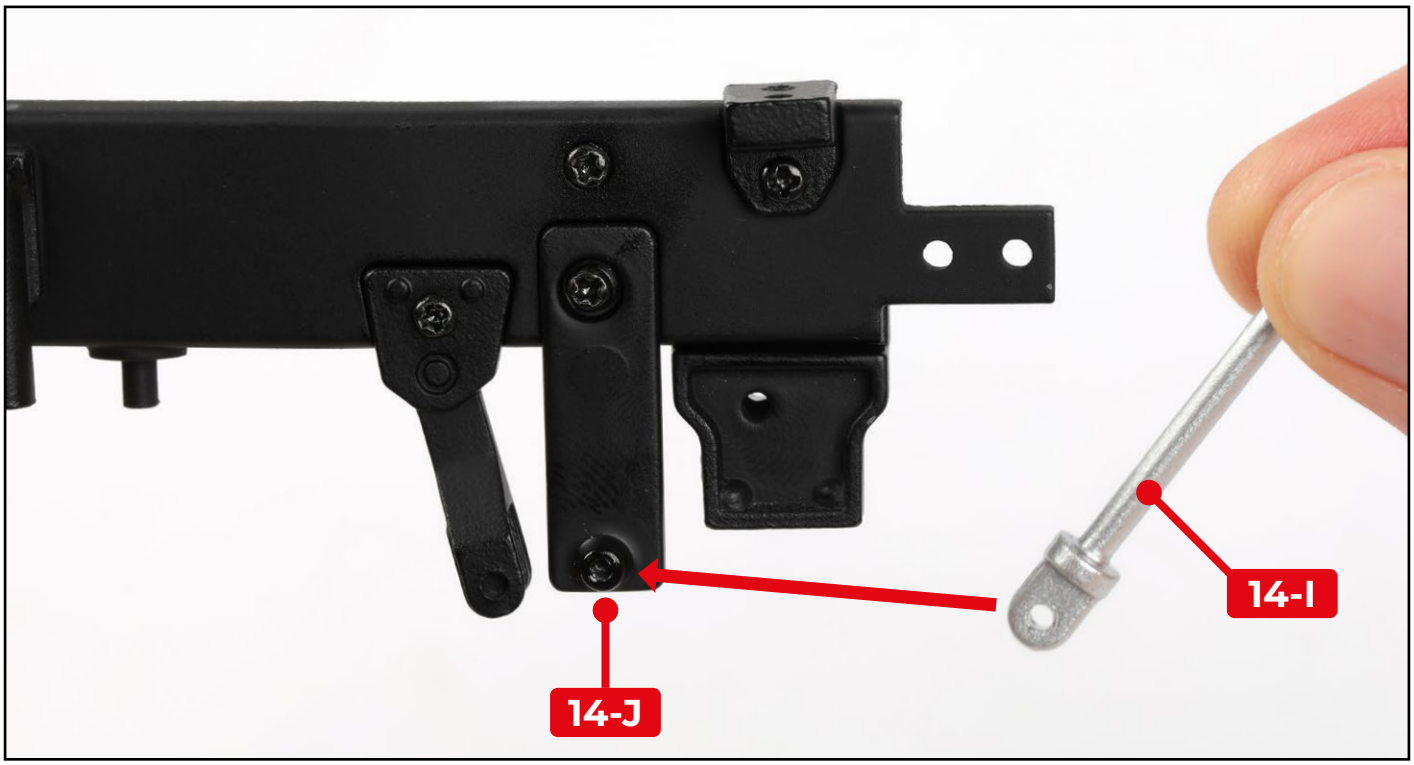


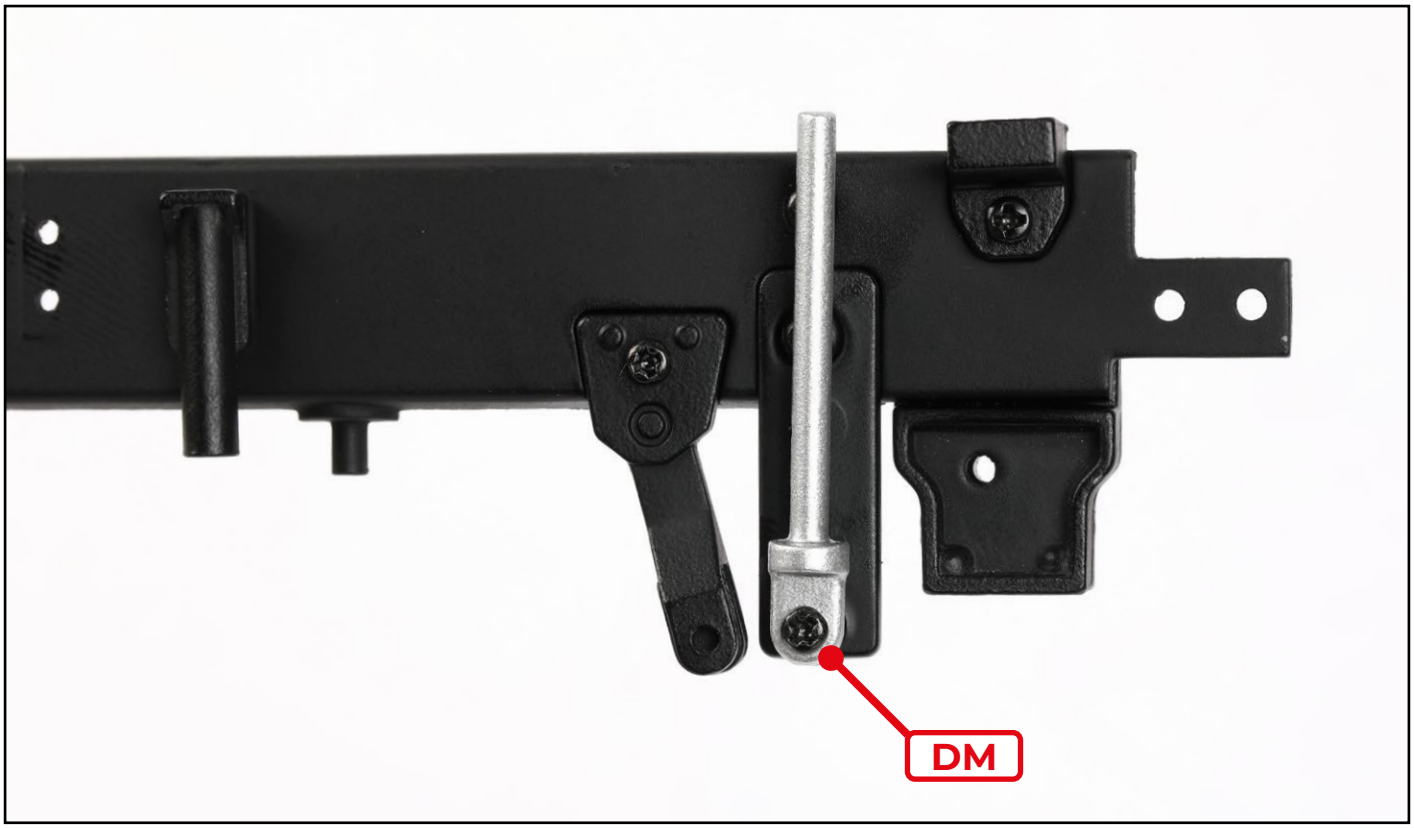


Step 3

Position cab tilt cylinder bracket 14-J on right tractor chassis rail 12-A as shown, then secure it with one DM screw.

Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs

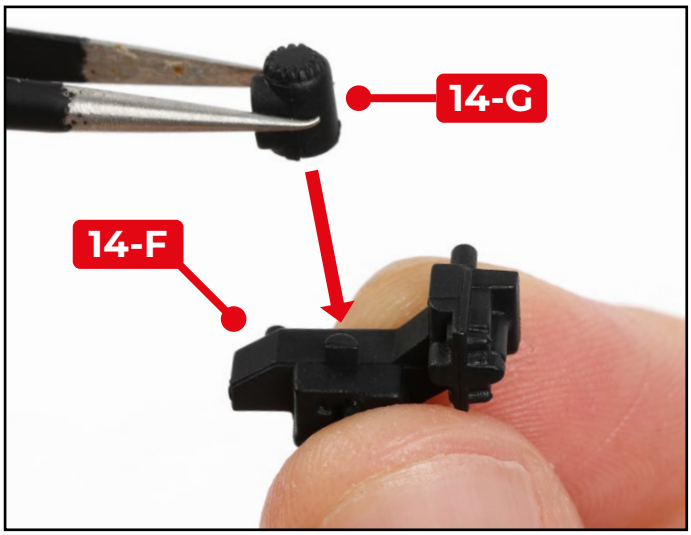


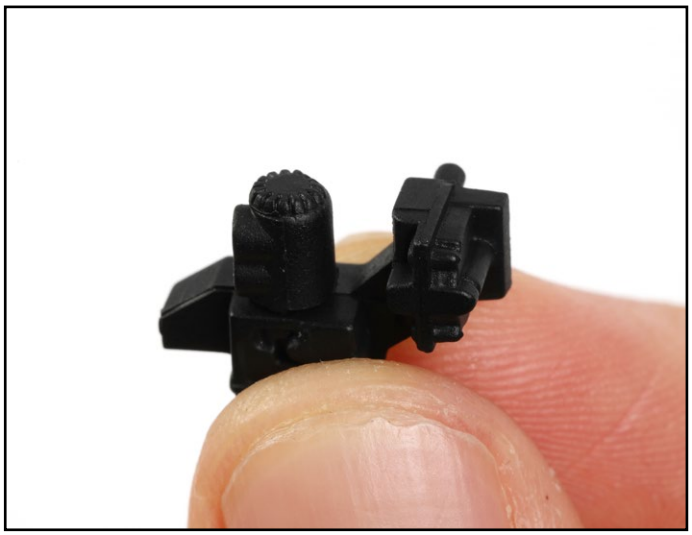


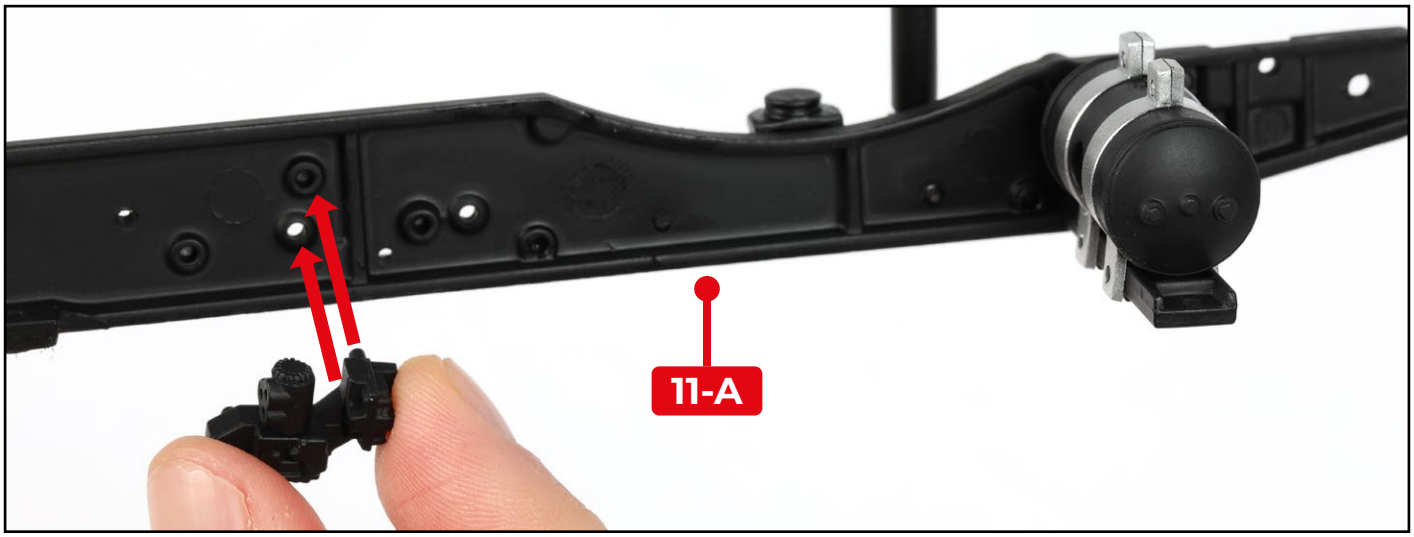
Step 4

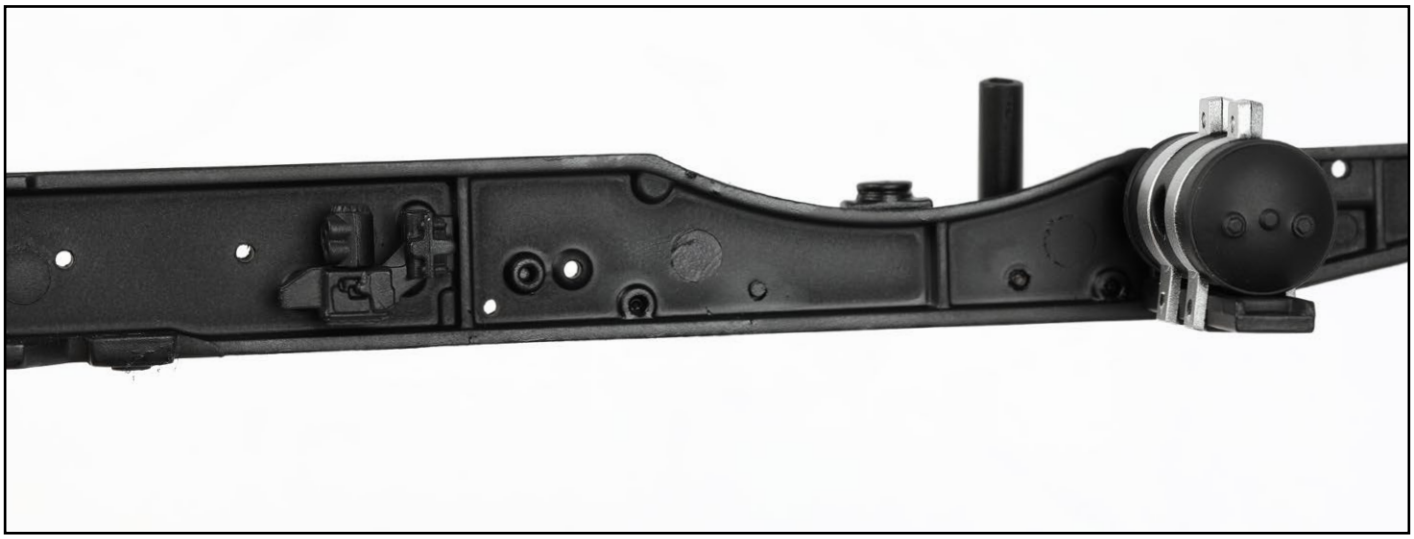
Position cab tilt cylinder 14-I as shown, then secure it with one DM screw.

Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs







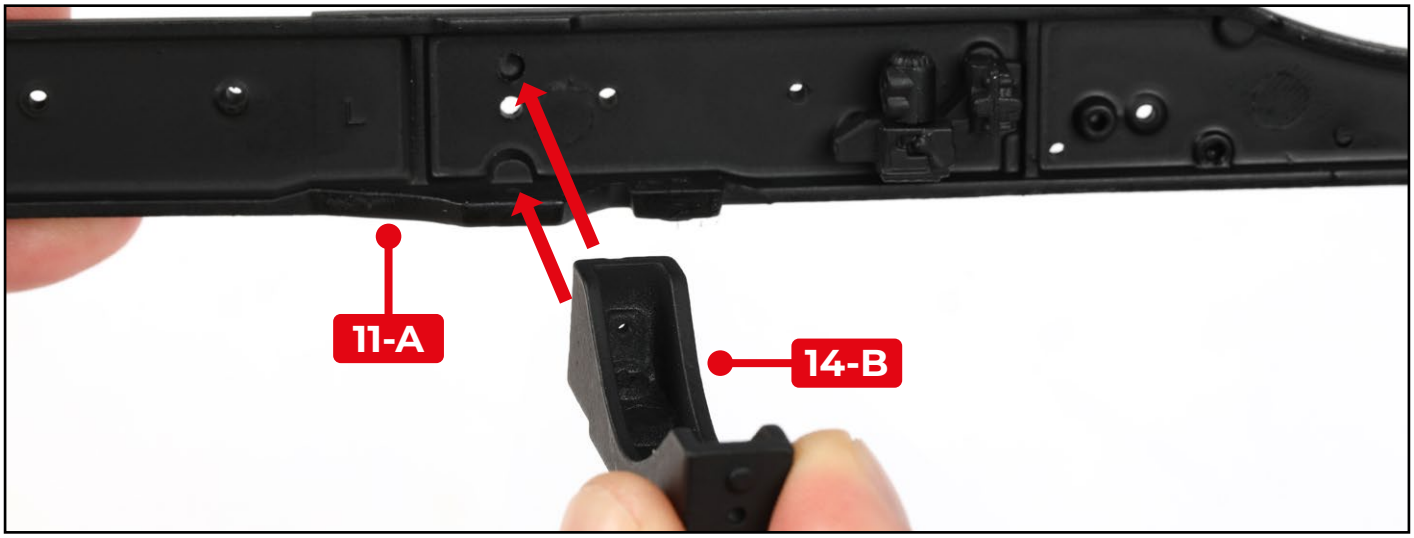


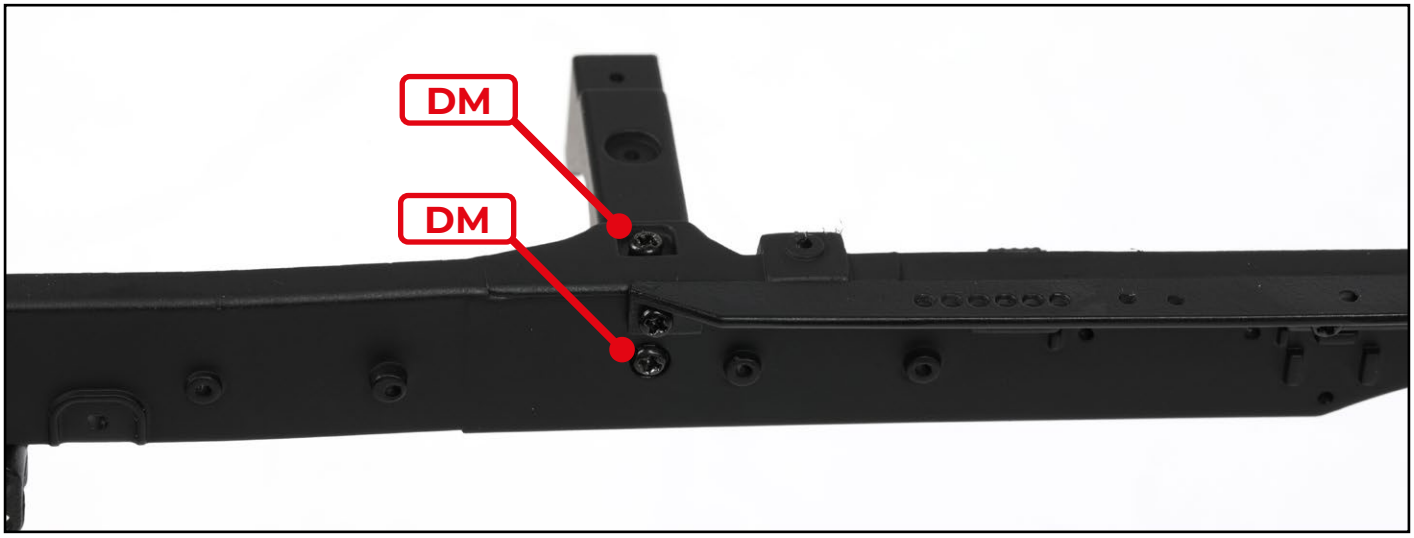
Step 5

Fit rear axle air modulator parts 14-F and 14-G together. Position the assembled rear axle air modulator on left tractor chassis rail 11-A as shown.

Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs



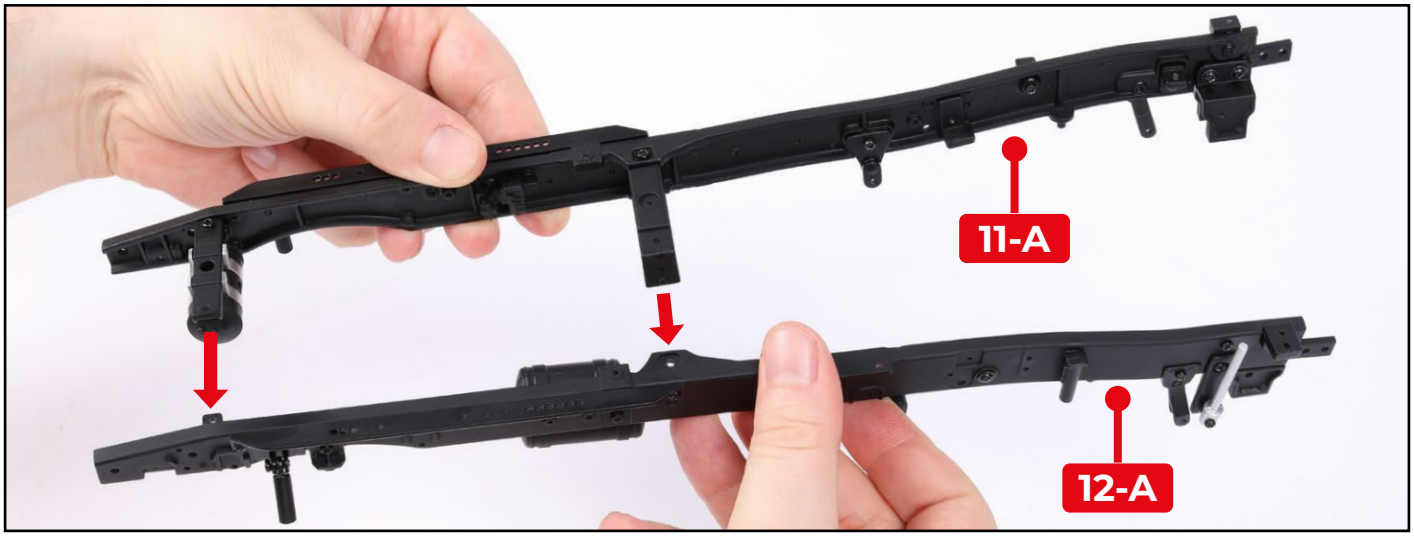




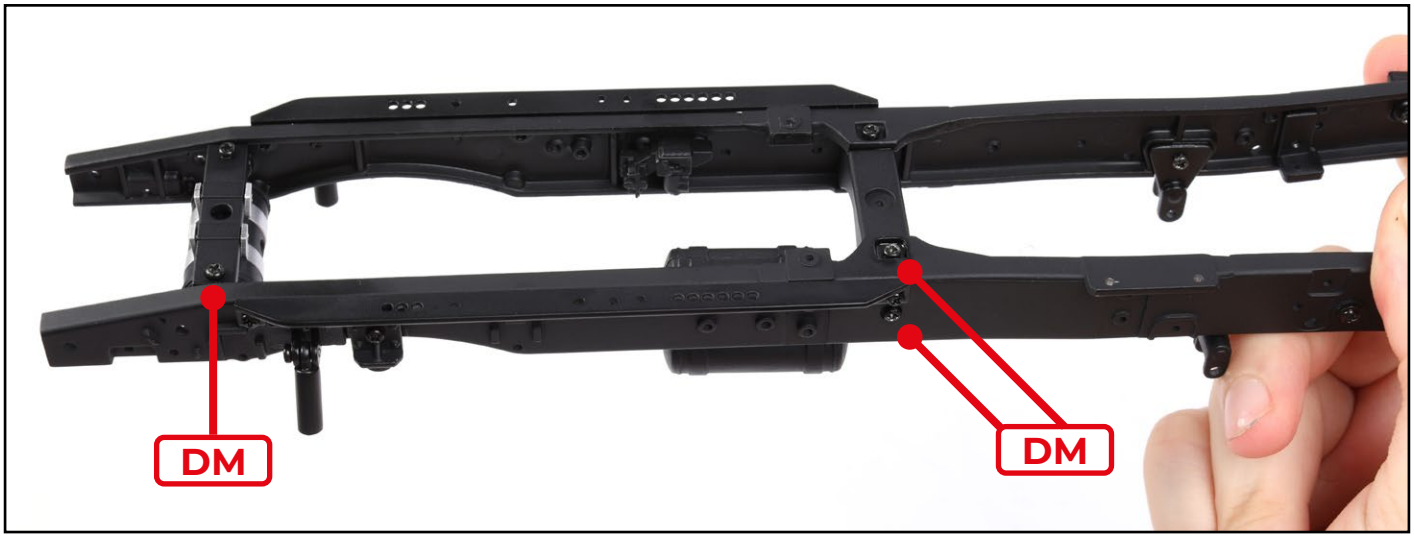
Step 6

Position upper chassis crossmember 14-B on left tractor chassis rail 11-A as shown. Secure it with two DM screws, one from above and one through the outside of the chassis rail.

Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs



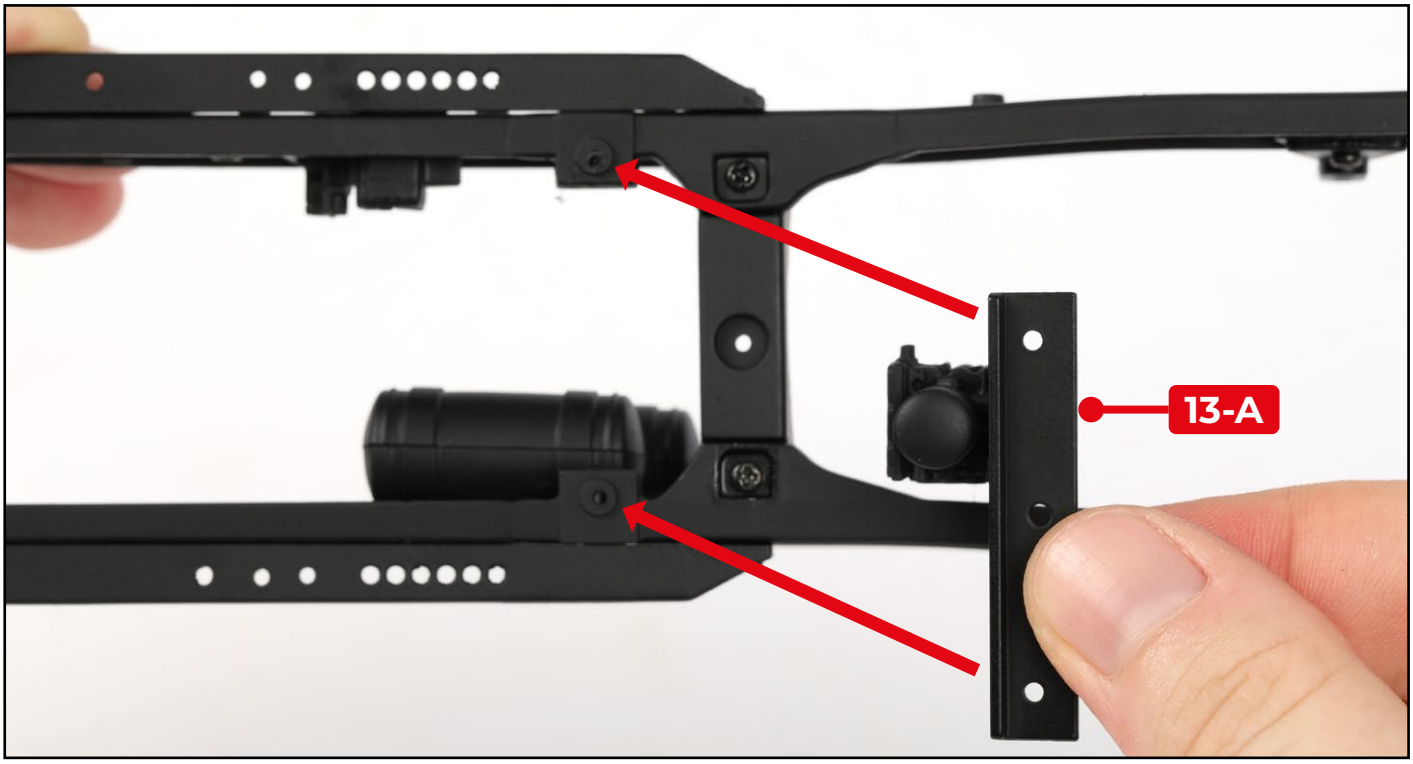


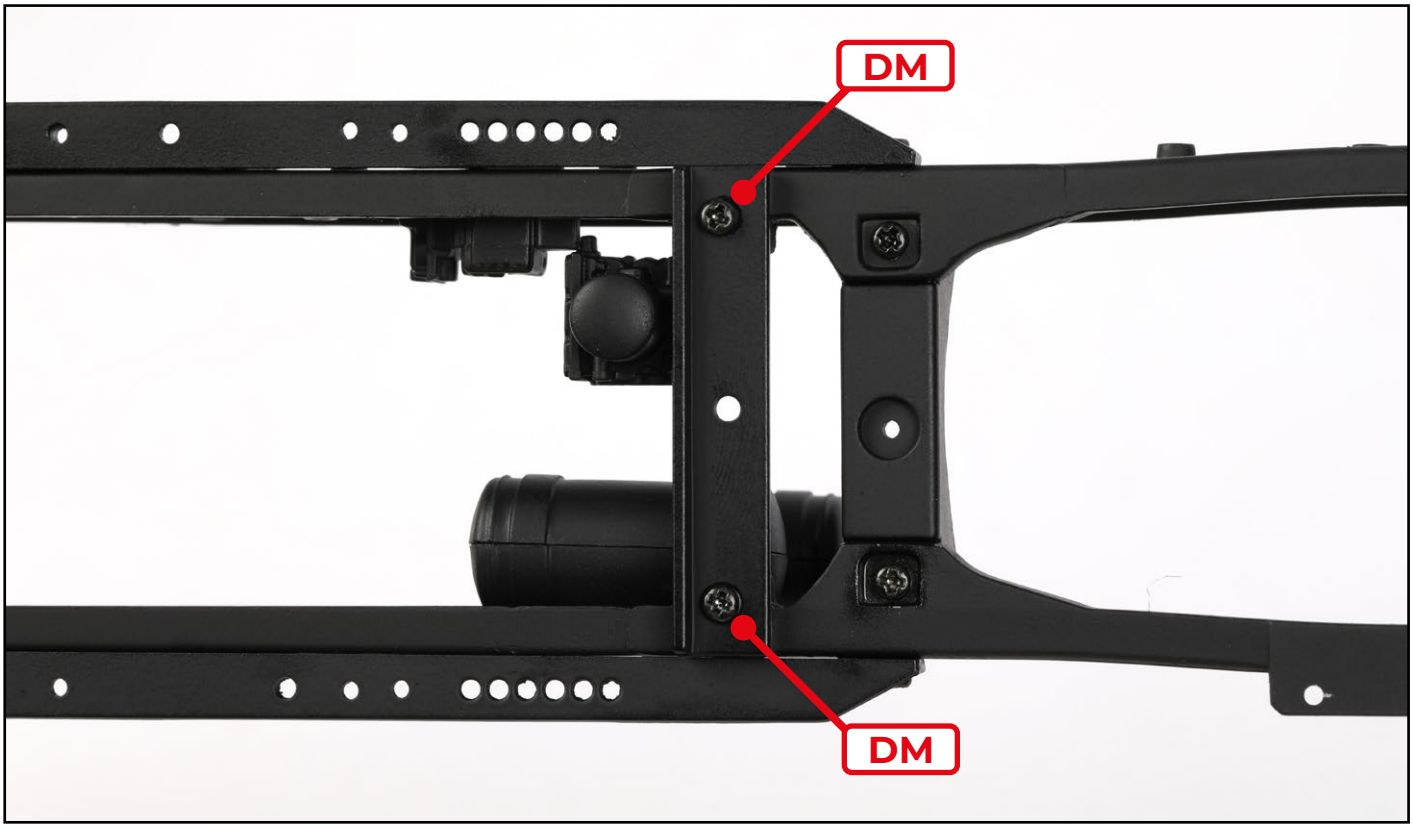


Step 7

Align left tractor chassis rail 11-A and right tractor chassis rail 12-A. Position the free end of upper chassis crossmember 14-B on right tractor chassis rail 12-A and secure it with two DM screws. Secure the free end of tractor chassis crossmember 11-B to right tractor chassis rail 12-A with one DM screw.

Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs

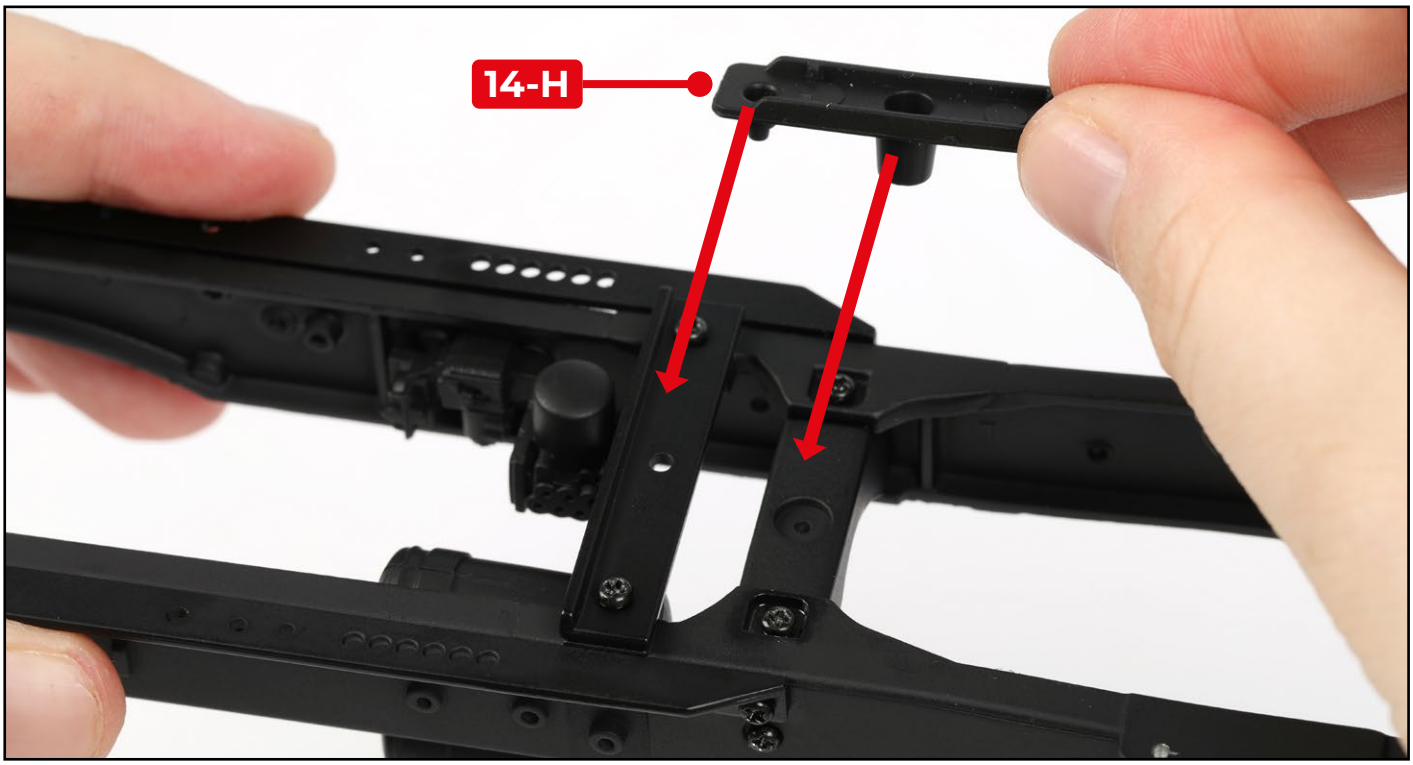


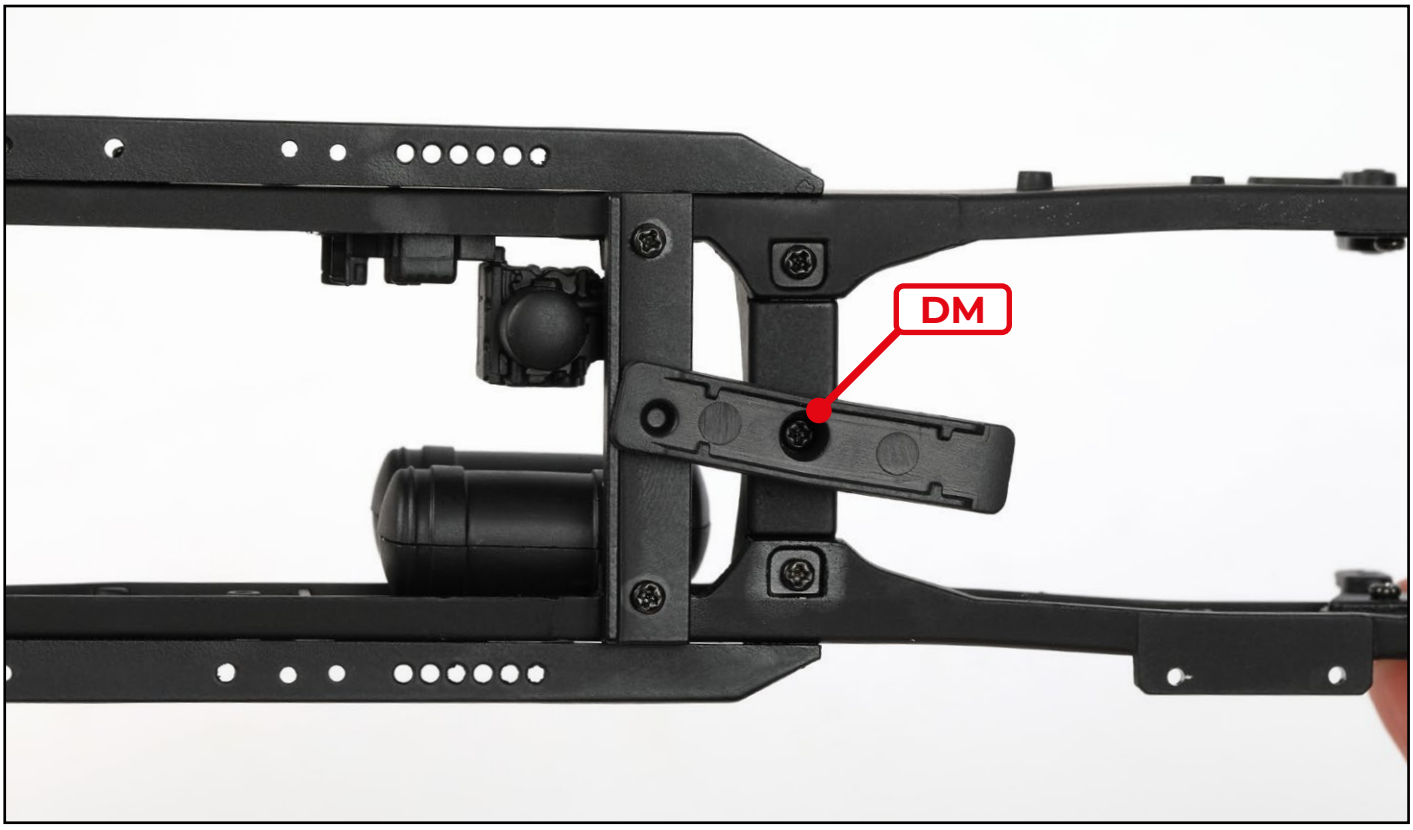


Step 8

Retrieve tractor chassis crossmember 13-A from Stage 13. Position it between the chassis rails as shown, then secure it with two DM screws.

Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs

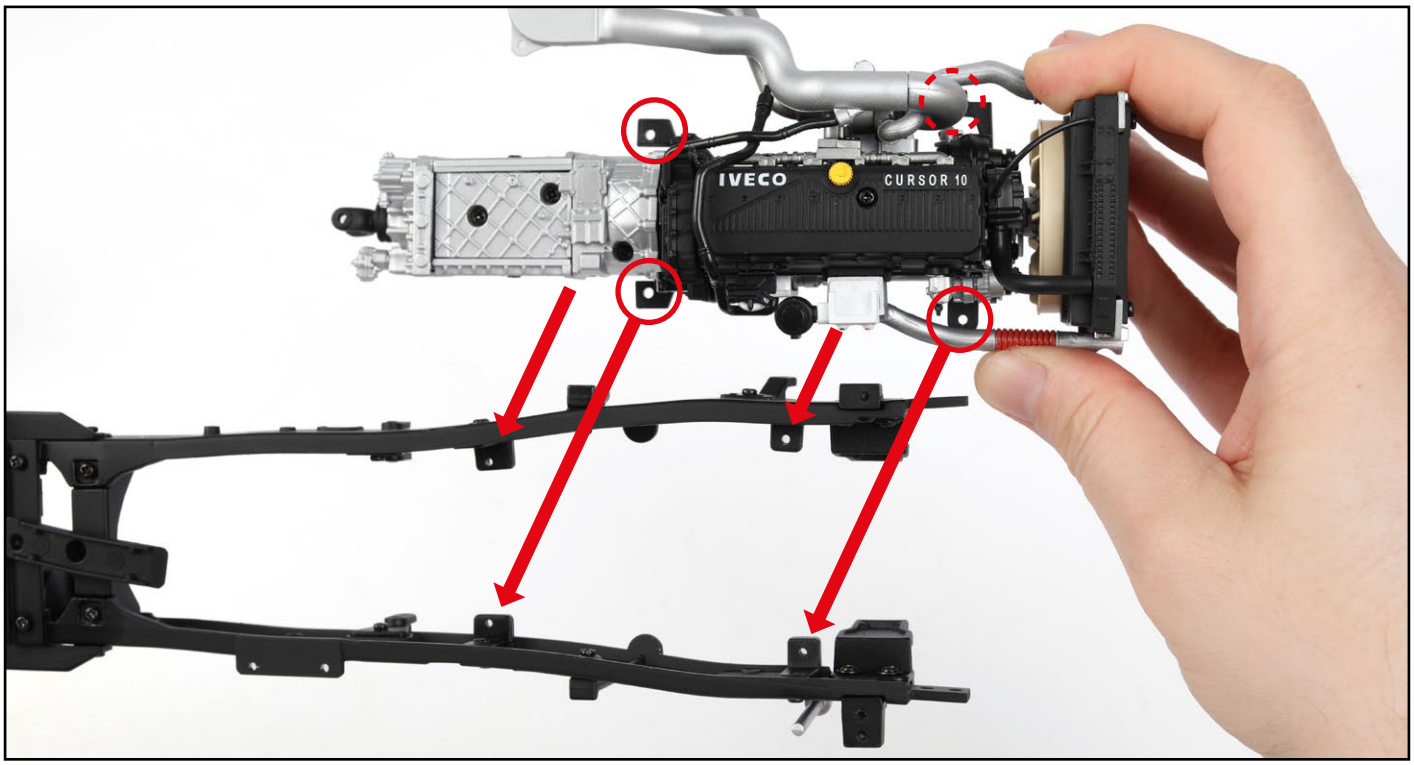


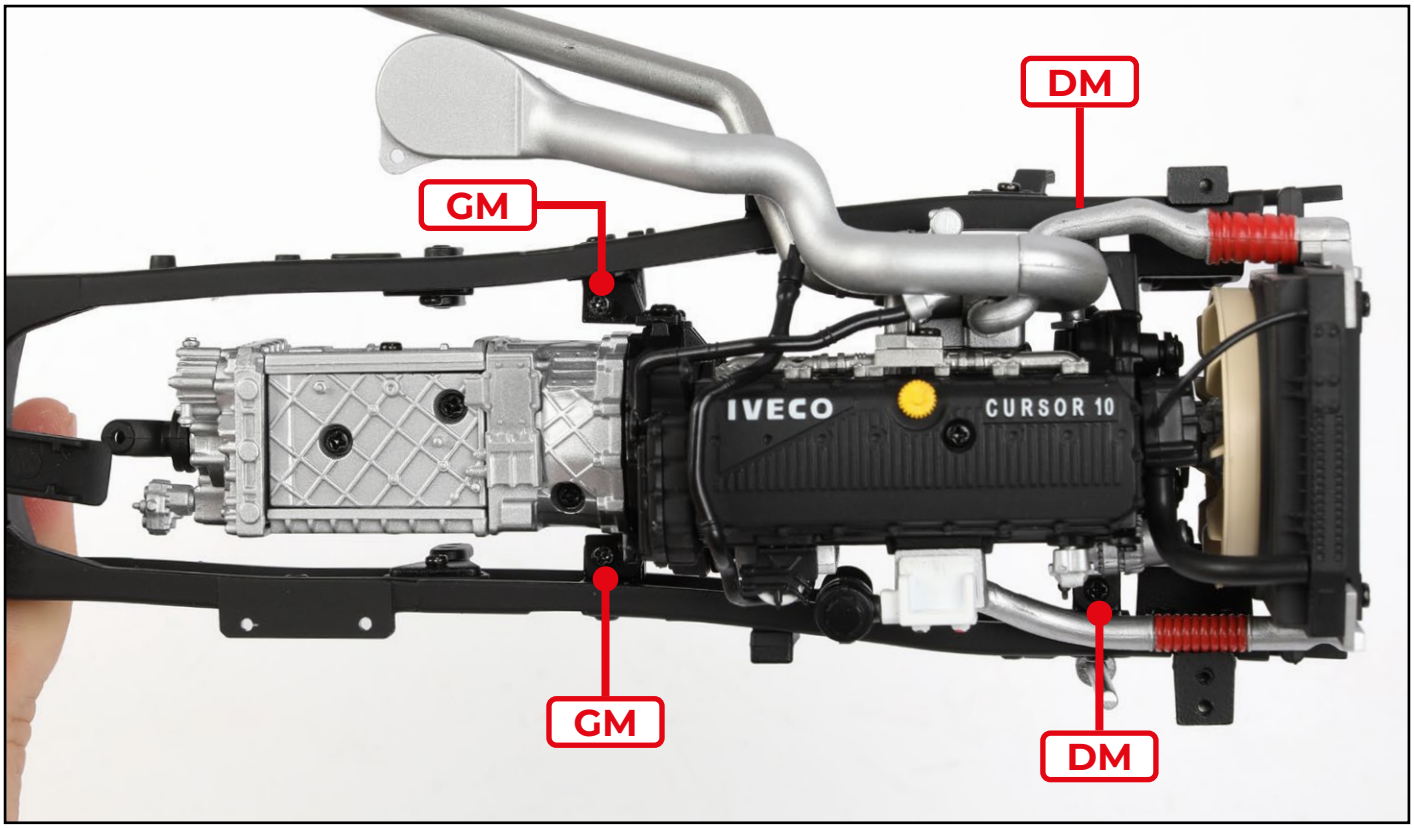


Step 9

Position hydraulic line support 14-H as shown, then secure it with one DM screw.

Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs

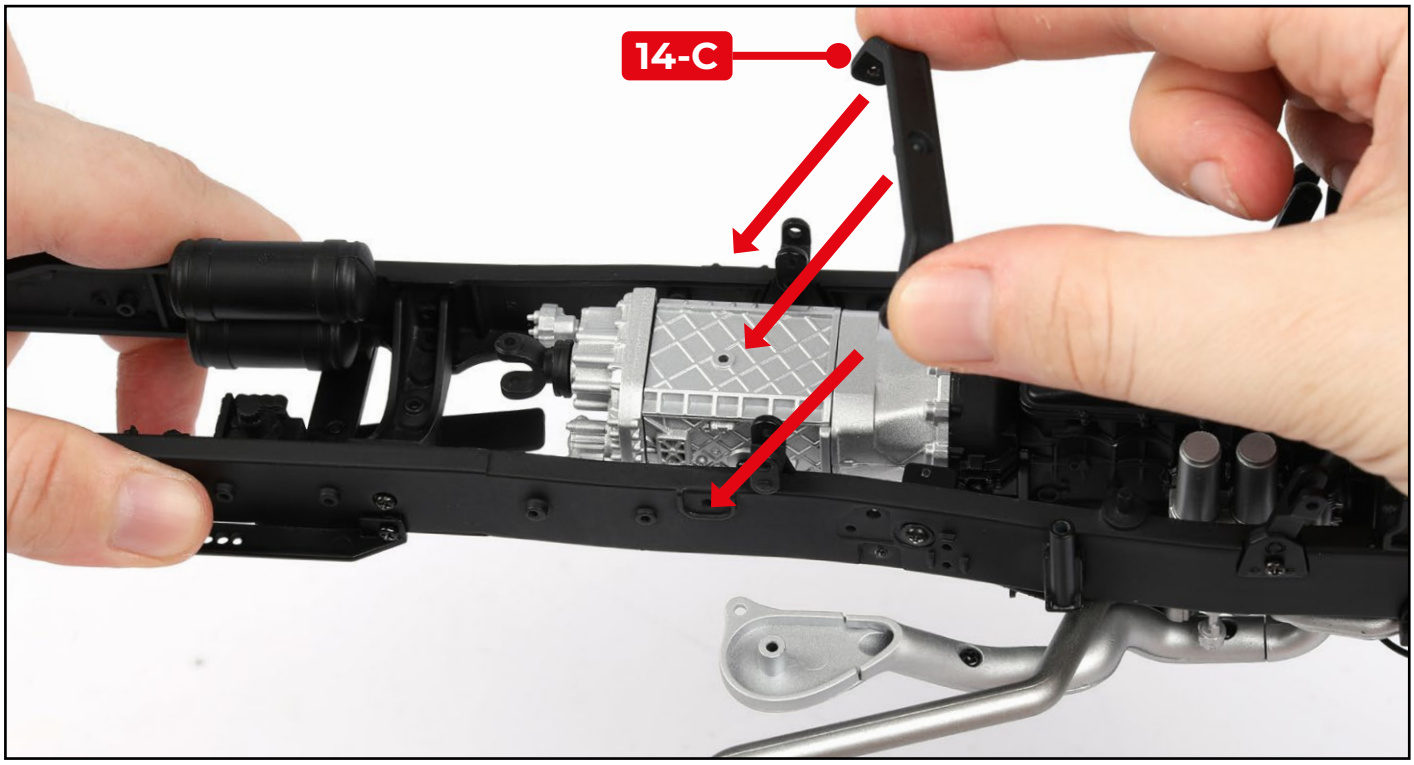


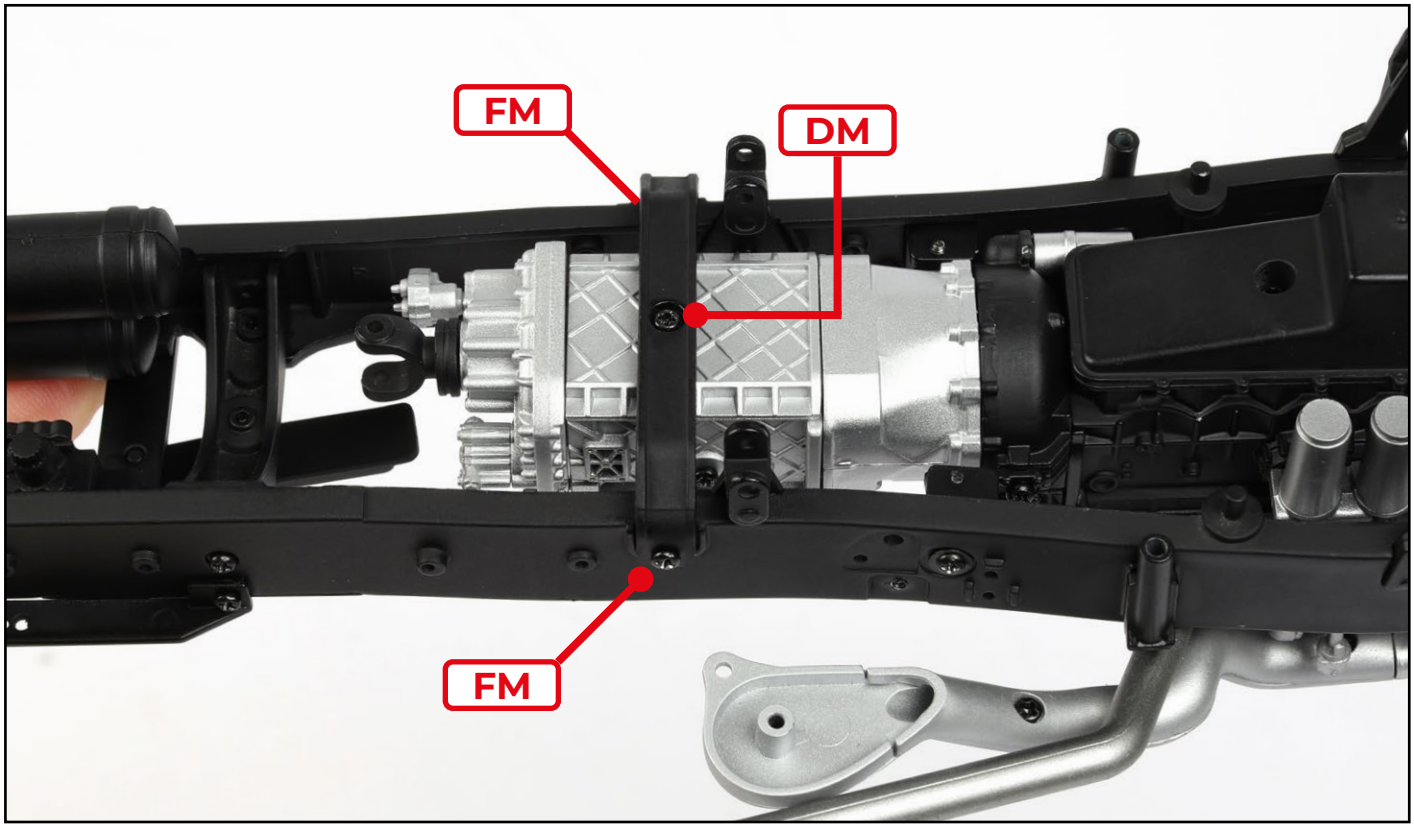


Step 10

Retrieve the assembled engine and gearbox. Position the assembly between the chassis rails as shown. Secure it with two DM screws near the cooling fan and two GM screws beside the gearbox.

Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs

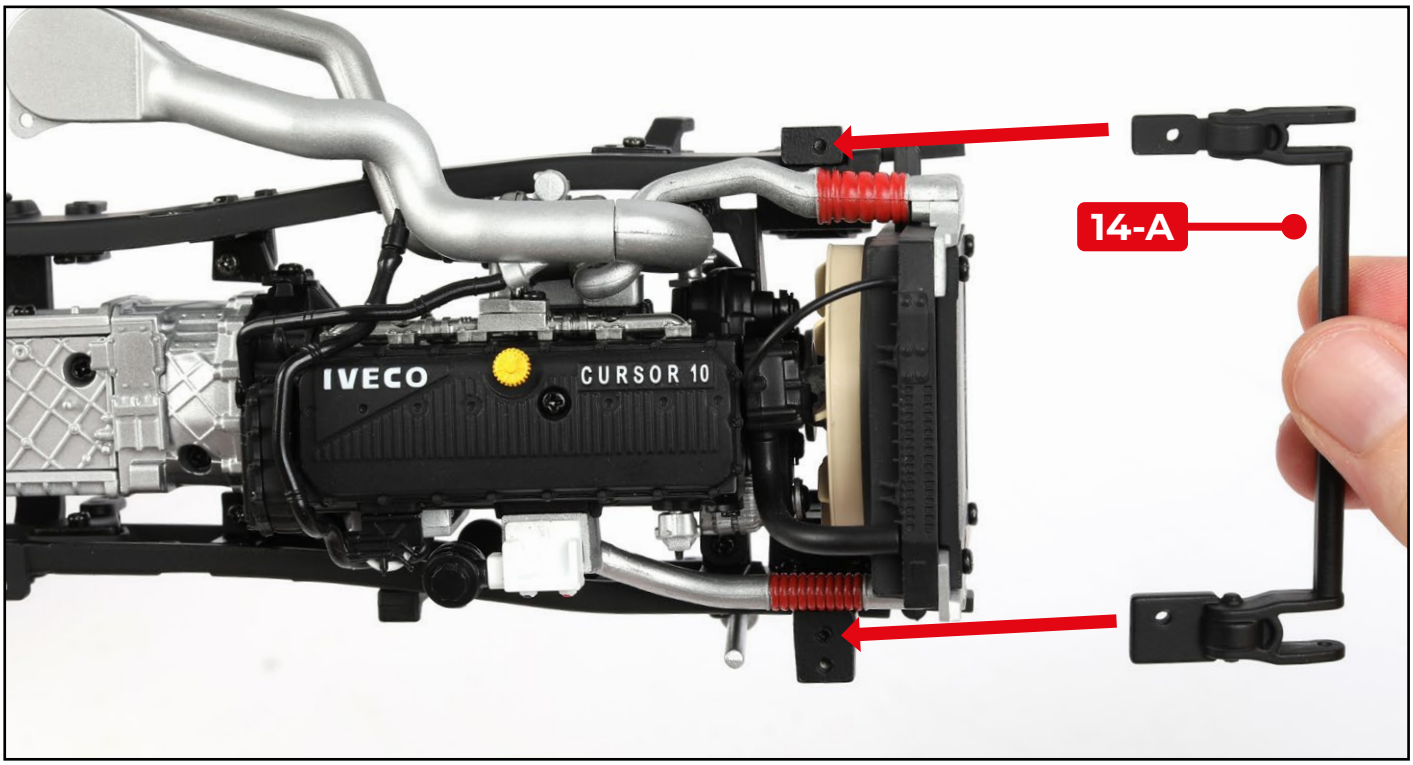


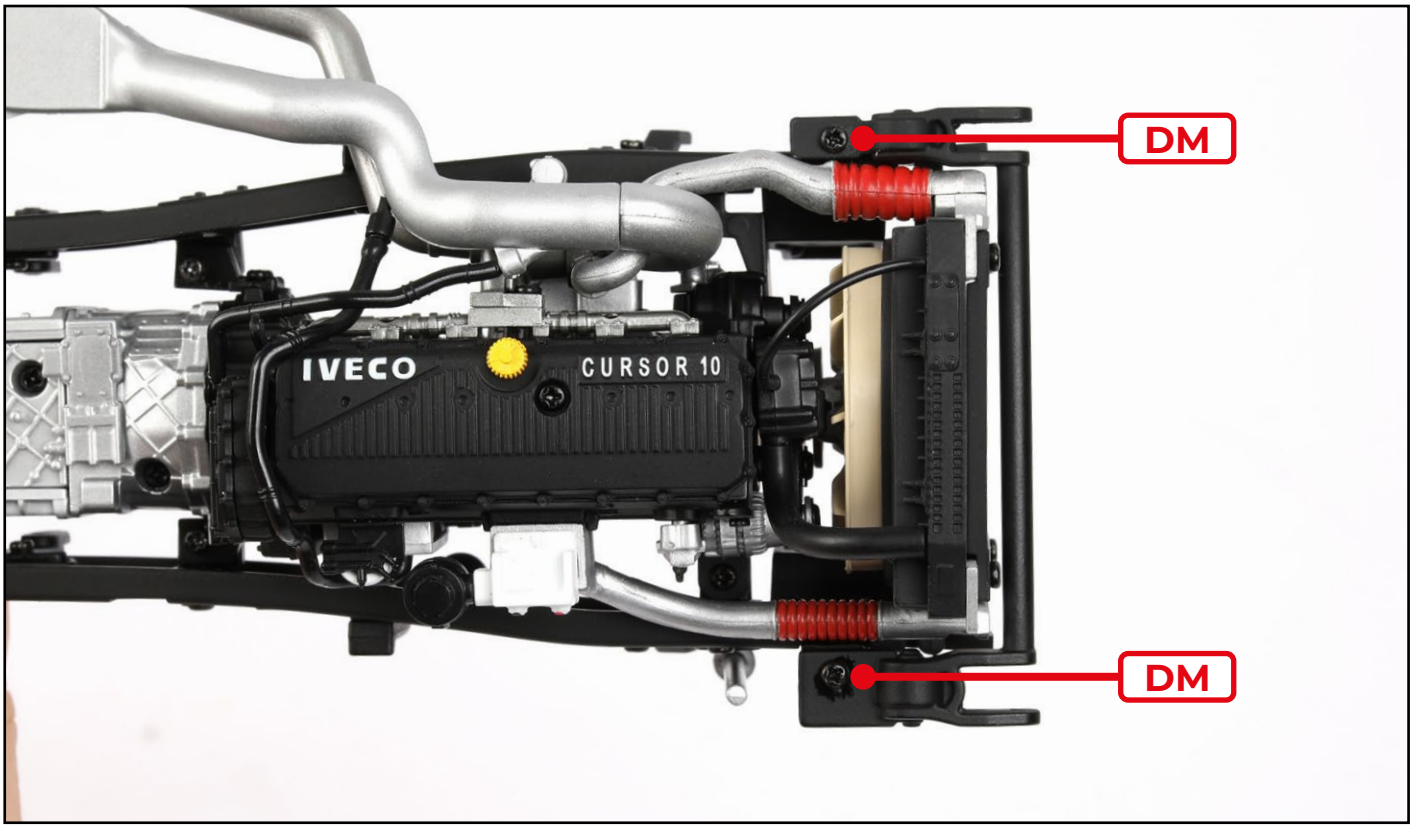


Step 11

Position lower chassis crossmember 14-C between the chassis rails as shown. Secure it to the chassis rails with two FM screws, then secure it to the gearbox with one DM screw.

Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs



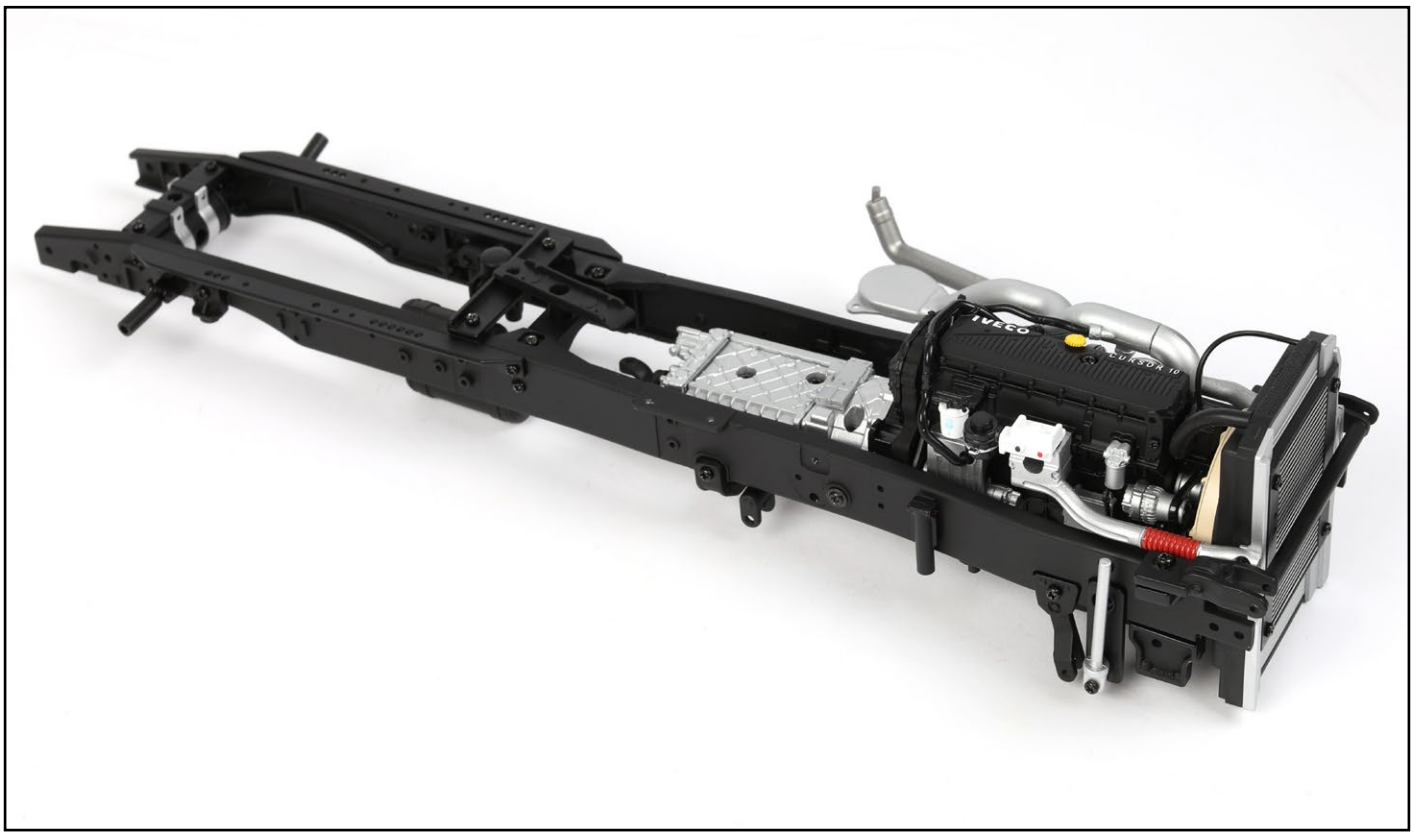


Step 12

Position cab tilt hinge rod 14-A as shown, then secure it with two DM screws.

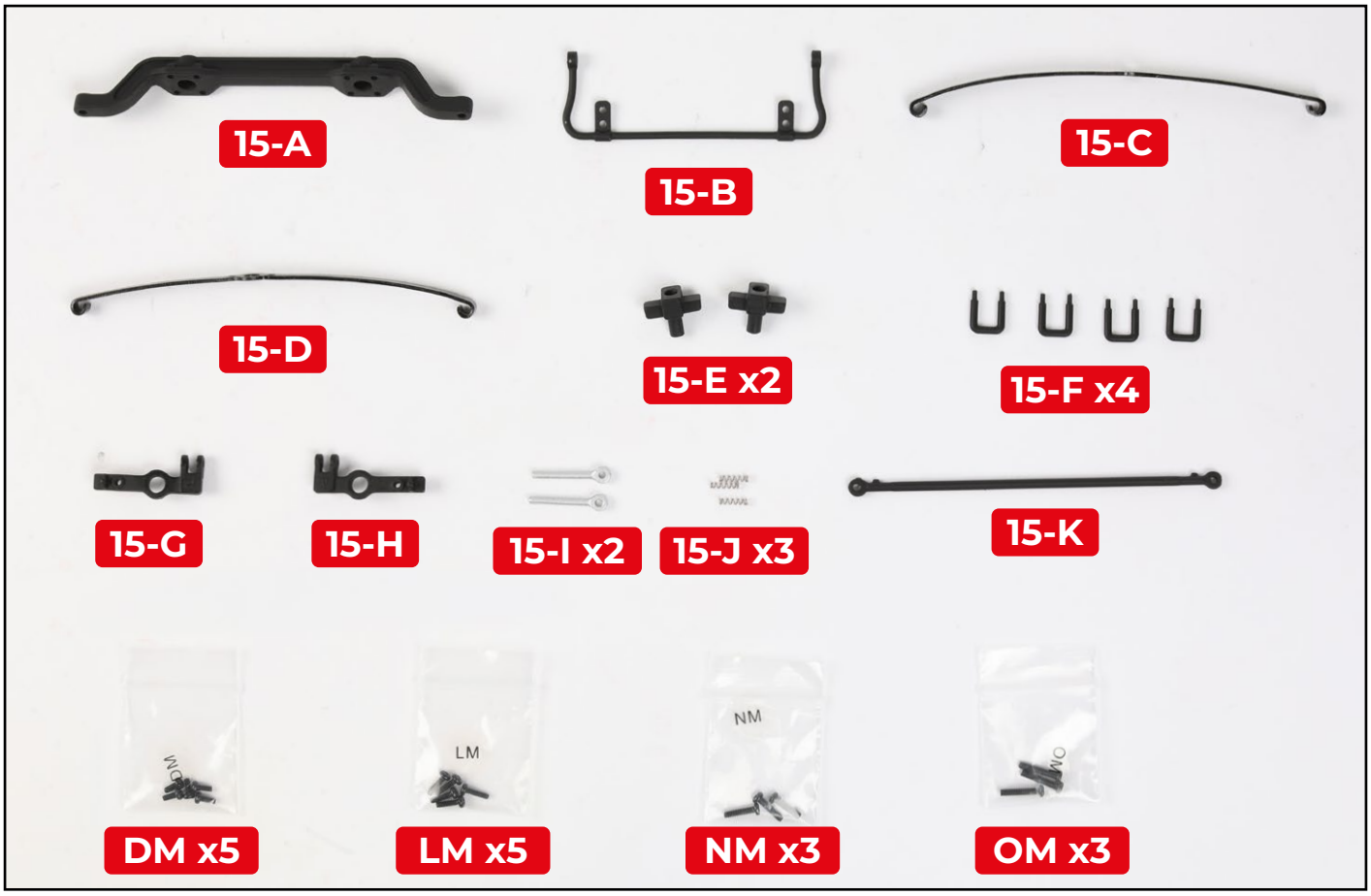
Stage 14: Attaching the cab tilt hinge parts, the chassis crossmembers and the air reservoirs

STAGE 14 COMPLETE



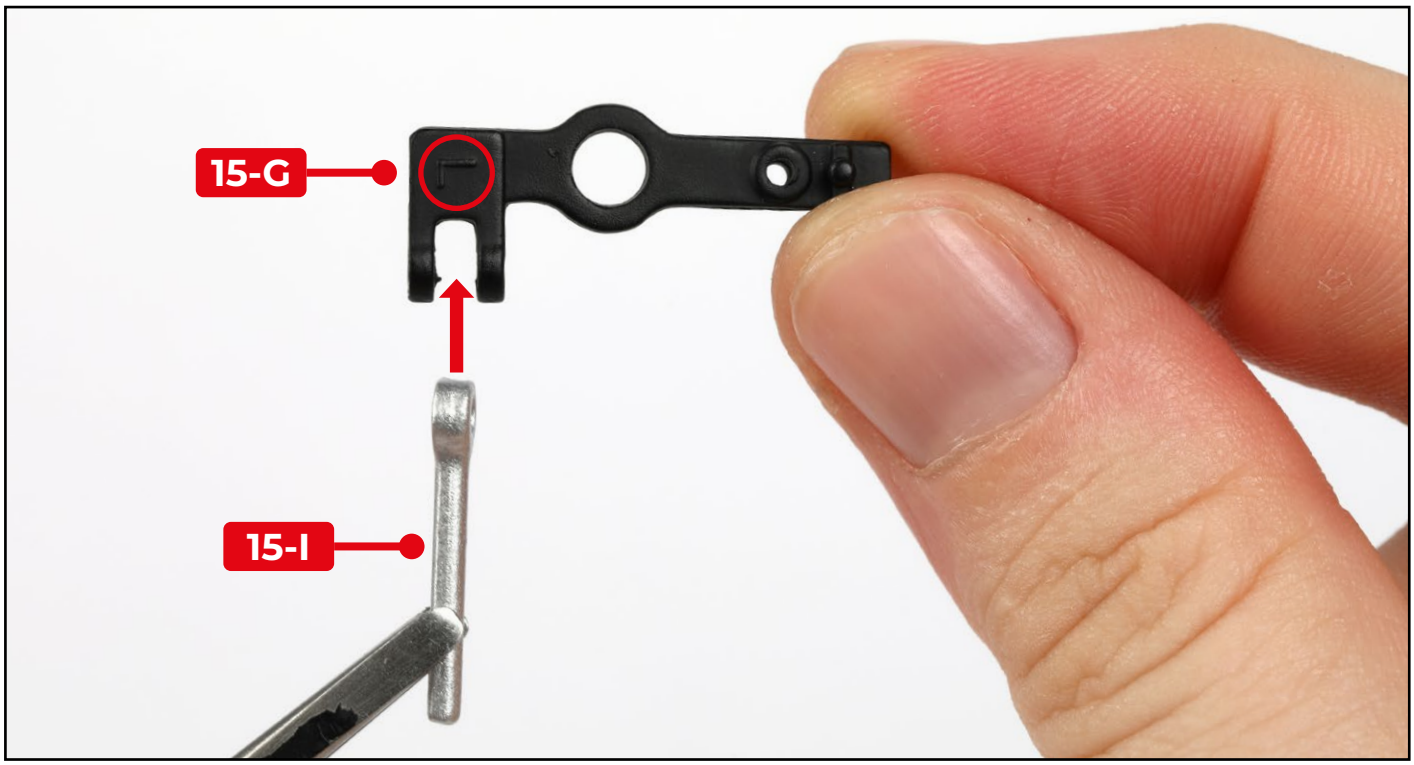
Stage 15: Attaching the front axle, the leaf springs and the anti-roll bar

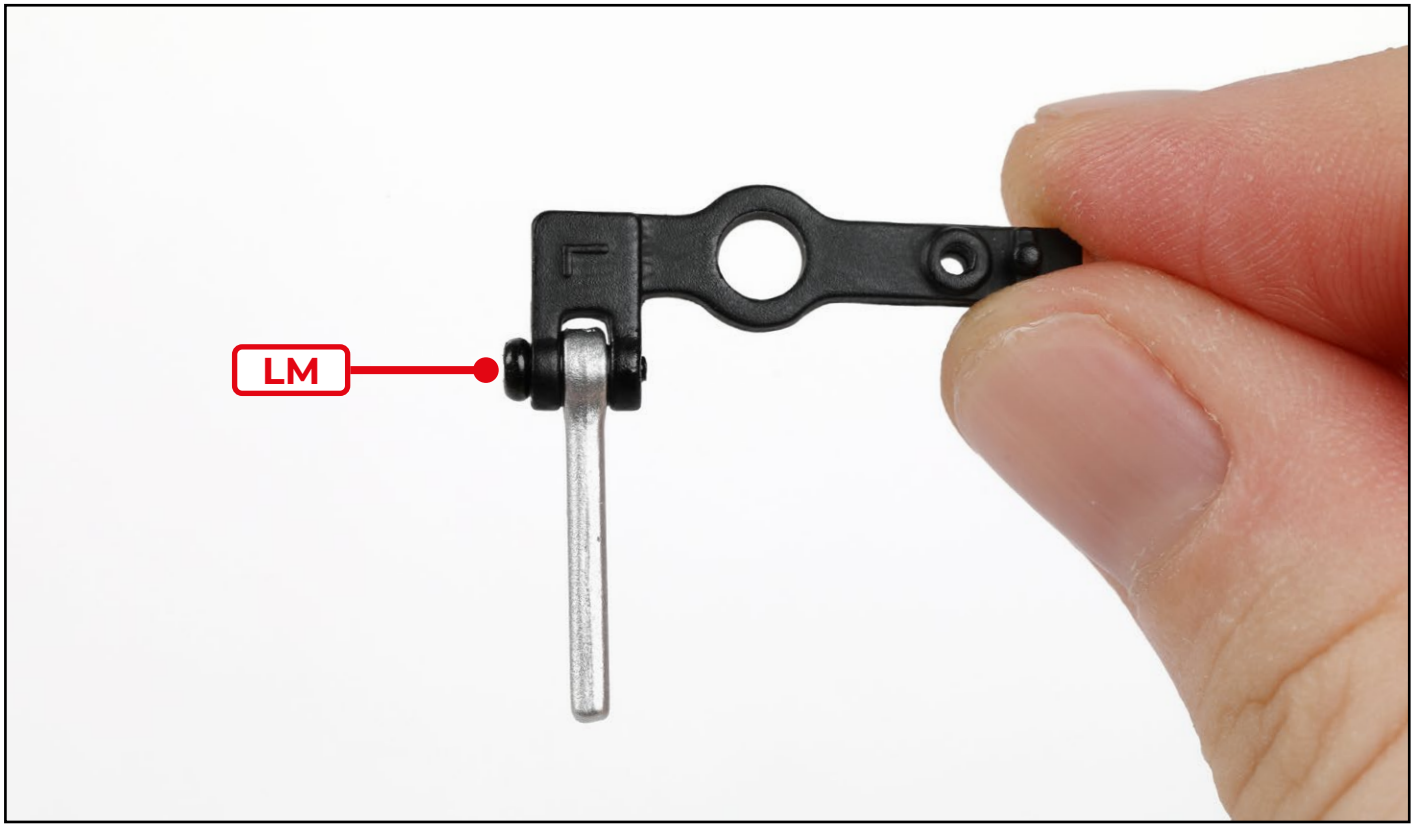
STAGE 15 PARTS



15-A: Tractor front axle
15-B: Front anti-roll bar
15-C: Left front suspension leaf spring
15-D: Right front suspension leaf spring
15-E: Leaf spring brackets
15-F: Leaf spring U-bolts
15-G: Left front lower shock absorber mount
15-H: Right front lower shock absorber mount
15-I: Front shock absorber rods
15-J: Front shock absorber springs
15-K: Steering linkage
DM: 5 screws
LM: 5 screws
NM: 3 screws
OM: 3 screws

Stage 15: Attaching the front axle, the leaf springs and the anti-roll bar

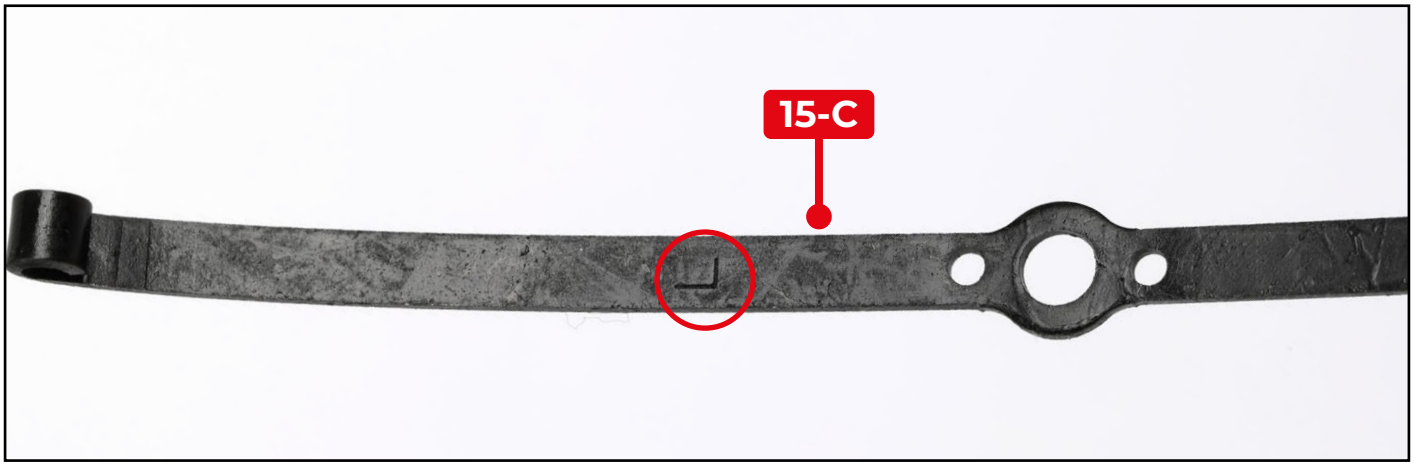


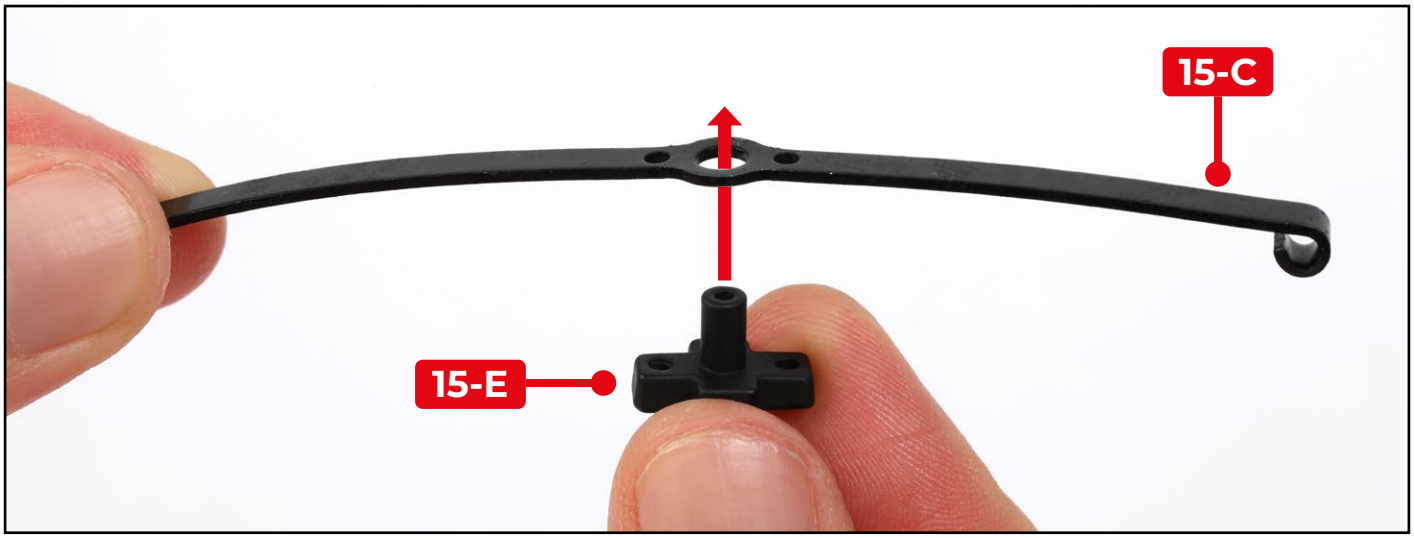


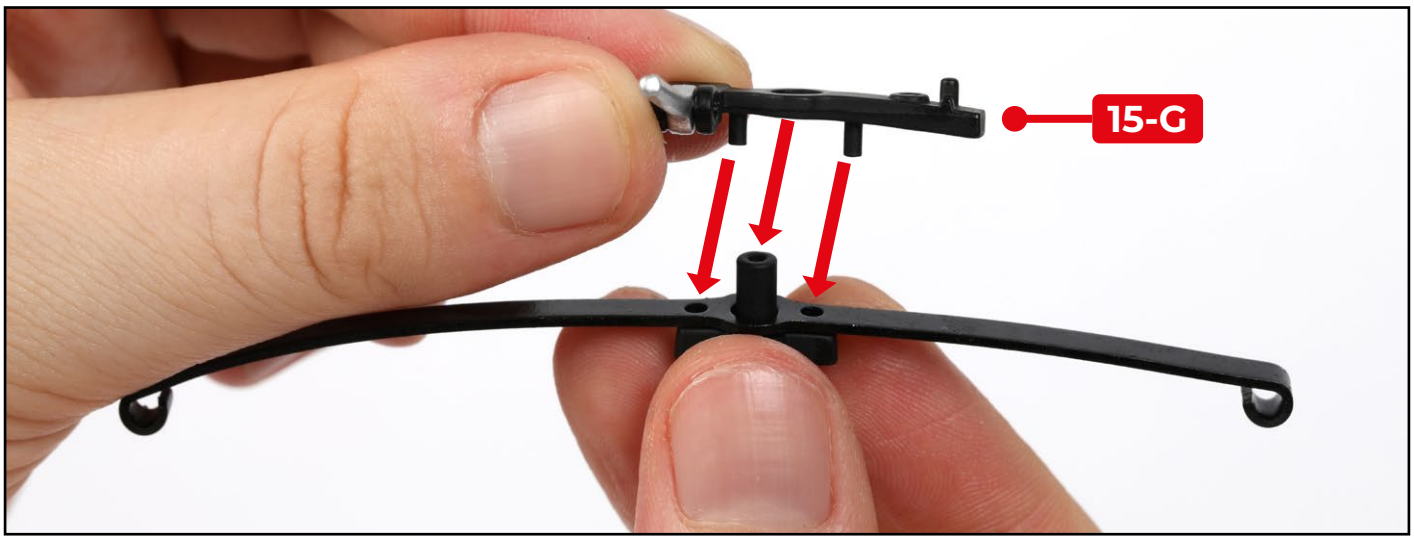
Step 1

Fit one front shock absorber rod 15-I to left front lower shock absorber mount 15-G as shown, then secure it with one LM screw.

Stage 15: Attaching the front axle, the leaf springs and the anti-roll bar



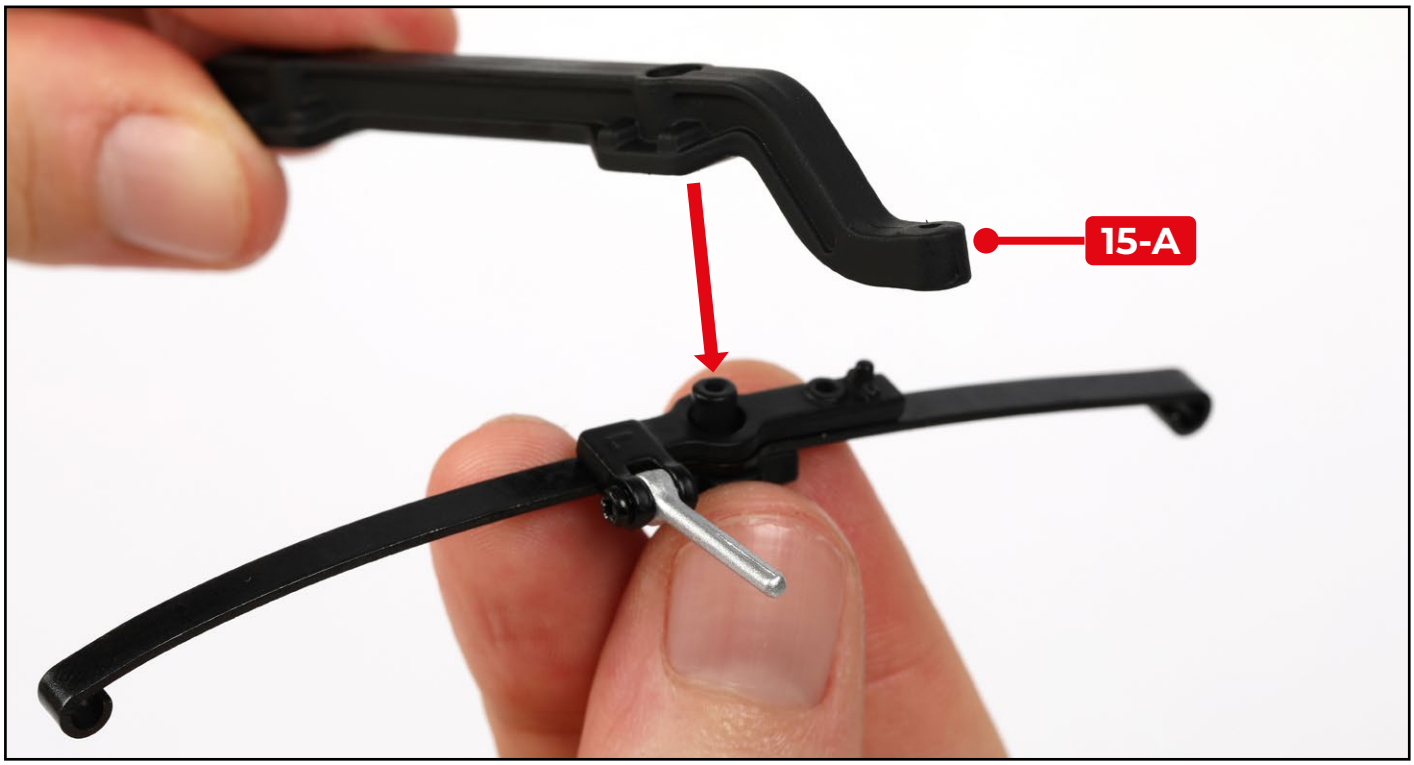


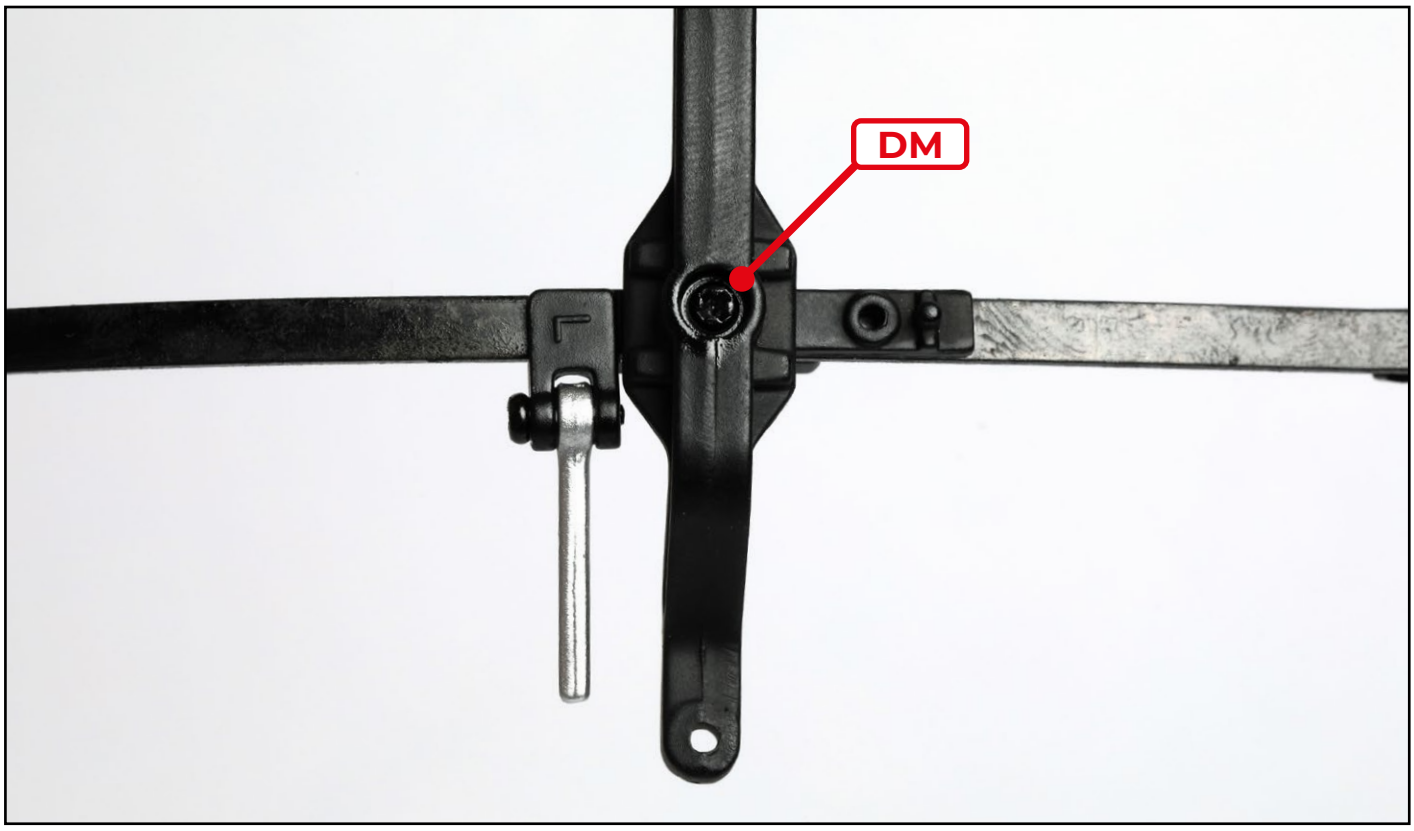


Step 2

Identify the left front suspension leaf spring 15-C. Position one leaf spring bracket 15-E beneath left front suspension leaf spring 15-C, aligning the pins with the corresponding holes. Position the assembled left front lower shock absorber mount 15-G and front shock absorber rod 15-I on top of the leaf spring.

Stage 15: Attaching the front axle, the leaf springs and the anti-roll bar

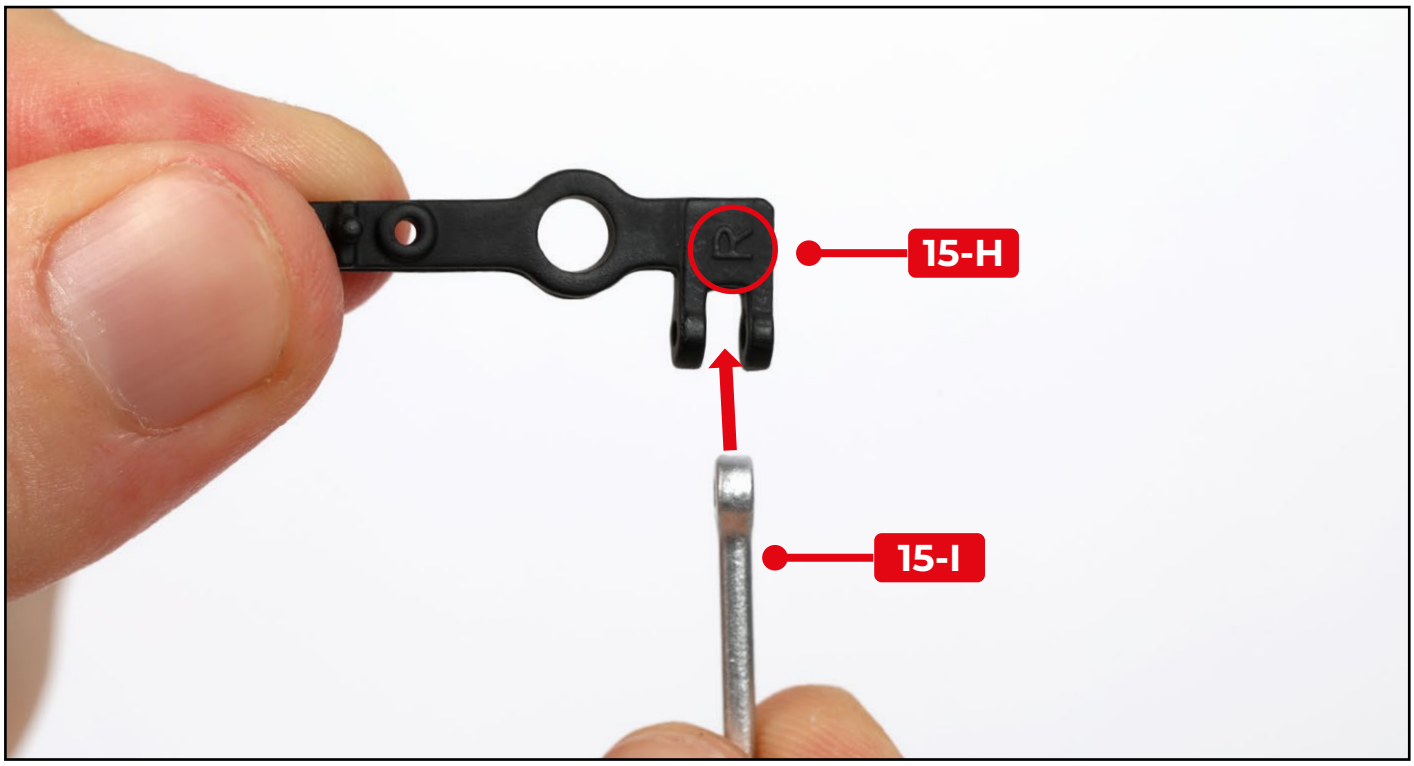


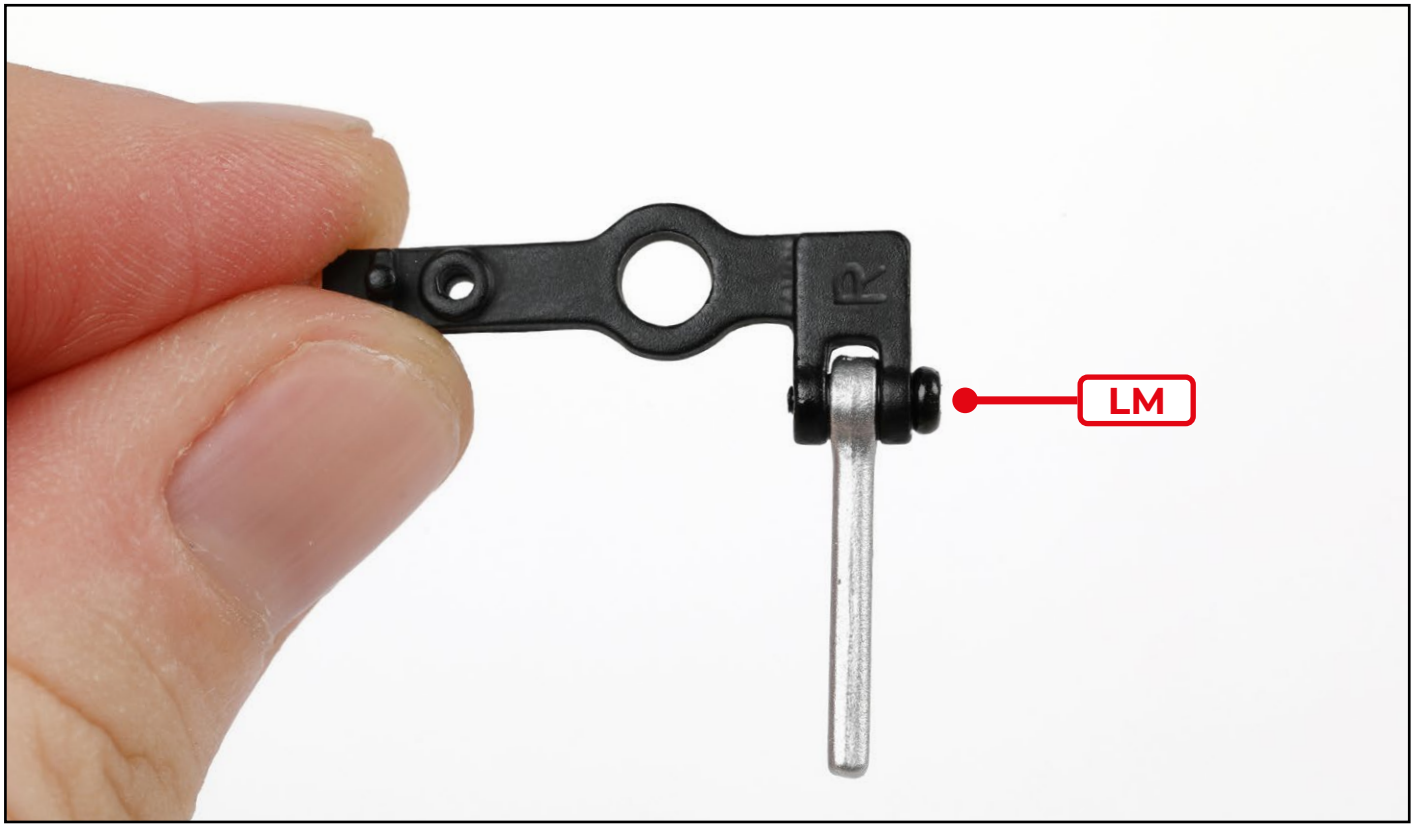


Step 3

Position tractor front axle 15-A over the assembly as shown, then secure the components together from above with one DM screw.

Stage 15: Attaching the front axle, the leaf springs and the anti-roll bar

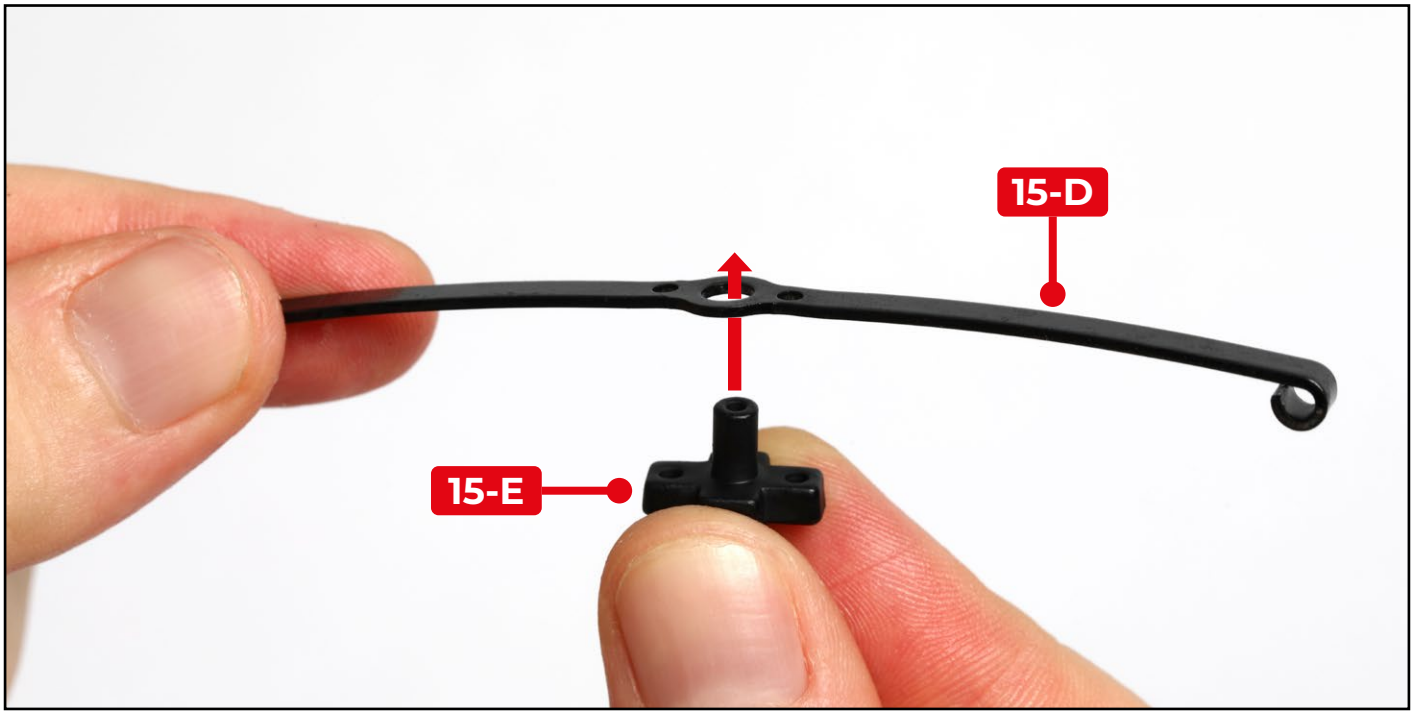


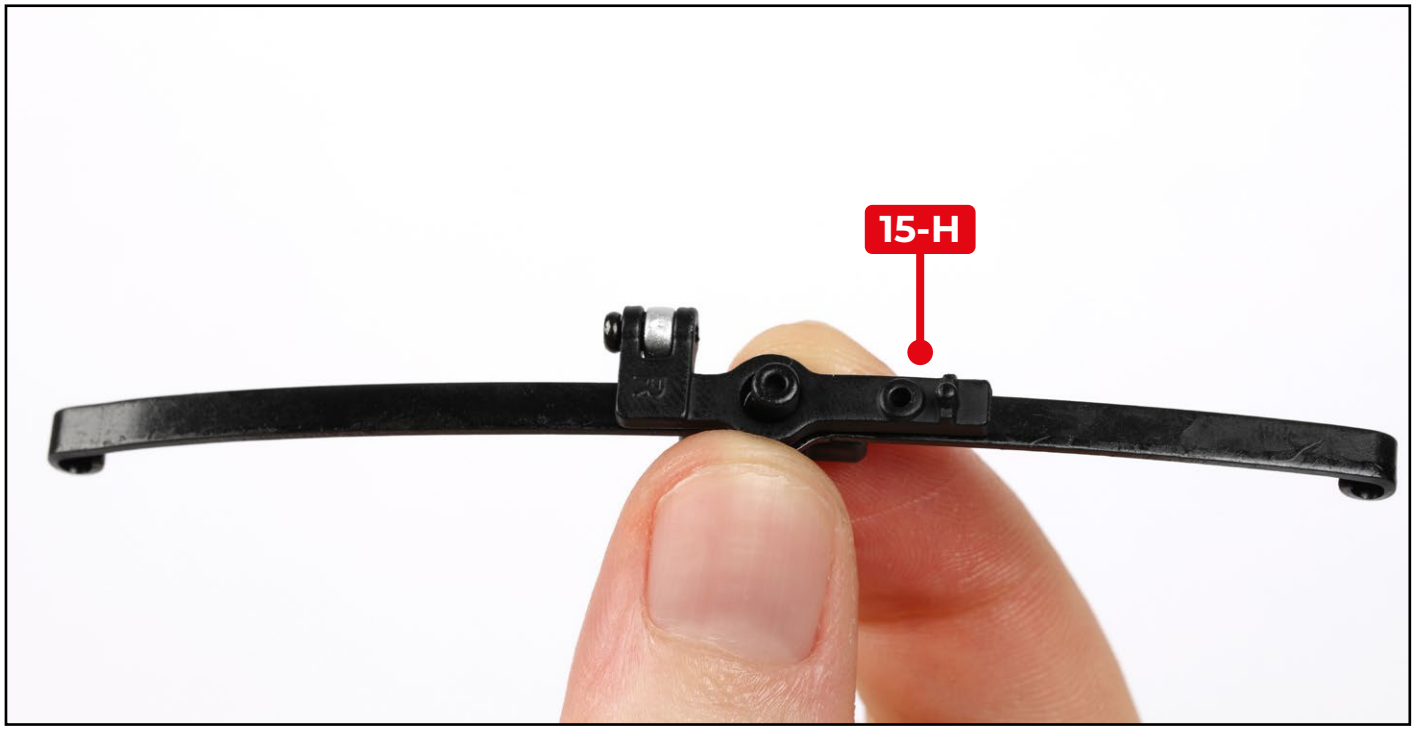


Step 4

Fit the second front shock absorber rod 15-I to right front lower shock absorber mount 15-H as shown, then secure it with one LM screw.

Stage 15: Attaching the front axle, the leaf springs and the anti-roll bar

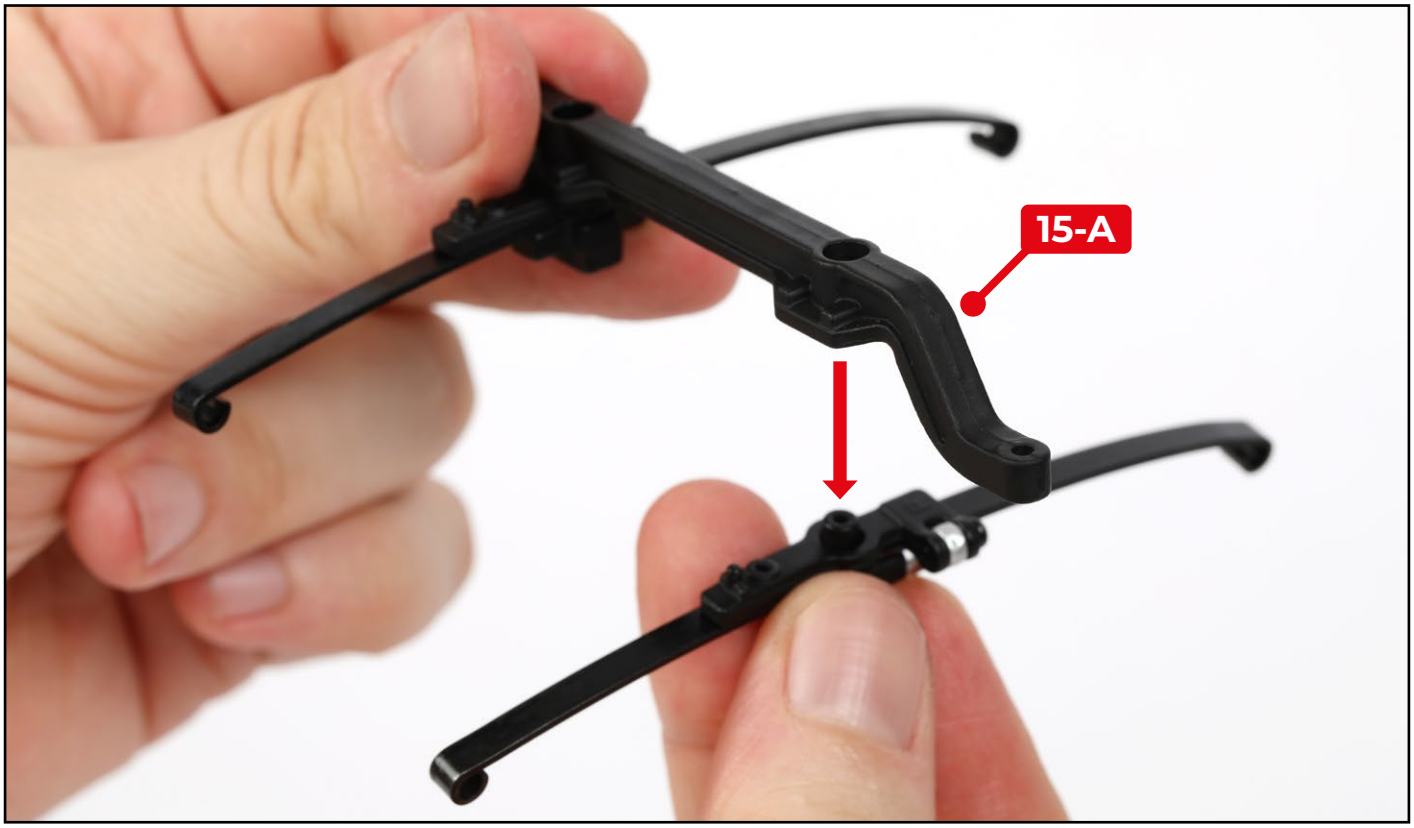


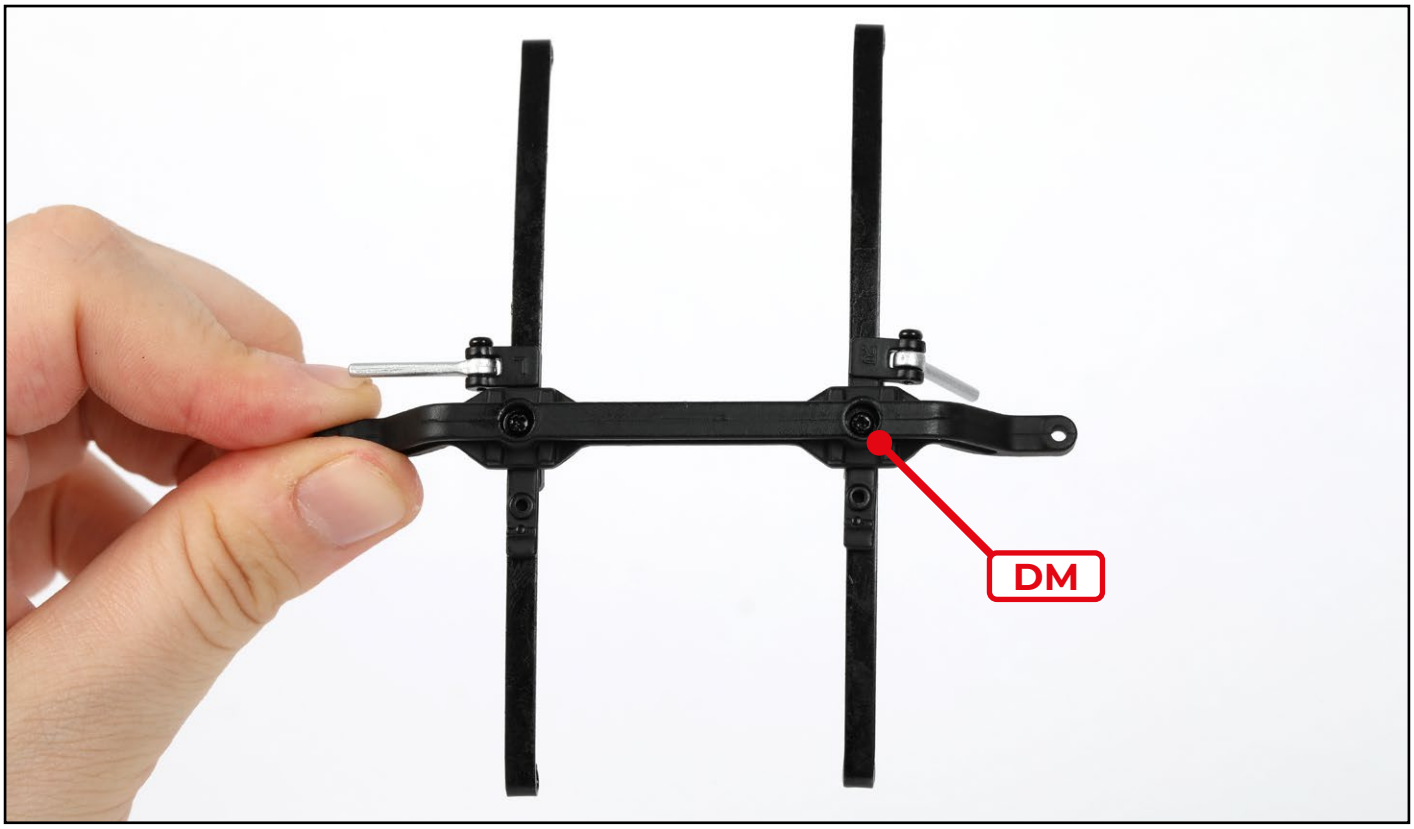


Step 5

Position the second leaf spring bracket 15-E beneath right front suspension leaf spring 15-D, aligning the pins with the corresponding holes. Position the assembled right front lower shock absorber mount 15-H and front shock absorber rod 15-I on top of the leaf spring.

Stage 15: Attaching the front axle, the leaf springs and the anti-roll bar

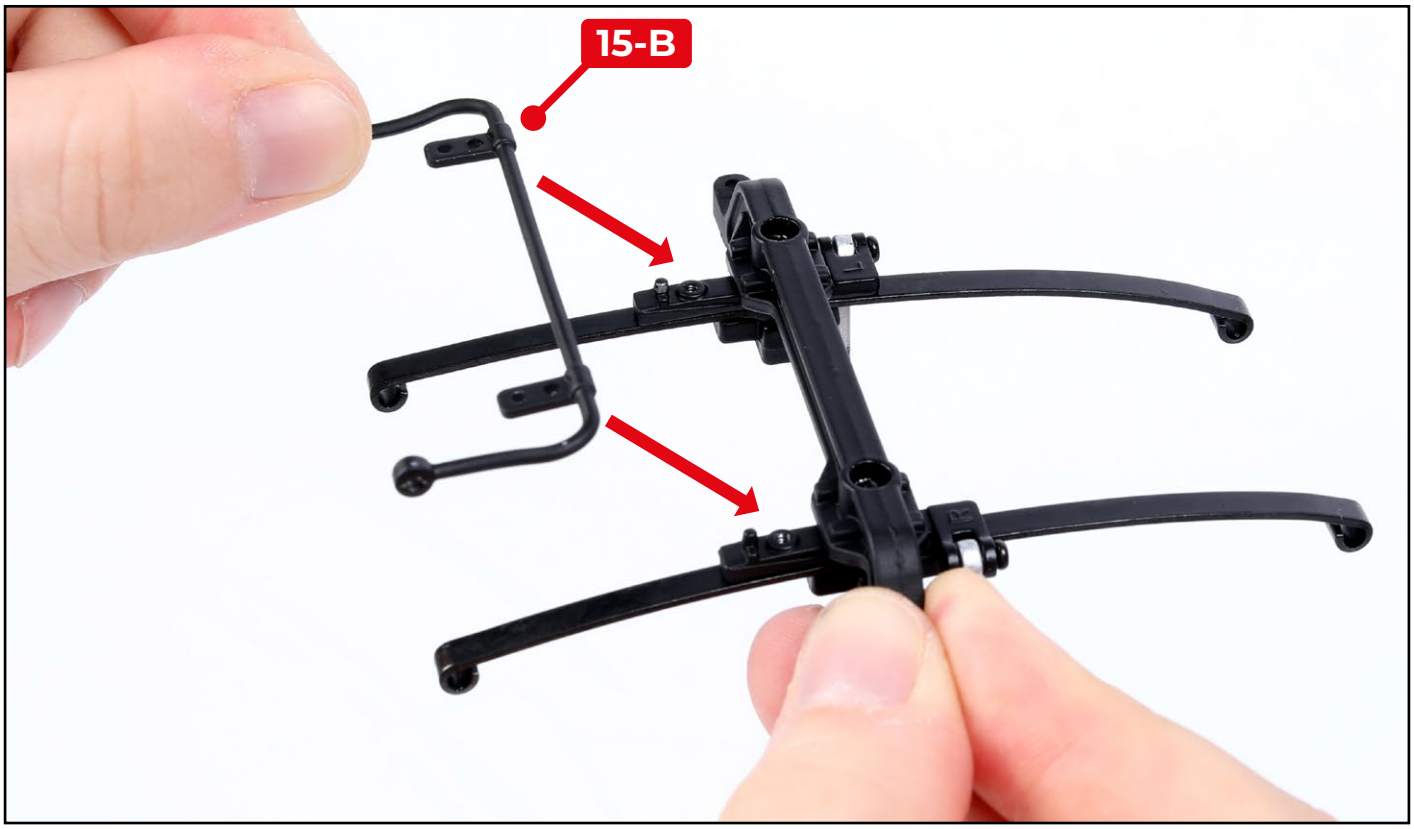


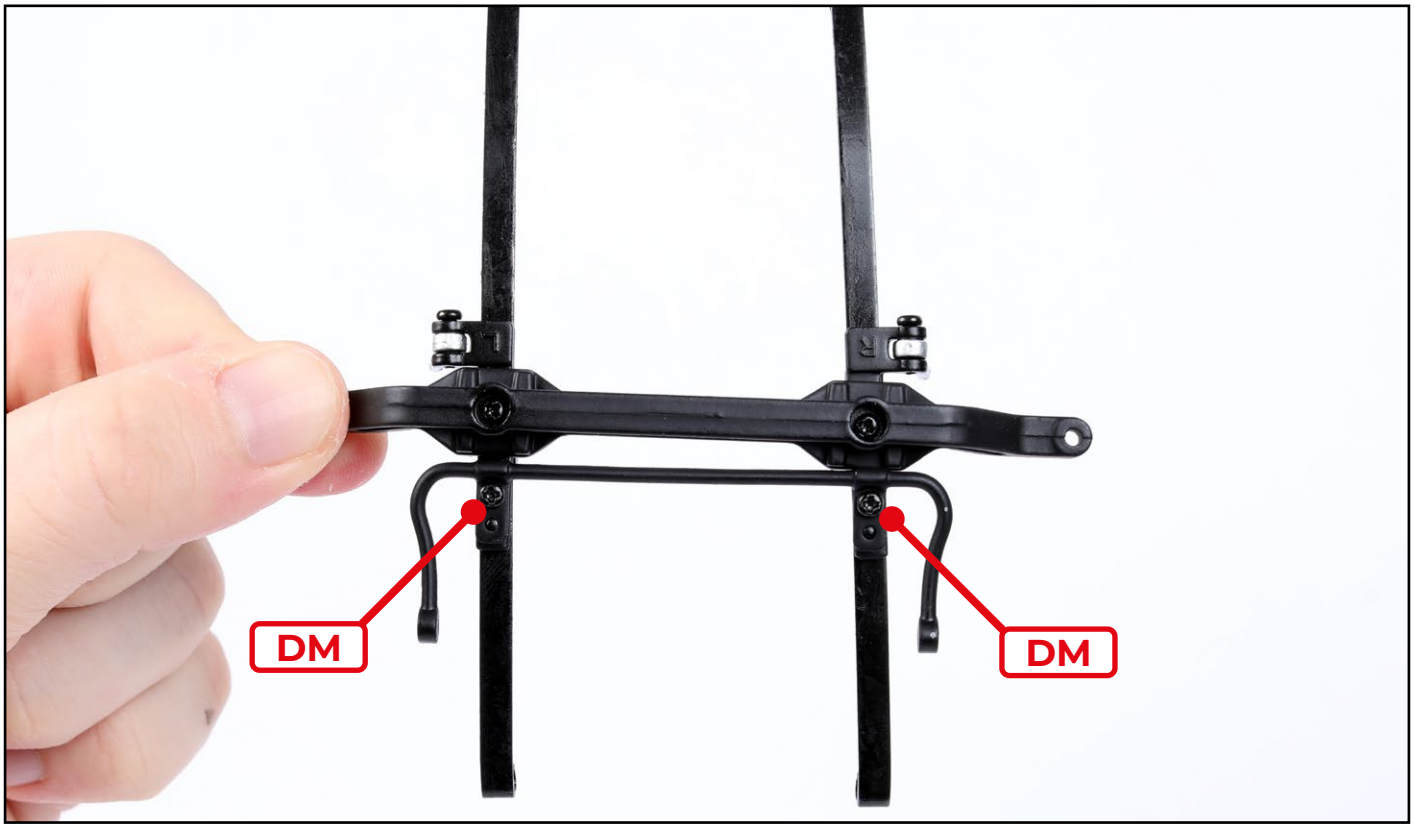


Step 6

Position tractor front axle 15-A over the right-hand assembly, then secure the components together with one DM screw.

Stage 15: Attaching the front axle, the leaf springs and the anti-roll bar

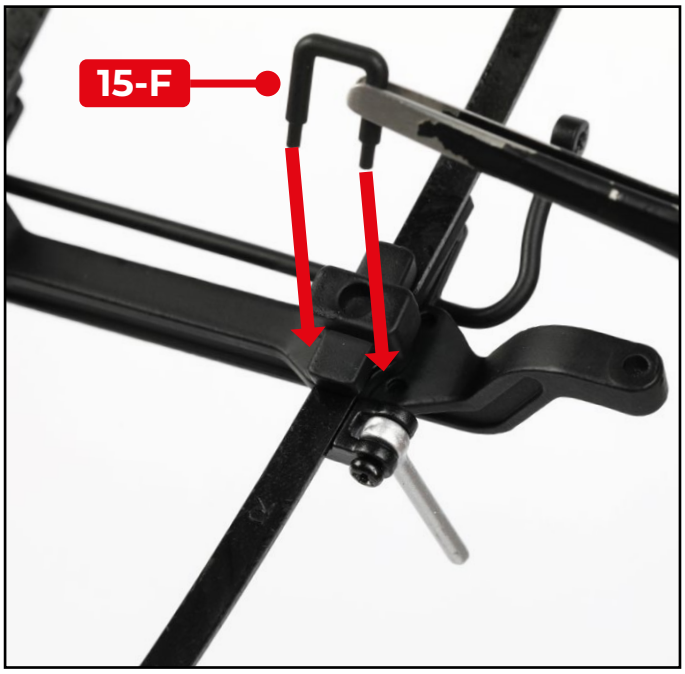




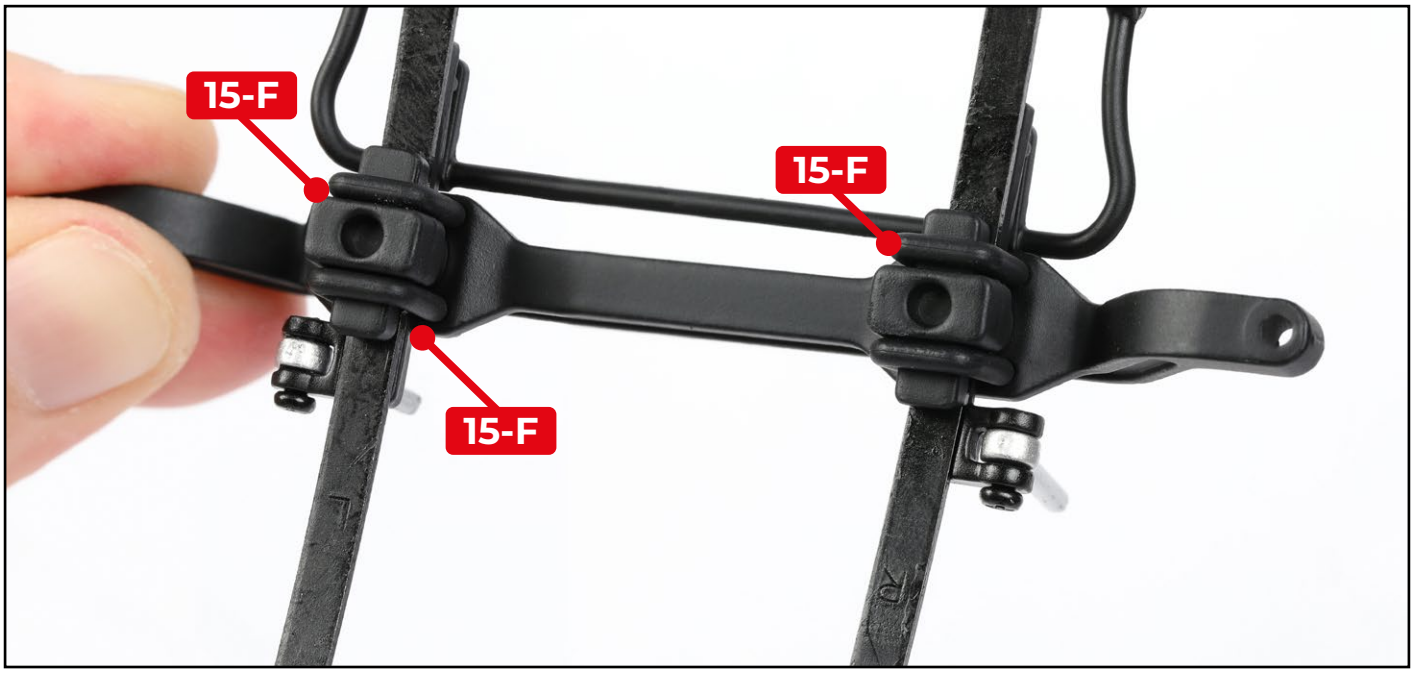
Step 7

Position front anti-roll bar 15-B as shown, then secure it with two DM screws.

Stage 15: Attaching the front axle, the leaf springs and the anti-roll bar



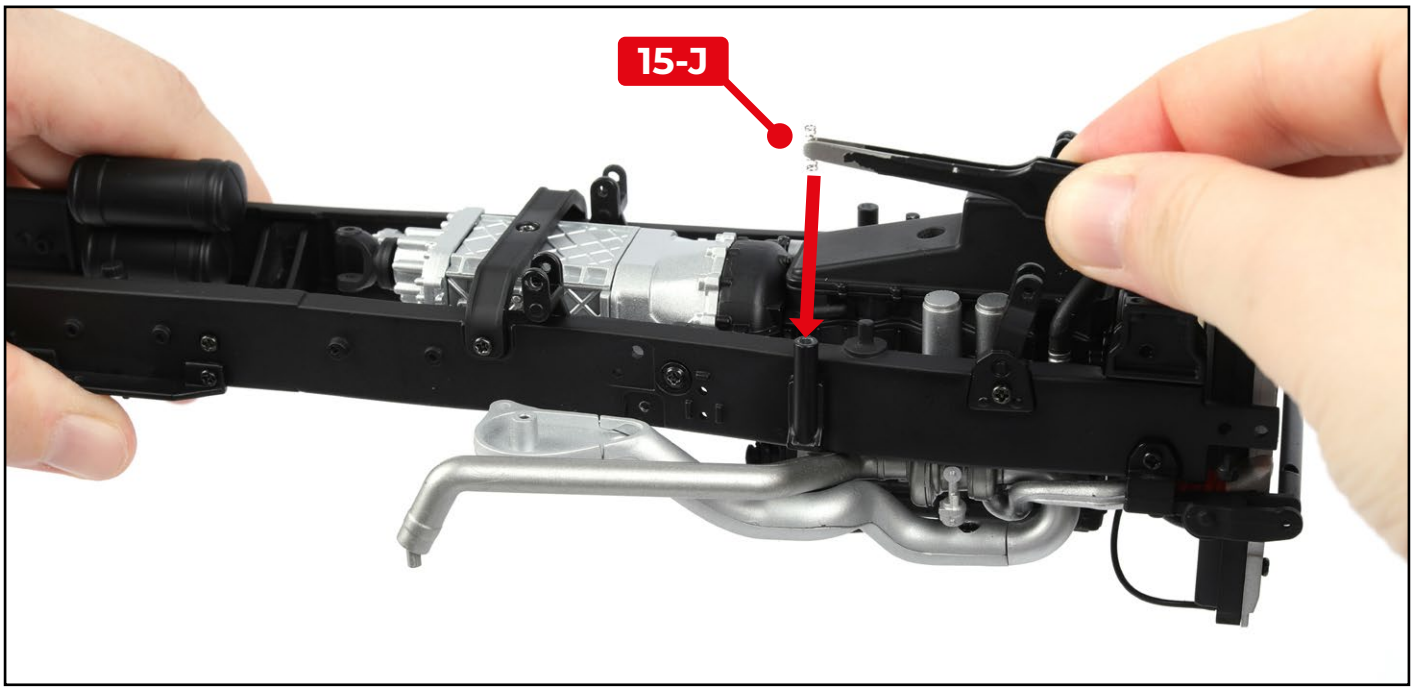


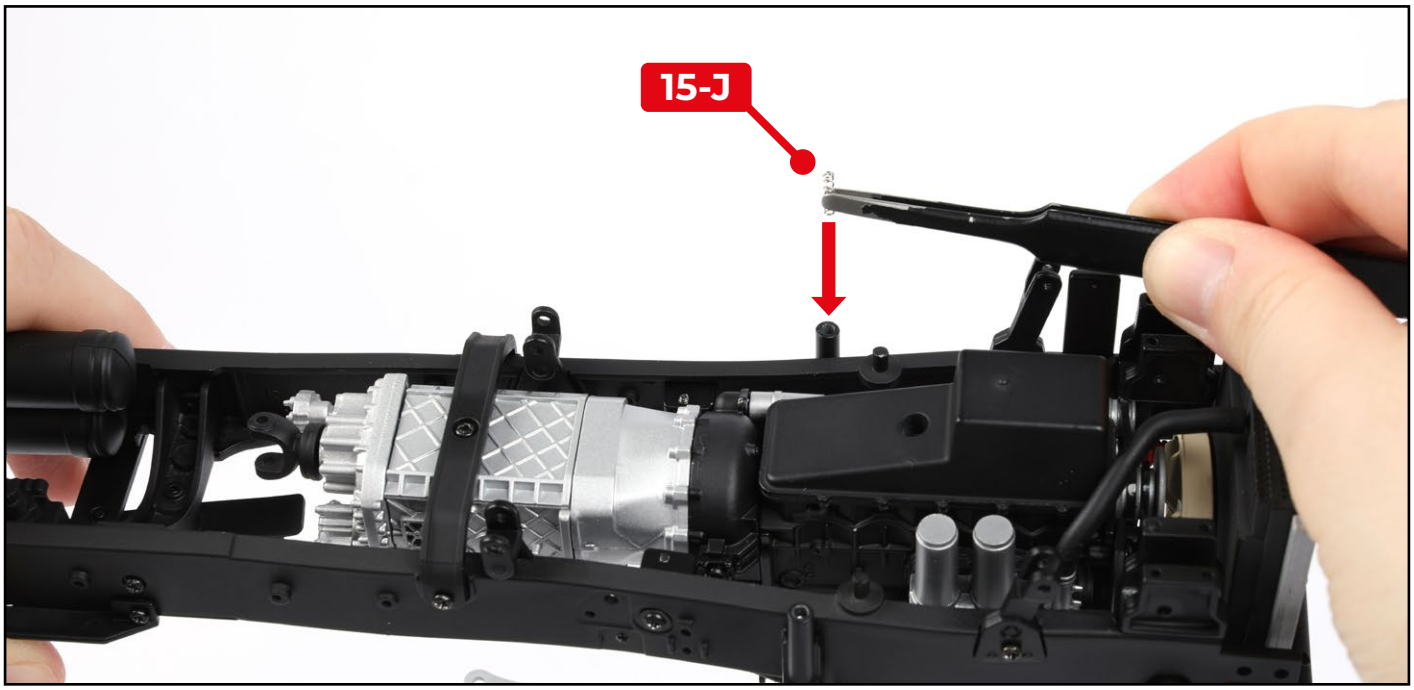


Step 8

Press all four leaf spring U-bolts 15-F into place from below to secure the leaf springs to tractor front axle 15-A.

Stage 15: Attaching the front axle, the leaf springs and the anti-roll bar

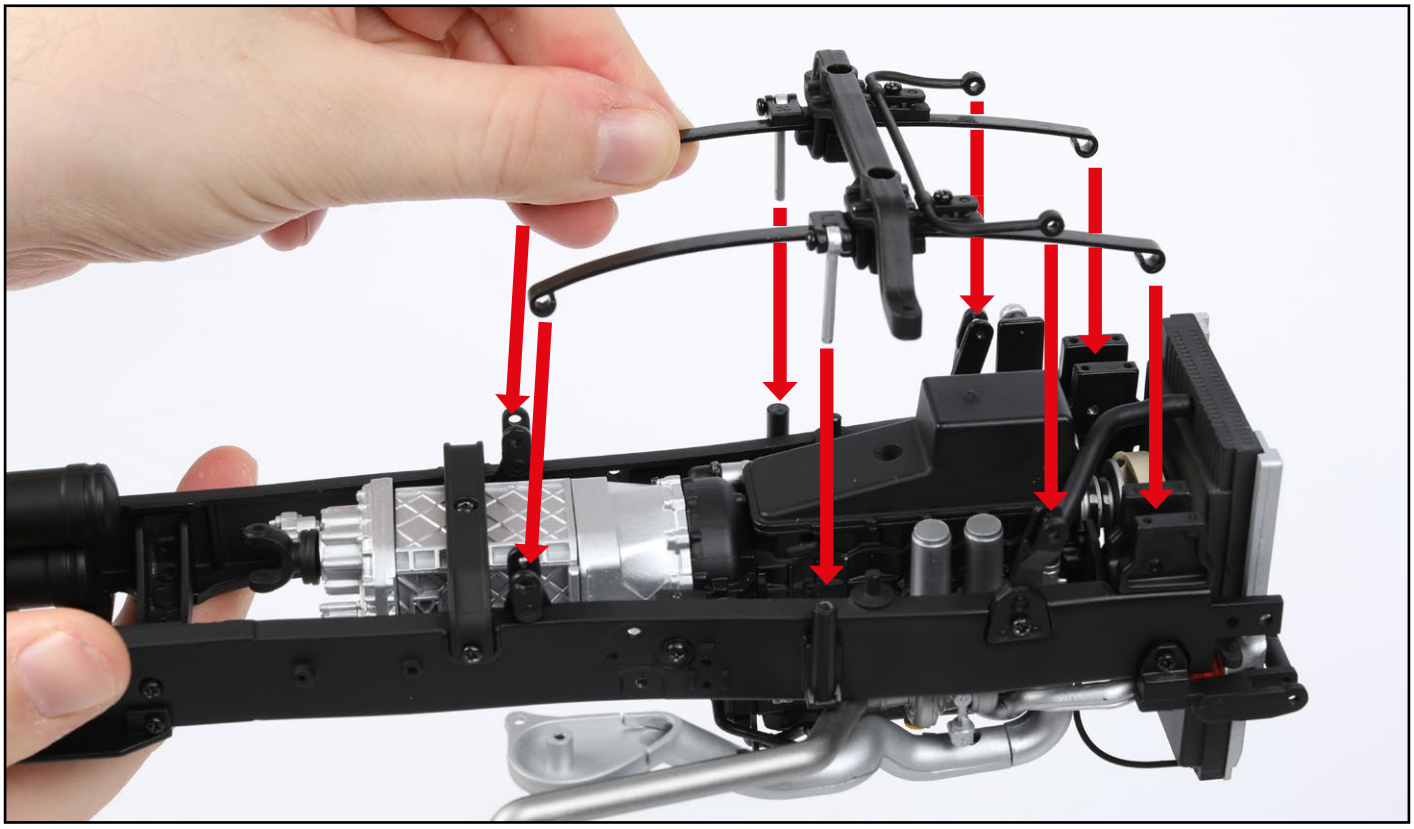


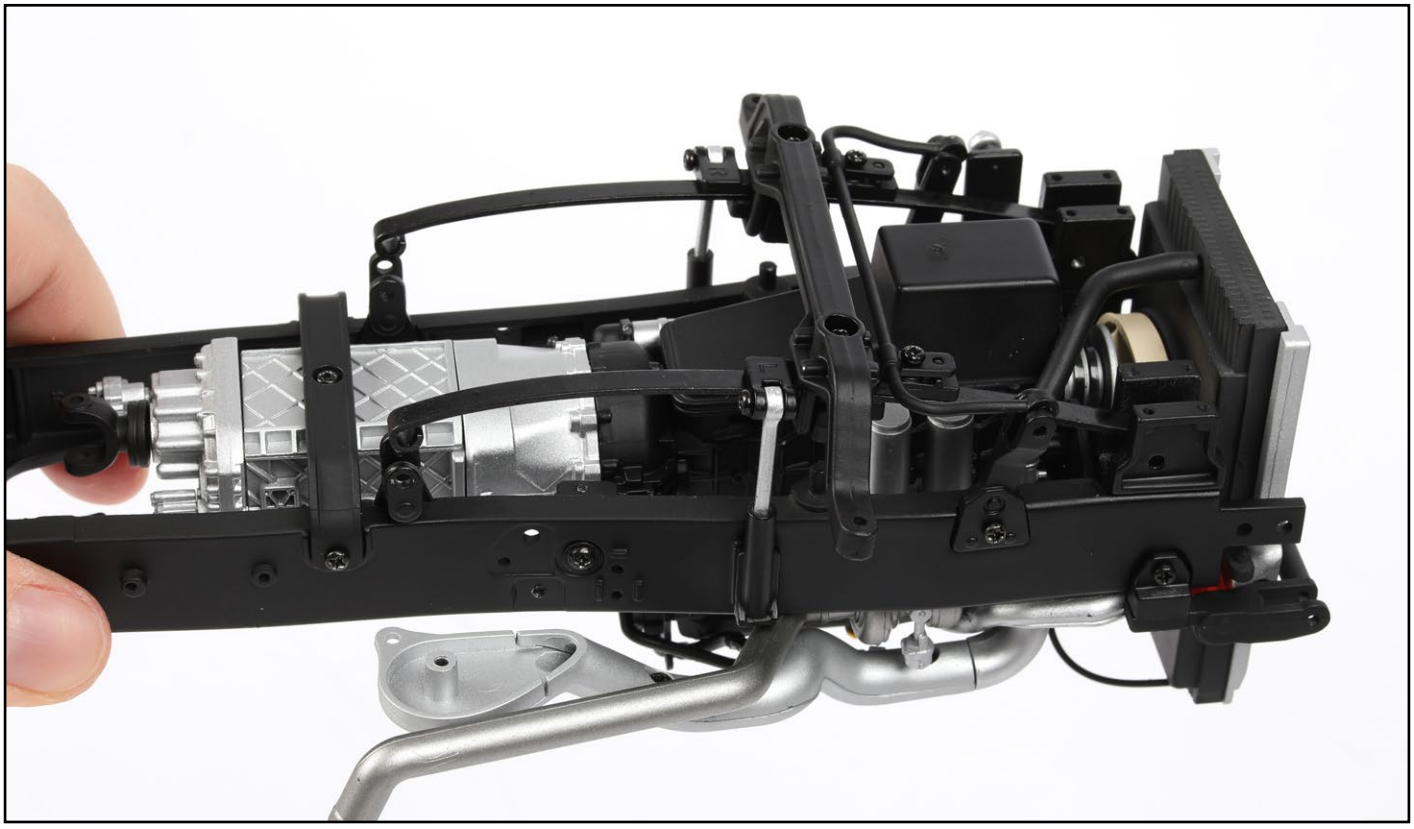


Step 9

Retrieve the chassis and engine assembly. Place the two front shock absorber springs 15-J in their mounting points as shown.

Stage 15: Attaching the front axle, the leaf springs and the anti-roll bar

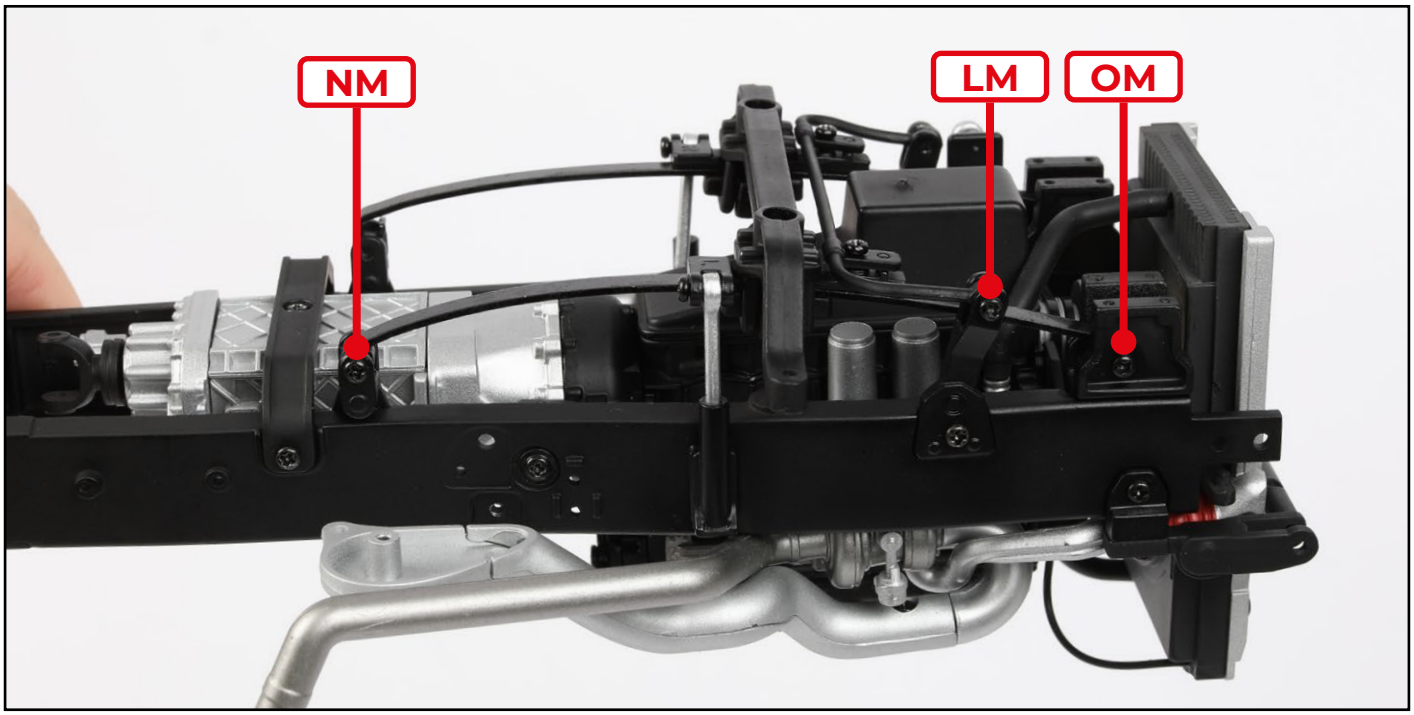


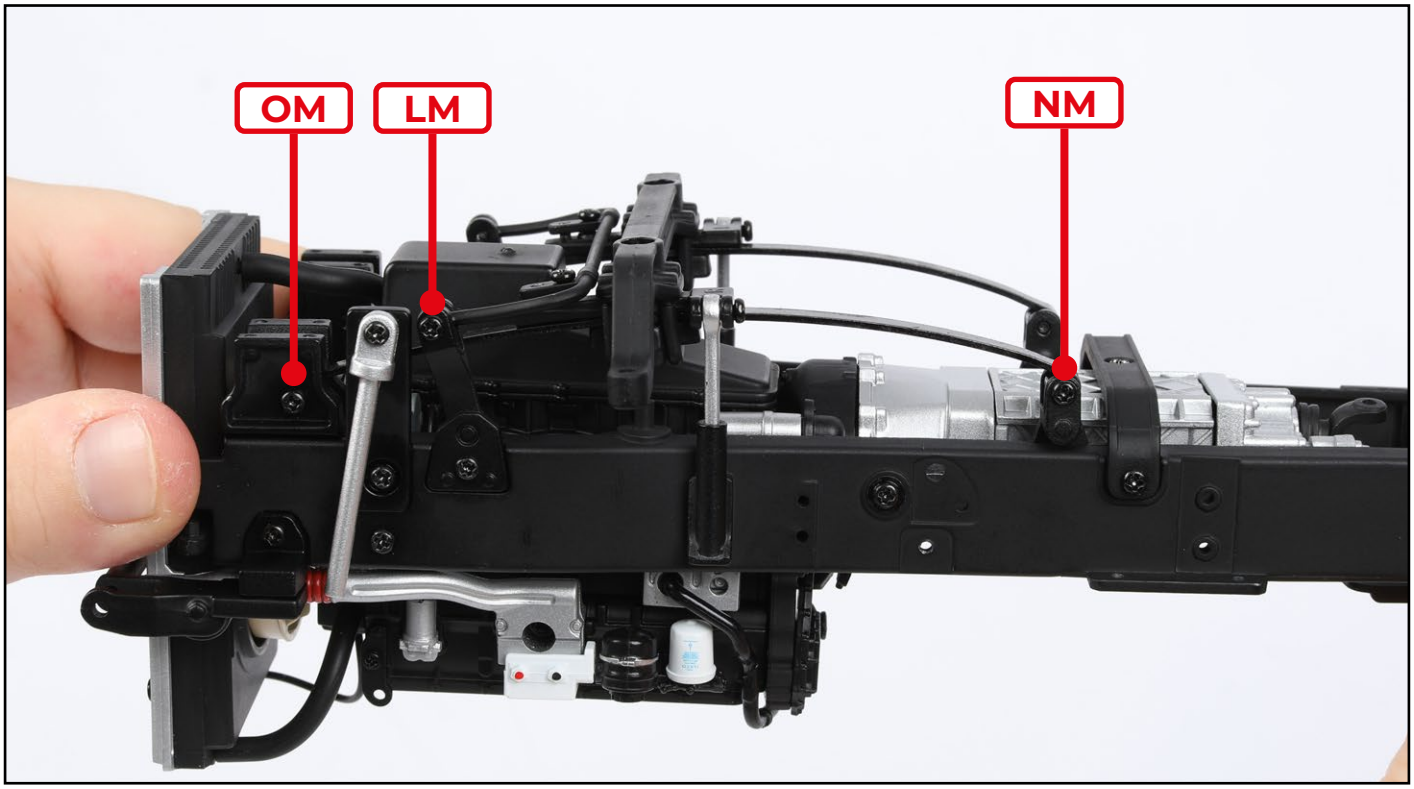


Step 10

Position the assembled front axle, anti-roll bar and leaf springs on the chassis as shown. Ensure that front shock absorber rods 15-I enter the spring mounting points.

Stage 15: Attaching the front axle, the leaf springs and the anti-roll bar





Step 11

Secure the front ends of both leaf springs to the leaf spring hangers near the cooling fan with two OM screws, one on each side. Secure the rear ends beside the gearbox with two NM screws, one on each side. Secure front anti-roll bar 15-B to front suspension anti-roll bar links 13-D and 13-E with two LM screws.

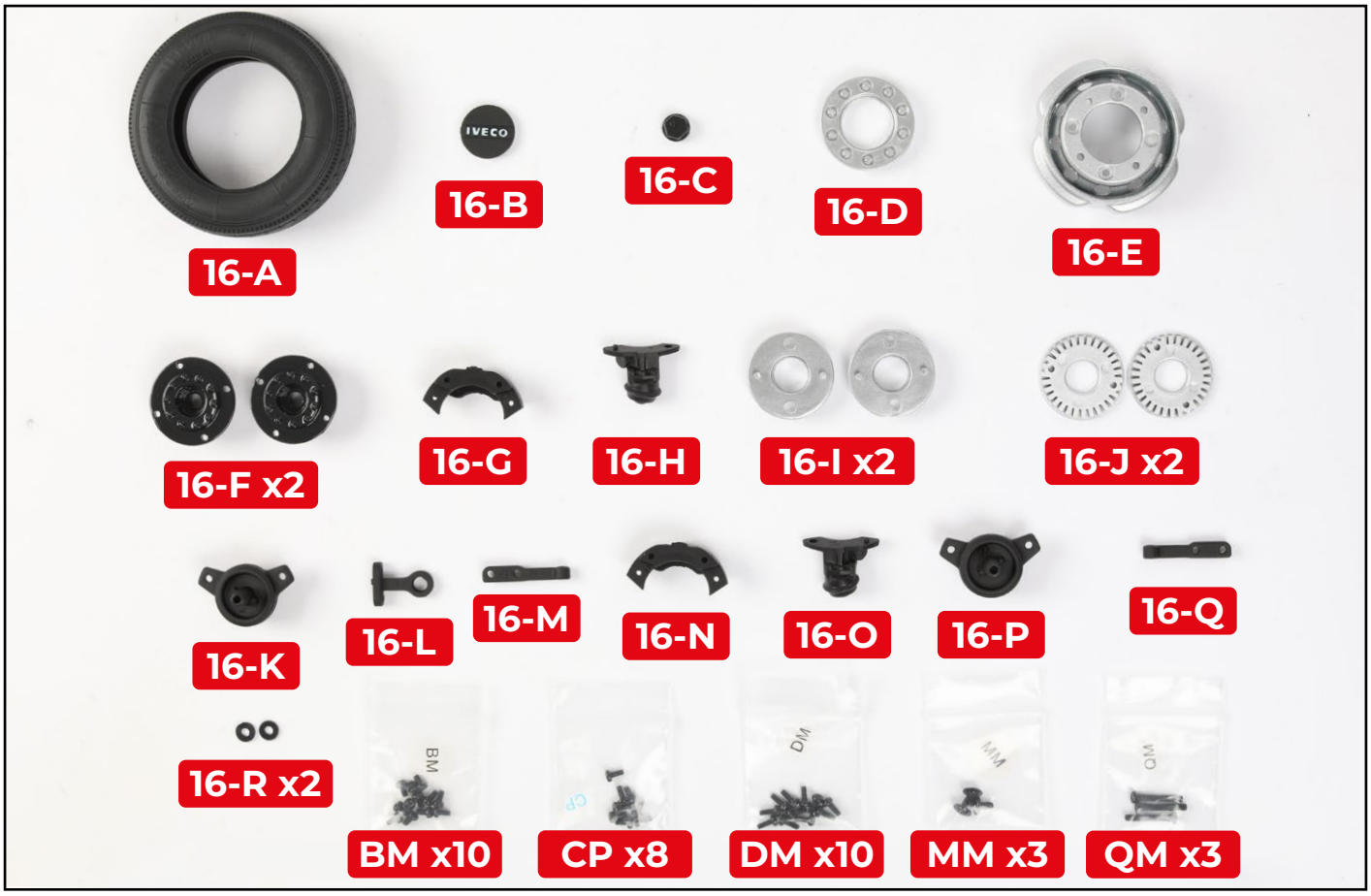
Stage 15: Attaching the front axle, the leaf springs and the anti-roll bar

STAGE 15 COMPLETE



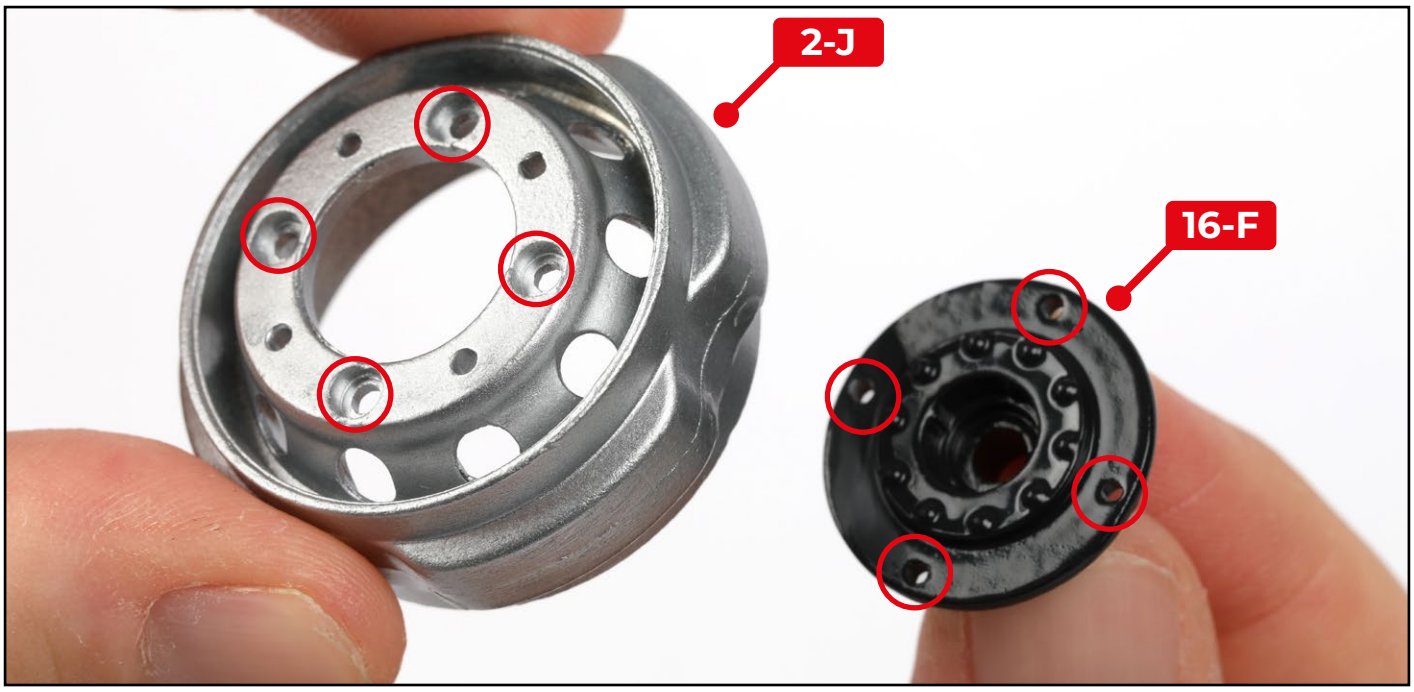
Stage 16: Attaching the front wheels and the steering linkage

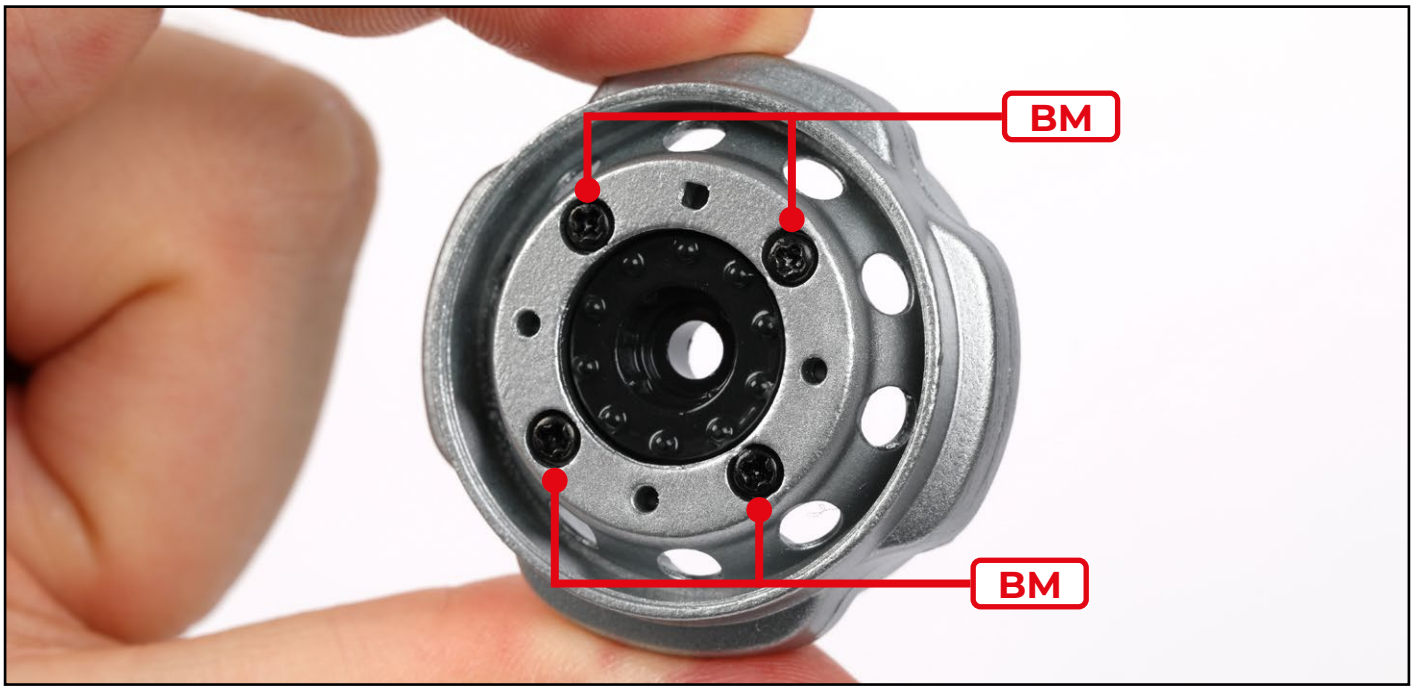
STAGE 16 PARTS



16-A: Tyre
16-B: IVECO hubcap
16-C: Wheel nut
16-D: Wheel cover
16-E: Wheel rim
16-F: Wheel hubs
16-G: Left front brake caliper
16-H: Left front air brake actuator
16-I: Brake disc 1
16-J: Brake disc 2
16-K: Left steering knuckle
16-L: Steering arm
16-M: Left steering knuckle arm
16-N: Right front brake caliper
16-O: Right front air brake actuator
16-P: Right steering knuckle
16-Q: Right steering knuckle arm
16-R: Washers
BM: 10 screws
CP: 8 screws
DM: 10 screws
MM: 3 screws
QM: 3 screws

Stage 16: Attaching the front wheels and the steering linkage

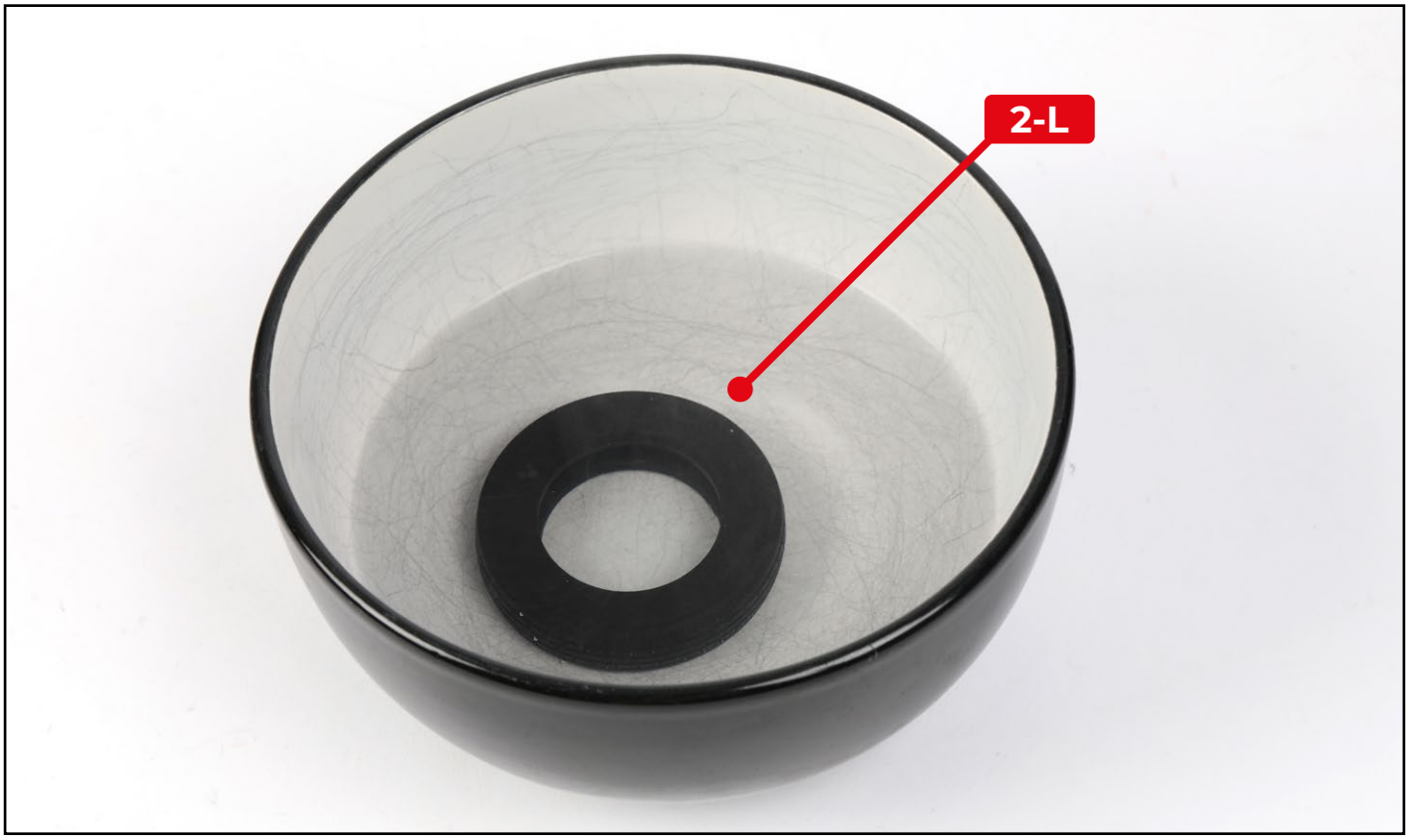




Step 1

Retrieve the wheel parts from Stage 2. Position wheel rim 2-J on one wheel hub 16-F as shown, then secure it with four BM screws.

Stage 16: Attaching the front wheels and the steering linkage



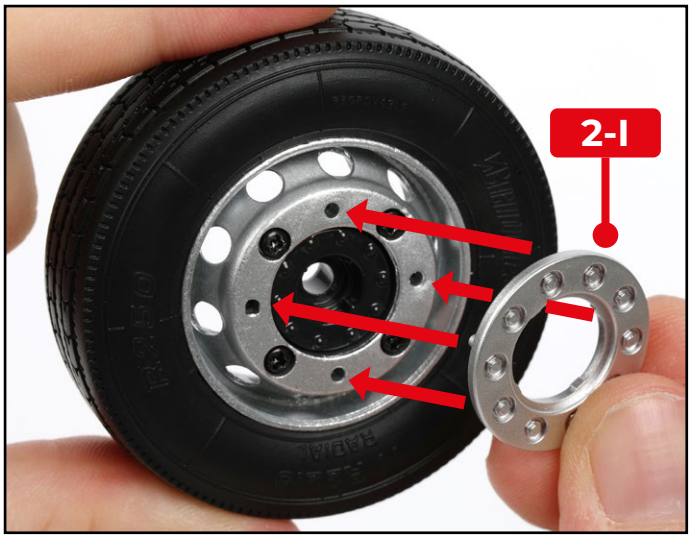




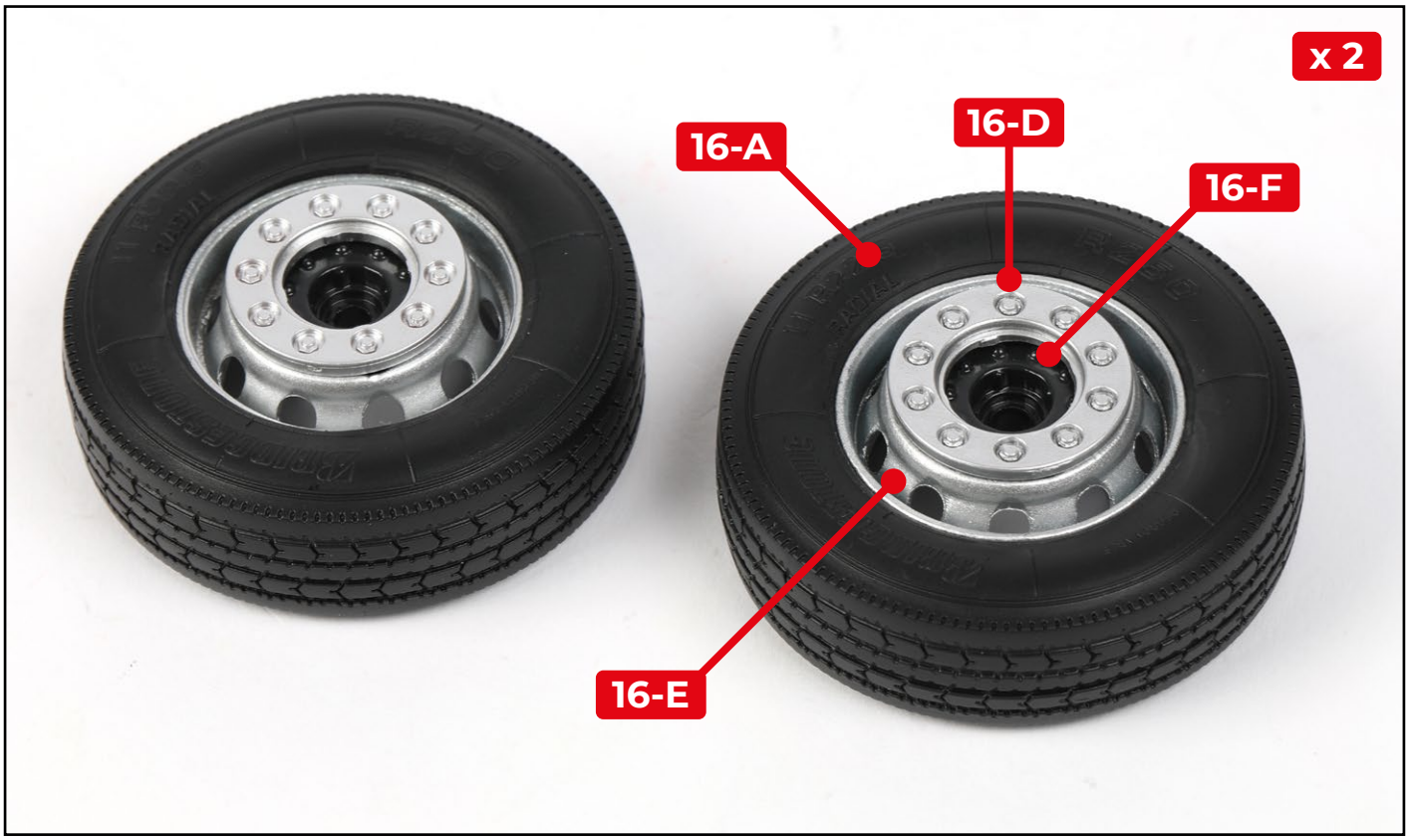
Step 2

Soften tyre 2-L by working it by hand for a few minutes or immersing it in warm water. Insert the assembled wheel rim into the tyre.

Stage 16: Attaching the front wheels and the steering linkage



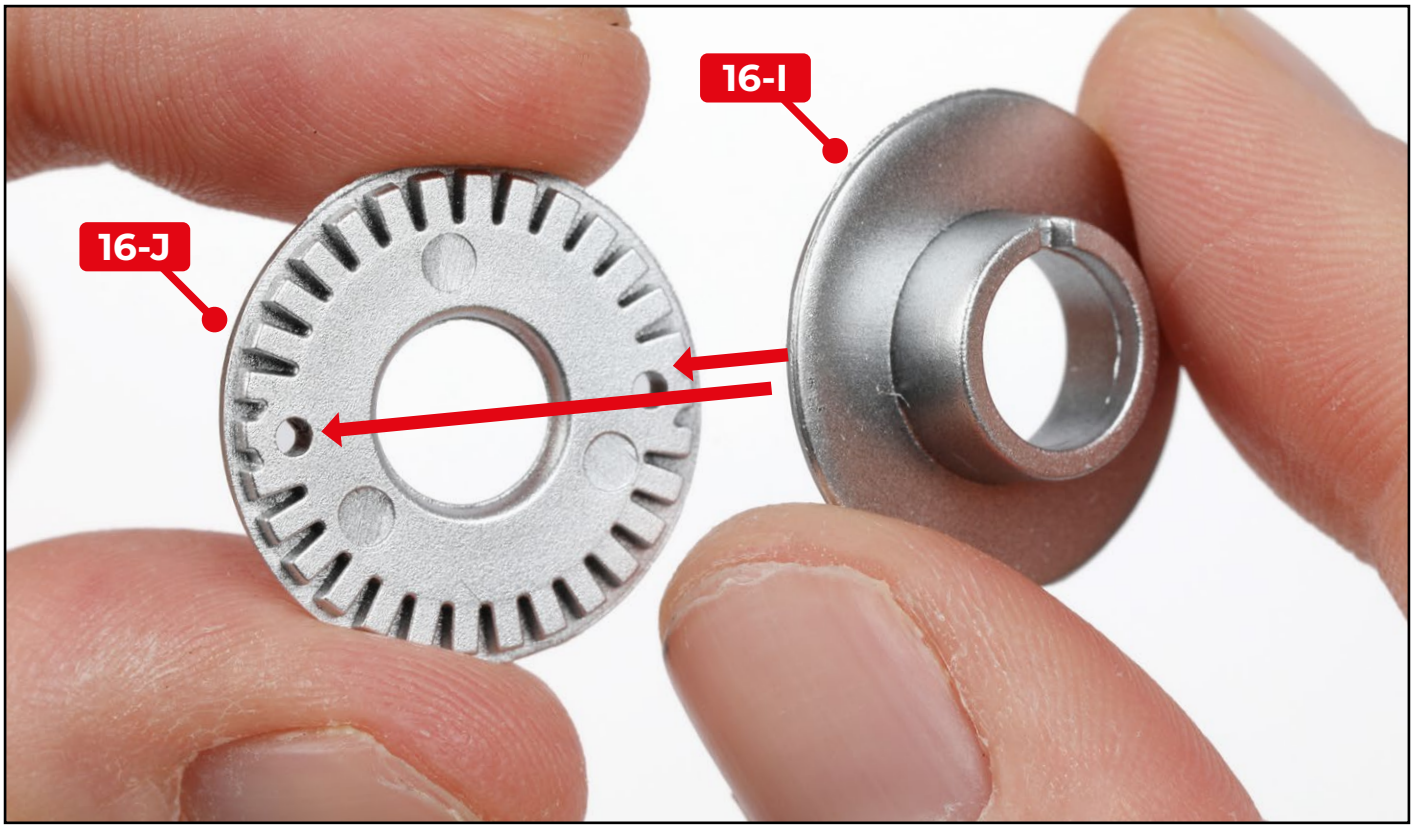




Step 3

Press wheel cover 2-I onto the wheel rim. Repeat the same operations with tyre 16-A, wheel cover 16-D, wheel rim 16-E and the second wheel hub 16-F to build the second wheel.

Stage 16: Attaching the front wheels and the steering linkage



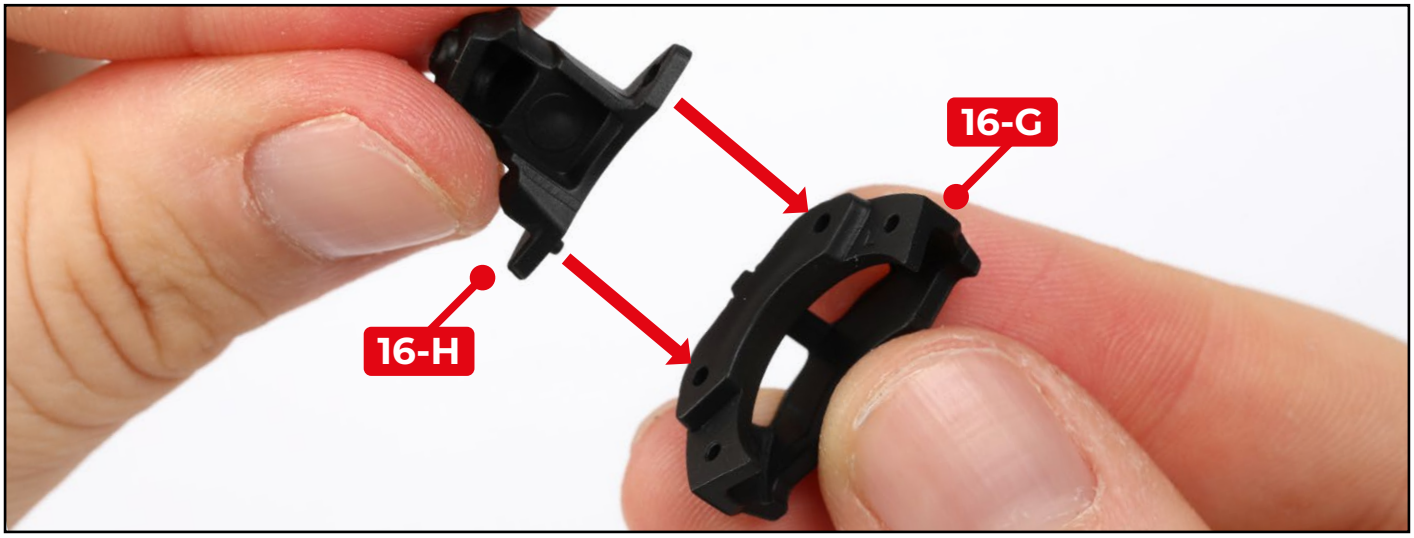


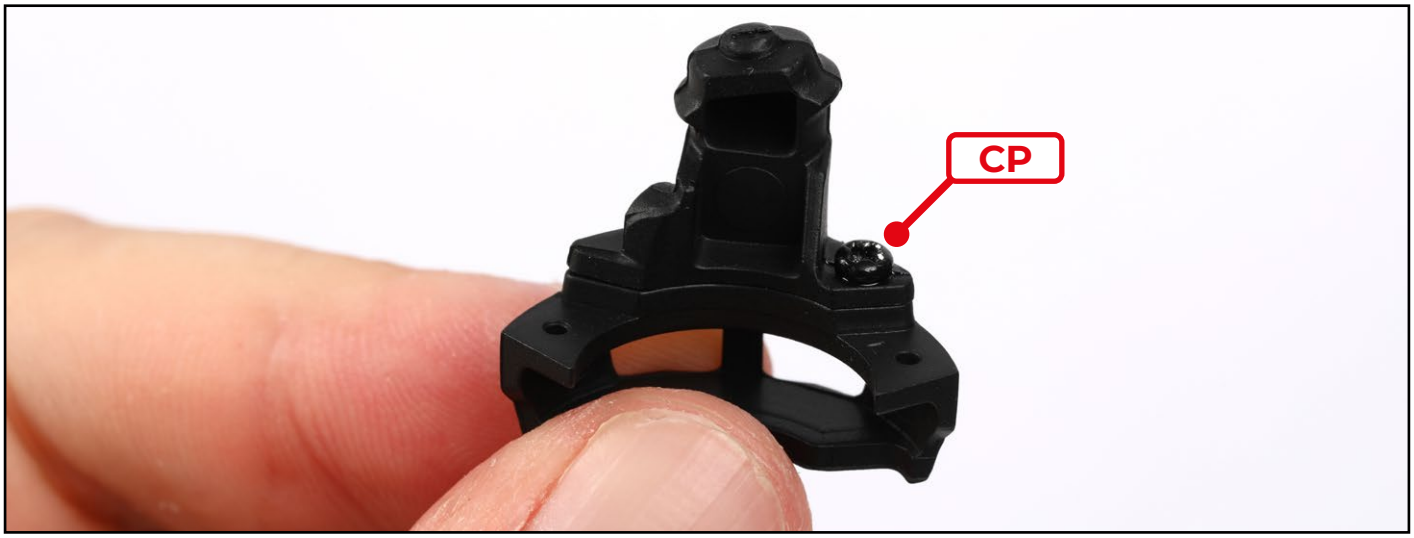
Step 4

Press brake disc 1 16-I and brake disc 2 16-J together. Repeat with the remaining discs to make two brake disc assemblies.

Stage 16: Attaching the front wheels and the steering linkage







Step 5

Position left front air brake actuator 16-H on left front brake caliper 16-G, then secure it with one CP screw.

Stage 16: Attaching the front wheels and the steering linkage



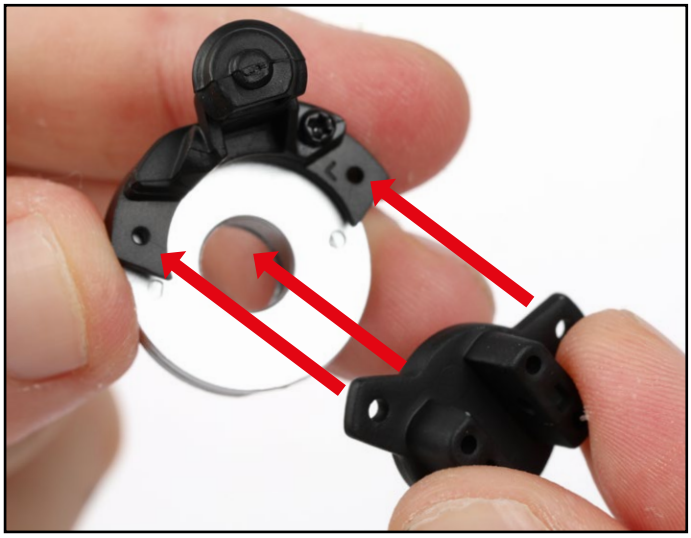


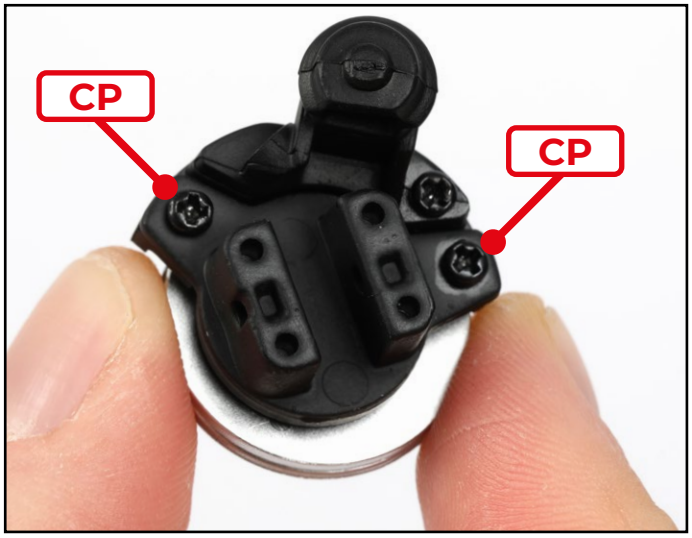
Step 6

Fit one brake disc assembly 16-I/16-J into left front brake caliper 16-G in the orientation shown.

Stage 16: Attaching the front wheels and the steering linkage











Step 7

Position left steering knuckle 16-K on left front air brake actuator 16-H, then secure it with two CP screws. Position steering arm 16-L on left steering knuckle 16-K, then secure it with two DM screws.

Stage 16: Attaching the front wheels and the steering linkage







Step 8

Position left steering knuckle arm 16-M on left steering knuckle 16-K as shown, then secure it with two DM screws.

Stage 16: Attaching the front wheels and the steering linkage

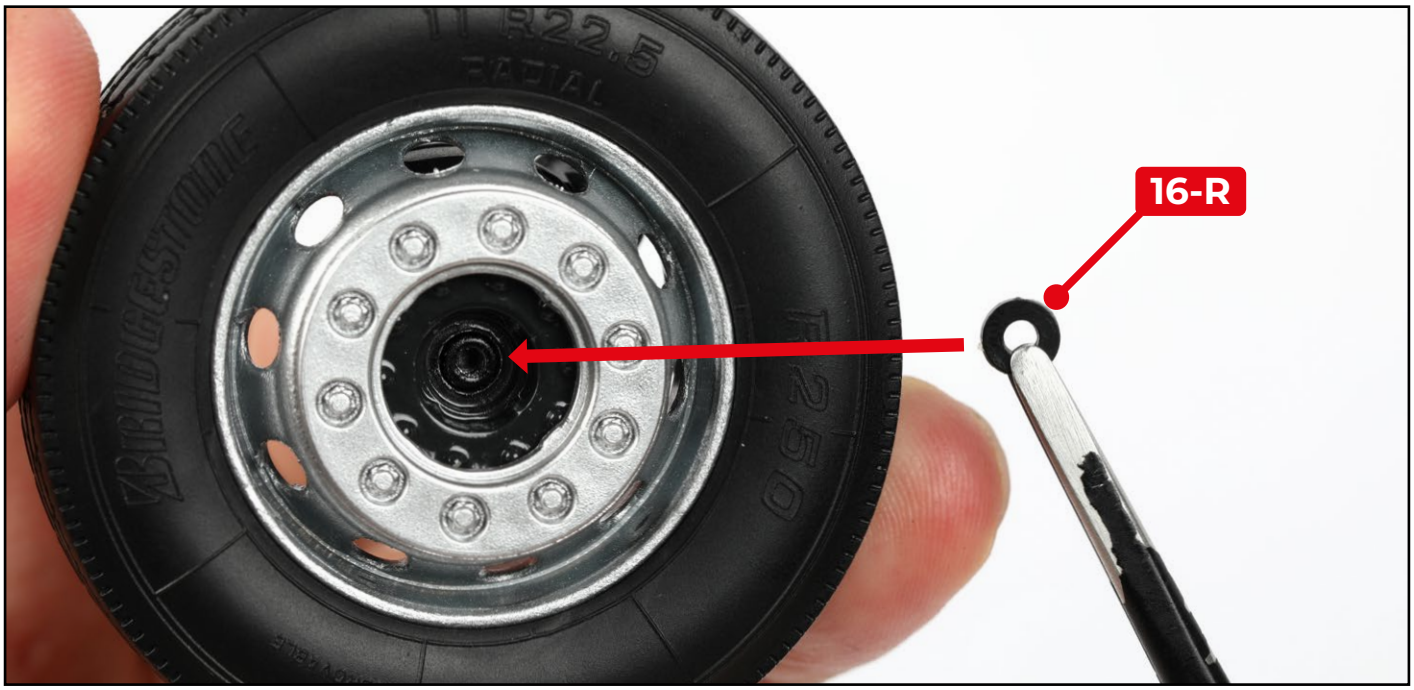


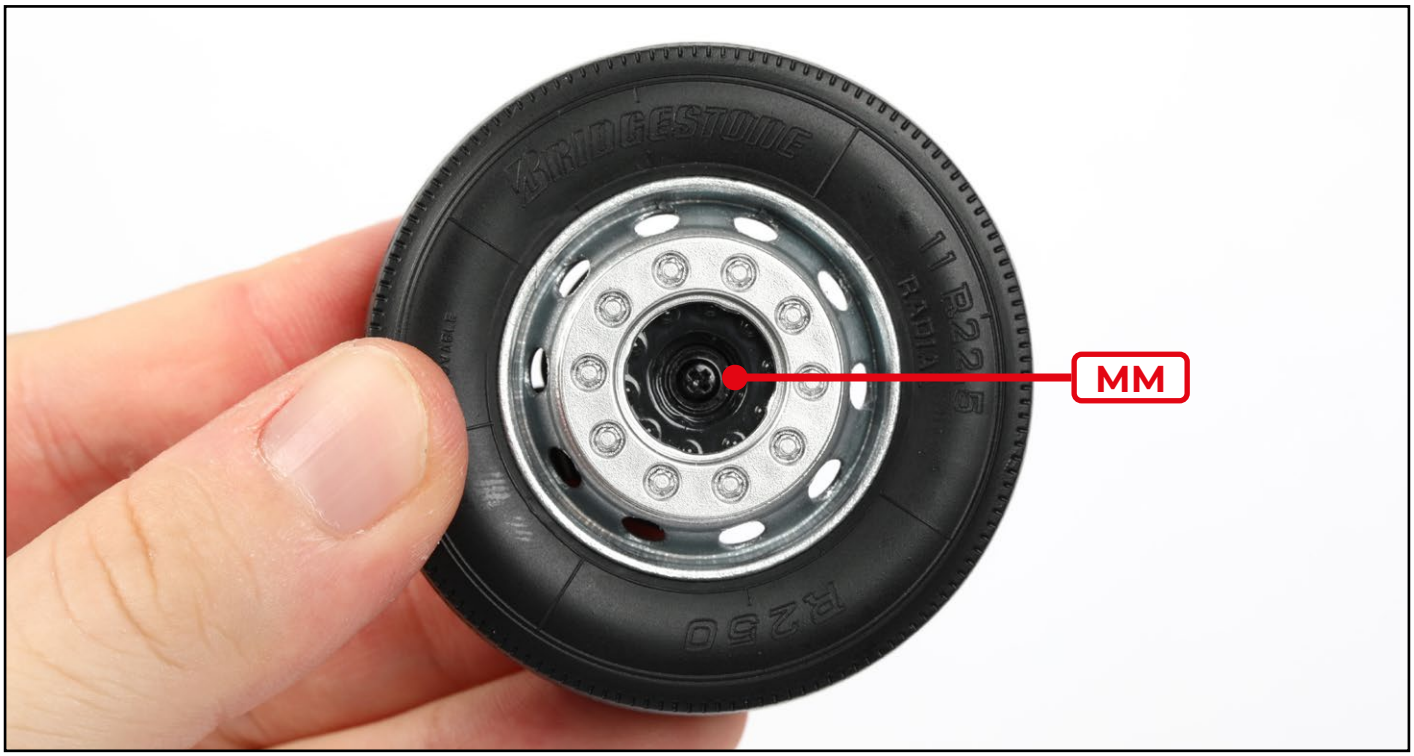


Step 9

Position the complete left brake assembly on the rear of one wheel rim as shown.

Stage 16: Attaching the front wheels and the steering linkage





Step 10

Insert one washer 16-R into the centre of wheel hub 16-F from the front. Secure the wheel assembly with one MM screw through the centre of the wheel hub.

Stage 16: Attaching the front wheels and the steering linkage





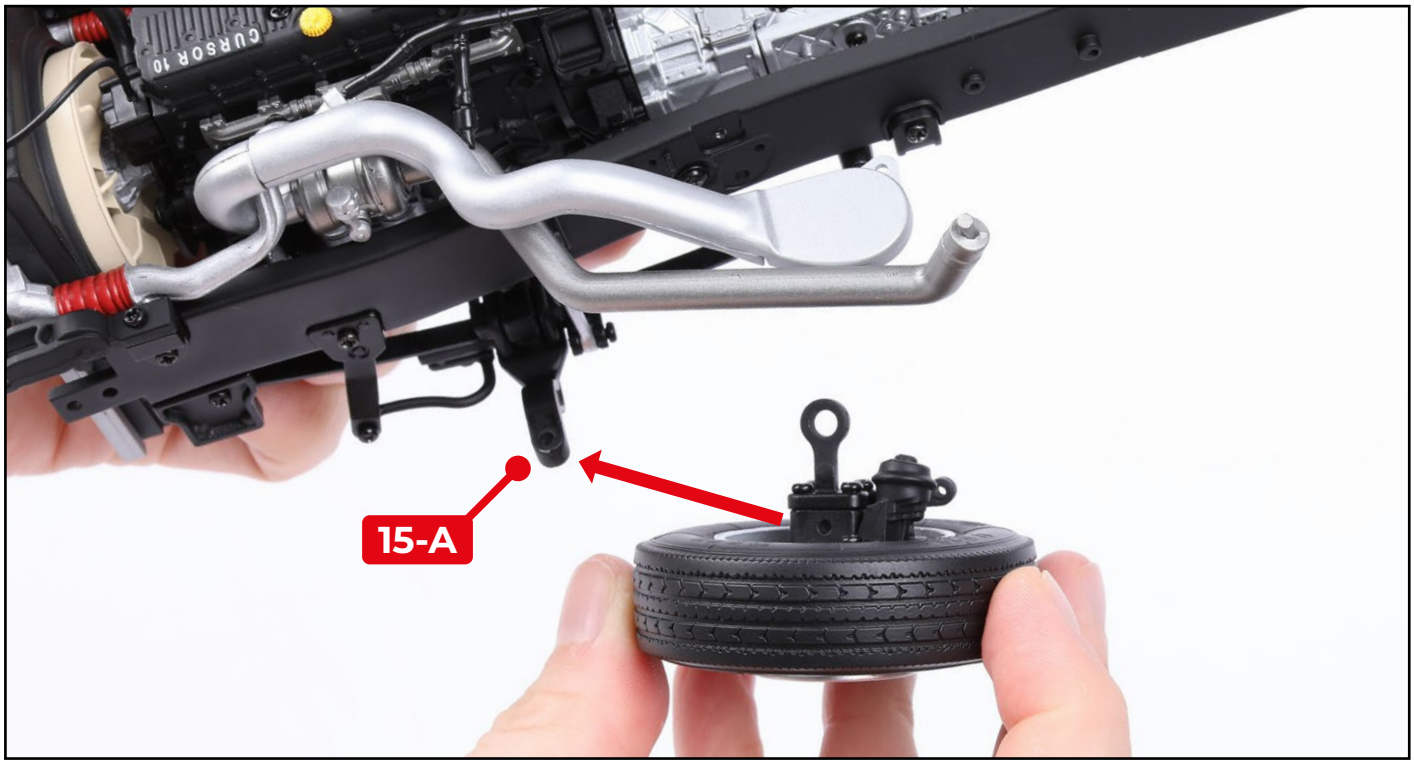


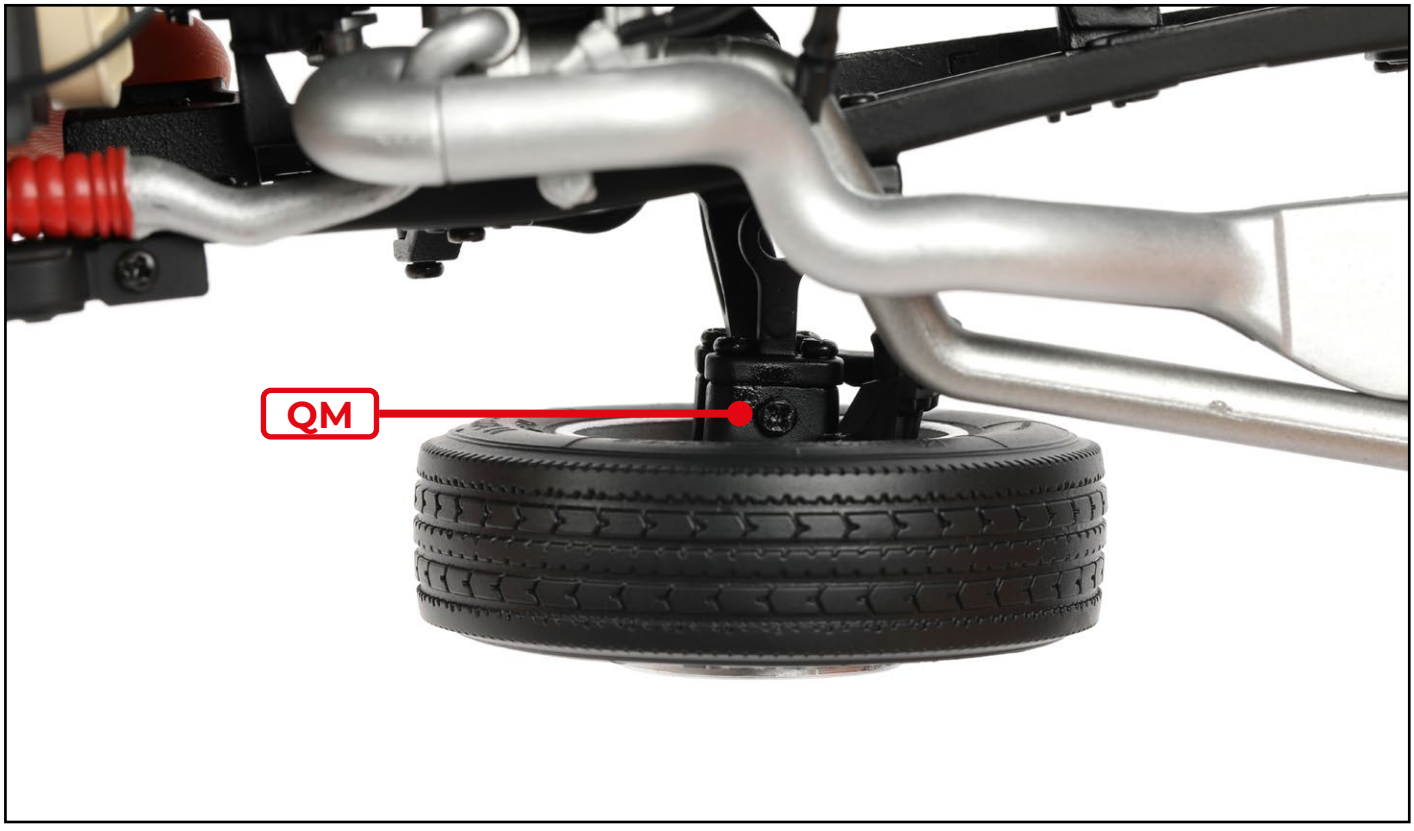


Step 11

Press wheel nut 2-H into the wheel hub, then press IVECO hubcap 2-G into wheel cover 2-I.

Stage 16: Attaching the front wheels and the steering linkage

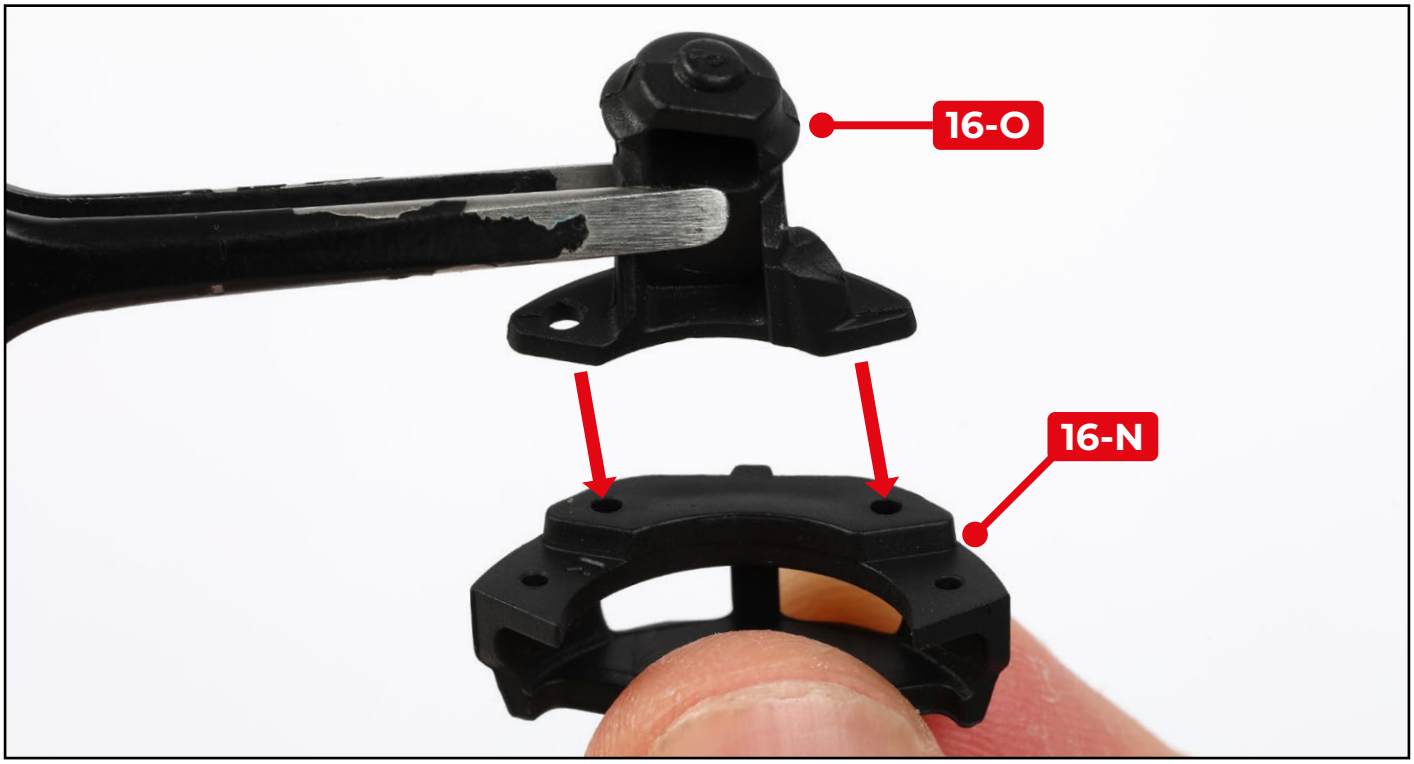


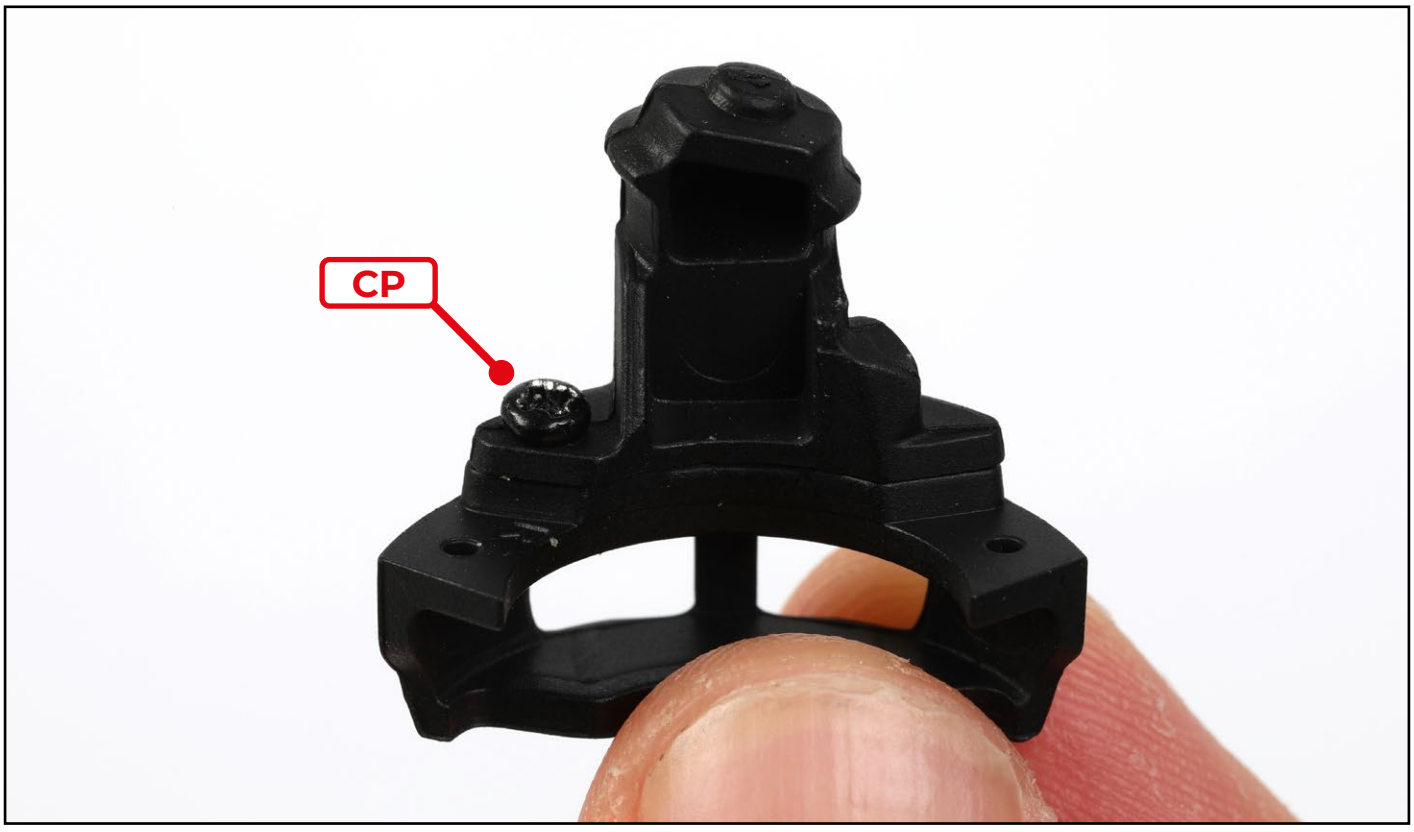


Step 12

Position the wheel on tractor front axle 15-A as shown, ensuring that the axle end engages fully with left steering knuckle 16-K. Secure the assembly with one QM screw.

Stage 16: Attaching the front wheels and the steering linkage





Step 13

Position right front air brake actuator 16-O on right front brake caliper 16-N, then secure it with one CP screw.

Stage 16: Attaching the front wheels and the steering linkage

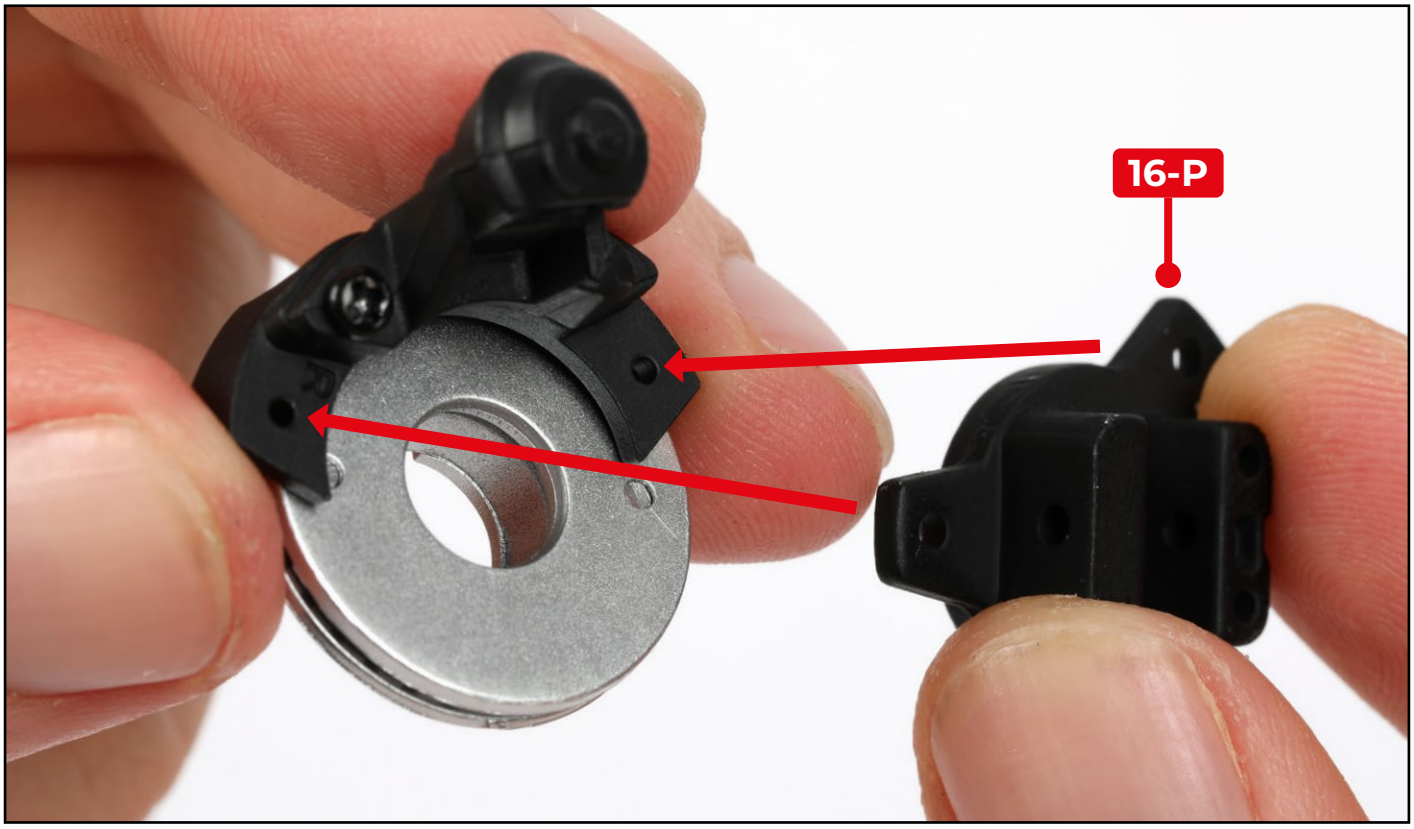


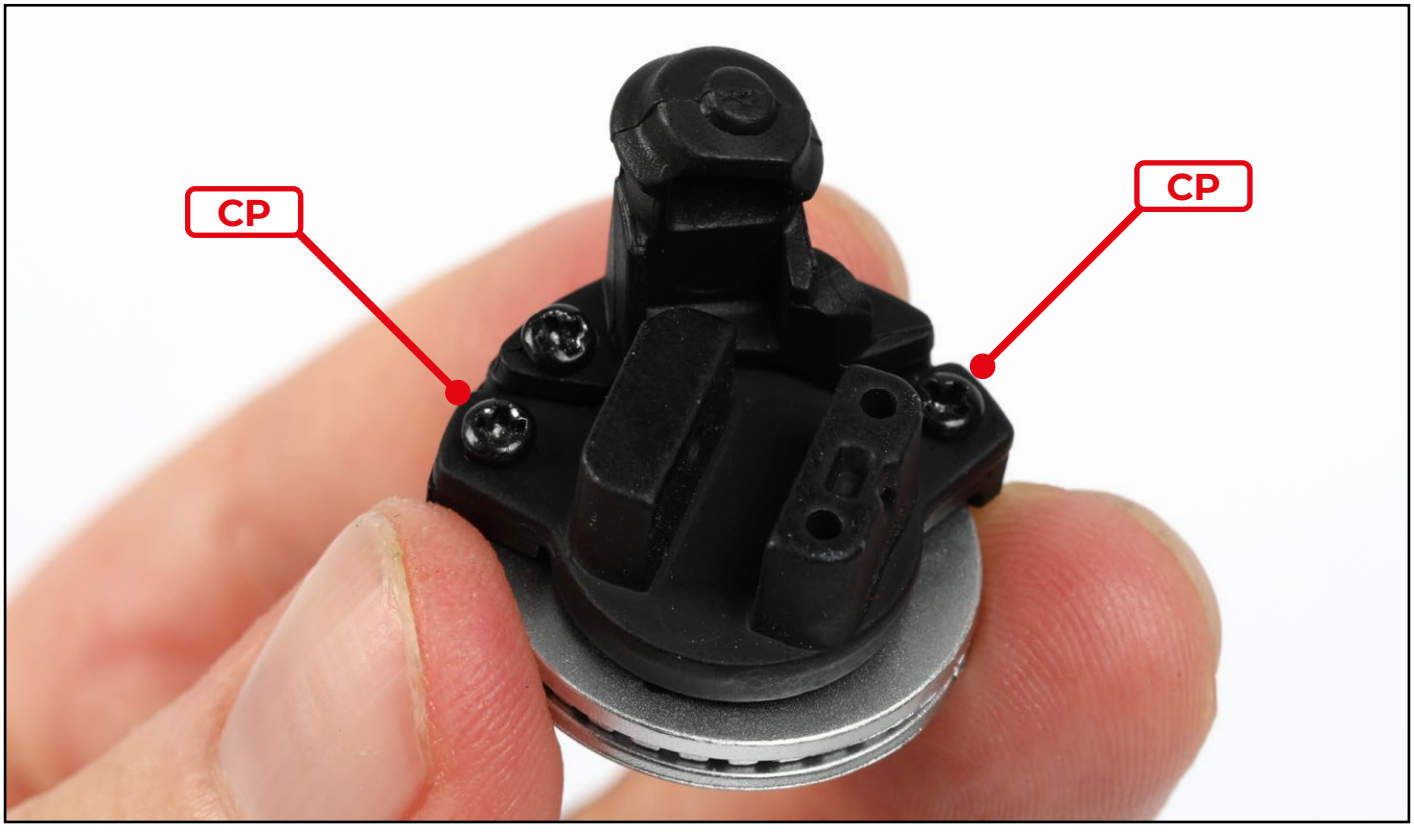


Step 14

Fit the remaining brake disc assembly 16-I/16-J into right front brake caliper 16-N in the orientation shown.

Stage 16: Attaching the front wheels and the steering linkage

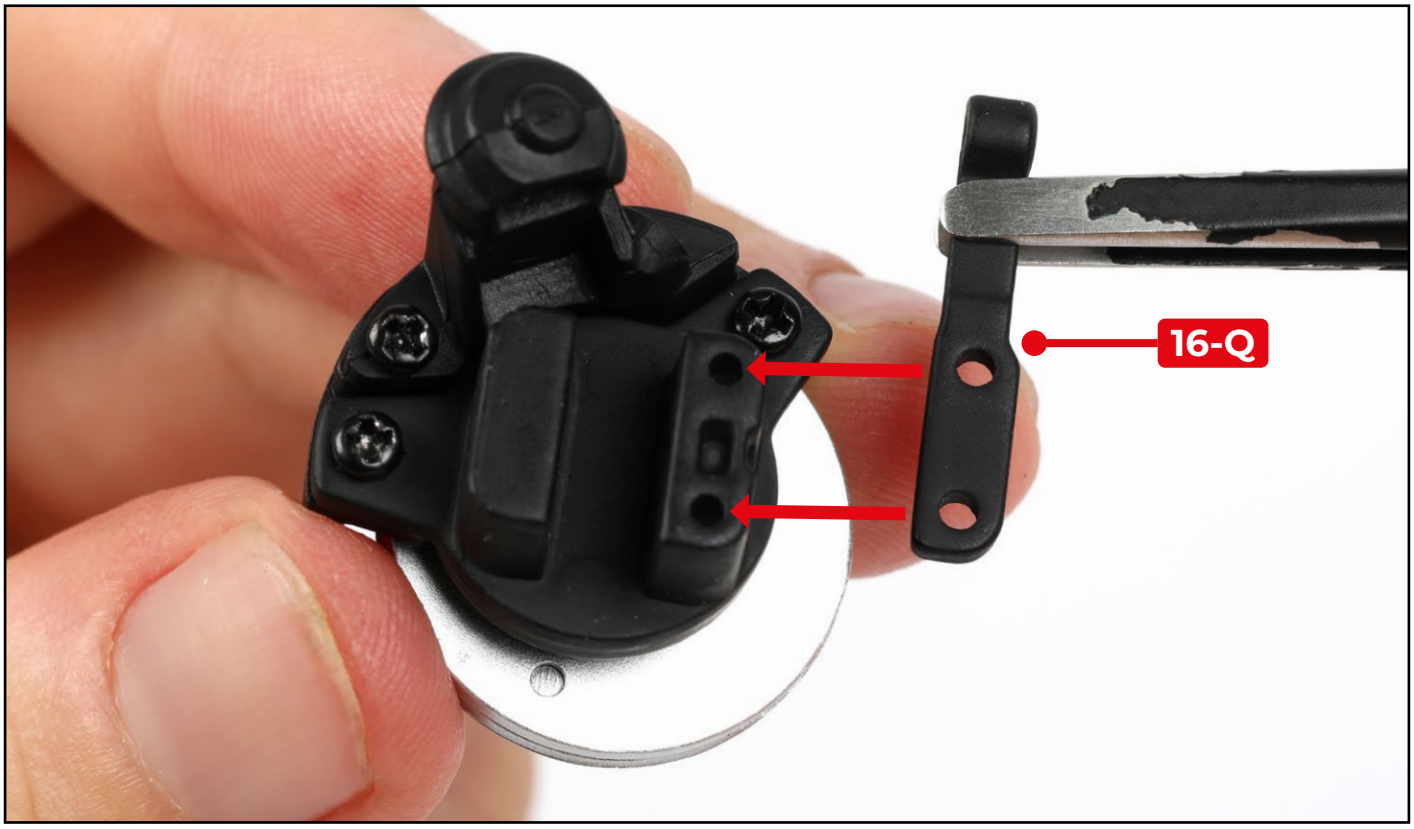


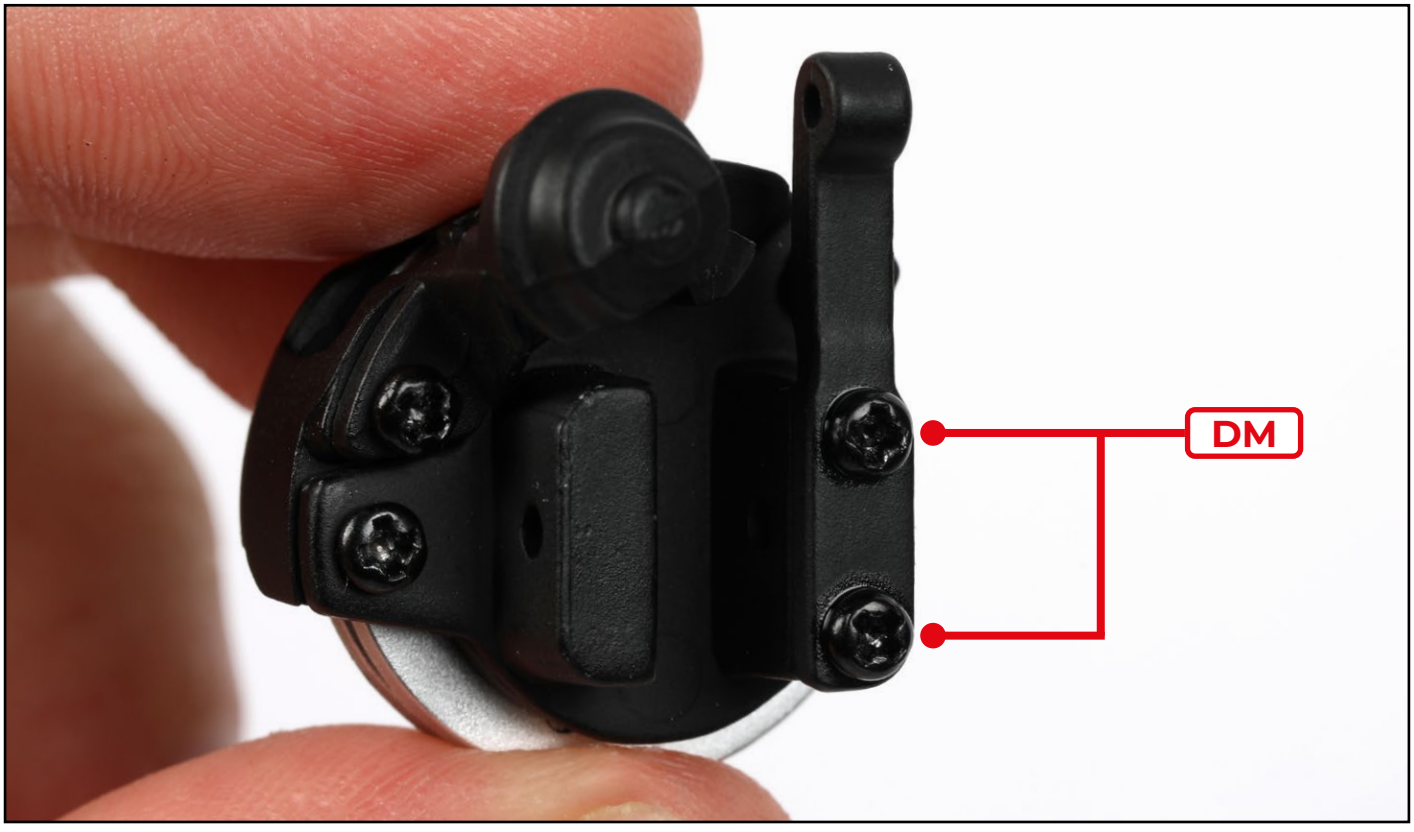


Step 15

Position right steering knuckle 16-P on right front air brake actuator 16-O, then secure it with two CP screws.

Stage 16: Attaching the front wheels and the steering linkage





Step 16

Position right steering knuckle arm 16-Q on the rear of right steering knuckle 16-P, then secure it with two DM screws.

Stage 16: Attaching the front wheels and the steering linkage

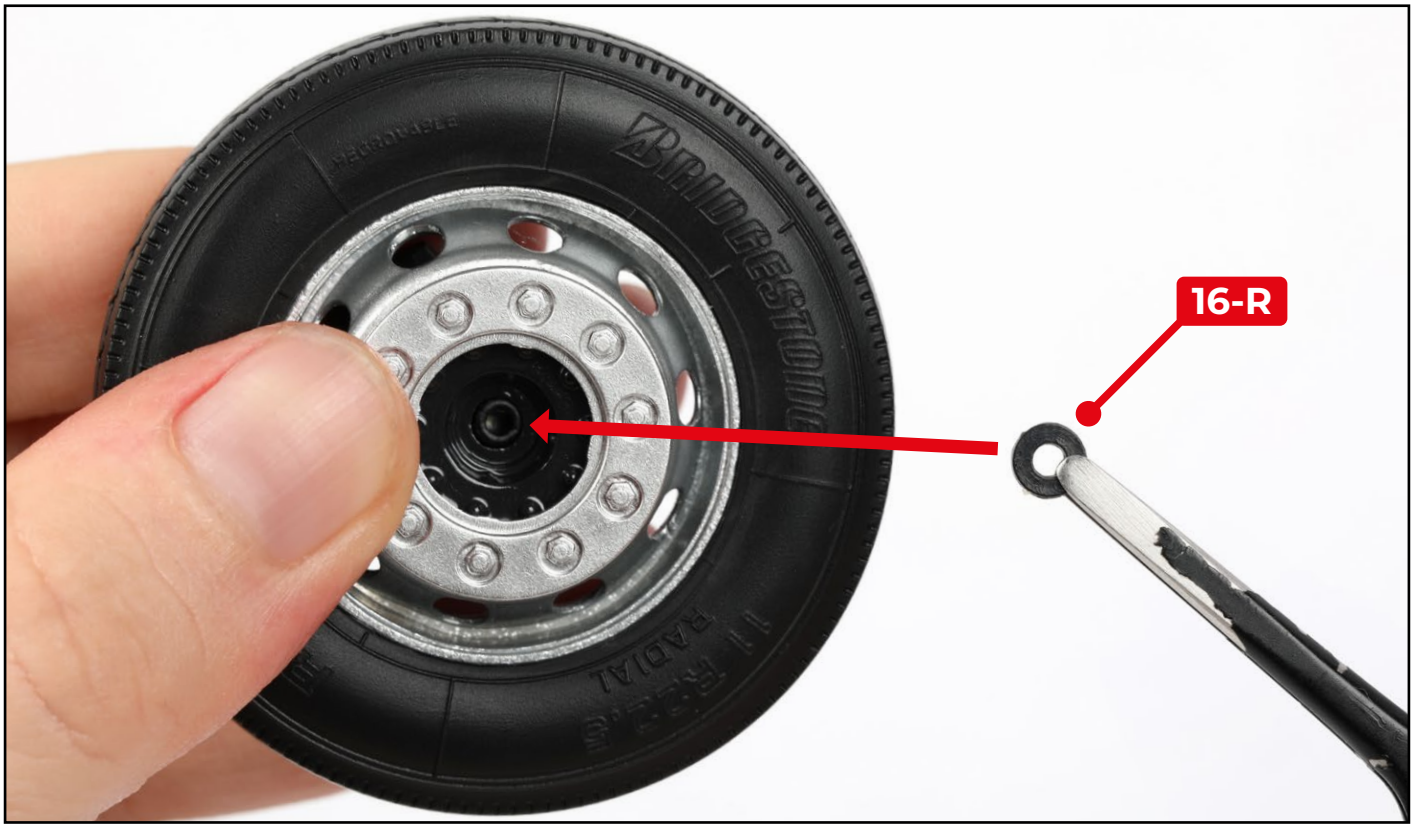




Step 17

Position the complete right brake assembly on the rear of the second wheel rim as shown.

Stage 16: Attaching the front wheels and the steering linkage





Step 18

Insert the remaining washer 16-R into the centre of wheel hub 16-F. Secure the wheel assembly with one MM screw through the centre of the wheel hub.

Stage 16: Attaching the front wheels and the steering linkage





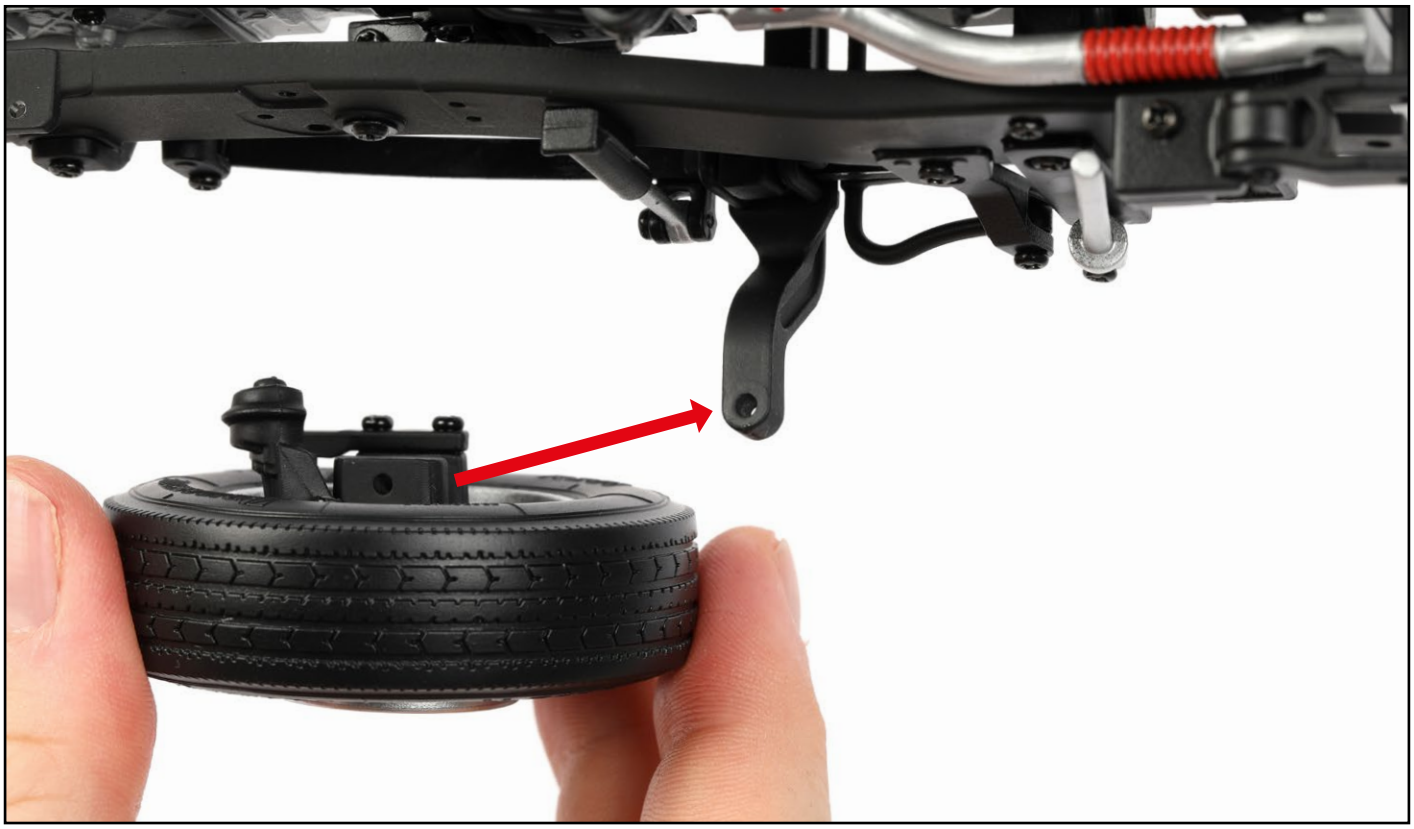




Step 19

Press wheel nut 16-C into the wheel hub, then press IVECO hubcap 16-B into wheel cover 16-D.

Stage 16: Attaching the front wheels and the steering linkage

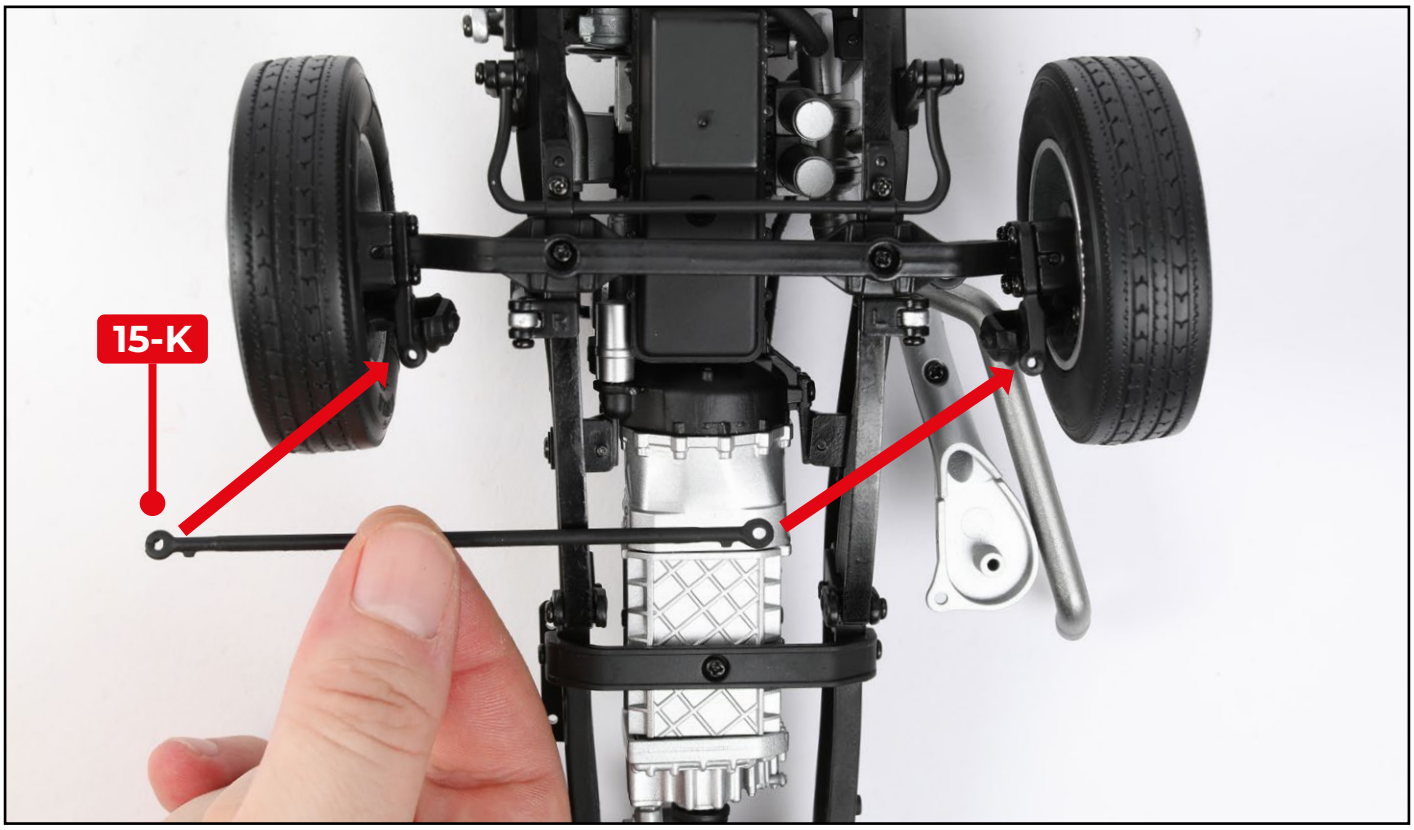


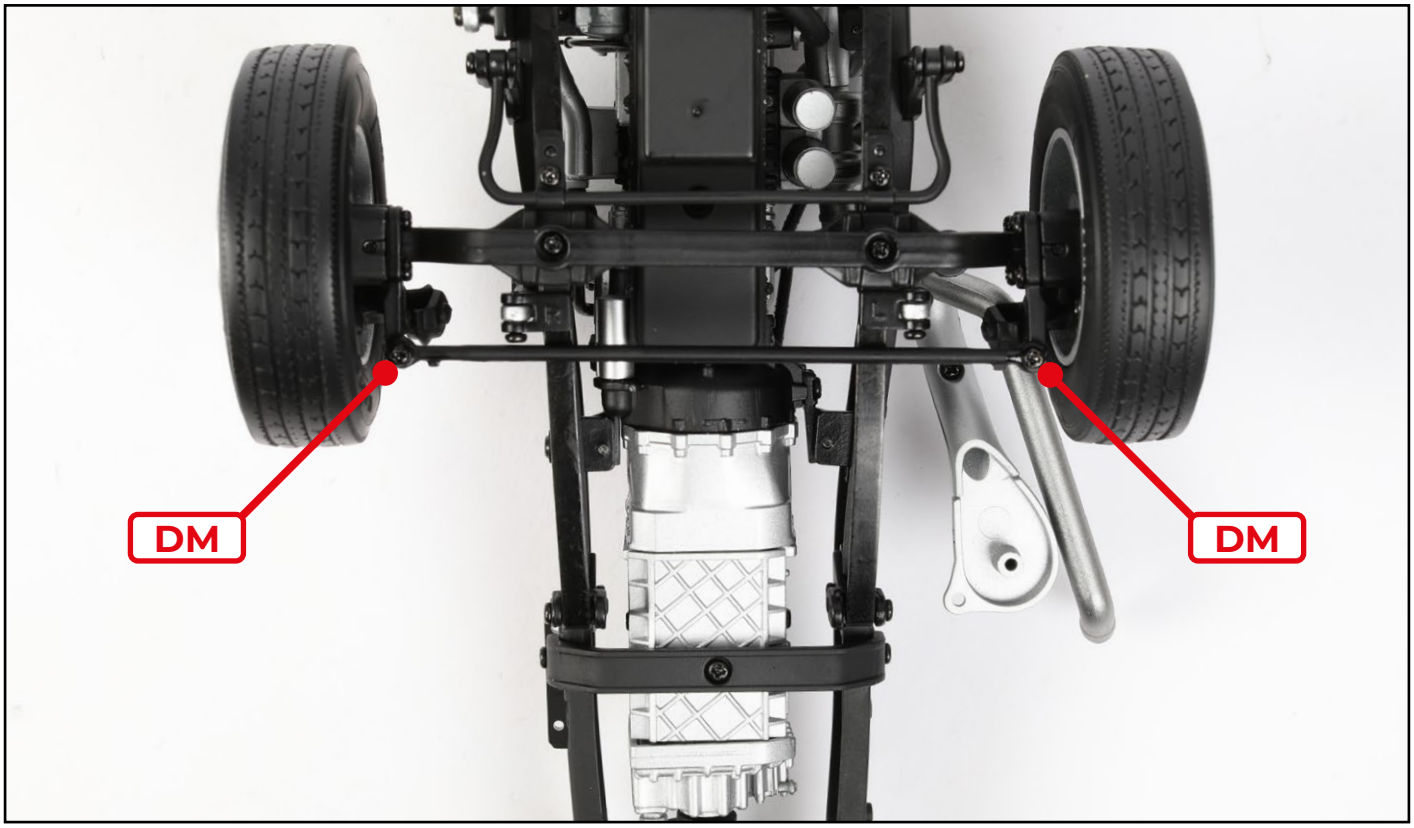


Step 20

Position the second wheel on the opposite end of tractor front axle 15-A, then secure it with one QM screw.

Stage 16: Attaching the front wheels and the steering linkage





Step 21

Retrieve steering linkage 15-K from Stage 15. Position it between left steering knuckle arm 16-M and right steering knuckle arm 16-Q, then secure it with two DM screws.

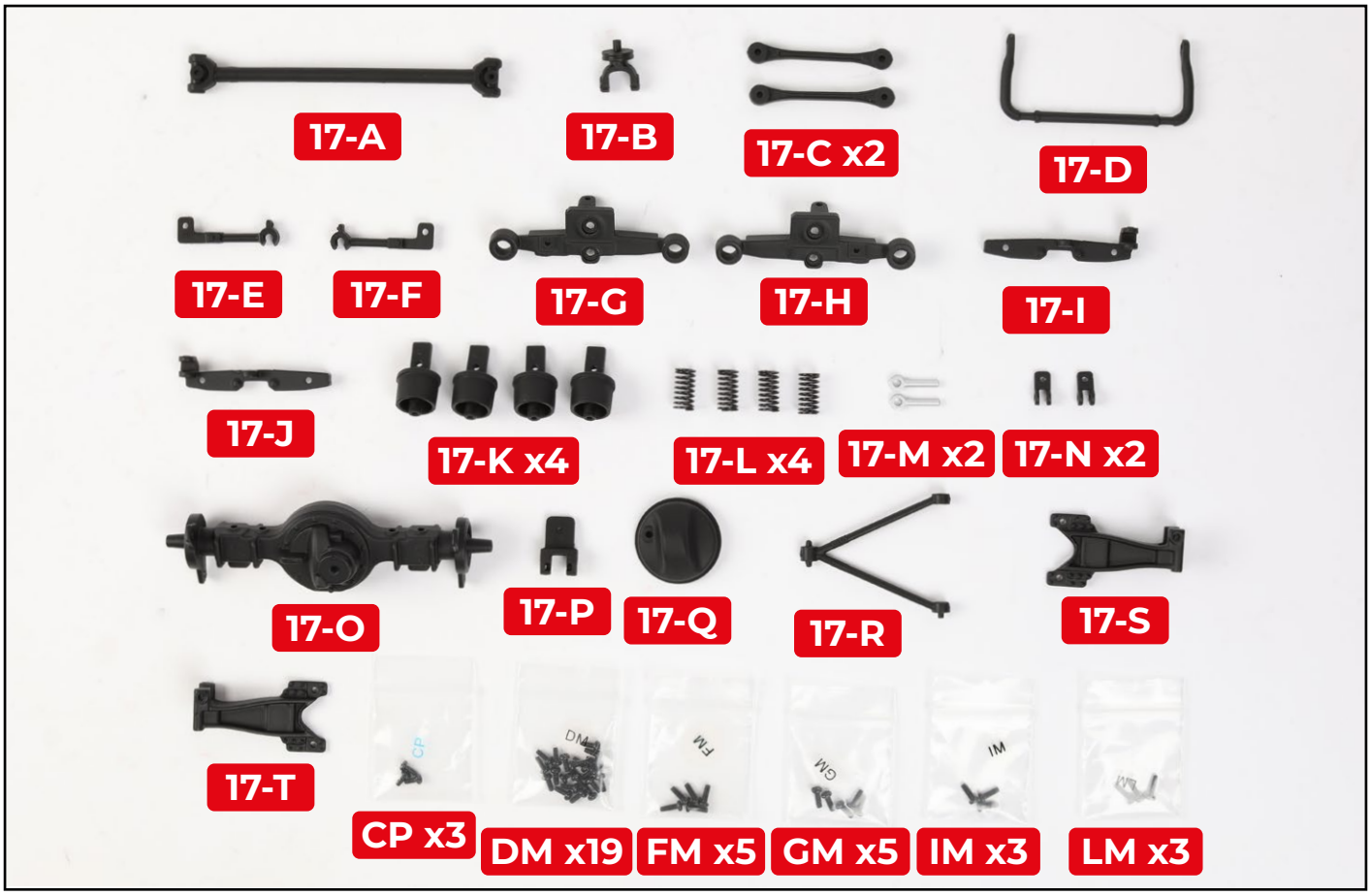
Stage 16: Attaching the front wheels and the steering linkage

STAGE 16 COMPLETE



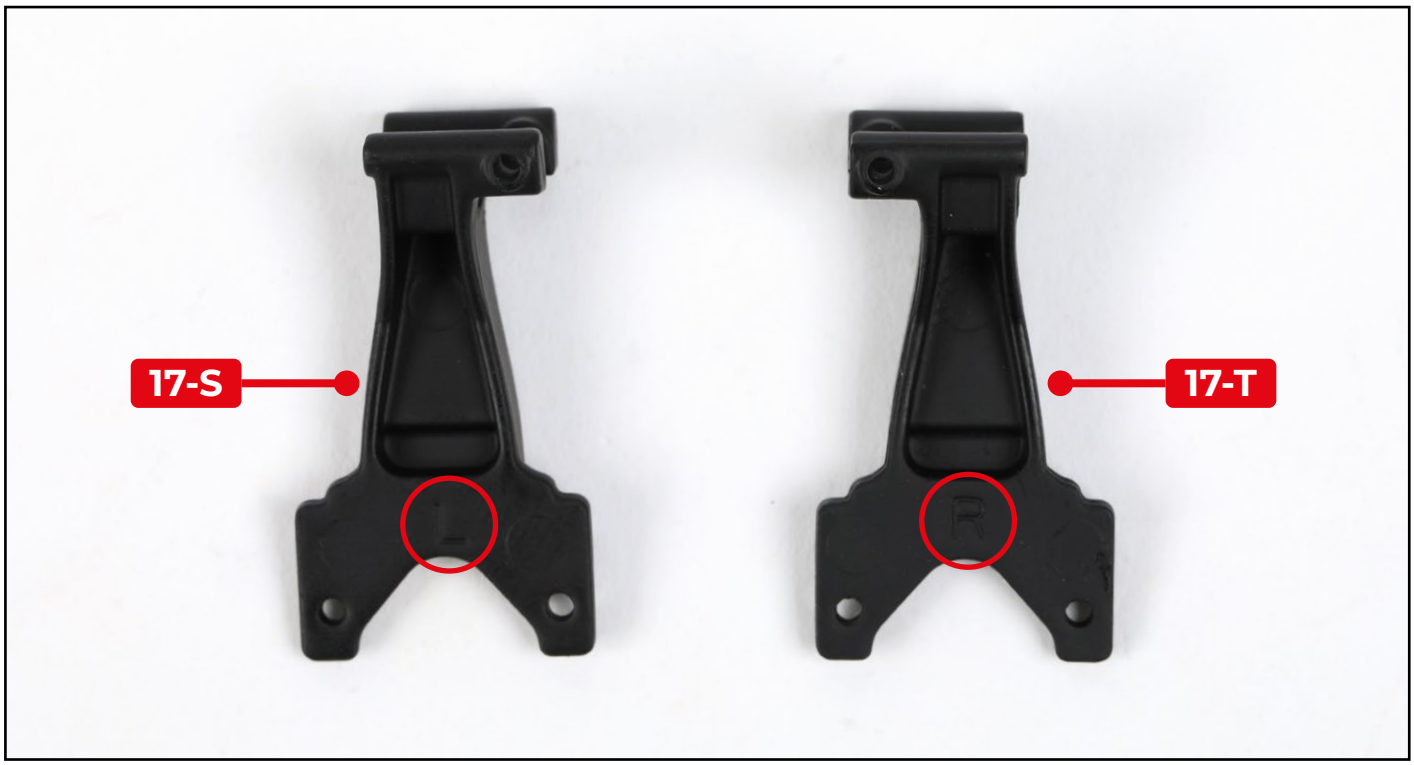
Stage 17: Building the rear axle and the driveshaft

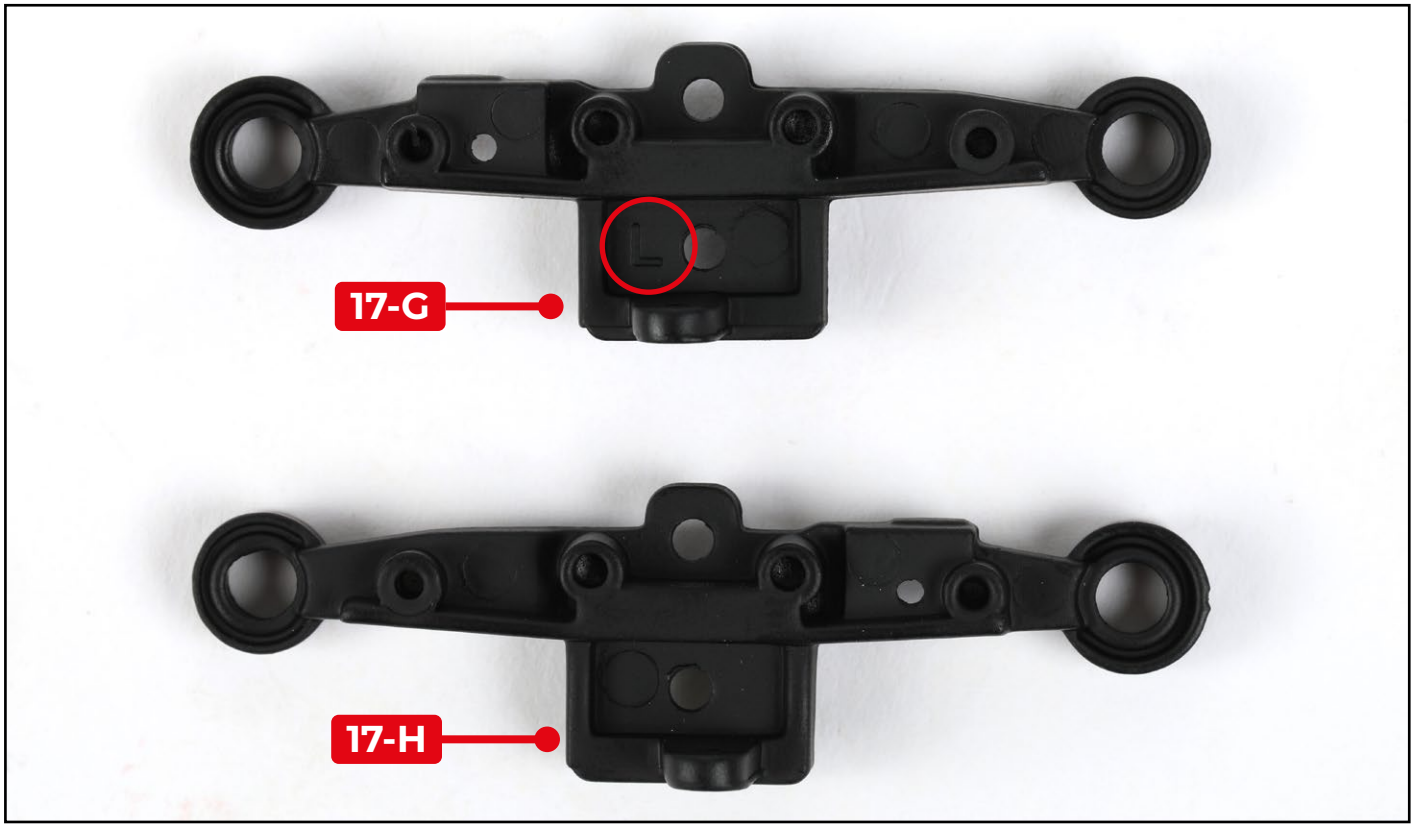
STAGE 17 PARTS



17-A: Driveshaft
17-B: Differential universal joint
17-C: Longitudinal links
17-D: Rear anti-roll bar
17-E: Left rear anti-roll bar link
17-F: Right rear anti-roll bar link
17-G: Left rear axle support 1
17-H: Right rear axle support 1
17-I: Left rear axle support 2
17-J: Right rear axle support 2
17-K: Air springs
17-L: Rear suspension springs
17-M: Rear shock absorber rods
17-N: Rear lower shock absorber mounts
17-O: Rear axle
17-P: V-stay bracket
17-Q: Differential cover
17-R: Rear axle V-stay
17-S: Left longitudinal link bracket
17-T: Right longitudinal link bracket
CP: 3 screws
DM: 19 screws
FM: 5 screws
GM: 5 screws
IM: 3 screws
LM: 3 screws

Stage 17: Building the rear axle and the driveshaft

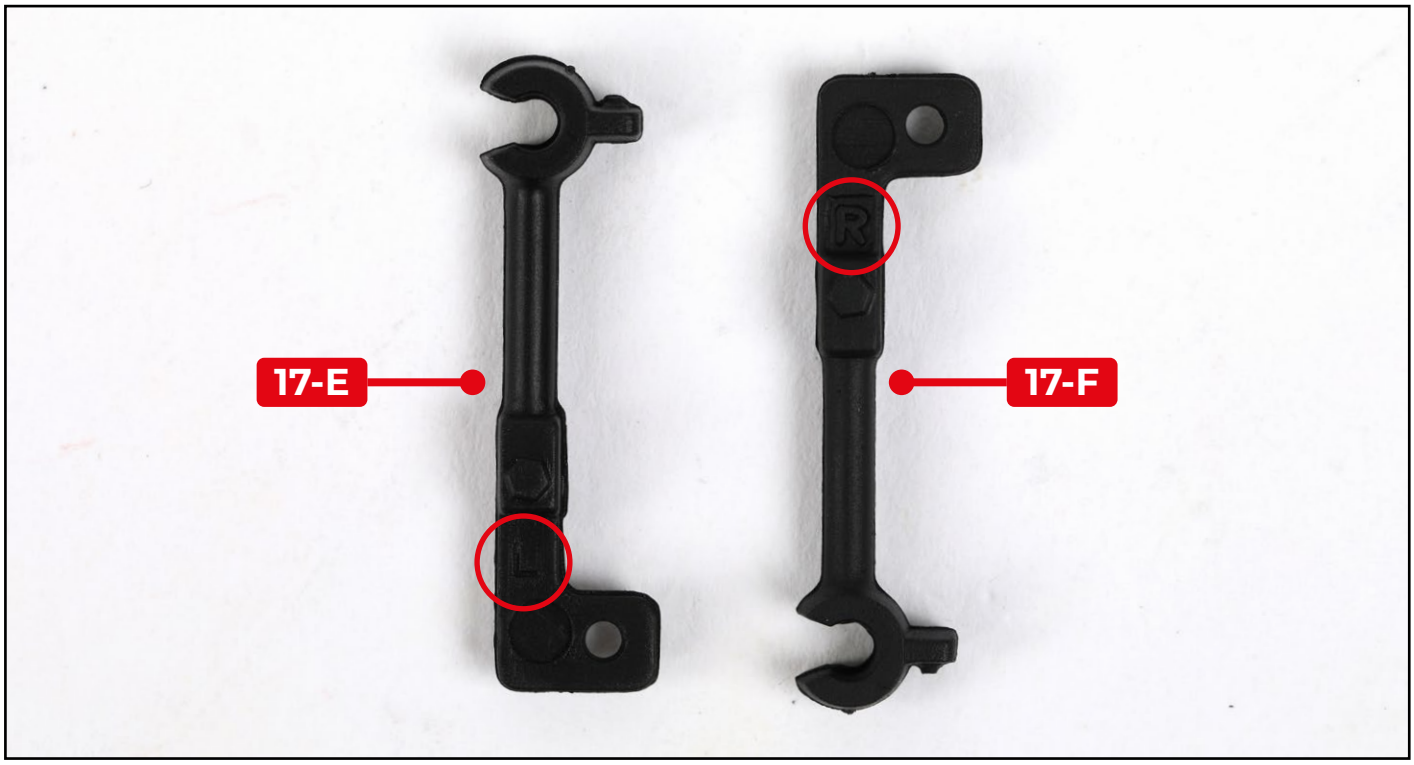


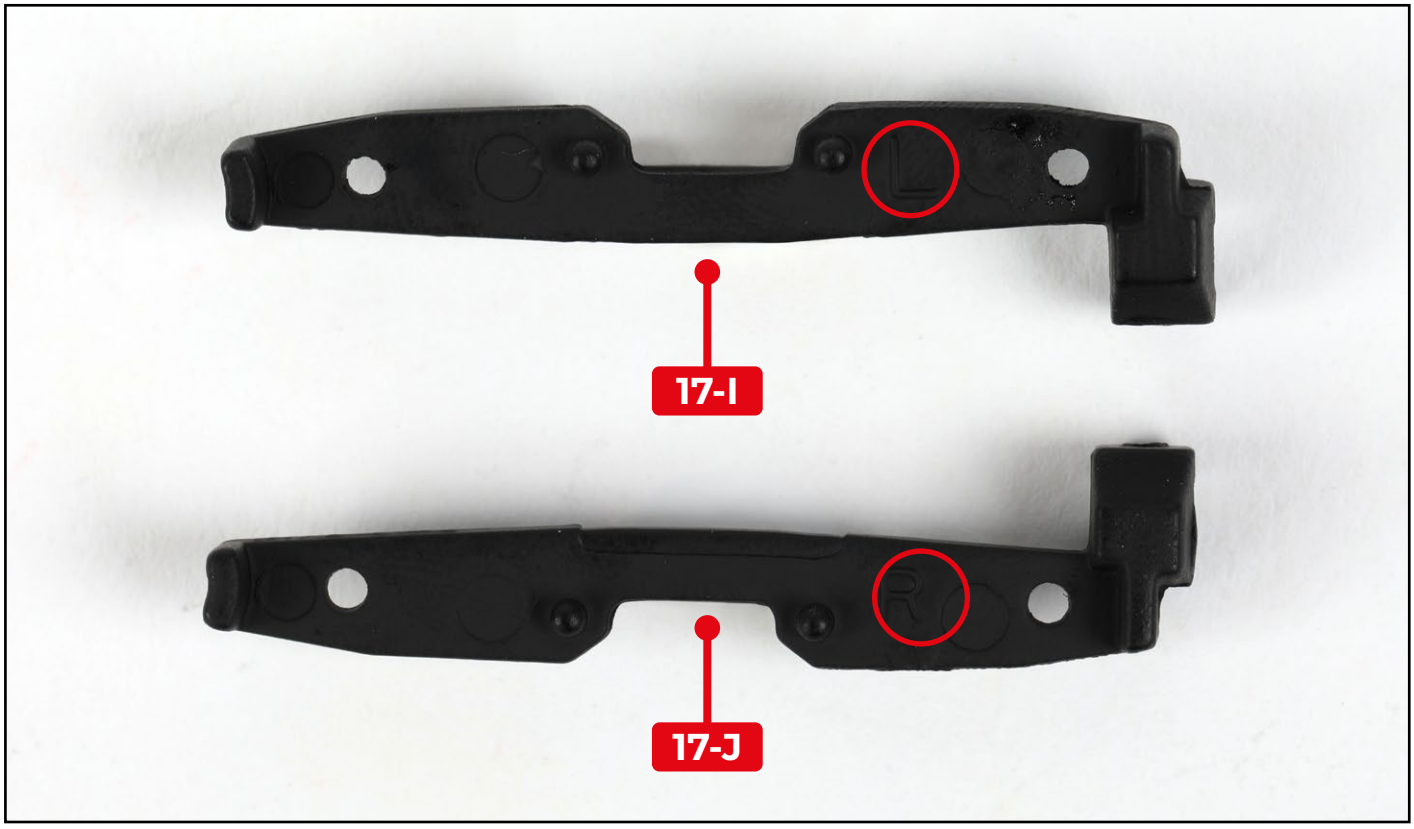


Step 1

Identify left longitudinal link bracket 17-S and left rear axle support 1 17-G by their L markings. Identify right longitudinal link bracket 17-T and right rear axle support 1 17-H by their R markings.

Stage 17: Building the rear axle and the driveshaft

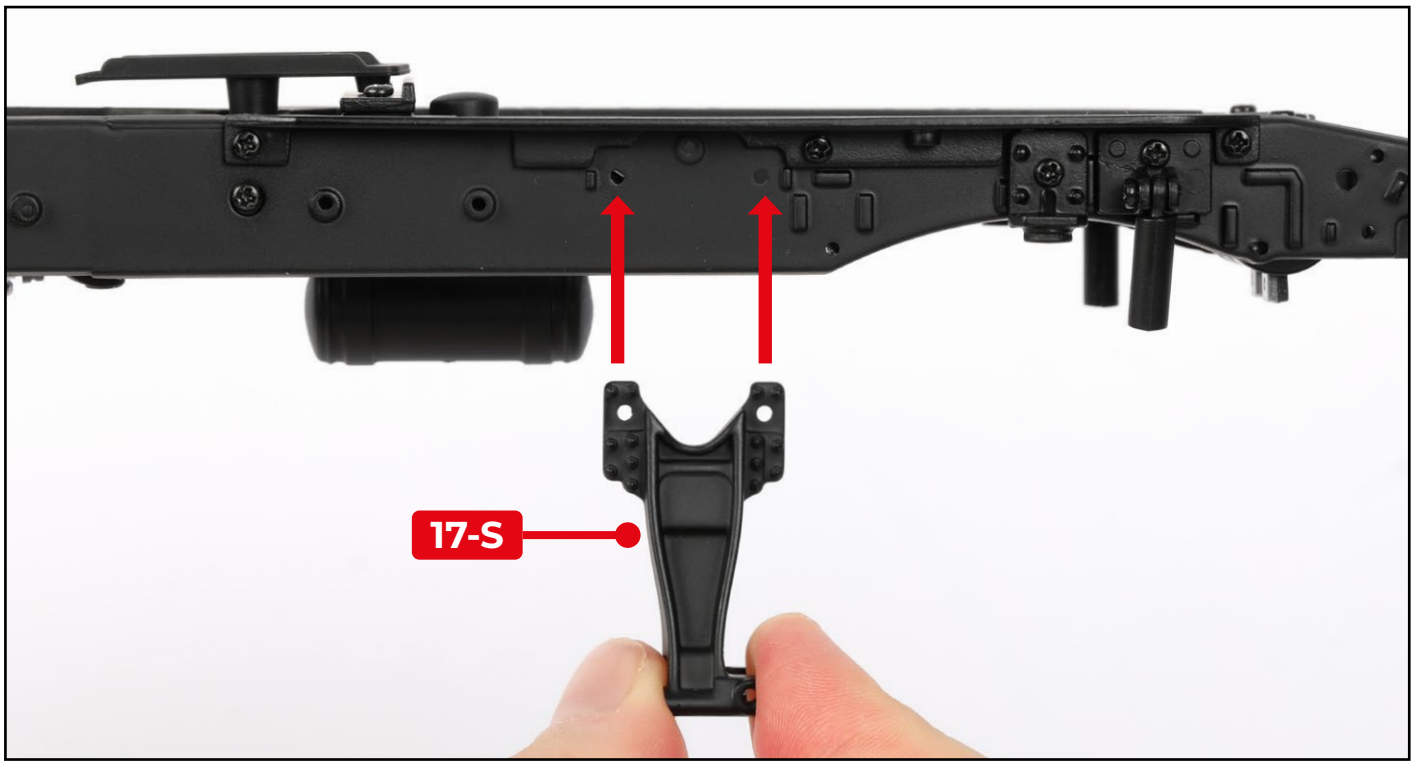


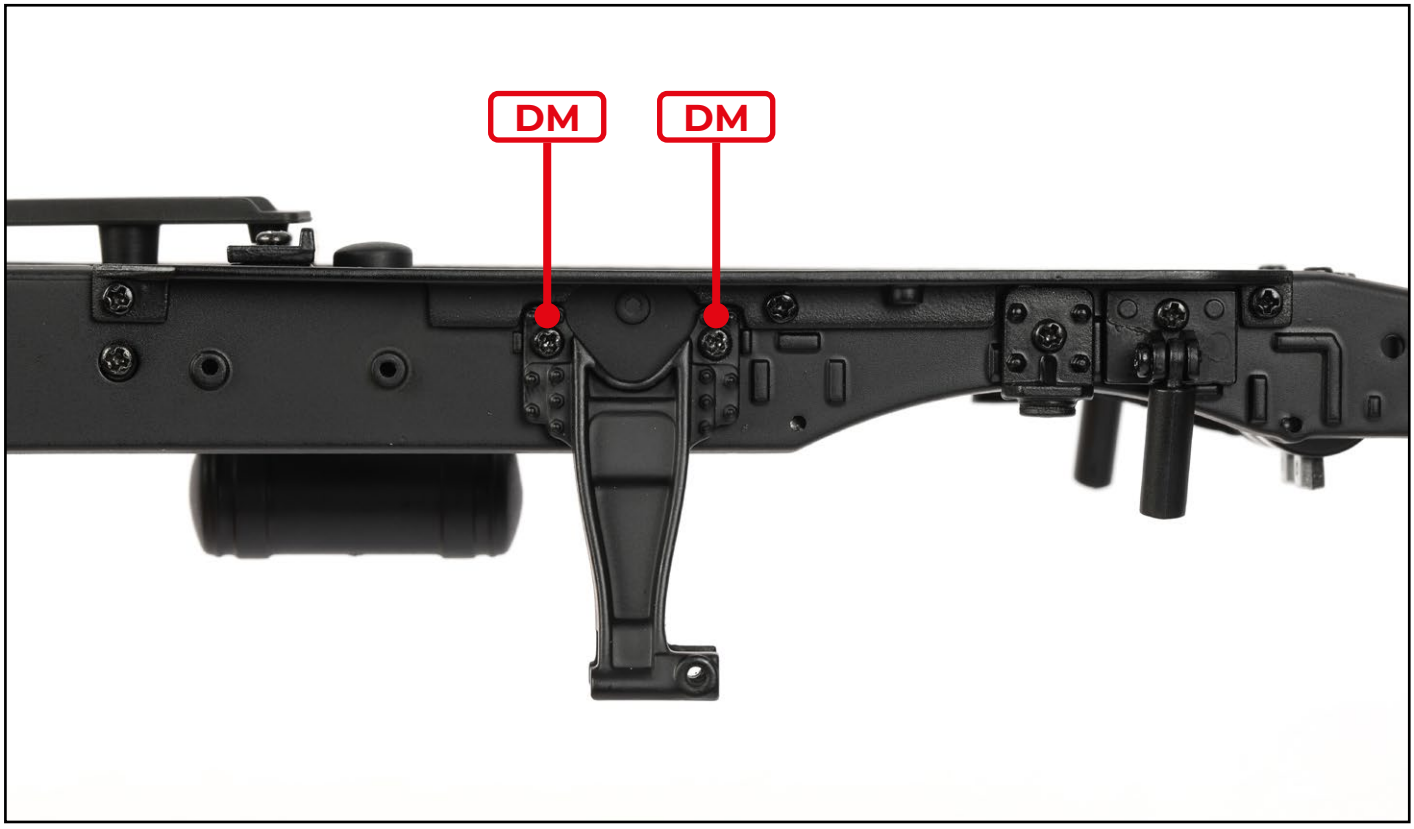


Step 2

Identify left rear anti-roll bar link 17-E and left rear axle support 2 17-I by their L markings. Identify right rear anti-roll bar link 17-F and right rear axle support 2 17-J by their R markings.

Stage 17: Building the rear axle and the driveshaft

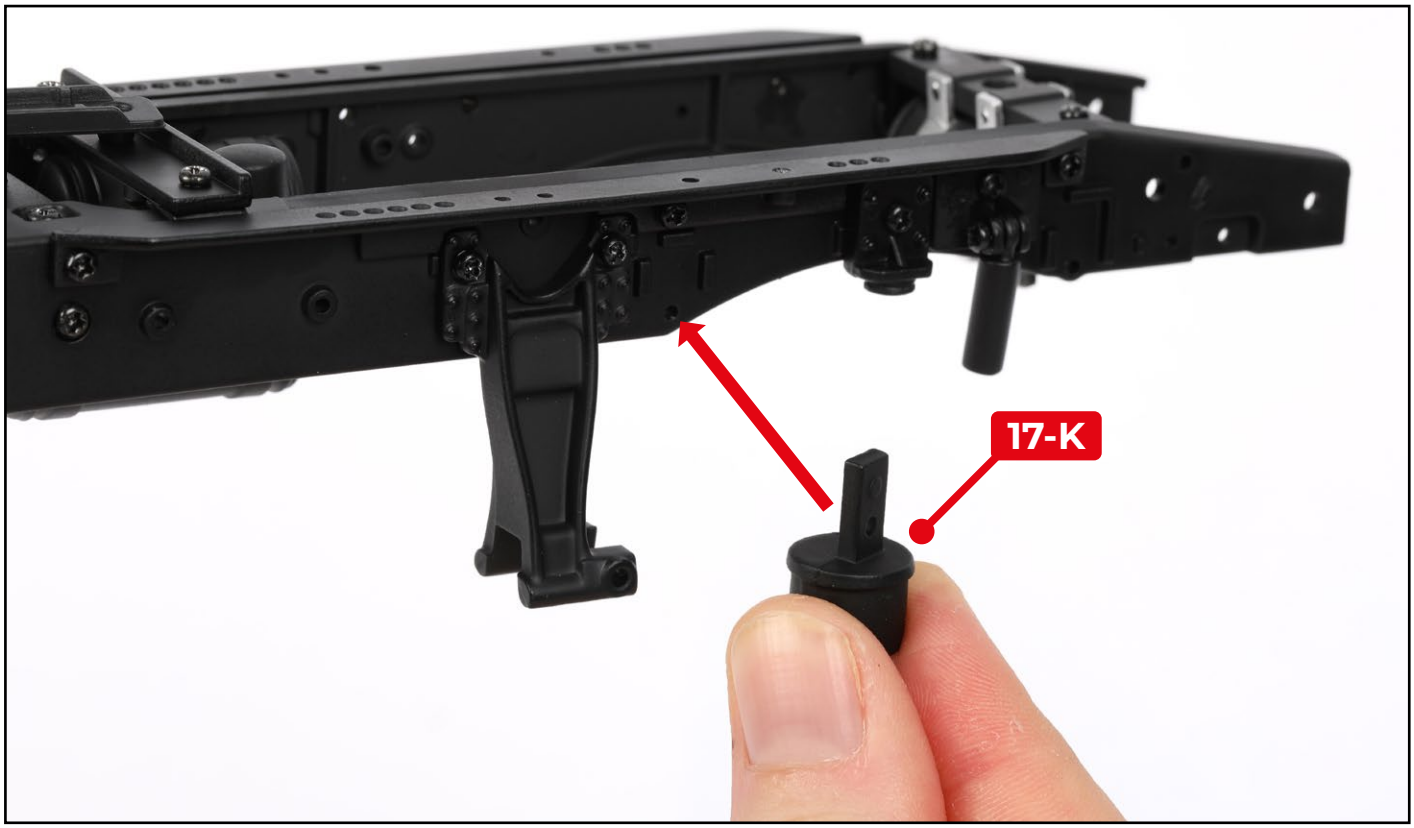


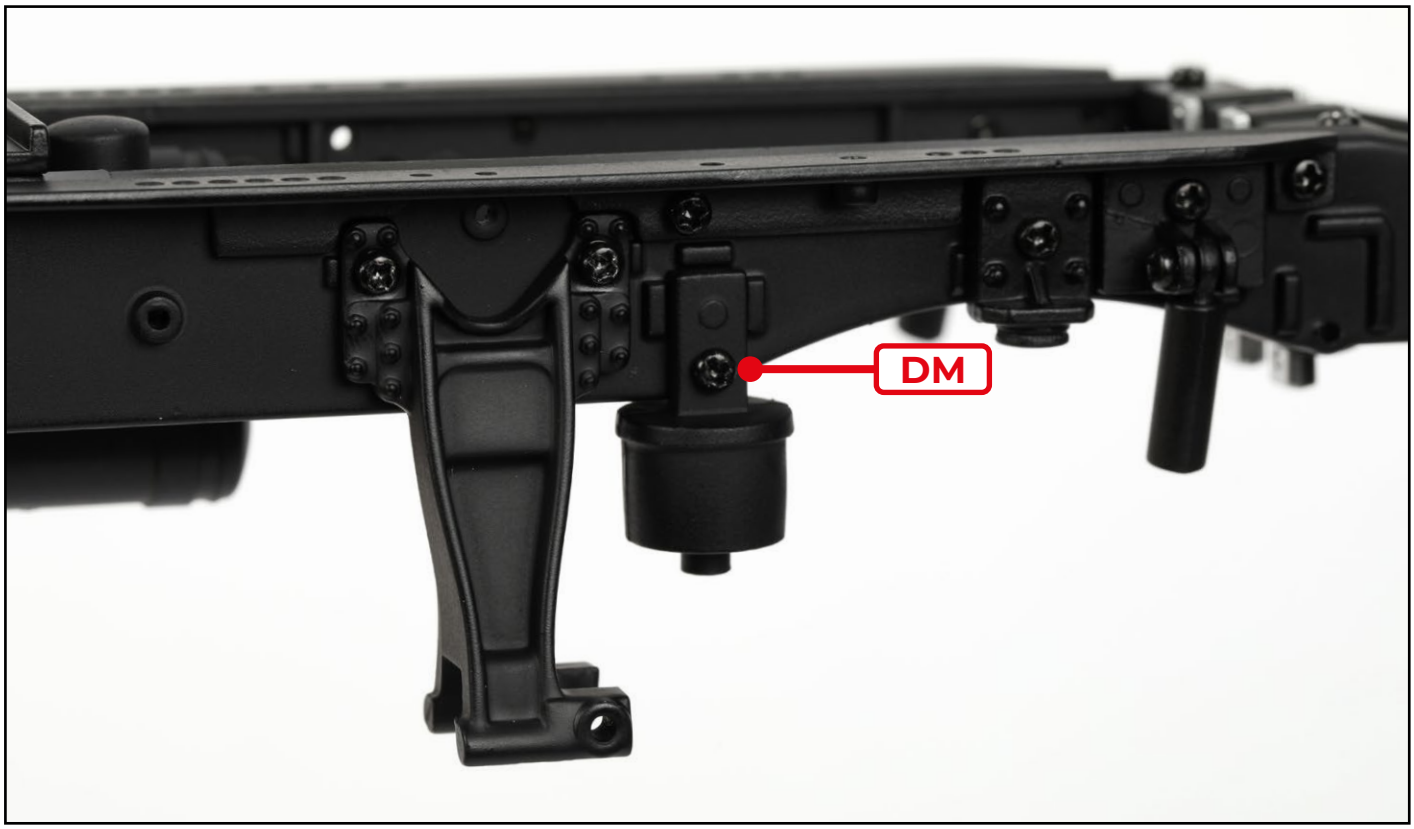


Step 3

Position left longitudinal link bracket 17-S on left tractor chassis rail 11-A as shown, then secure it with two DM screws.

Stage 17: Building the rear axle and the driveshaft



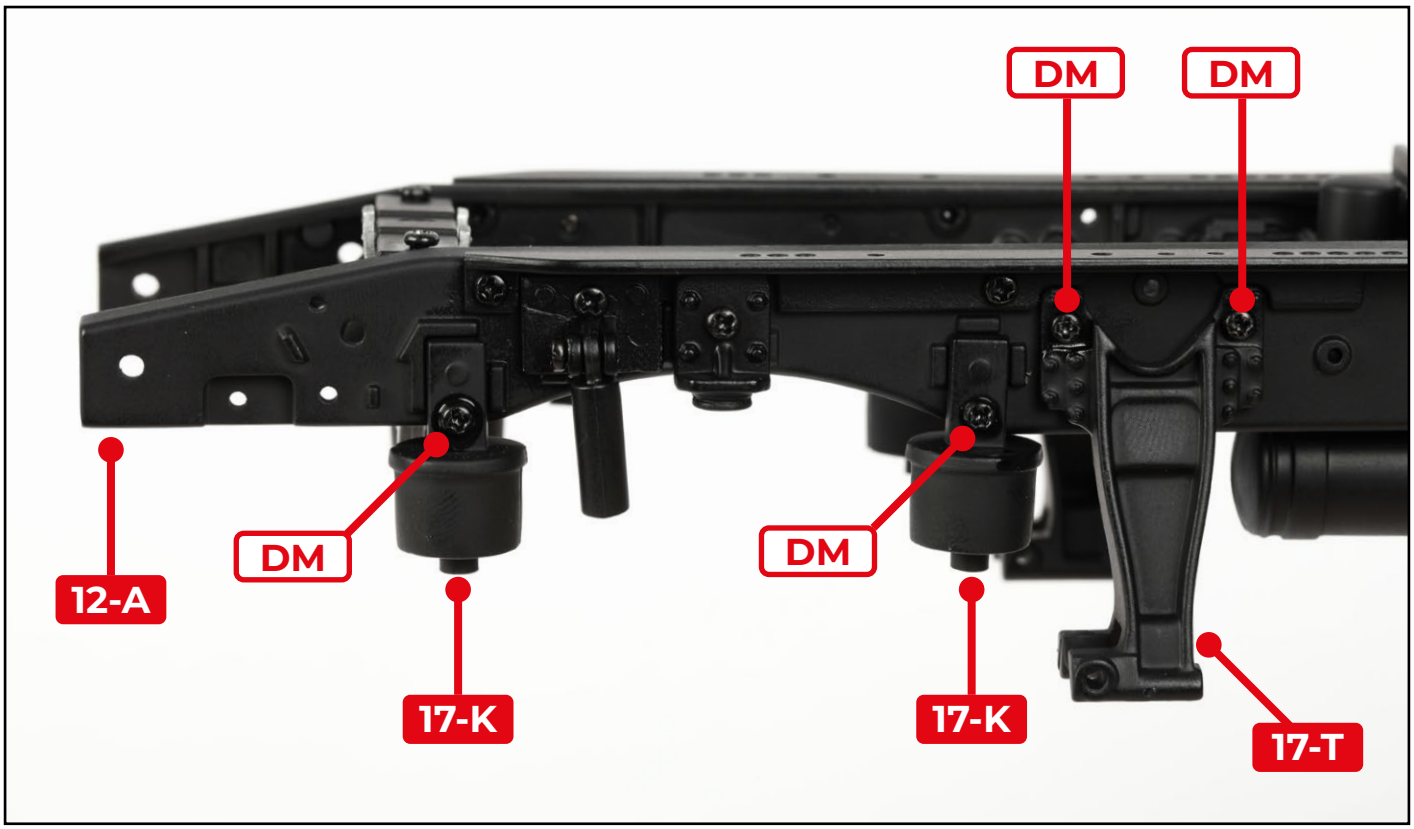


Step 4

Position one air spring 17-K on left tractor chassis rail 11-A as shown, then secure it with one DM screw.

Stage 17: Building the rear axle and the driveshaft

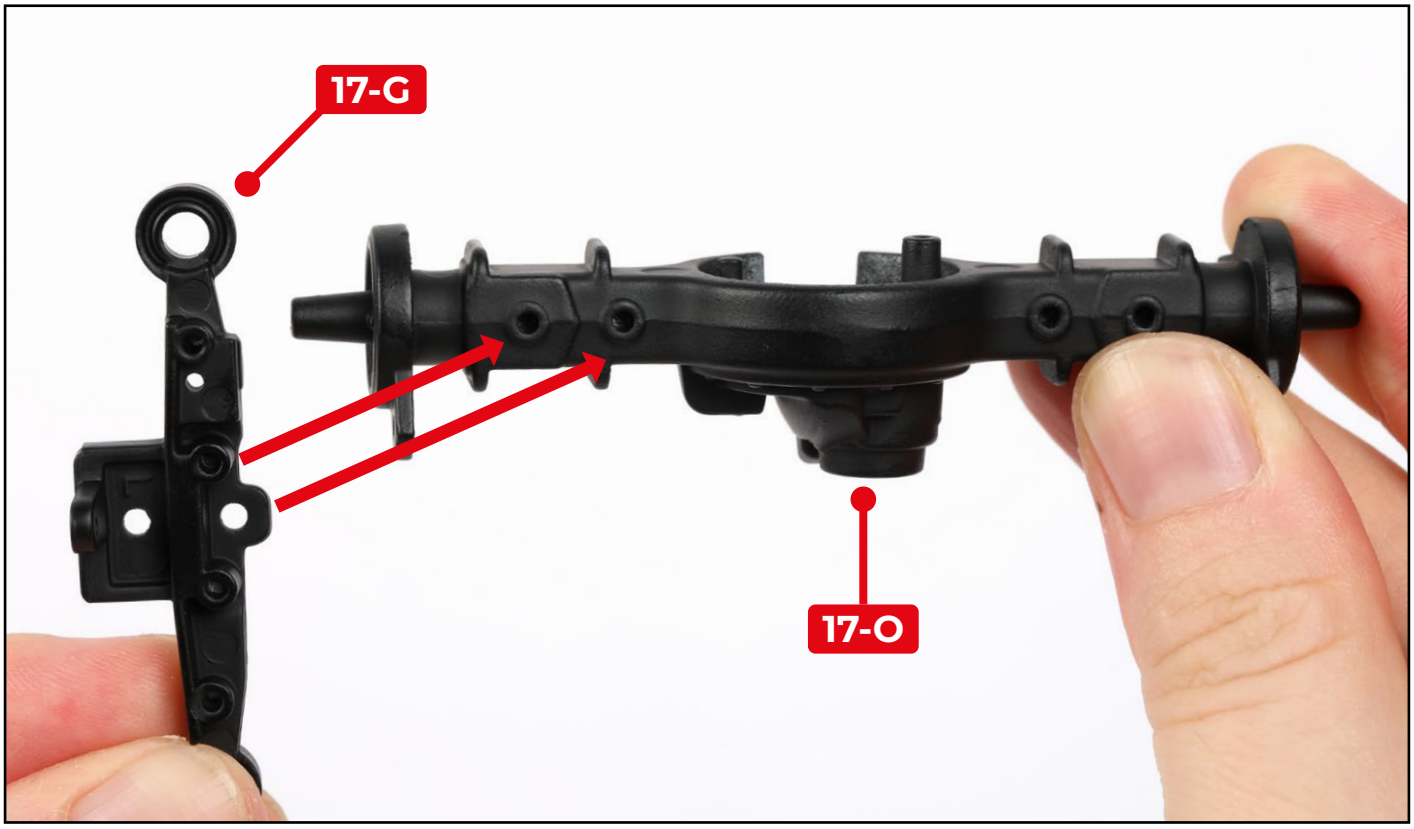


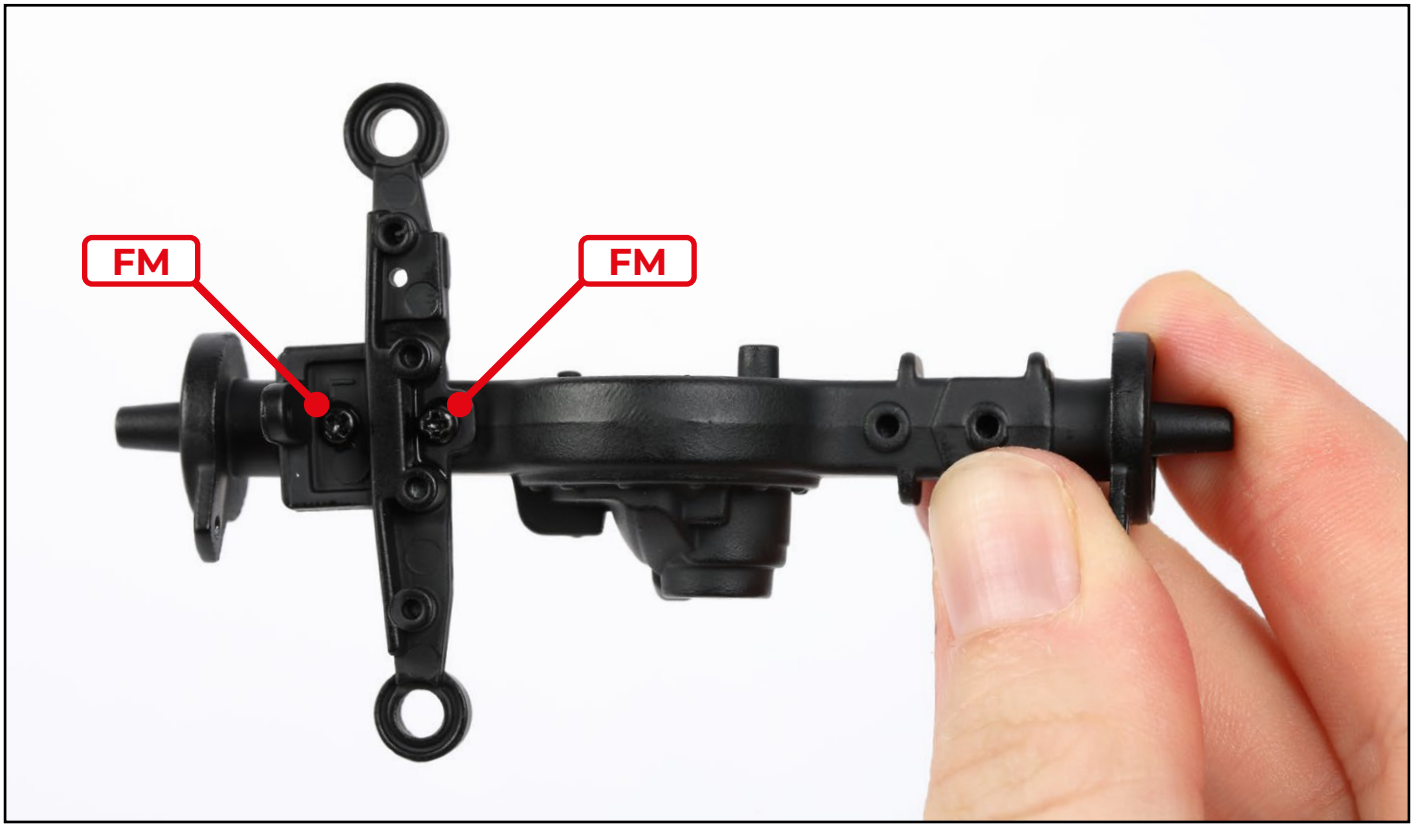


Step 5

Position the second air spring 17-K on left tractor chassis rail 11-A and secure it with one DM screw. Position right longitudinal link bracket 17-T and two air springs 17-K on right tractor chassis rail 12-A as shown. Secure the bracket with two DM screws and each air spring with one DM screw.

Stage 17: Building the rear axle and the driveshaft

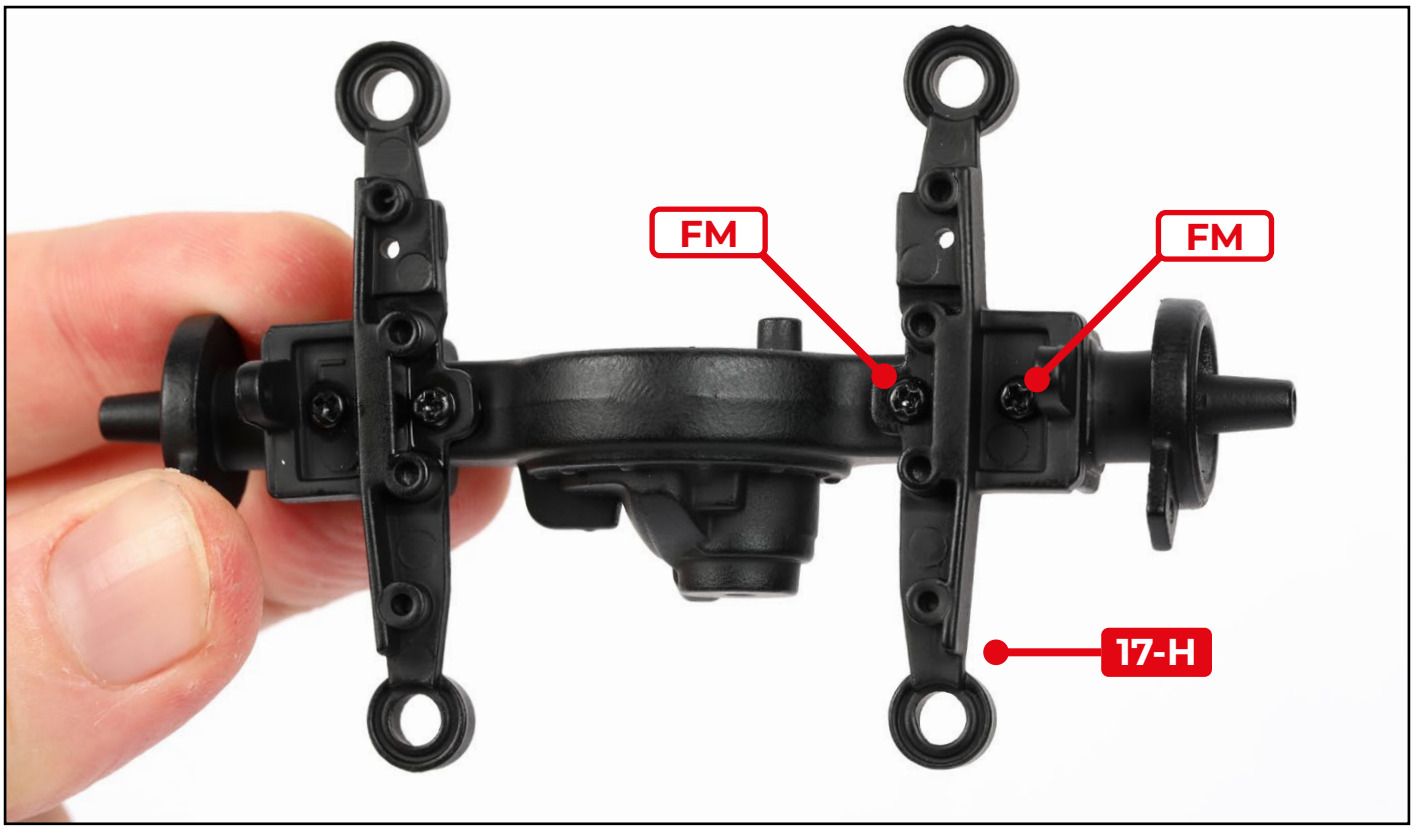




Step 6

Position left rear axle support 1 17-G on rear axle 17-O in the orientation shown, then secure it with two FM screws.

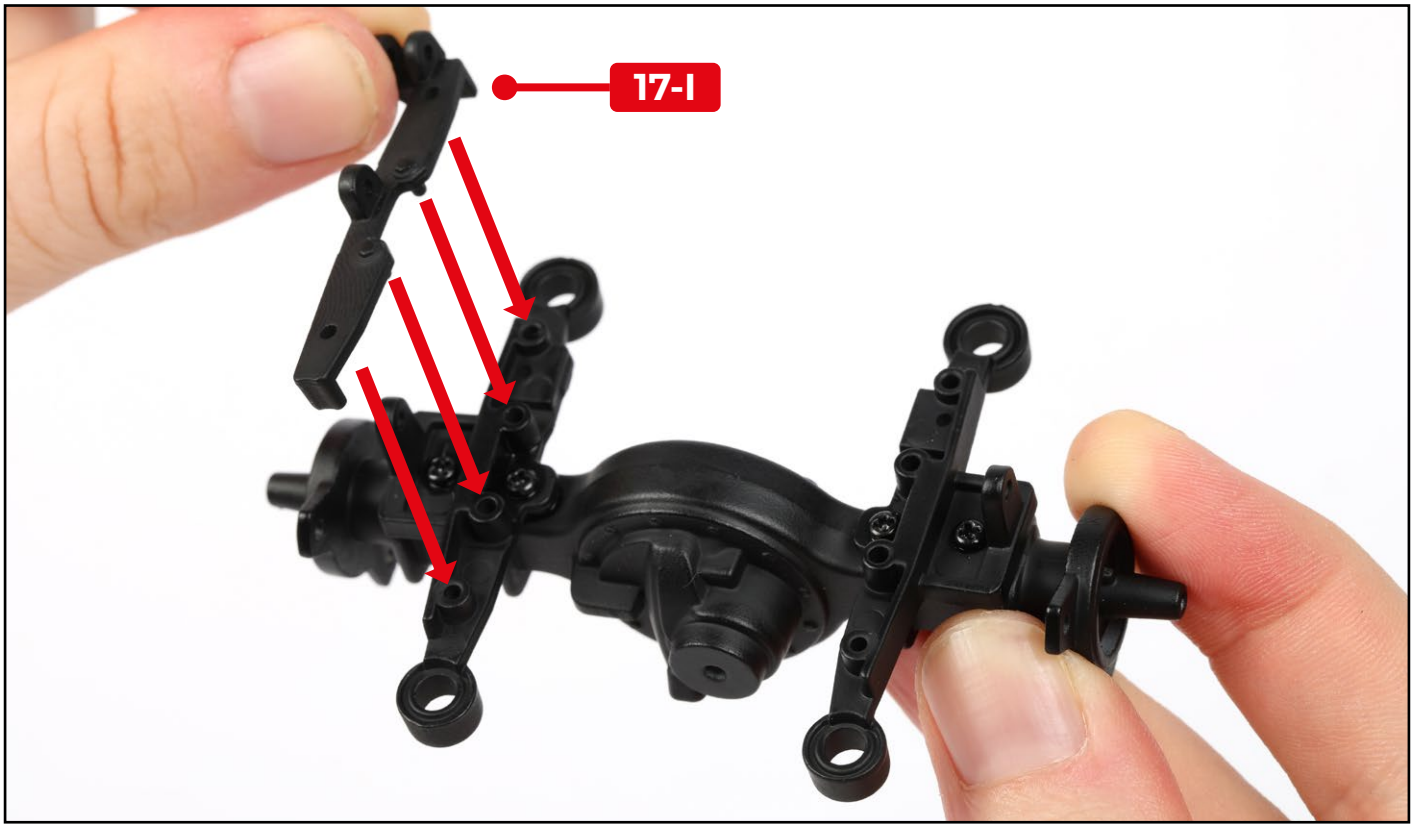
Stage 17: Building the rear axle and the driveshaft

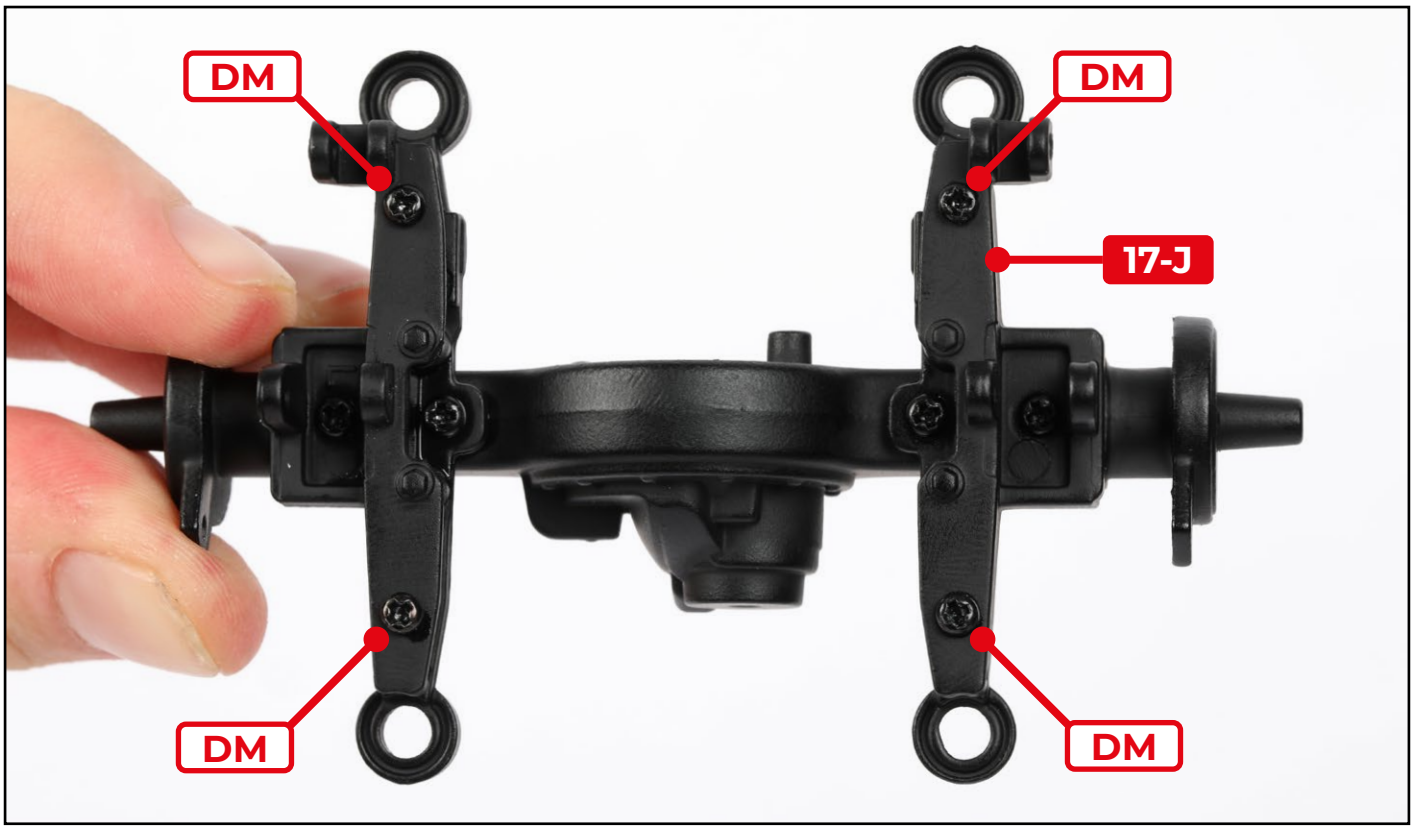


Step 7

Position right rear axle support 1 17-H on rear axle 17-O in the orientation shown, then secure it with two FM screws.

Stage 17: Building the rear axle and the driveshaft

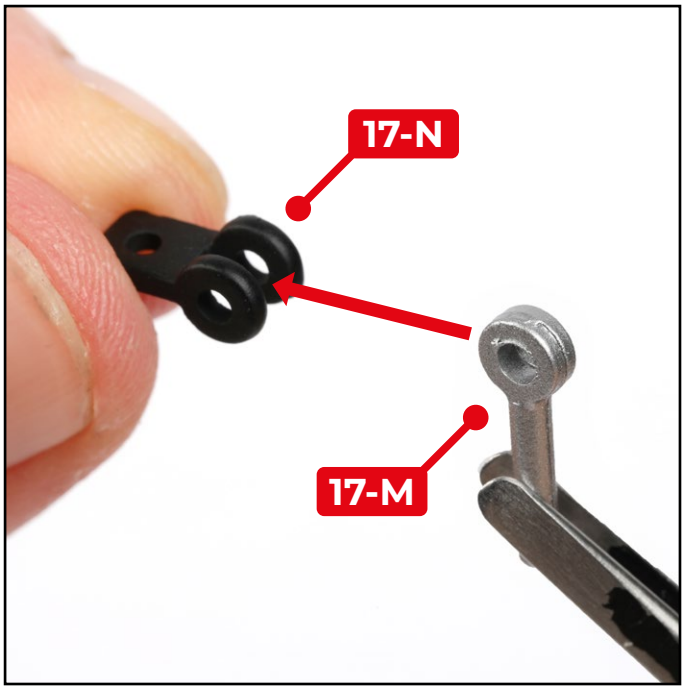


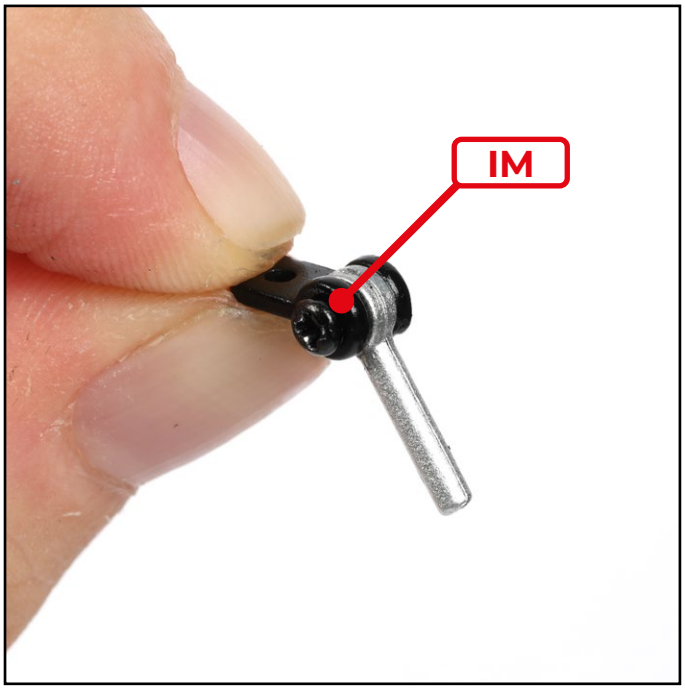


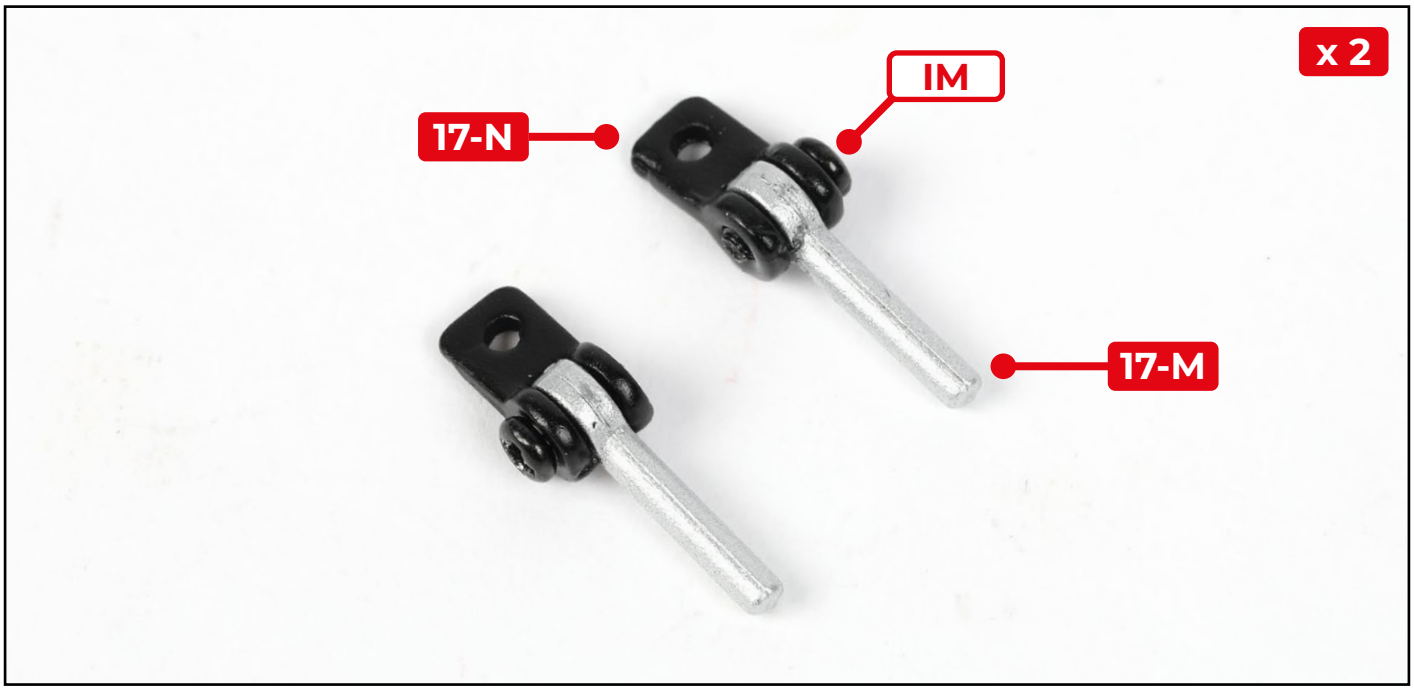
Step 8

Position left rear axle support 2 17-I and right rear axle support 2 17-J on rear axle 17-O as shown, then secure them with four DM screws.

Stage 17: Building the rear axle and the driveshaft



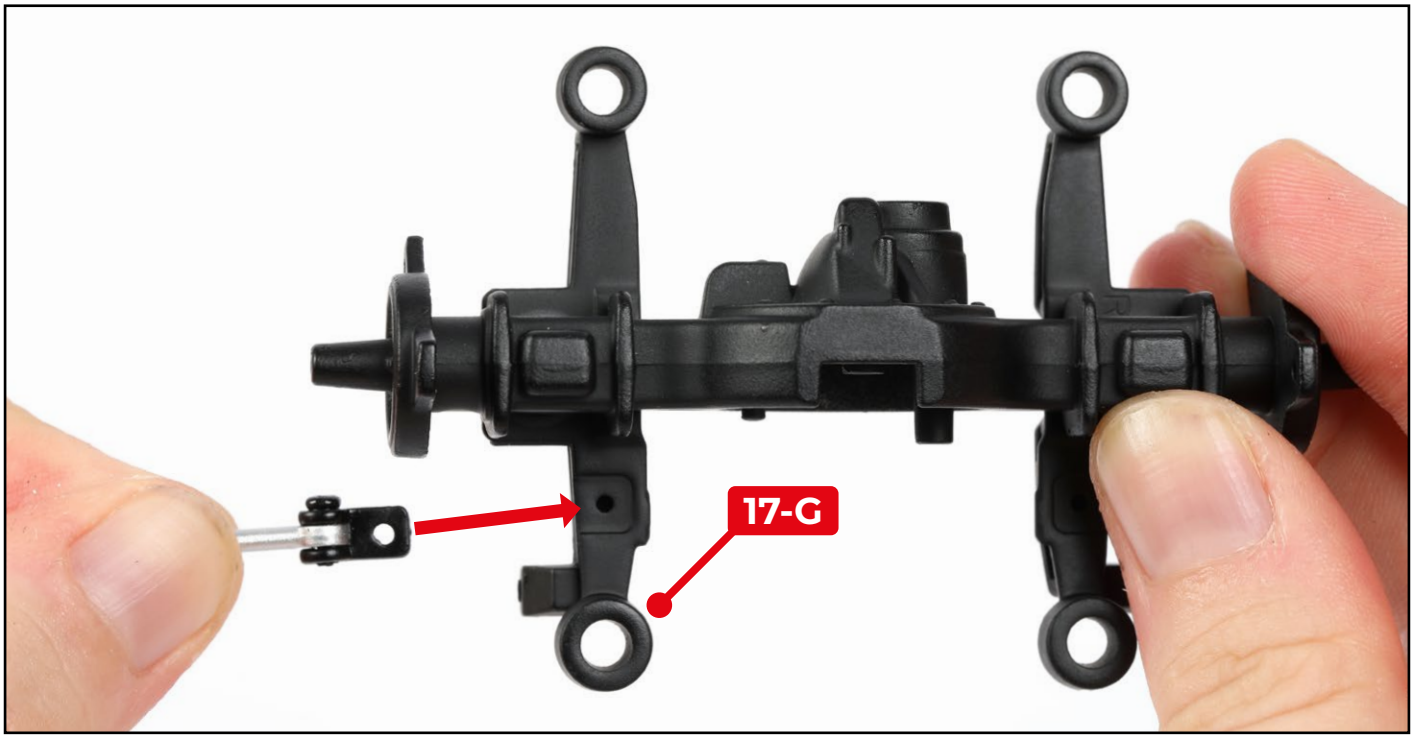


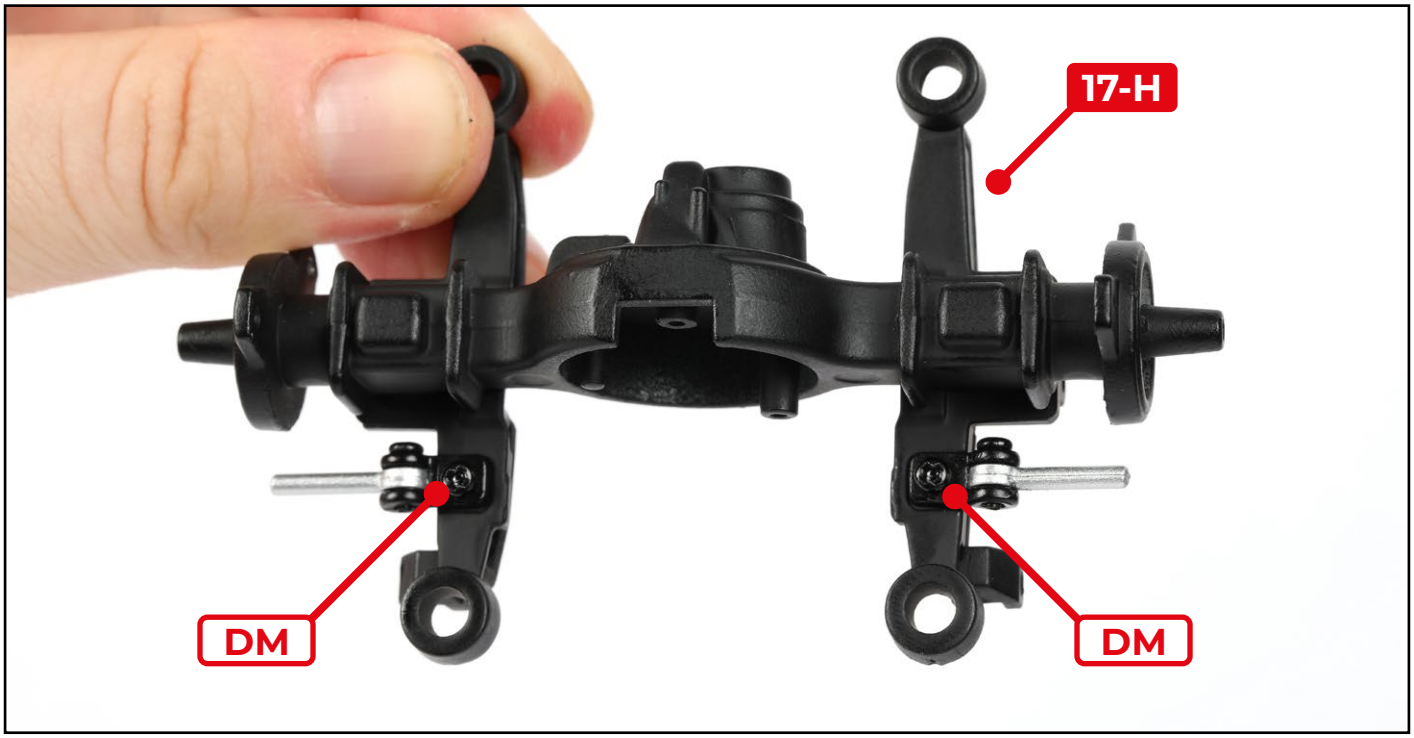


Step 9

Fit each rear shock absorber rod 17-M to a rear lower shock absorber mount 17-N, then secure each assembly with one IM screw.

Stage 17: Building the rear axle and the driveshaft

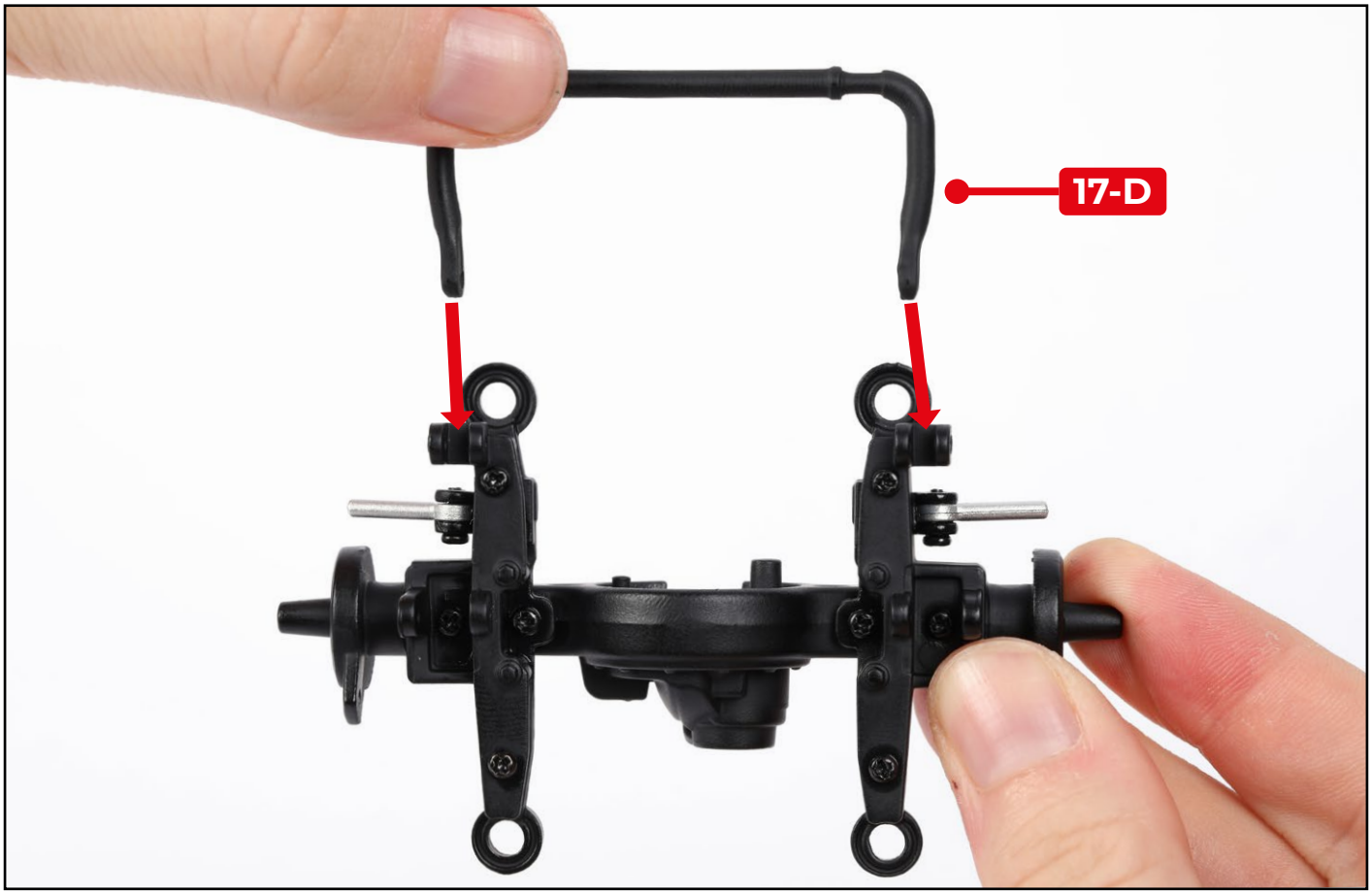


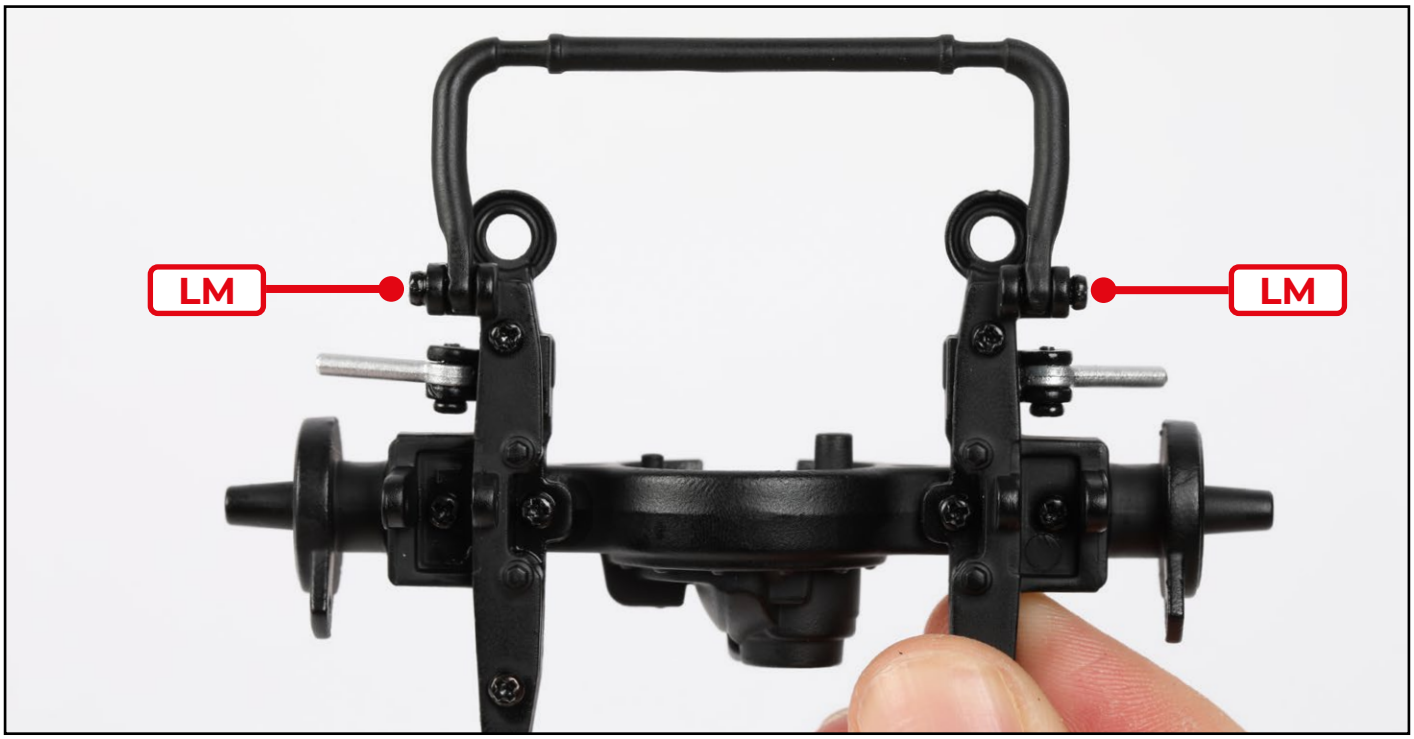


Step 10

Position both rear shock absorber assemblies 17-M/17-N on rear axle supports 17-G and 17-H as shown, then secure them with two DM screws, one on each side.

Stage 17: Building the rear axle and the driveshaft



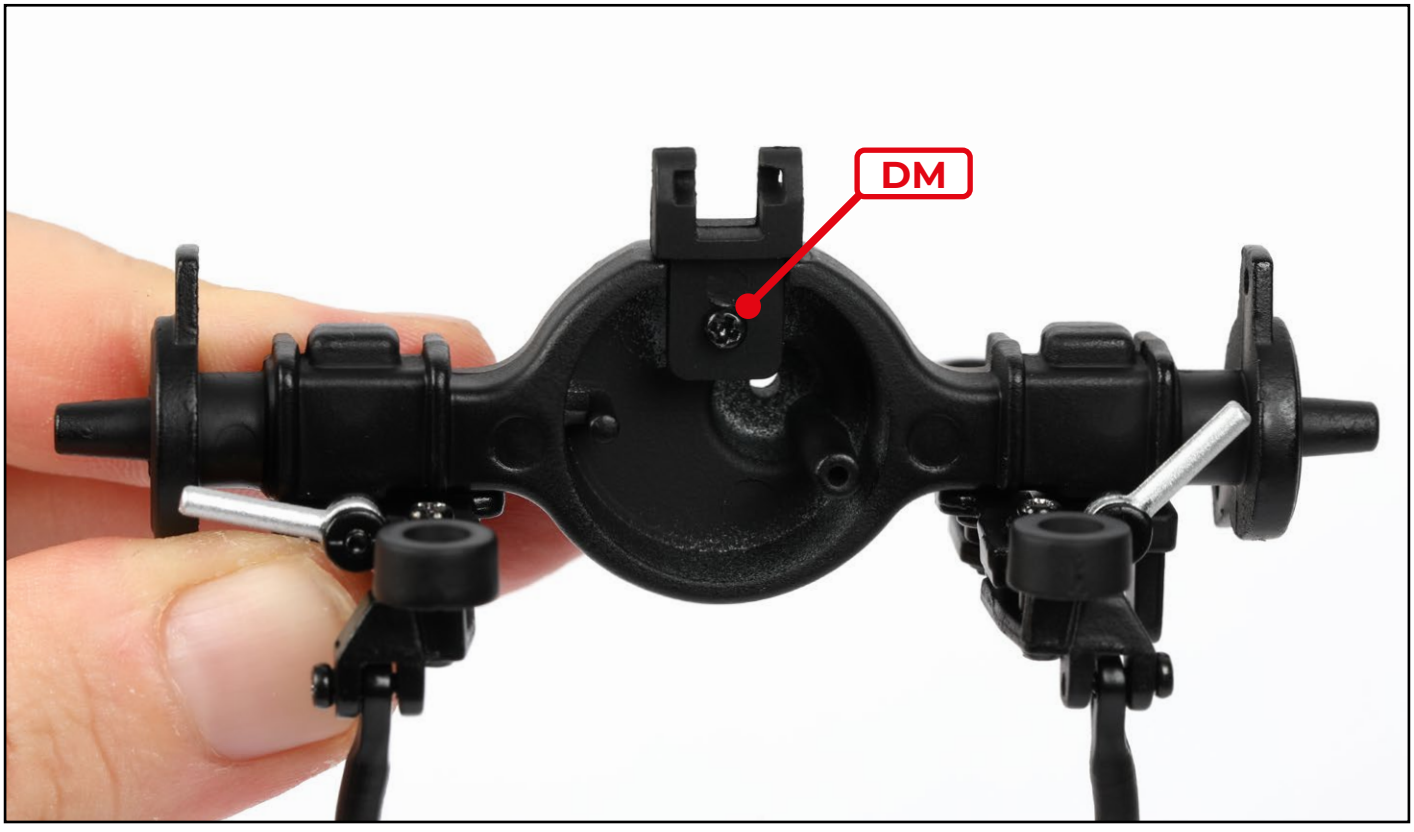


Step 11

Position rear anti-roll bar 17-D as shown, then secure it to rear axle supports 17-I and 17-J with two LM screws.

Stage 17: Building the rear axle and the driveshaft

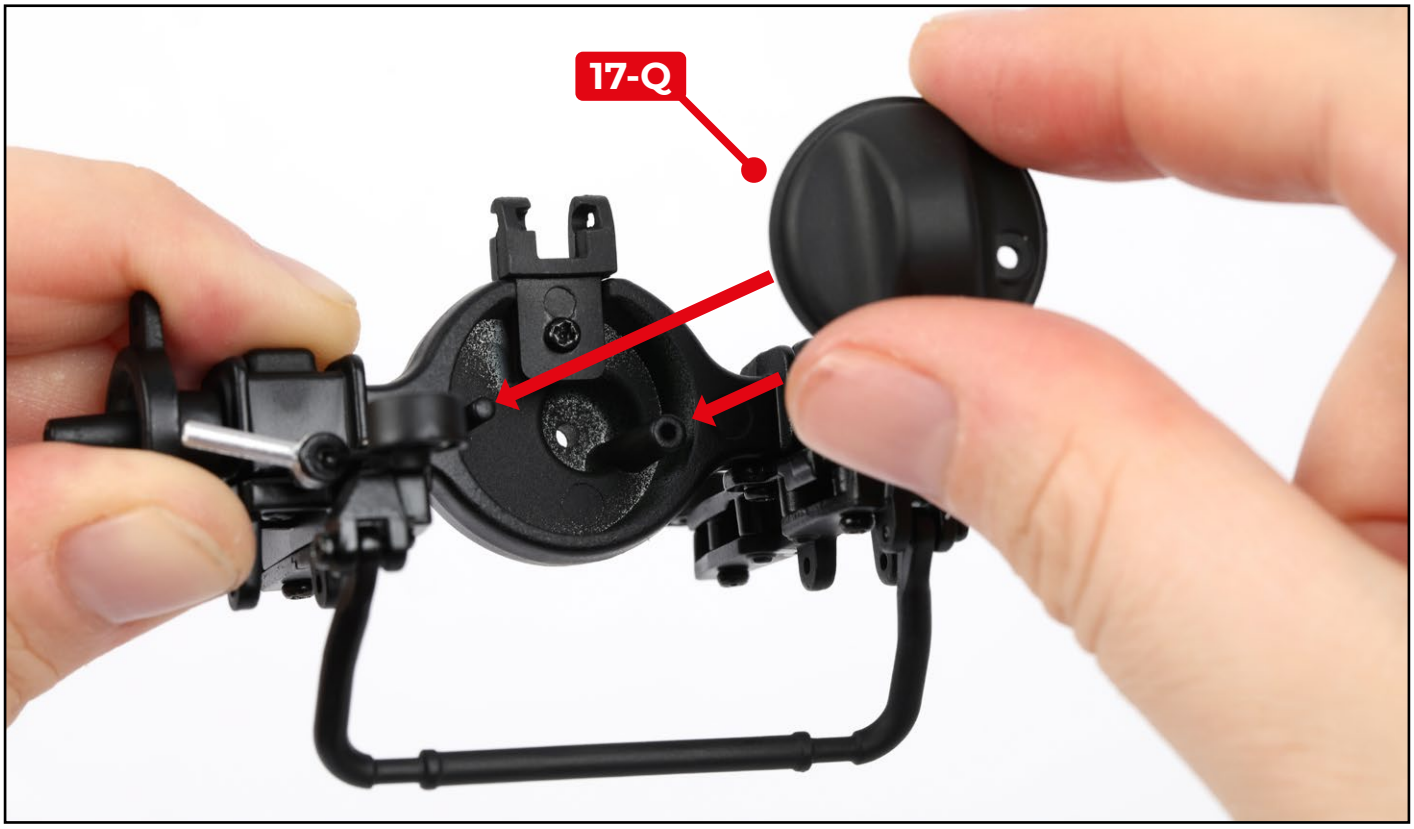




Step 12

Position V-stay bracket 17-P on rear axle 17-O as shown, then secure it with one DM screw.

Stage 17: Building the rear axle and the driveshaft

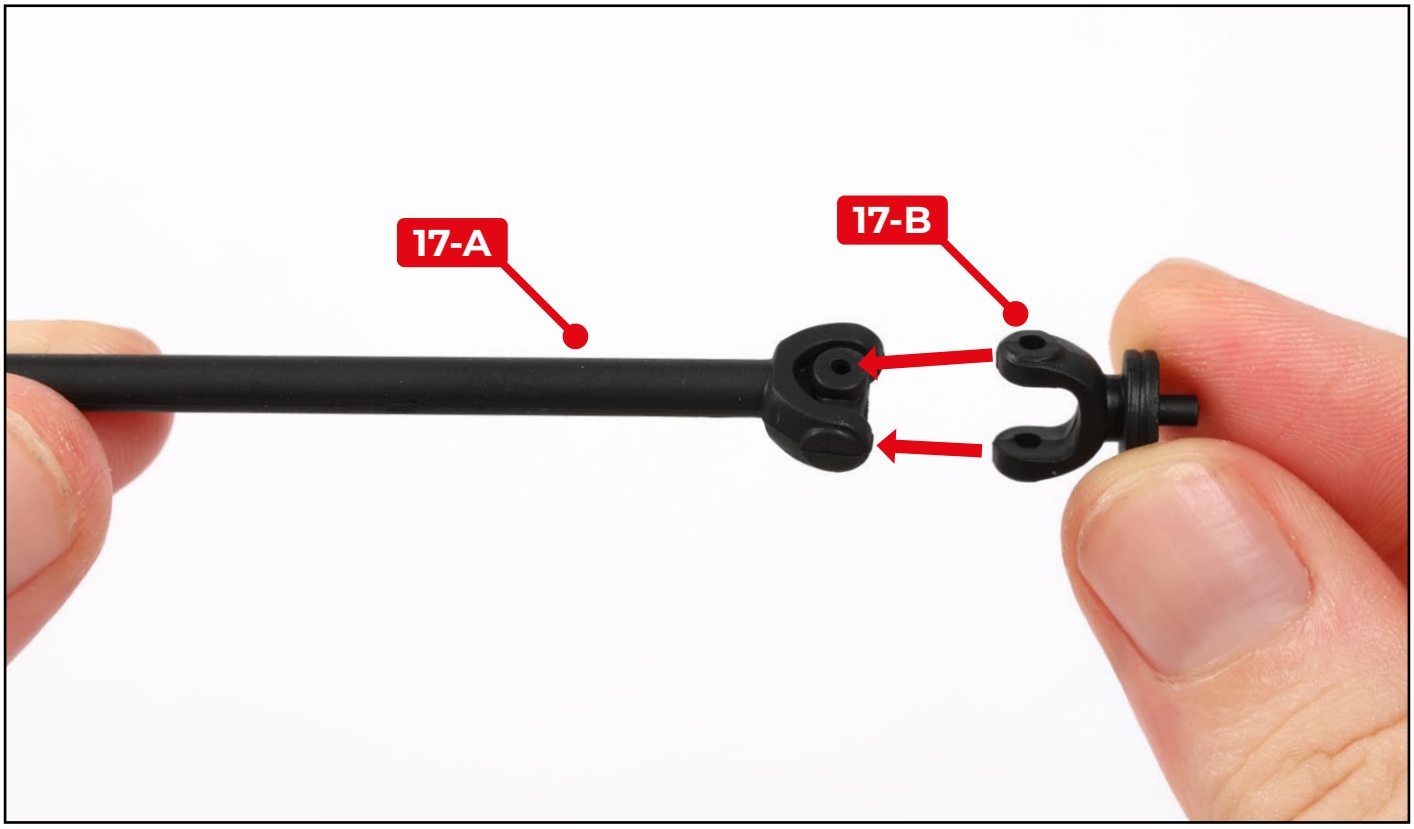


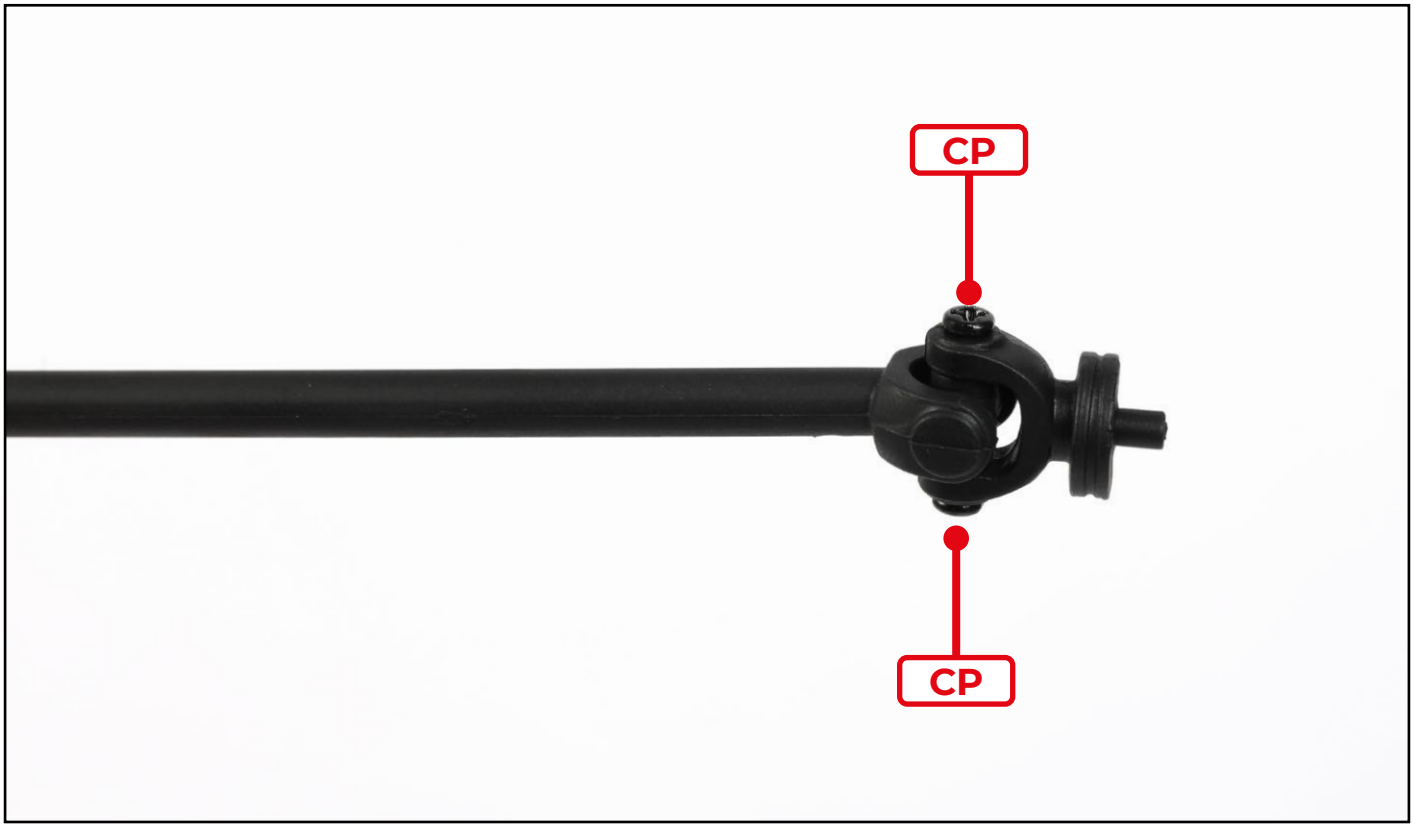


Step 13

Position differential cover 17-Q as shown, then secure it with one DM screw.

Stage 17: Building the rear axle and the driveshaft

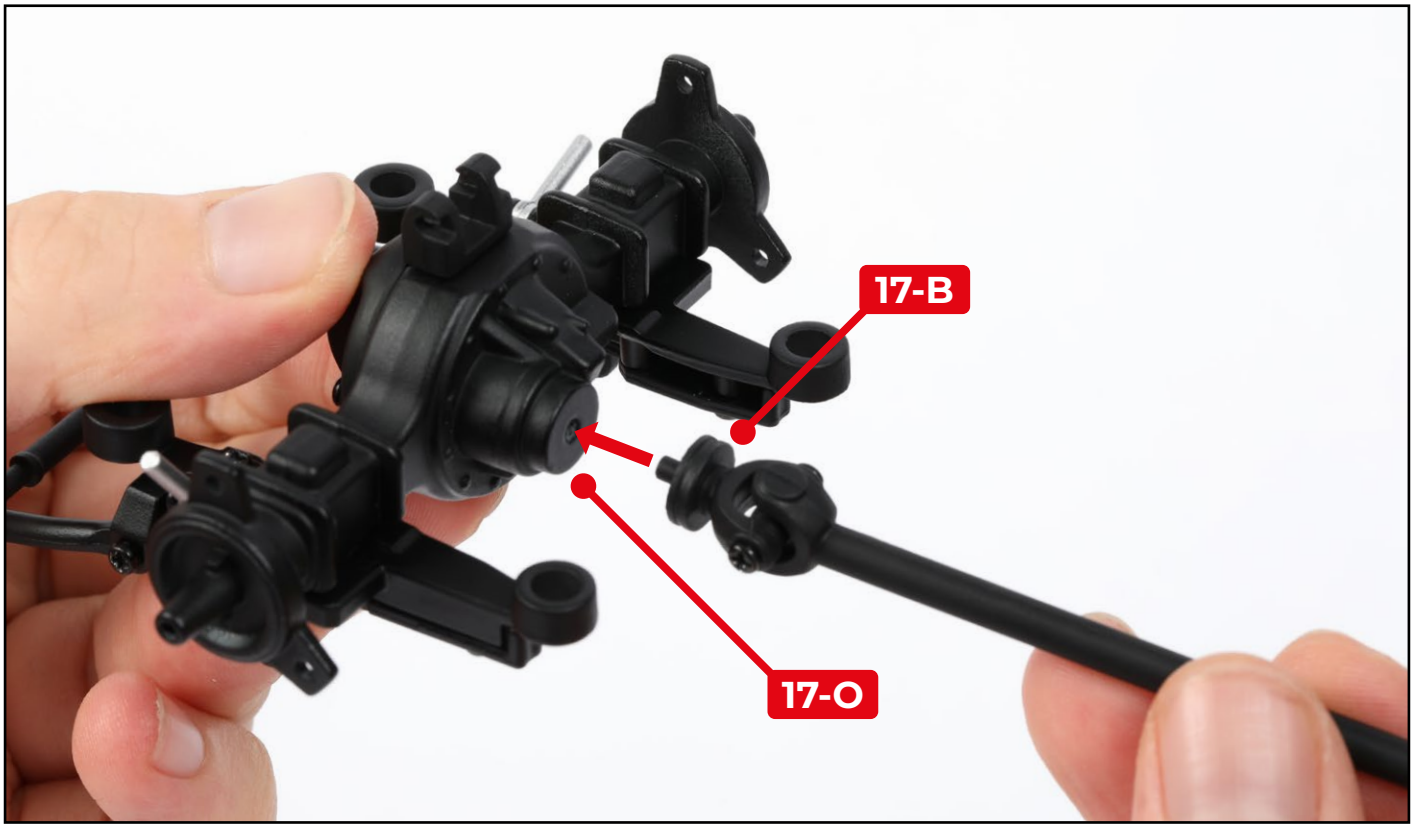




Step 14

Fit driveshaft 17-A to differential universal joint 17-B as shown, then secure the joint with two CP screws.

Stage 17: Building the rear axle and the driveshaft

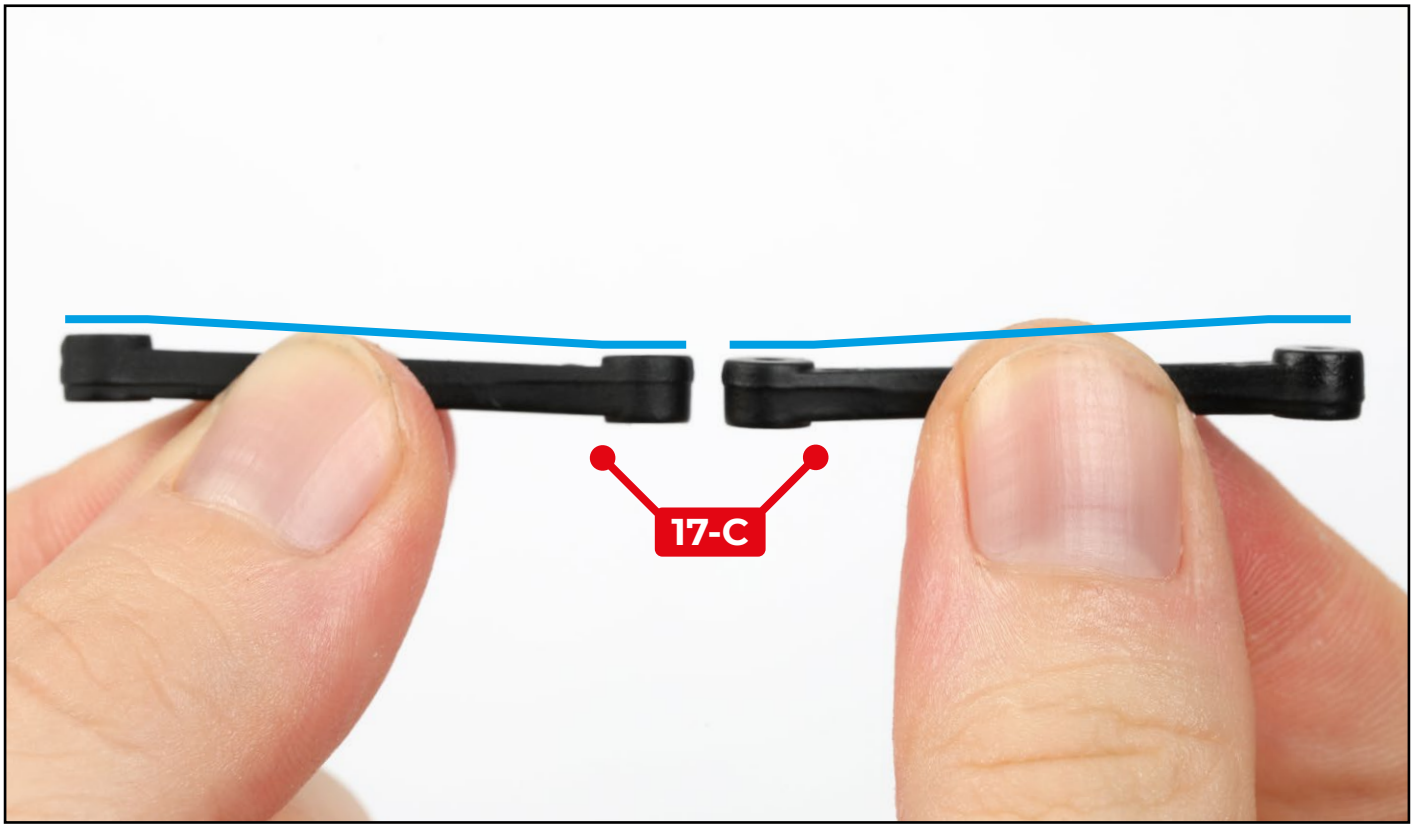


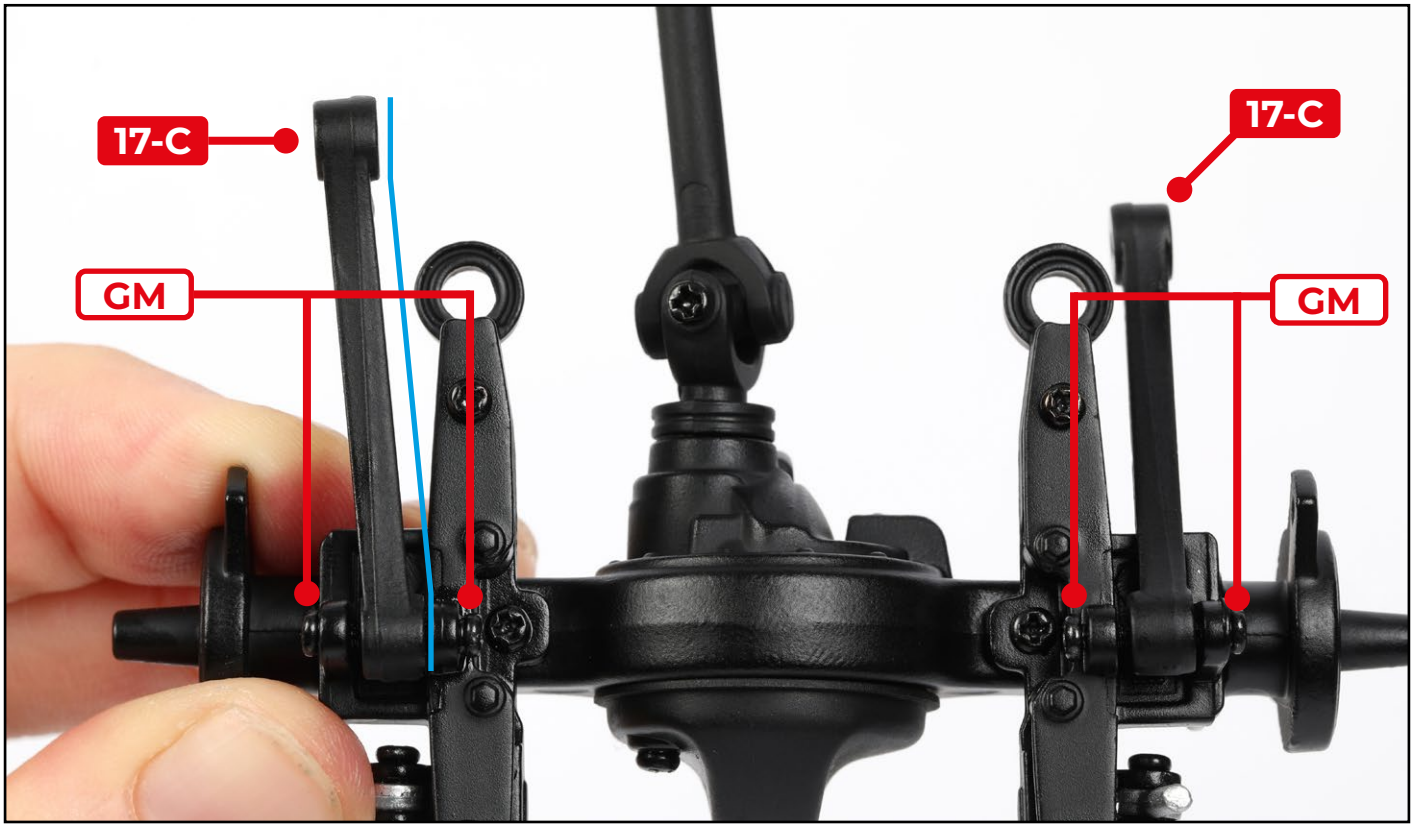


Step 15

Insert differential universal joint 17-B into its mounting point on rear axle 17-O.

Stage 17: Building the rear axle and the driveshaft

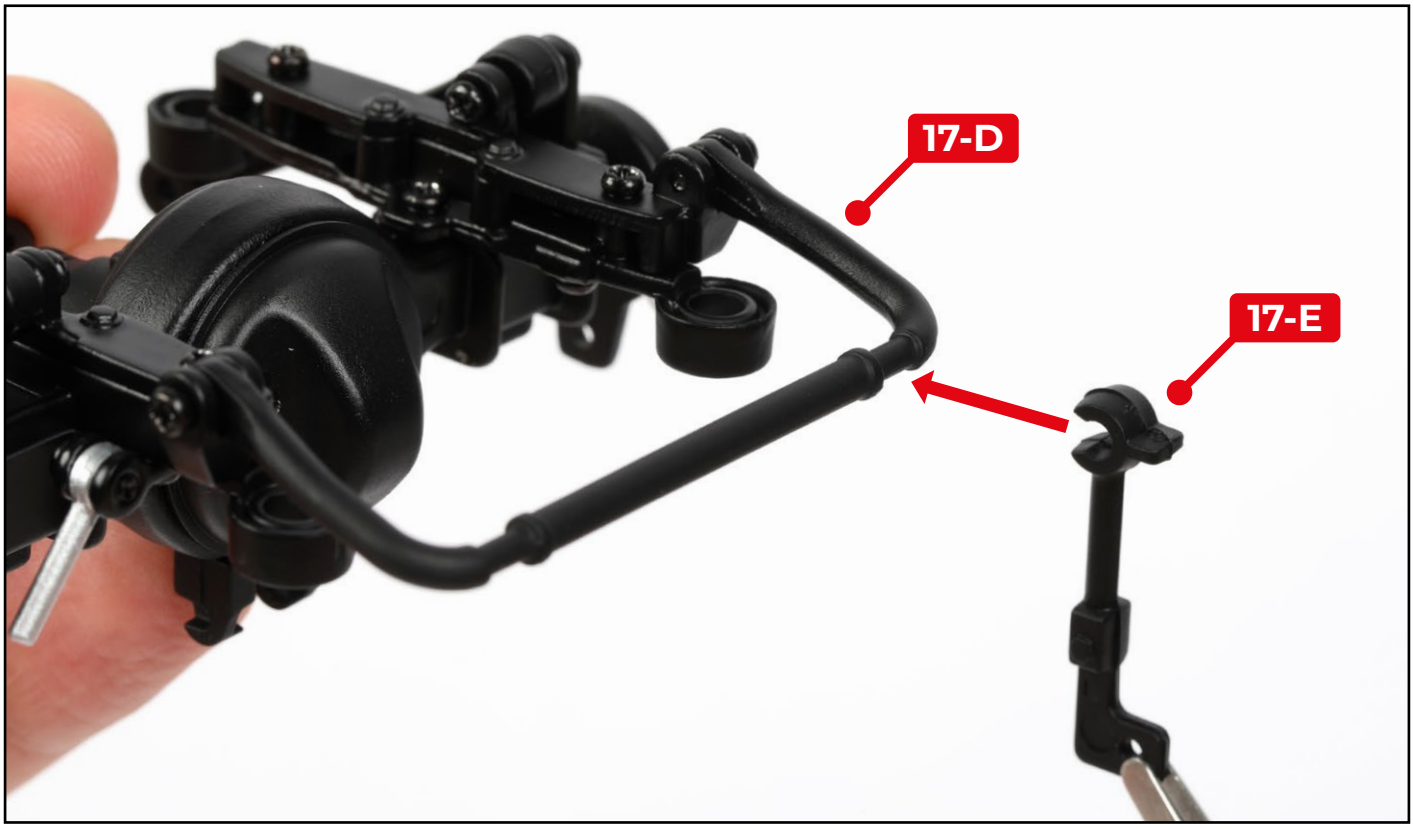


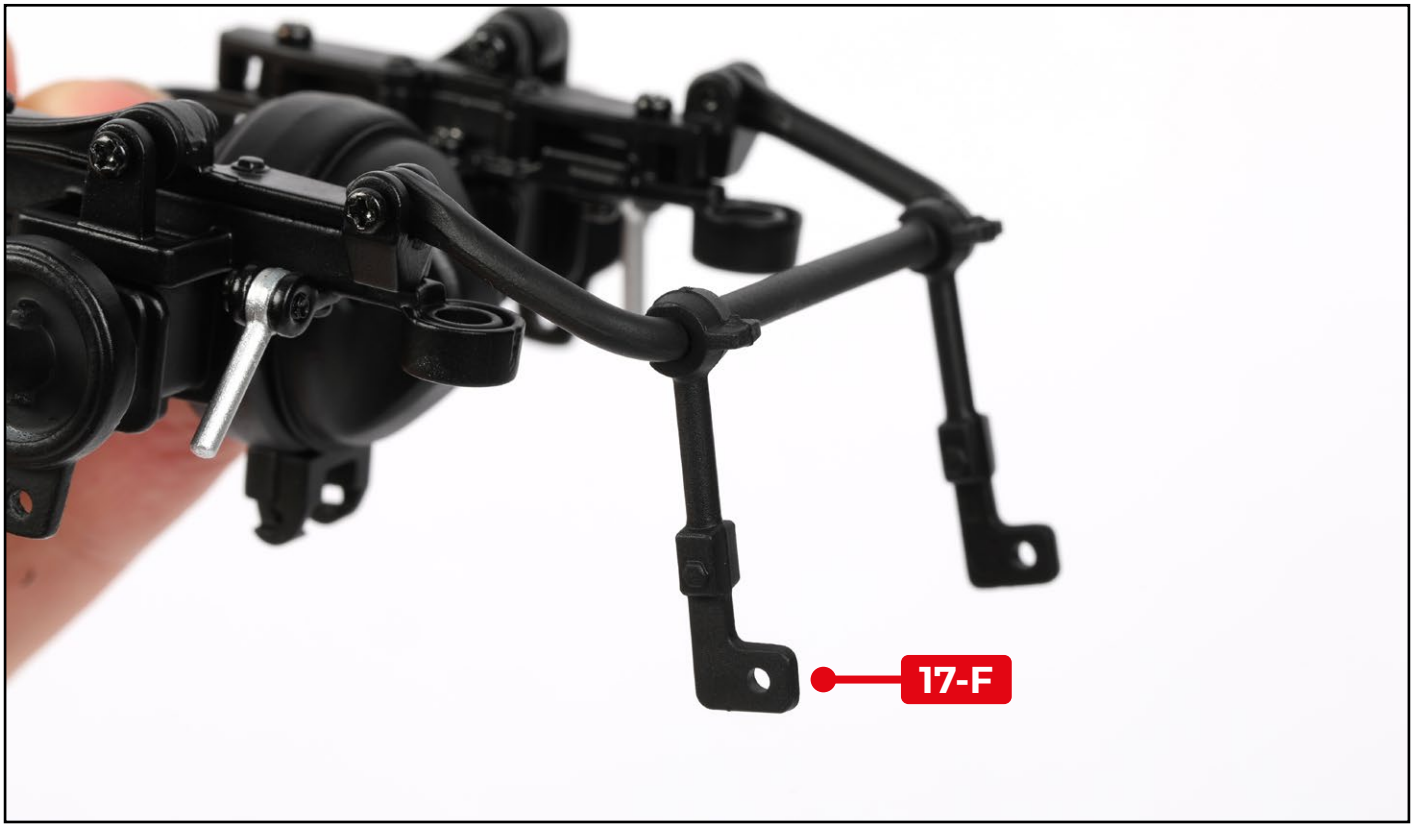


Step 16

Position both longitudinal links 17-C on the rear axle supports in the orientation shown. Secure the longitudinal links with four GM screws, two on each side.

Stage 17: Building the rear axle and the driveshaft





Step 17

Hook left rear anti-roll bar link 17-E and right rear anti-roll bar link 17-F onto rear anti-roll bar 17-D.

Stage 17: Building the rear axle and the driveshaft



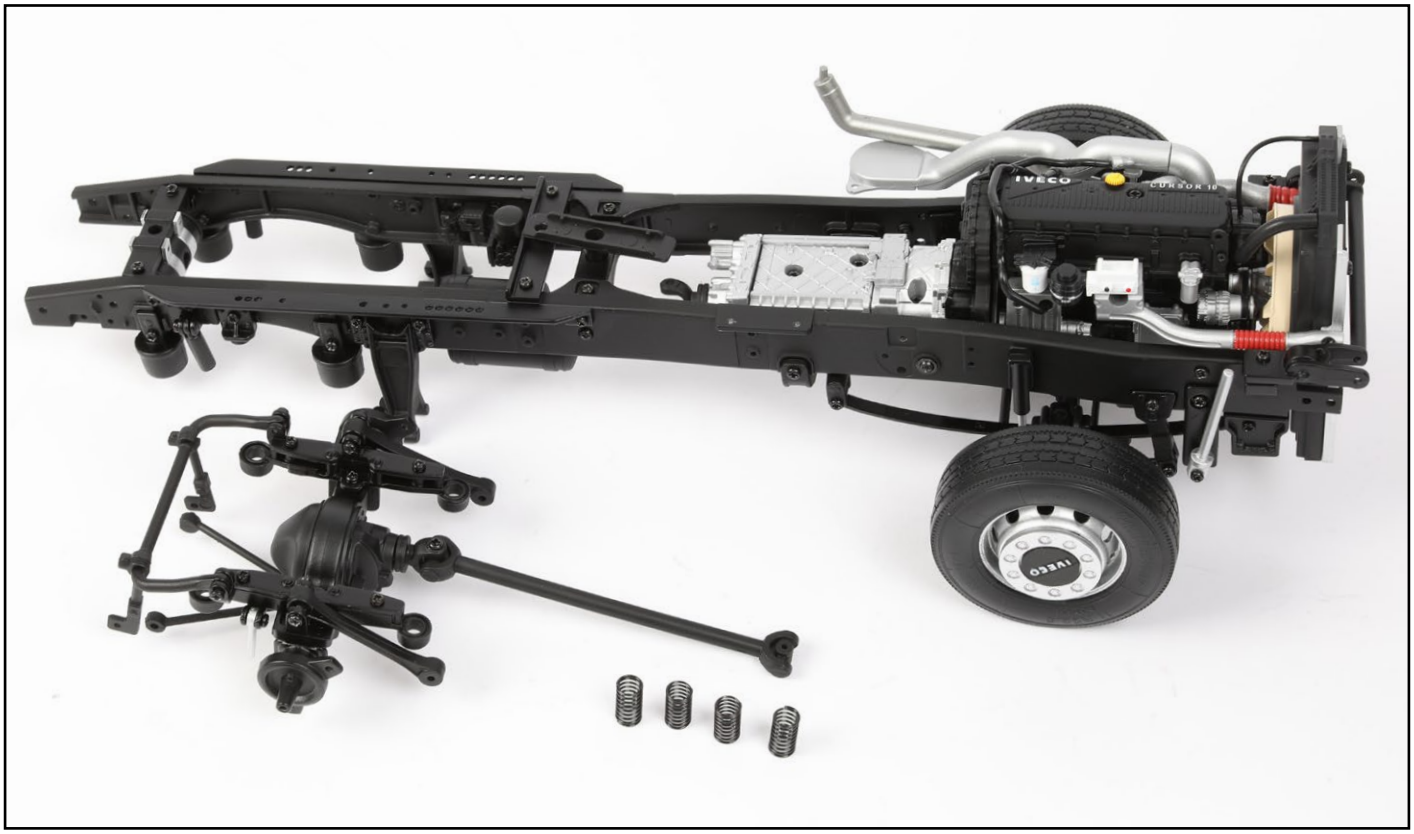


Step 18

Press rear axle V-stay 17-R onto V-stay bracket 17-P as shown.

Stage 17: Building the rear axle and the driveshaft

STAGE 17 COMPLETE



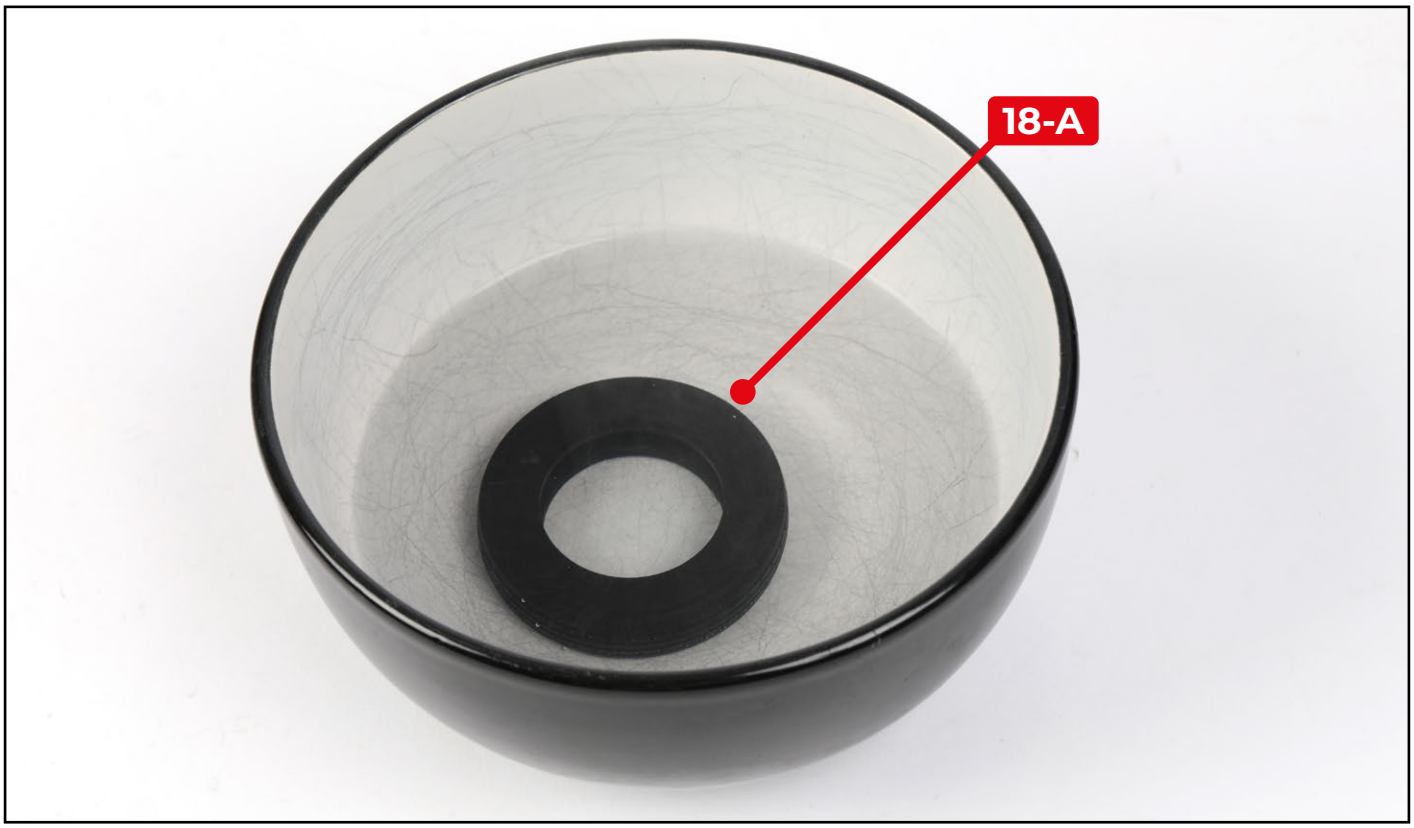
Stage 18: Assembling the rear wheels

STAGE 18 PARTS



18-A: Tyres
18-B: Wheel rims
18-C: Rear wheel drive hubs

Stage 18: Assembling the rear wheels





Step 1

Soften each tyre 18-A by working it thoroughly by hand or immersing it in warm water. Insert one wheel rim 18-B into one tyre 18-A.

Stage 18: Assembling the rear wheels





Step 2

Repeat the operation with the remaining tyres and wheel rims to assemble all four rear wheels.

Stage 18: Assembling the rear wheels

STAGE 18 COMPLETE



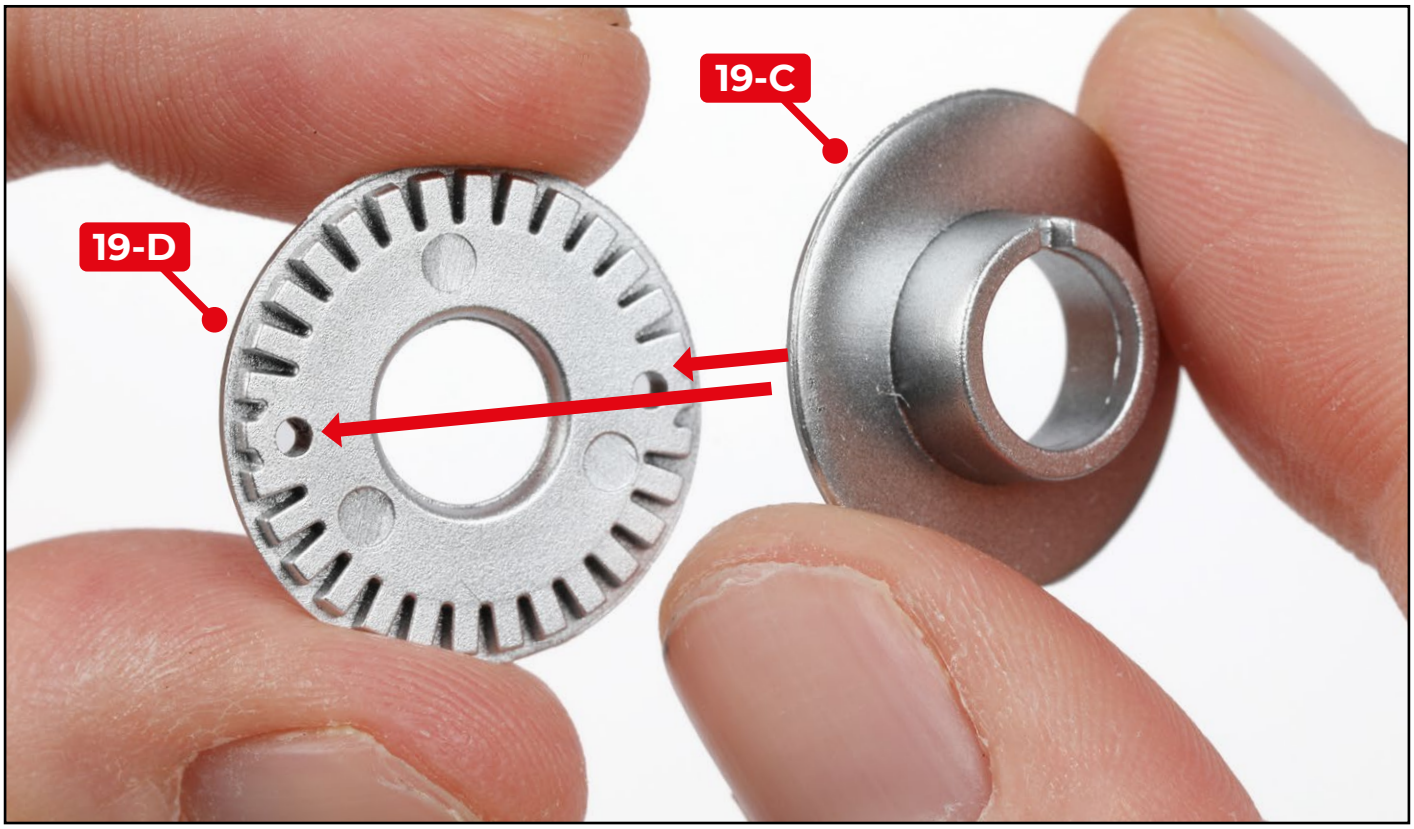
Stage 19: Attaching the rear axle, the driveshaft and the rear wheels

STAGE 19 PARTS



19-A: Wheel hubs
19-B: Left rear brake caliper
19-C: Brake disc 1
19-D: Brake disc 2
19-E: Left rear air brake actuator
19-F: Right rear brake caliper
19-G: Right rear air brake actuator
19-H: Washers
AP: 8 screws
CP: 3 screws
DM: 3 screws
GM: 3 screws
JM: 5 screws
LM: 5 screws
MM: 3 screws
RM: 10 screws

Stage 19: Attaching the rear axle, the driveshaft and the rear wheels

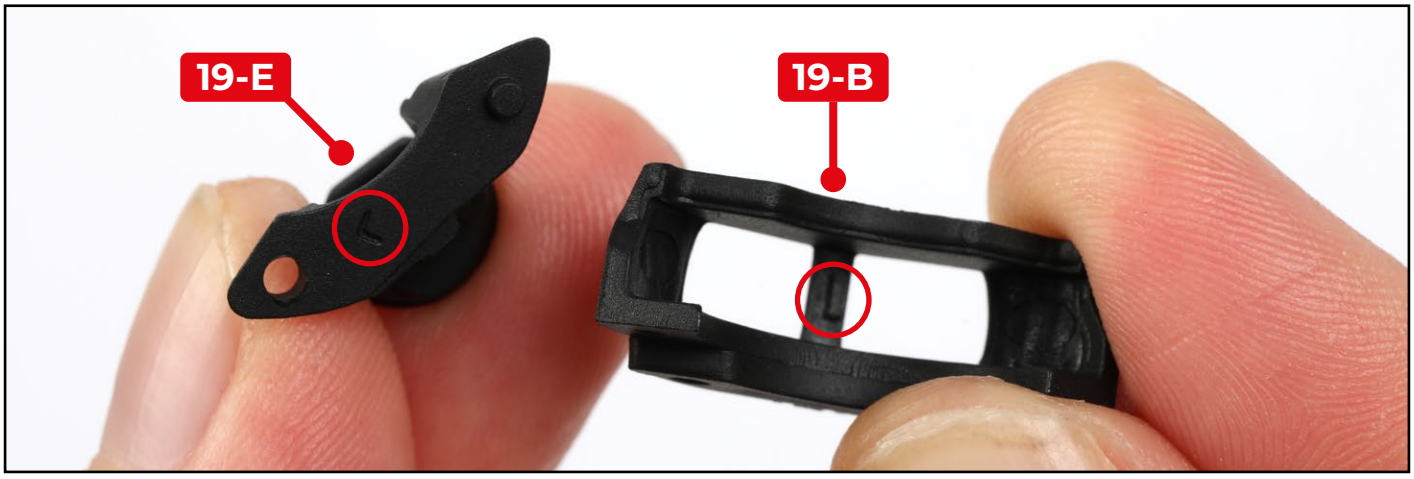


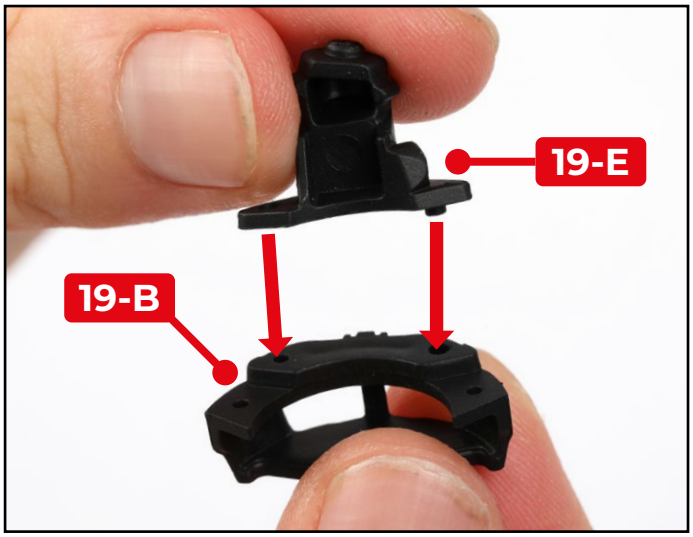


Step 1

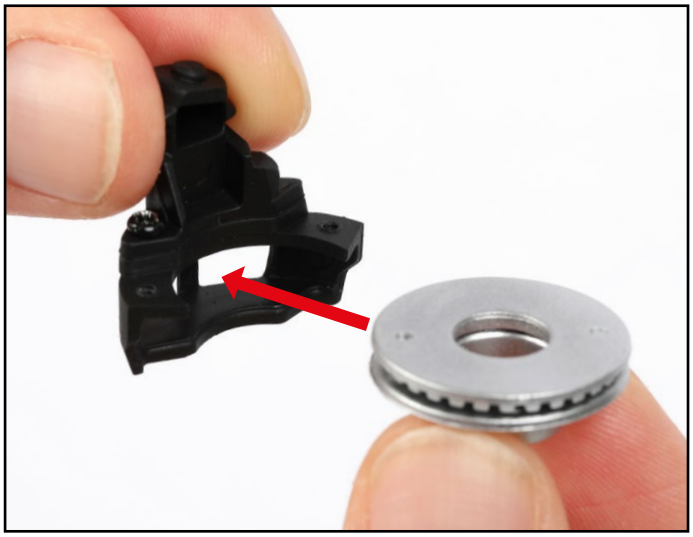
Press each brake disc 1 19-C and brake disc 2 19-D together to make two brake disc assemblies.

Stage 19: Attaching the rear axle, the driveshaft and the rear wheels







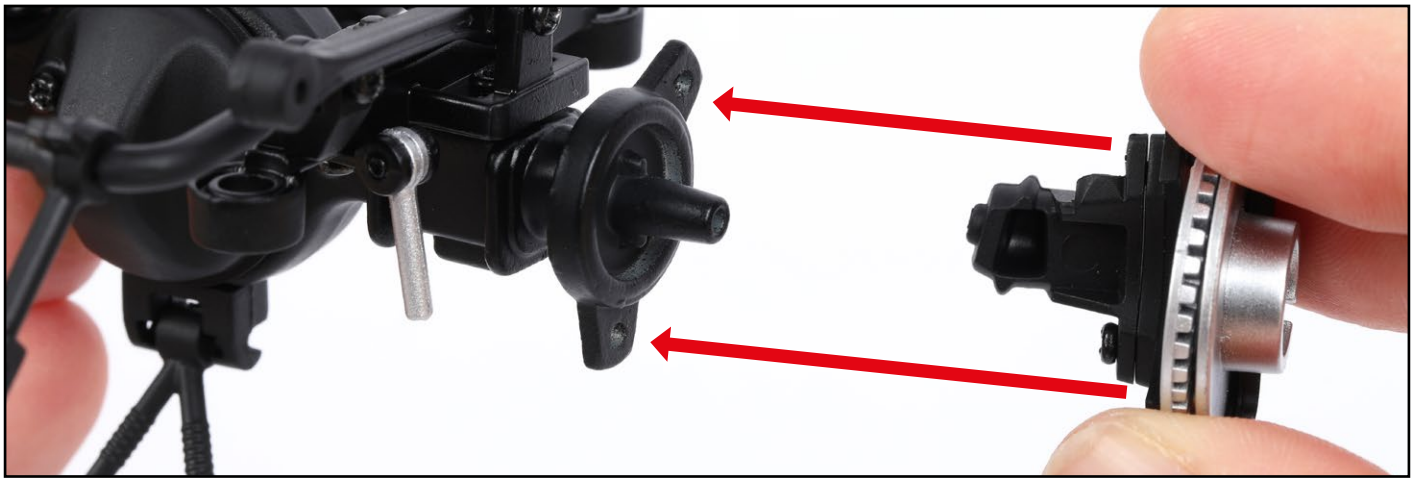


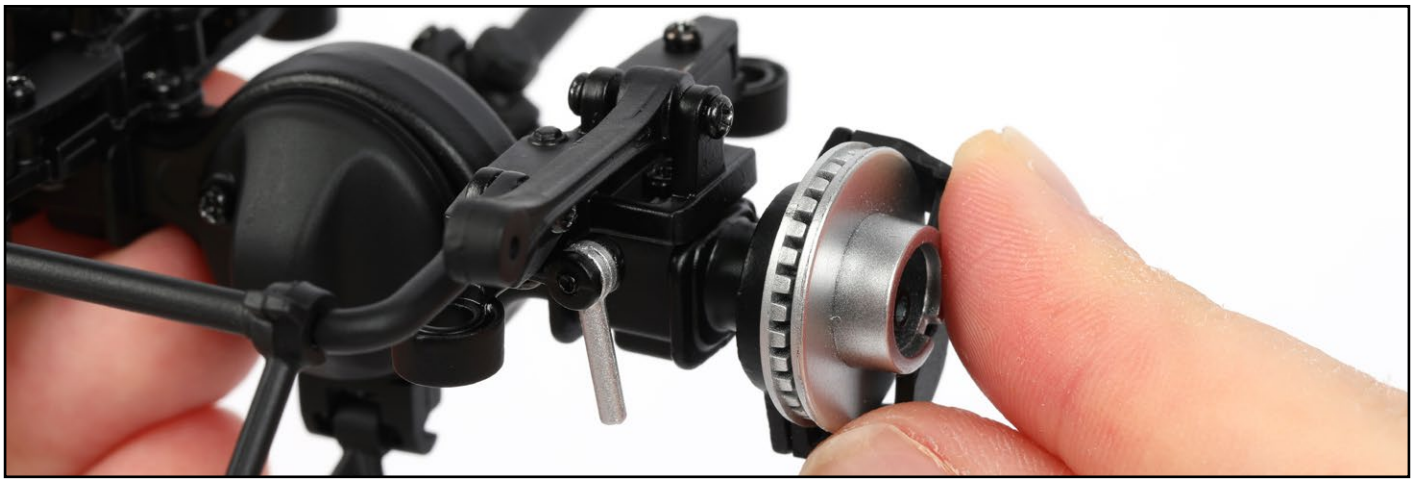


Step 2

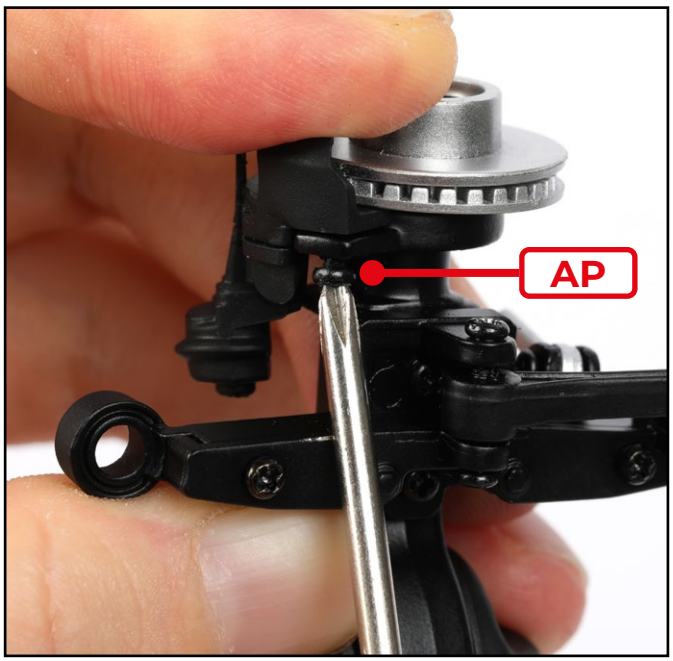
Position left rear air brake actuator 19-E on left rear brake caliper 19-B, then secure it with one AP screw. Fit one brake disc assembly 19-C/19-D into the left brake assembly.

Stage 19: Attaching the rear axle, the driveshaft and the rear wheels





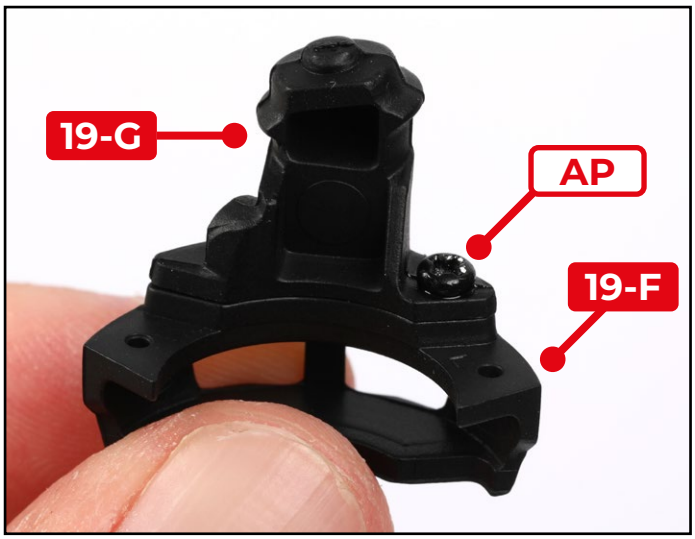




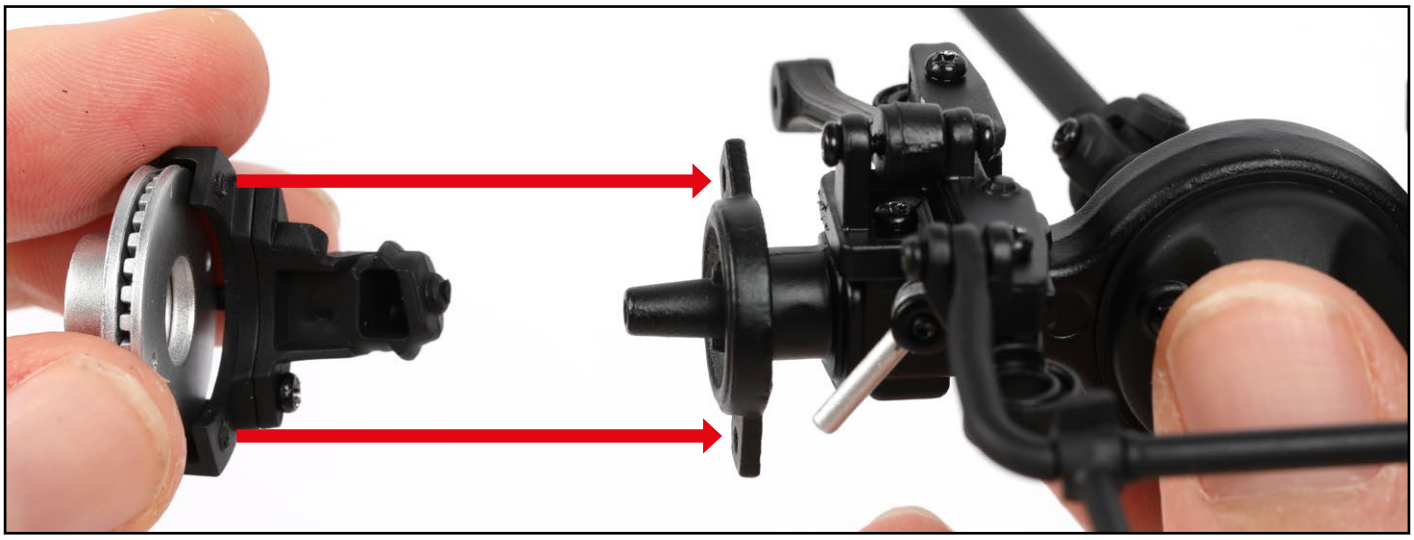
Step 3

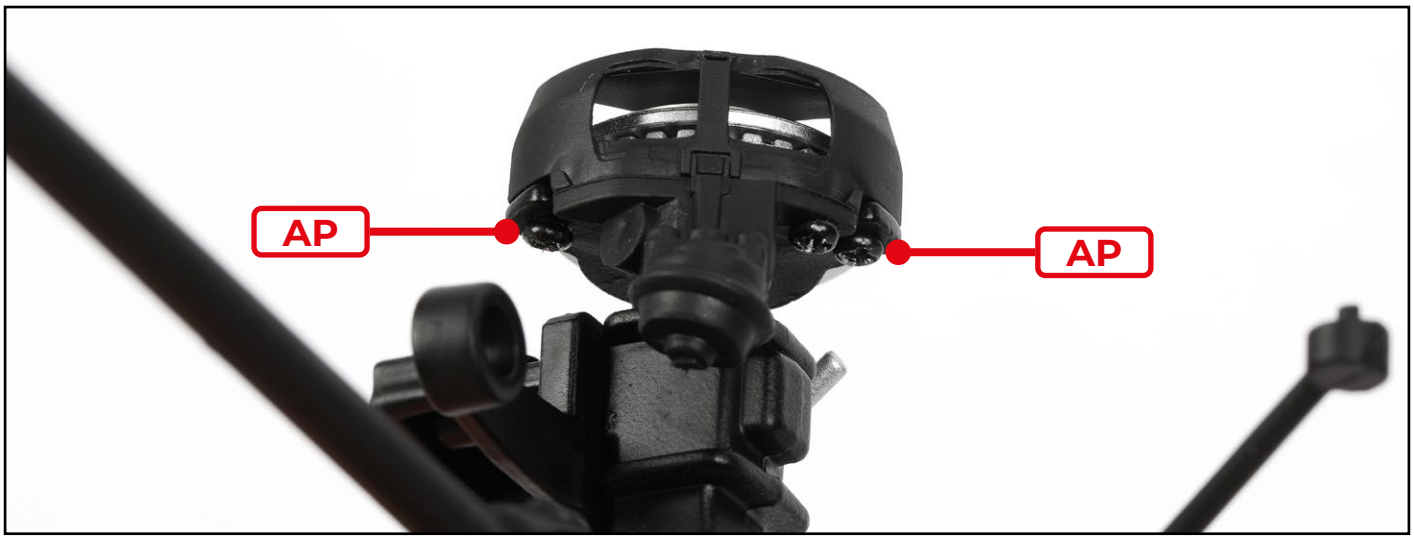
Retrieve the rear axle assembly from Stage 17. Position the assembled left brake assembly on the rear axle as shown, then secure it with two AP screws.

Stage 19: Attaching the rear axle, the driveshaft and the rear wheels





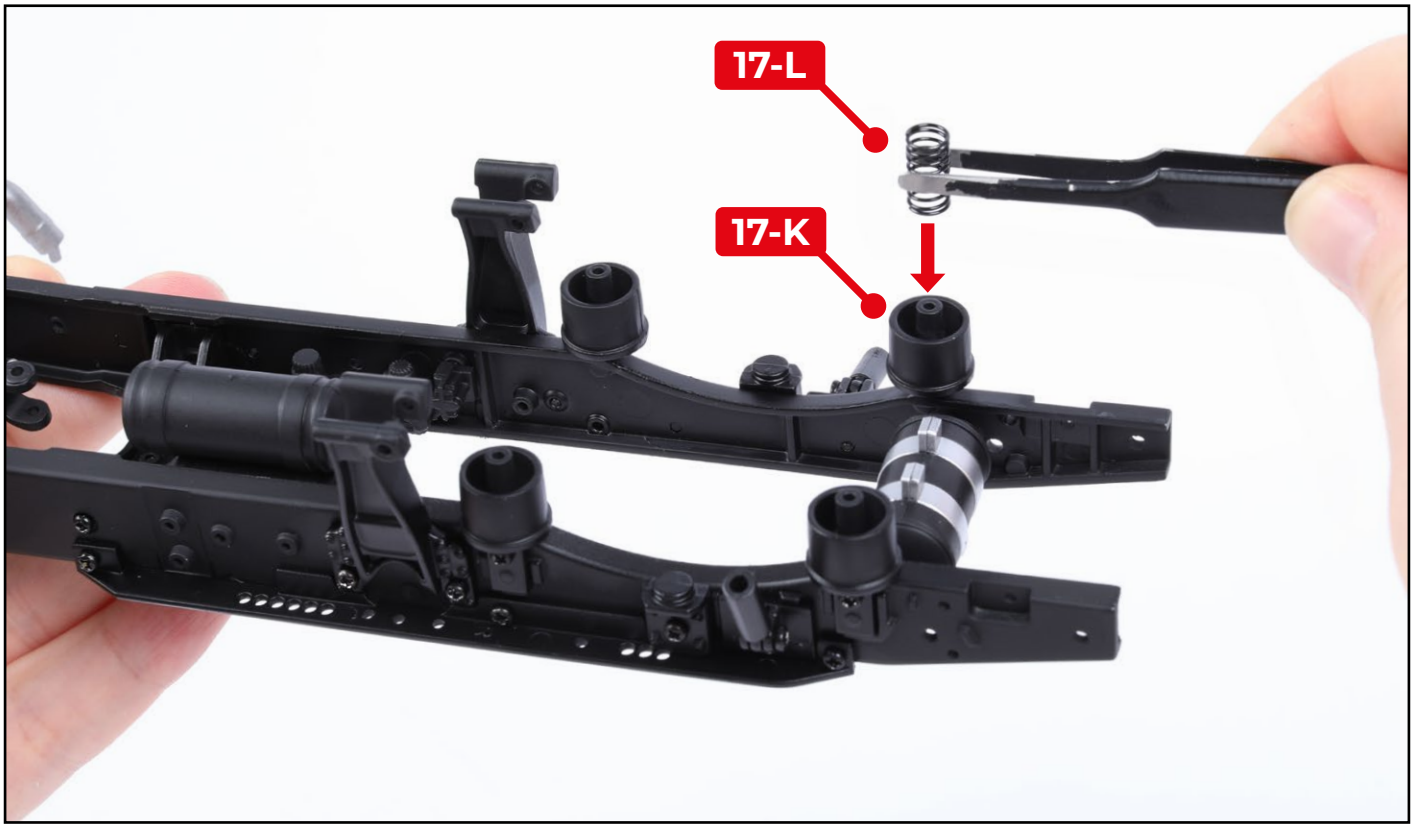


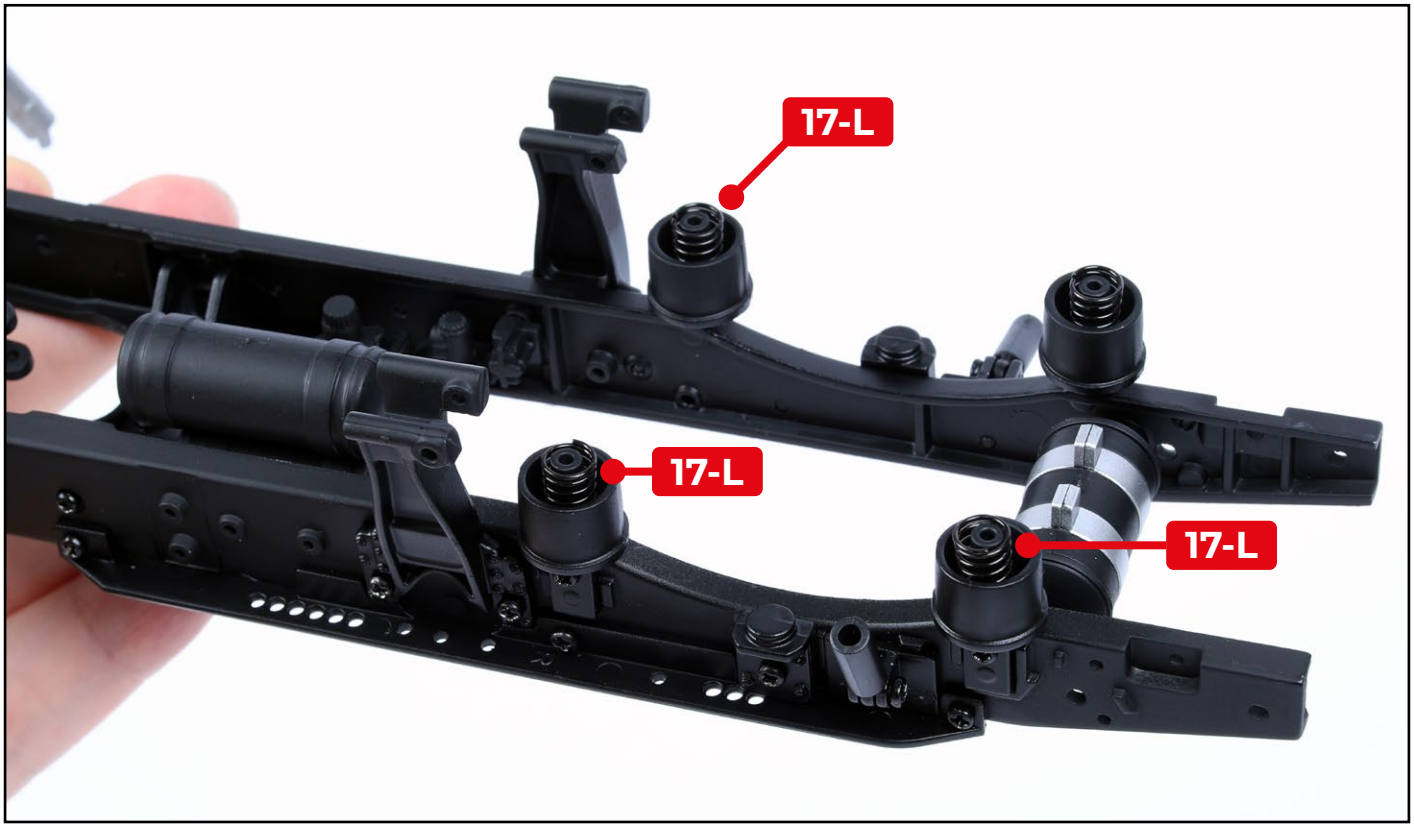


Step 4

Position right rear air brake actuator 19-G on right rear brake caliper 19-F, then secure it with one AP screw. Fit the remaining brake disc assembly 19-C/19-D into the right brake assembly. Position the right brake assembly on the opposite side of the rear axle, then secure it with two AP screws.

Stage 19: Attaching the rear axle, the driveshaft and the rear wheels

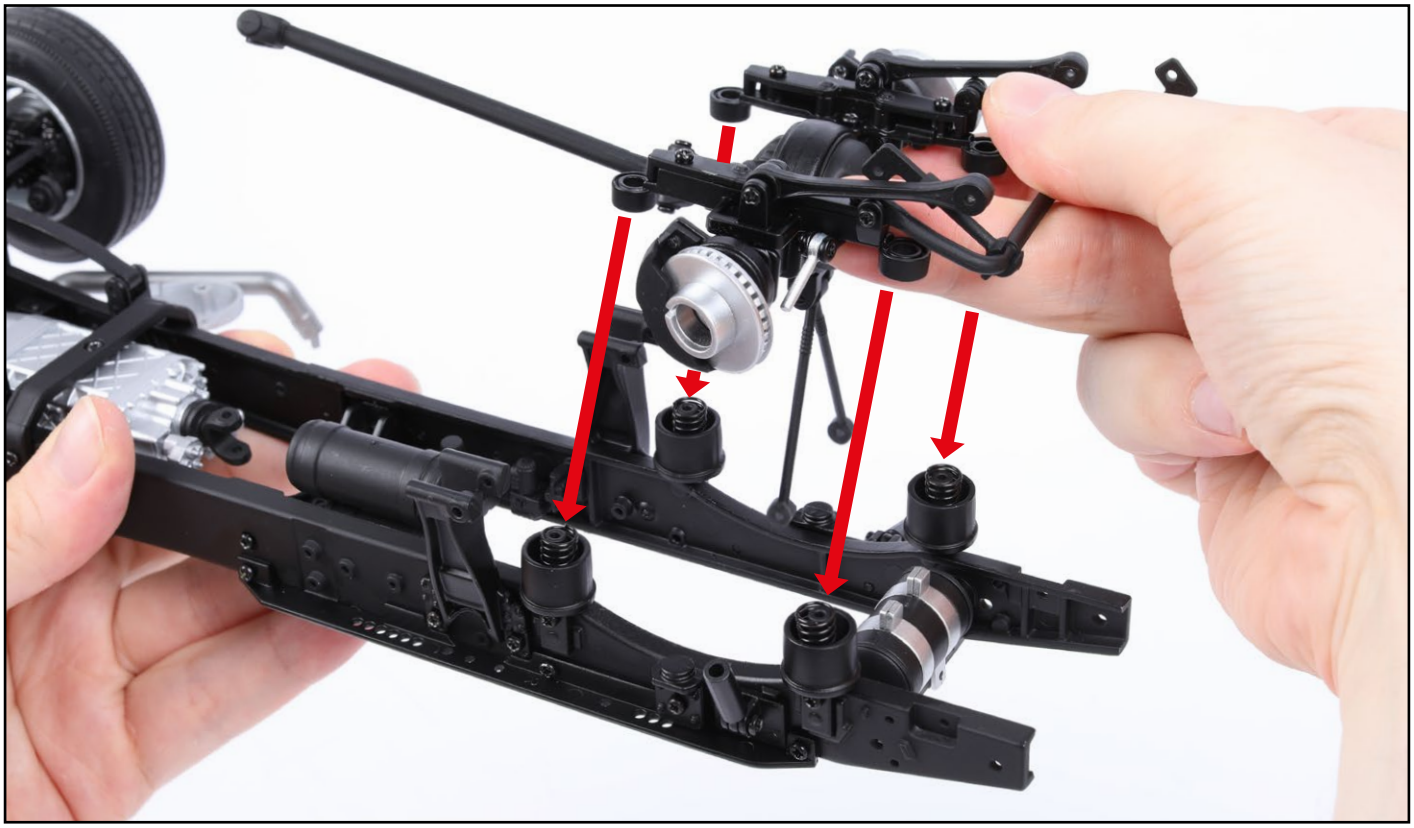




Step 5

Retrieve the chassis and engine assembly. Place the four rear suspension springs 17-L in their mounting points as shown.

Stage 19: Attaching the rear axle, the driveshaft and the rear wheels



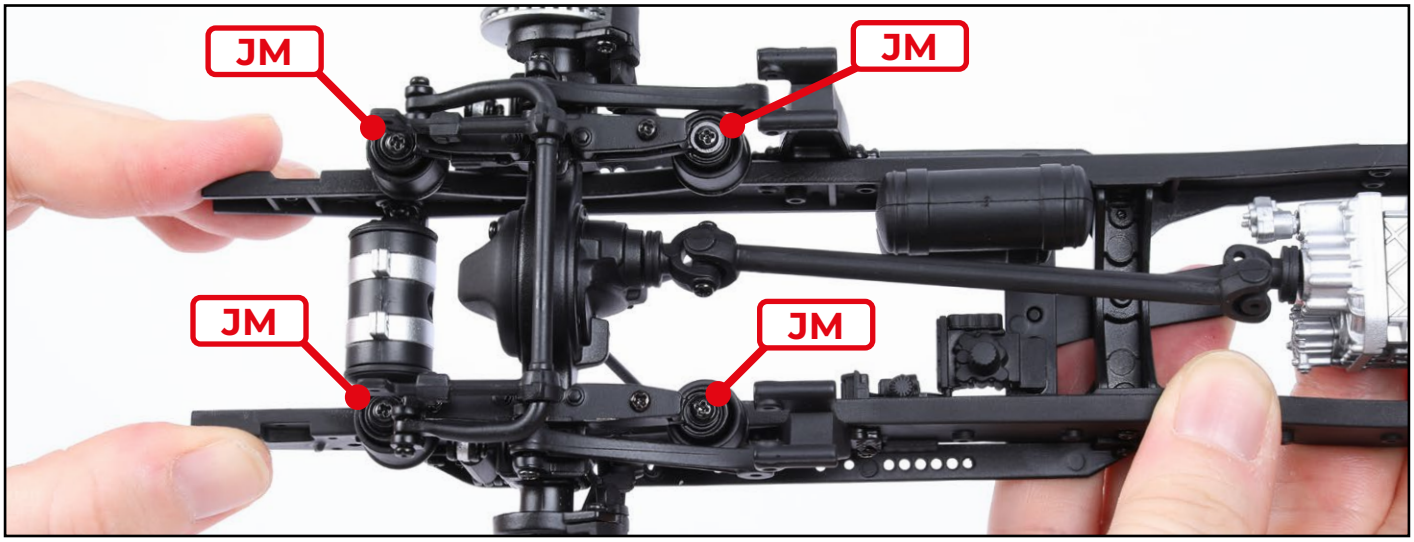




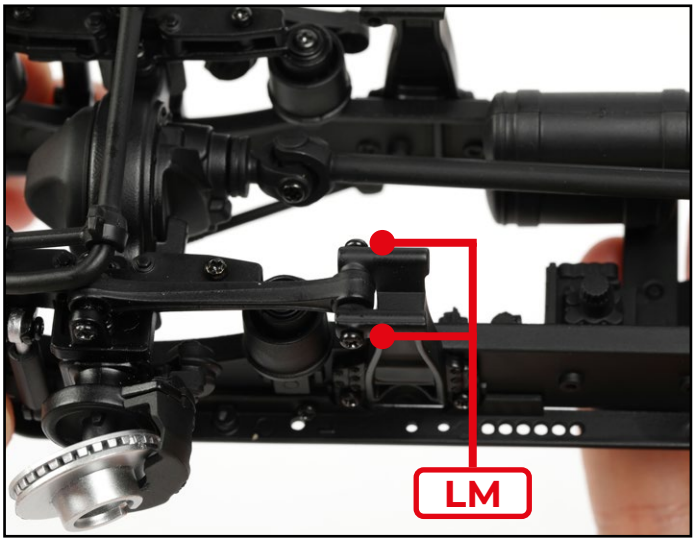
Step 6

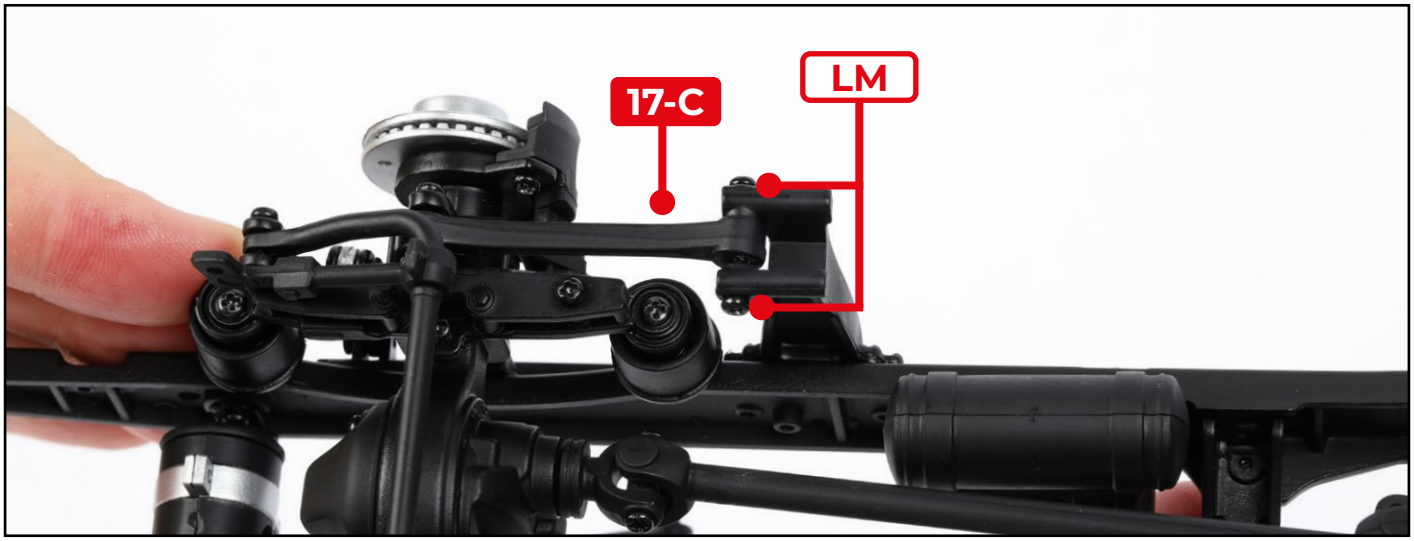
Position the rear axle assembly on the chassis as shown, ensuring that rear shock absorber rods 17-M enter rear suspension shock absorber bodies 12-H.

Stage 19: Attaching the rear axle, the driveshaft and the rear wheels





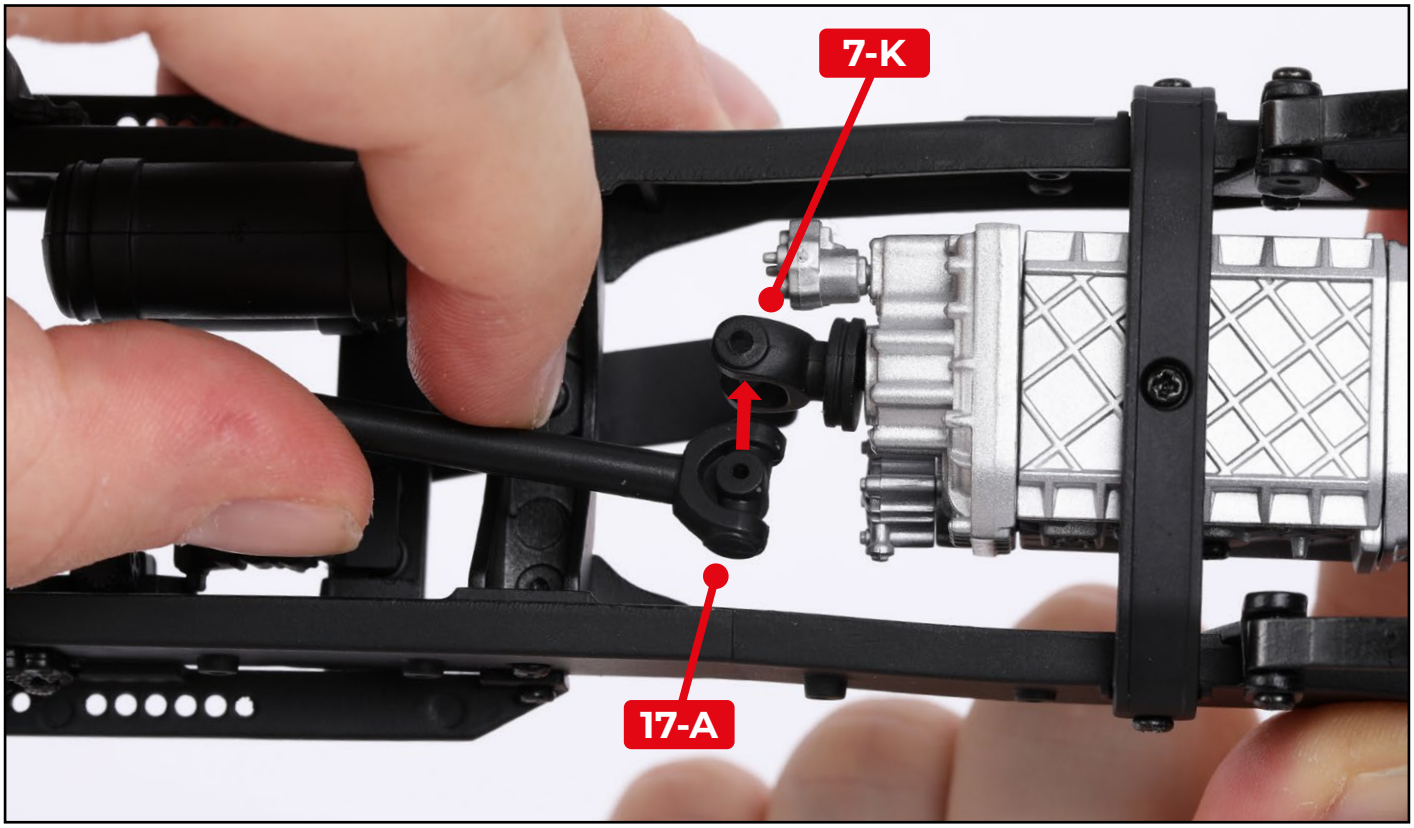


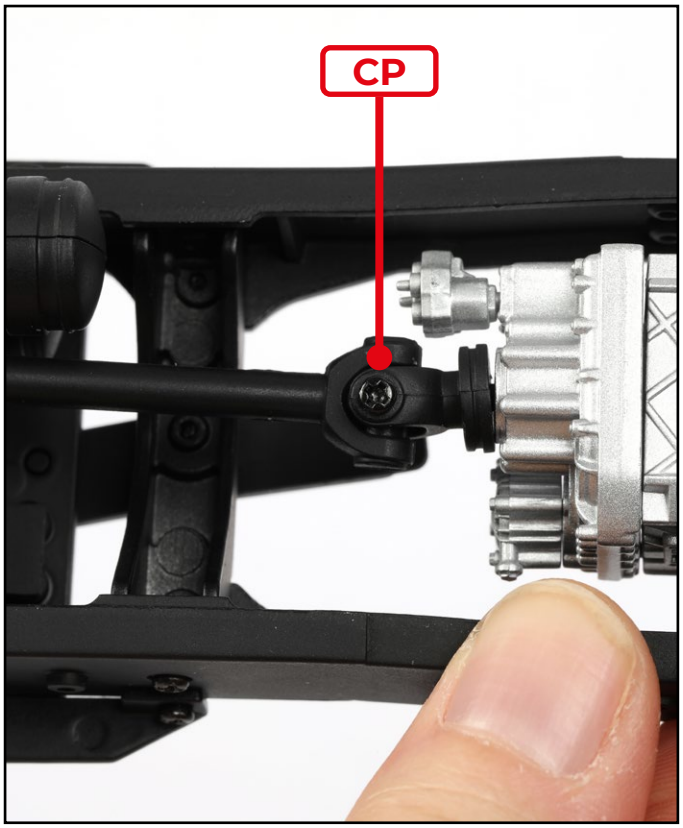


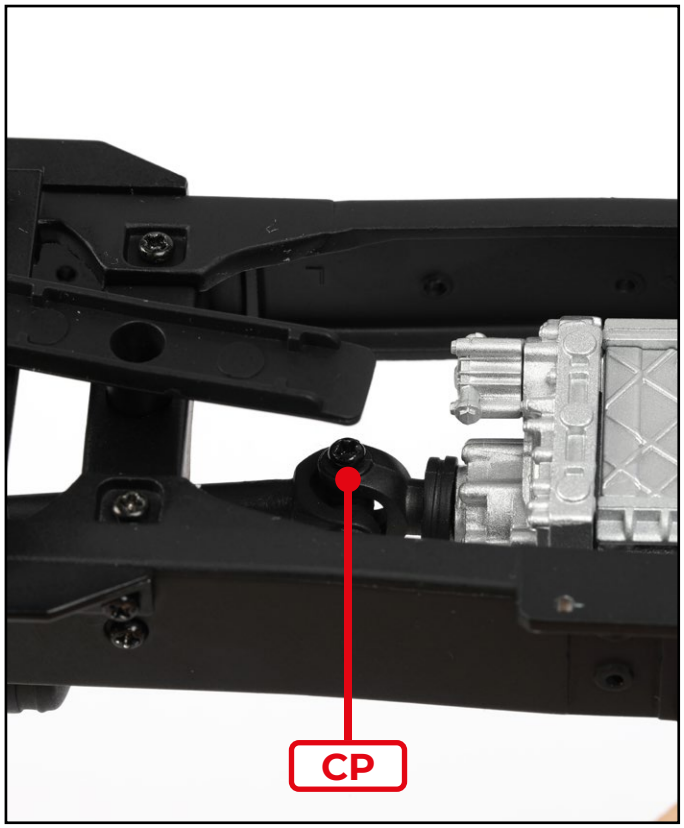
Step 7

Secure rear axle 17-O to the four air springs 17-K with four JM screws. Position the free ends of longitudinal links 17-C in longitudinal link brackets 17-S and 17-T, then secure the links with four LM screws.

Stage 19: Attaching the rear axle, the driveshaft and the rear wheels



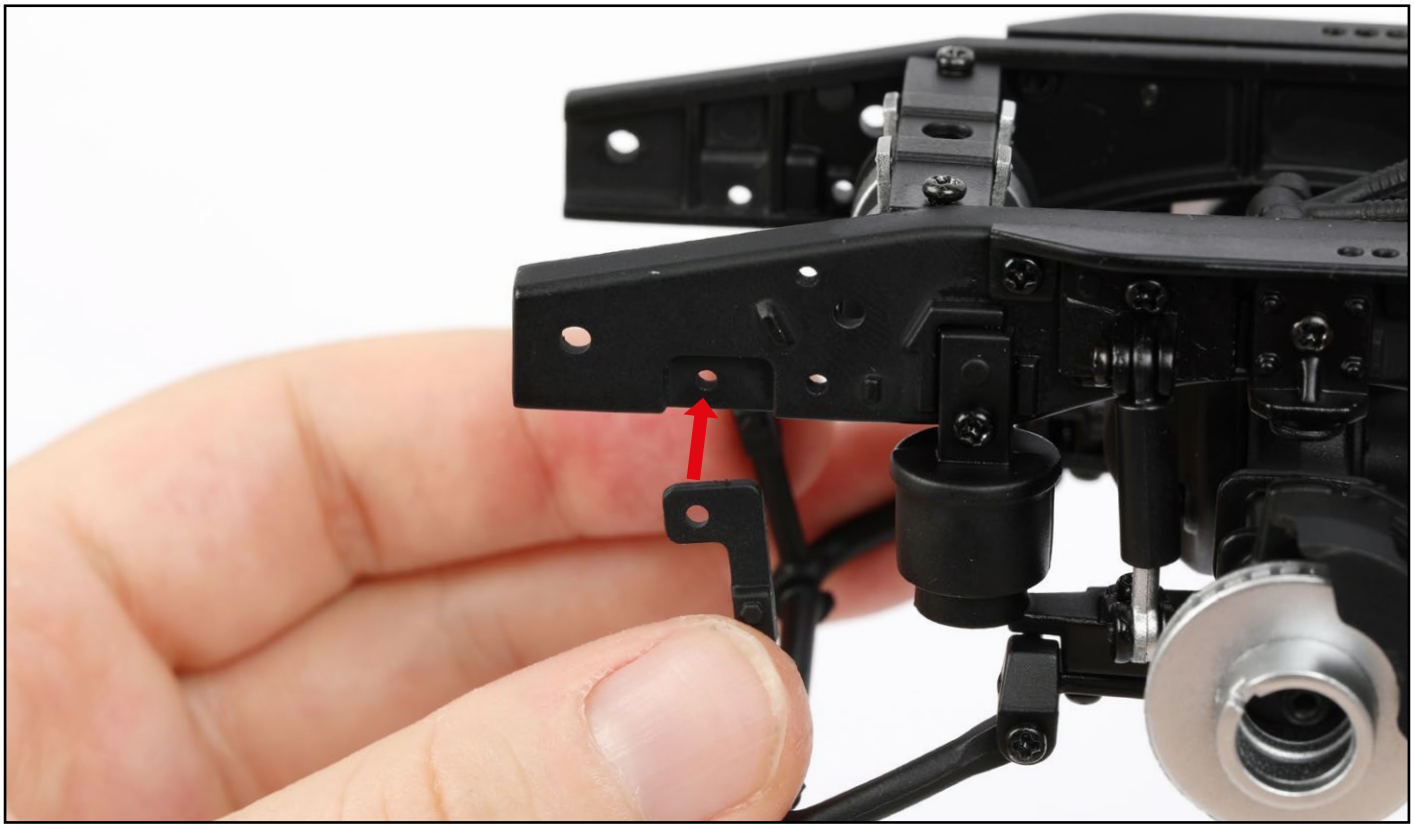


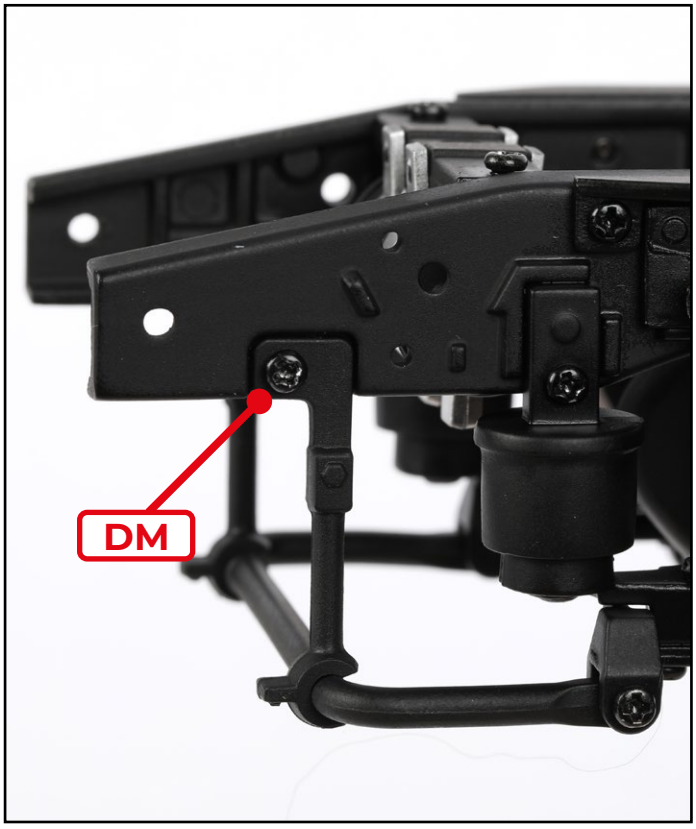


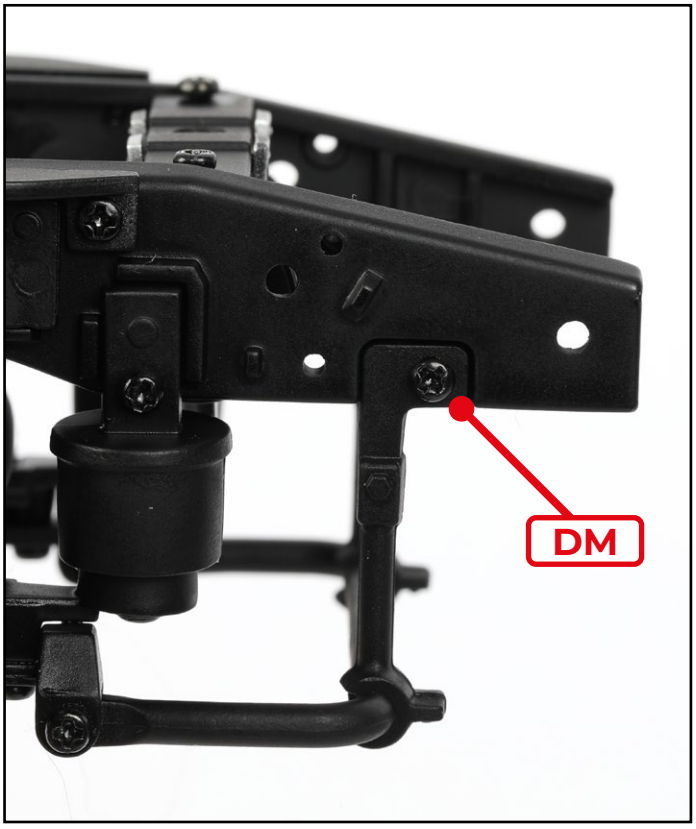
Step 8

Fit the free end of driveshaft 17-A into driveshaft yoke 7-K, then secure it with two CP screws, one from above and one from below.

Stage 19: Attaching the rear axle, the driveshaft and the rear wheels



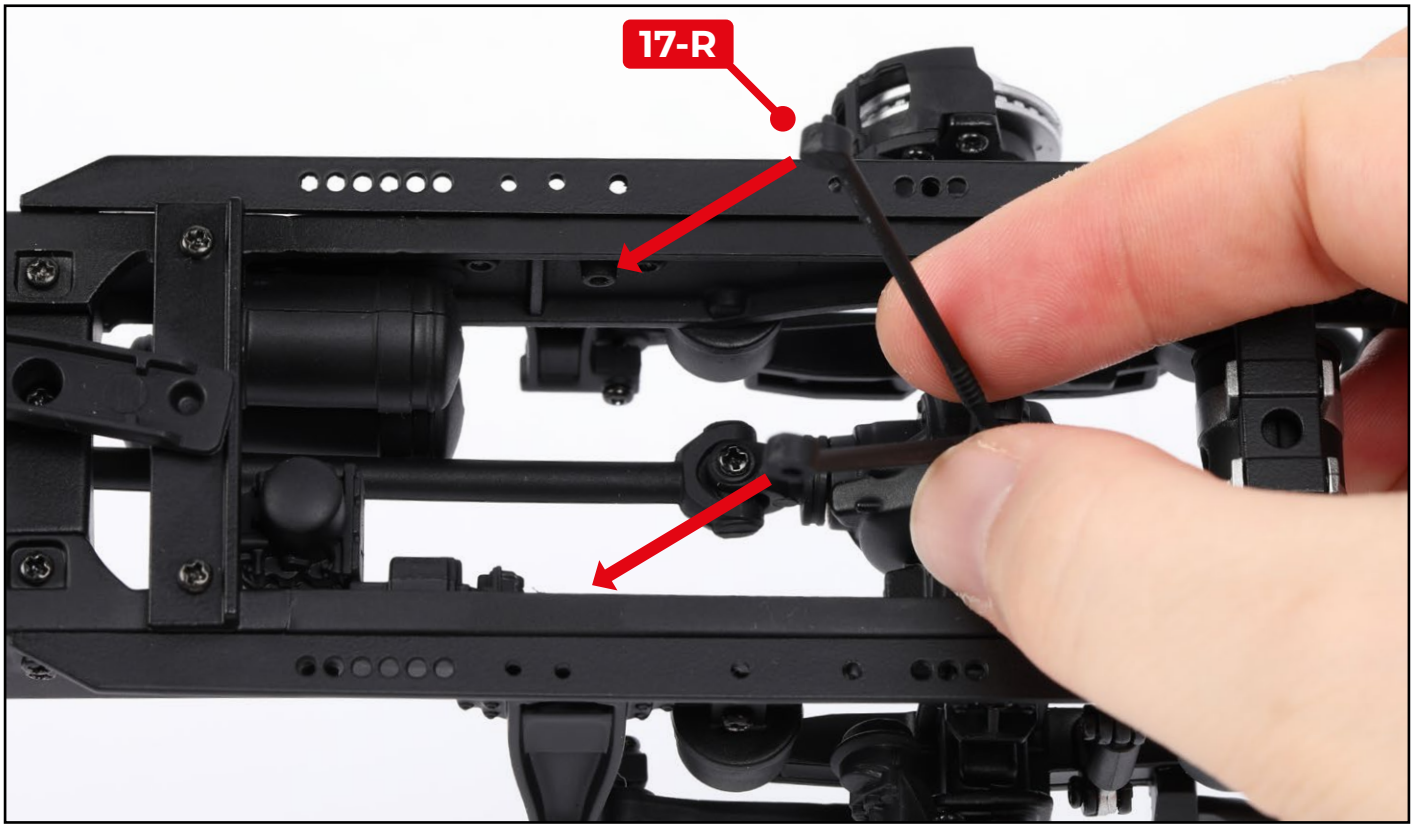


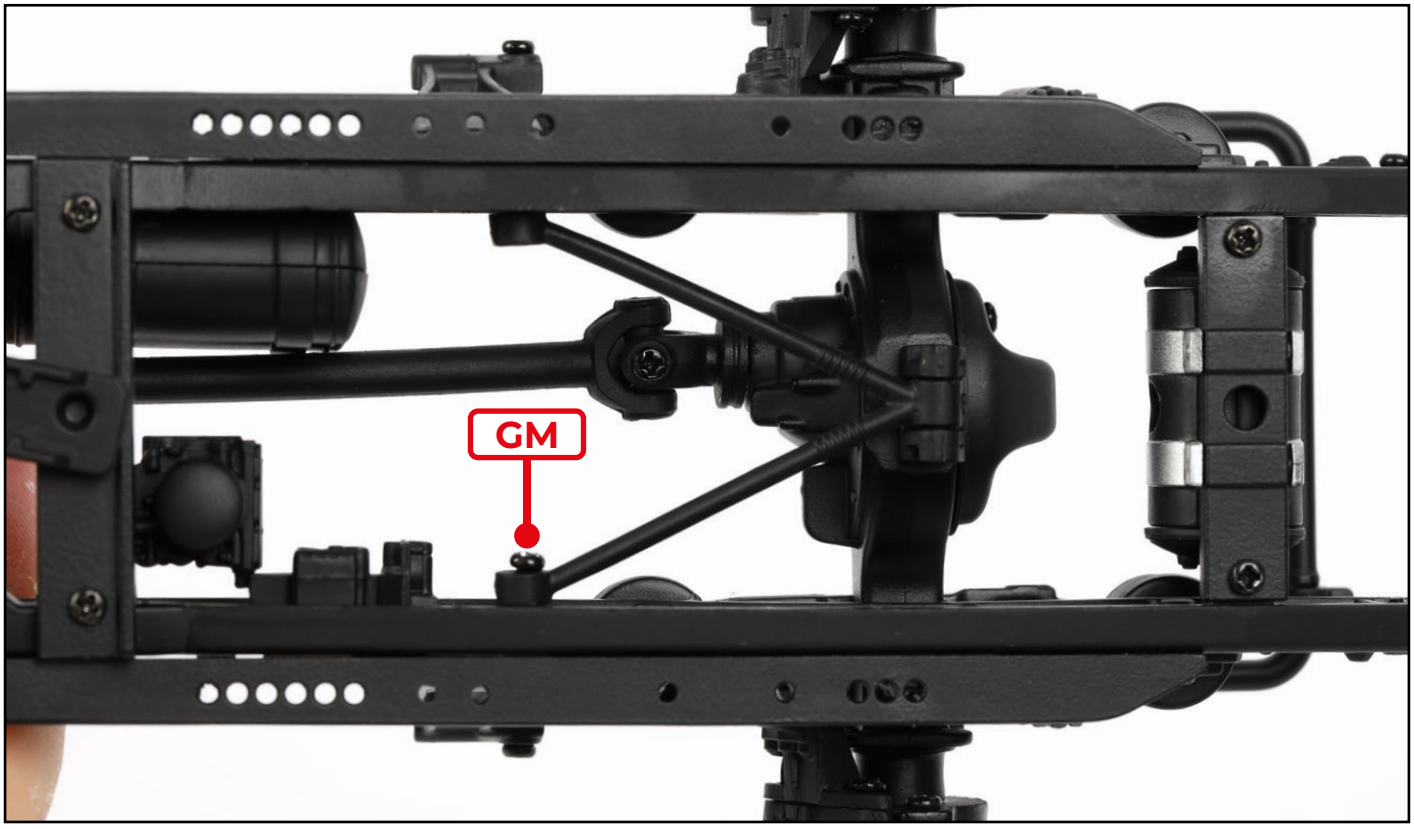


Step 9

Secure left and right rear anti-roll bar links 17-E and 17-F to left and right tractor chassis rails 11-A and 12-A with two DM screws, one on each side.

Stage 19: Attaching the rear axle, the driveshaft and the rear wheels





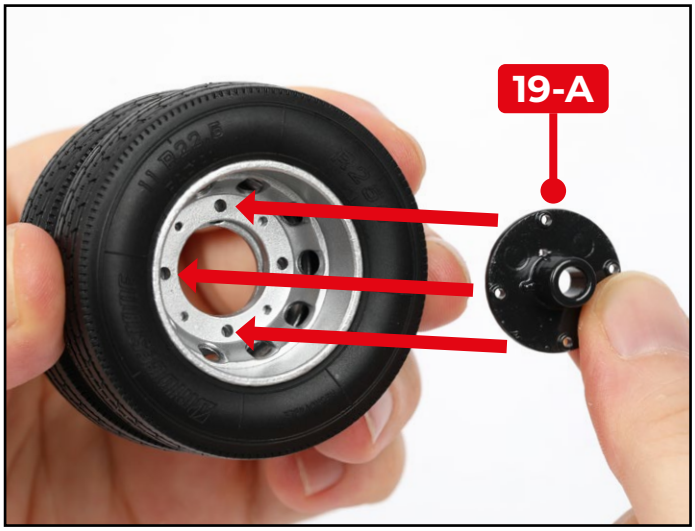
Step 10

Secure the free ends of rear axle V-stay 17-R to the chassis rails with two GM screws, one on each side.

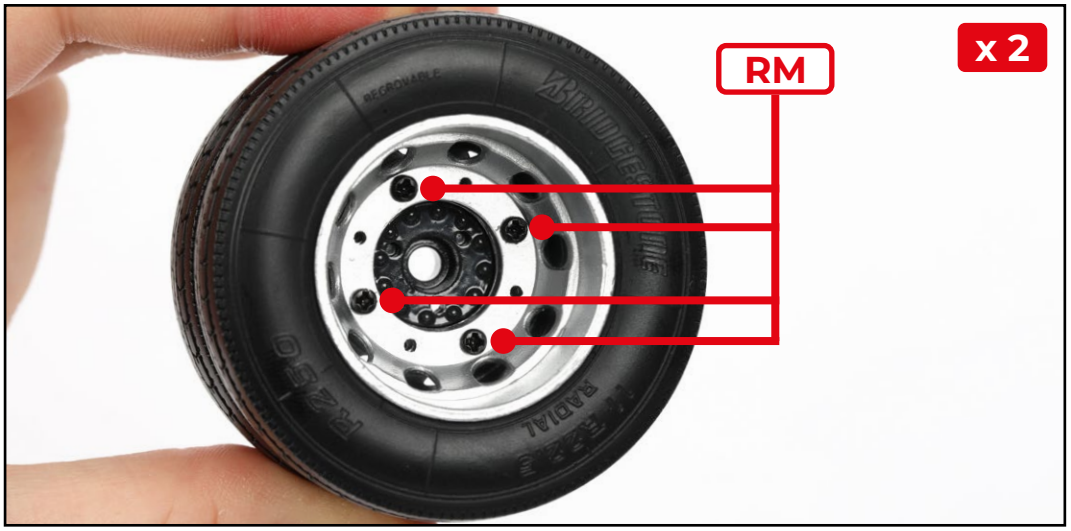
Stage 19: Attaching the rear axle, the driveshaft and the rear wheels







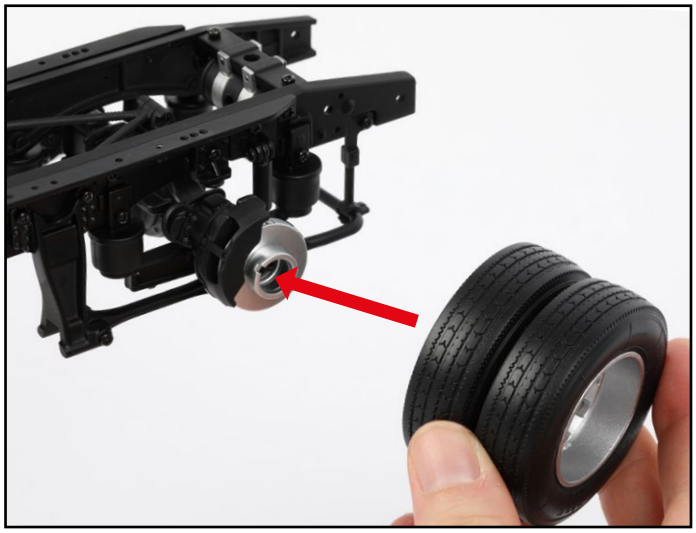




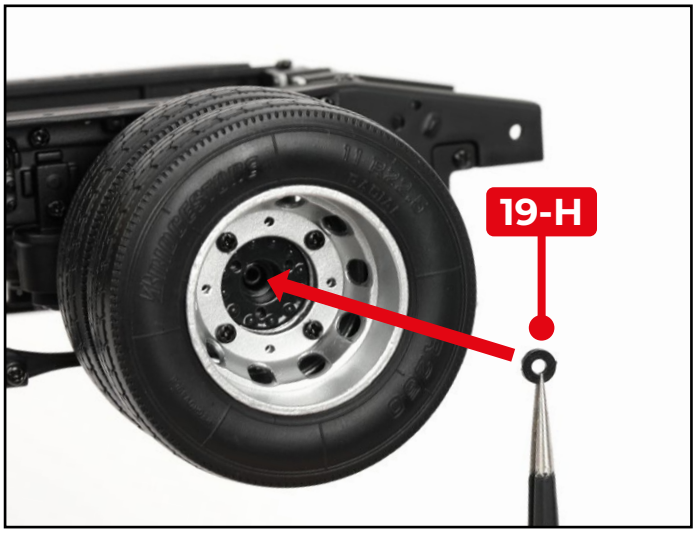
Step 11

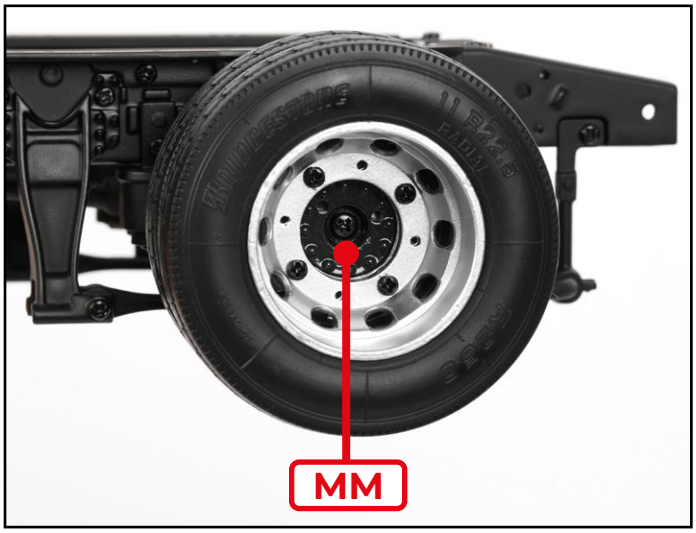
Retrieve the four rear wheels and two rear wheel drive hubs 18-C from Stage 18. Divide the wheels into two pairs. Fit one wheel hub 19-A into one wheel in each pair, then position the second wheel over the hub as shown. Secure each wheel pair to wheel hub 19-A with four RM screws.

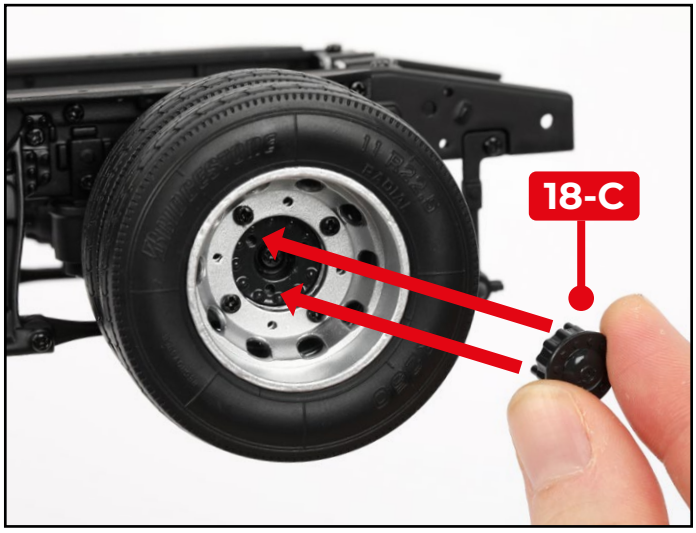
Stage 19: Attaching the rear axle, the driveshaft and the rear wheels











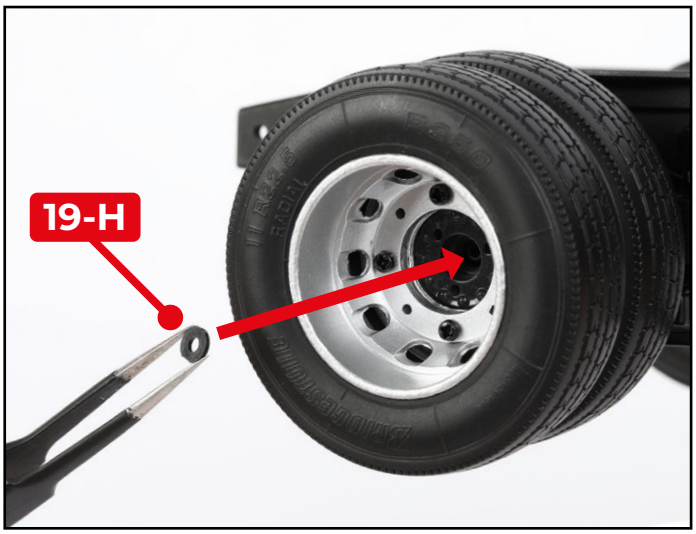


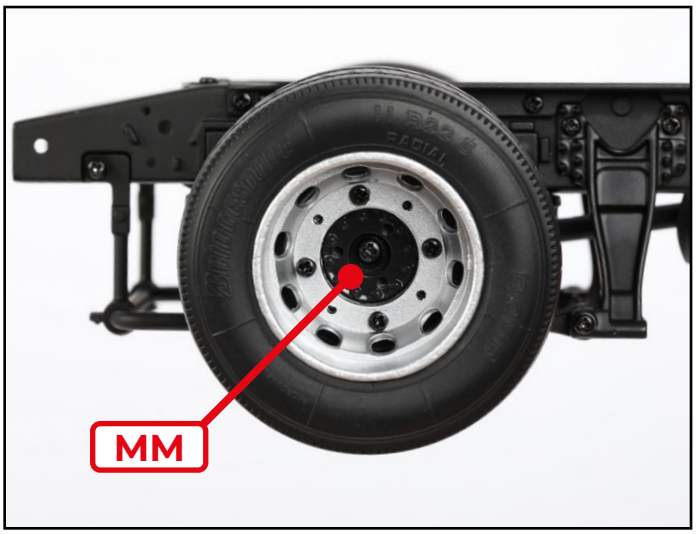
Step 12

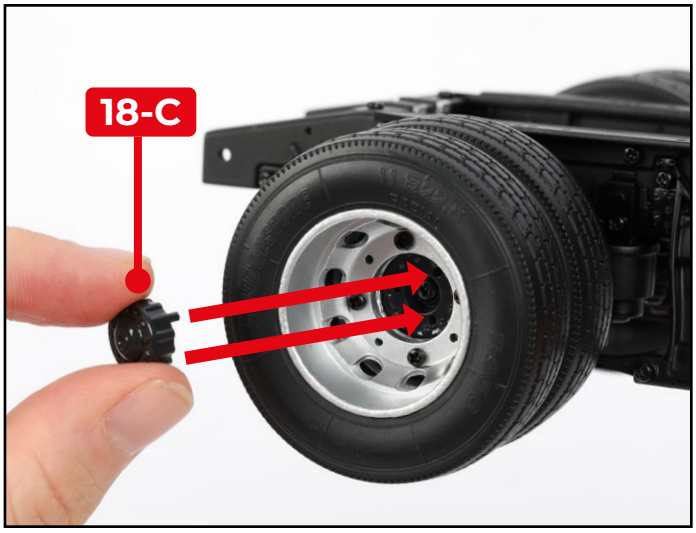
Position one rear wheel pair on the left rear brake assembly. Insert one washer 19-H into the centre, then secure the wheel pair with one MM screw. Fit one rear wheel drive hub 18-C.

Stage 19: Attaching the rear axle, the driveshaft and the rear wheels











Step 13

Position the other rear wheel pair on the right rear brake assembly. Insert the remaining washer 19-H into the centre, then secure the wheel pair with one MM screw. Fit the remaining rear wheel drive hub 18-C.

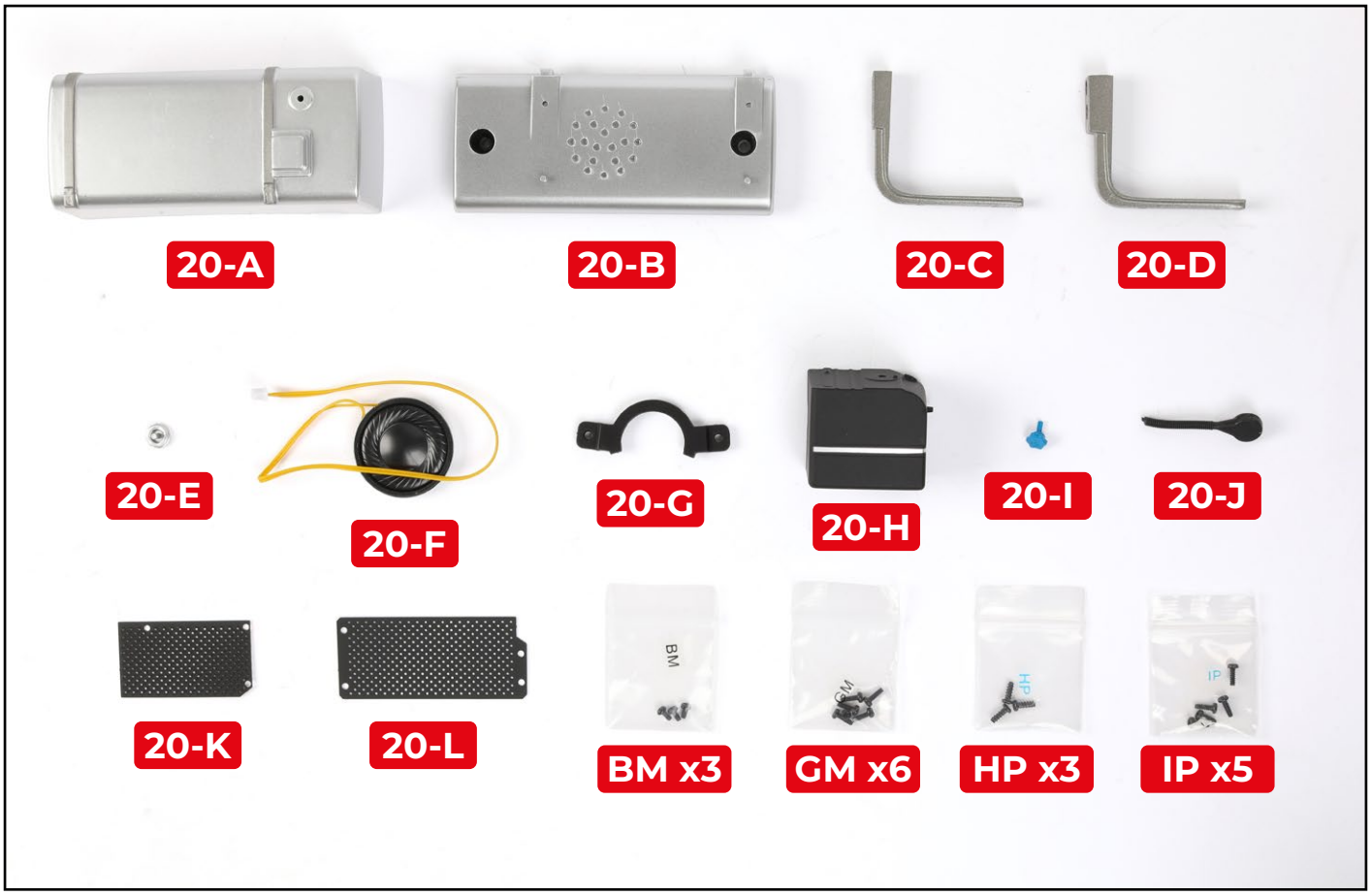
Stage 19: Attaching the rear axle, the driveshaft and the rear wheels

STAGE 19 COMPLETE



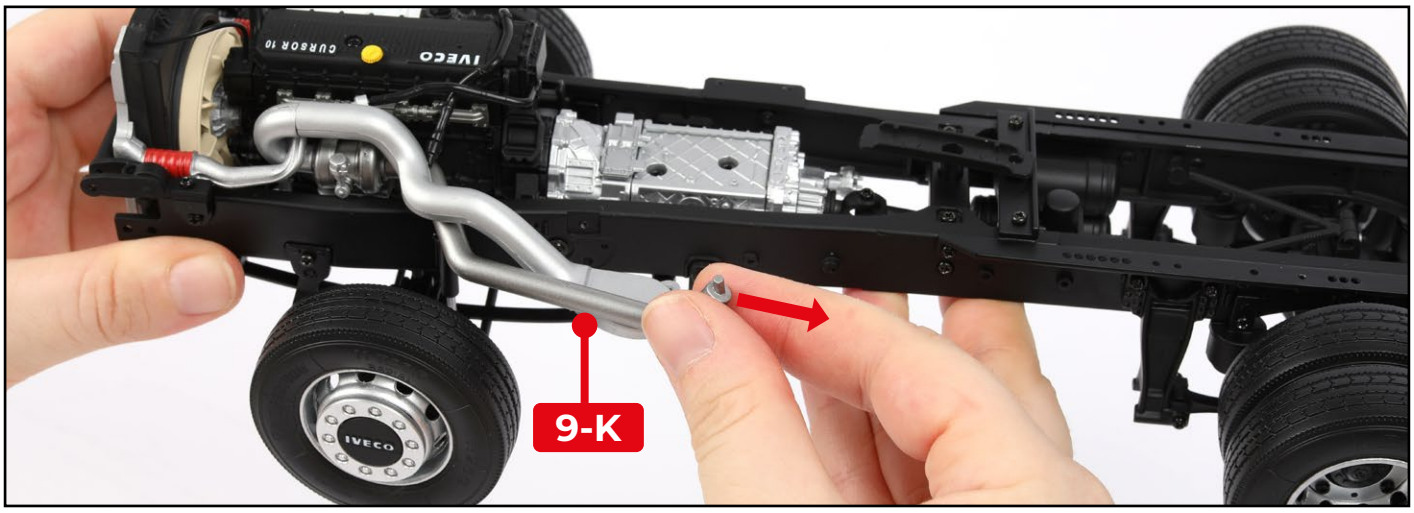
Stage 20: Building the fuel and additive tanks

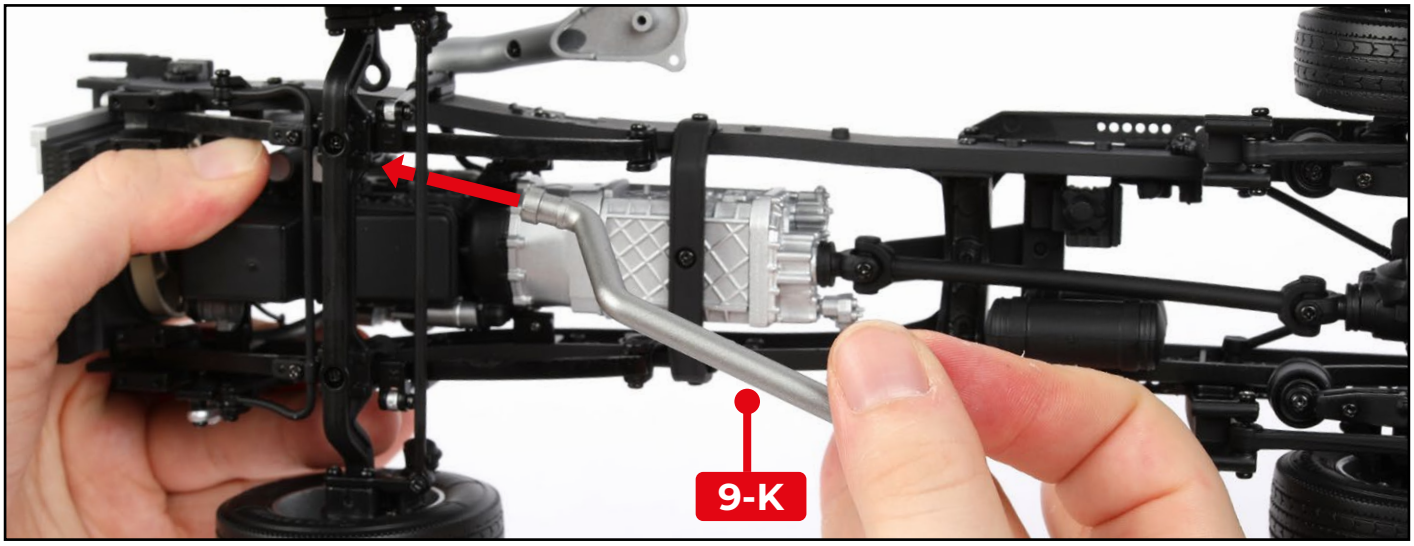
STAGE 20 PARTS

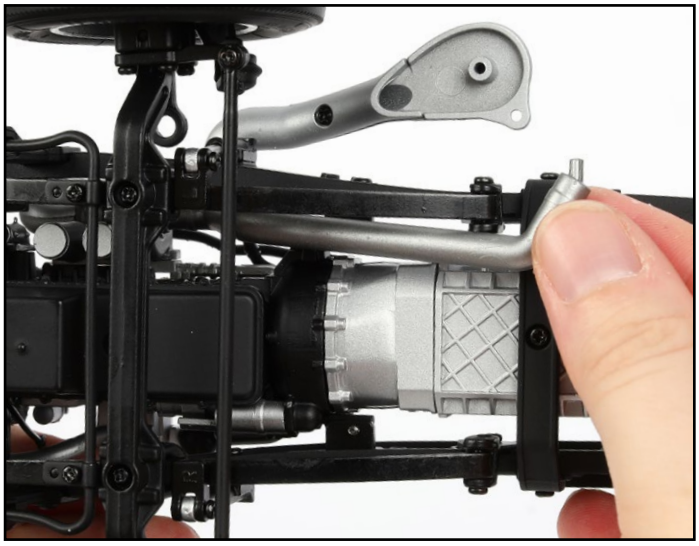


20-A: Fuel tank
20-B: Fuel tank base
20-C: Fuel tank bracket 1
20-D: Fuel tank bracket 2
20-E: Fuel tank cap
20-F: Speaker
20-G: Speaker support
20-H: Additive tank
20-I: Additive tank cap
20-J: Additive tank supply pipe
20-K: Walkway platform 1
20-L: Walkway platform 2
BM: 3 screws
GM: 6 screws
HP: 3 screws
IP: 5 screws

Stage 20: Building the fuel and additive tanks





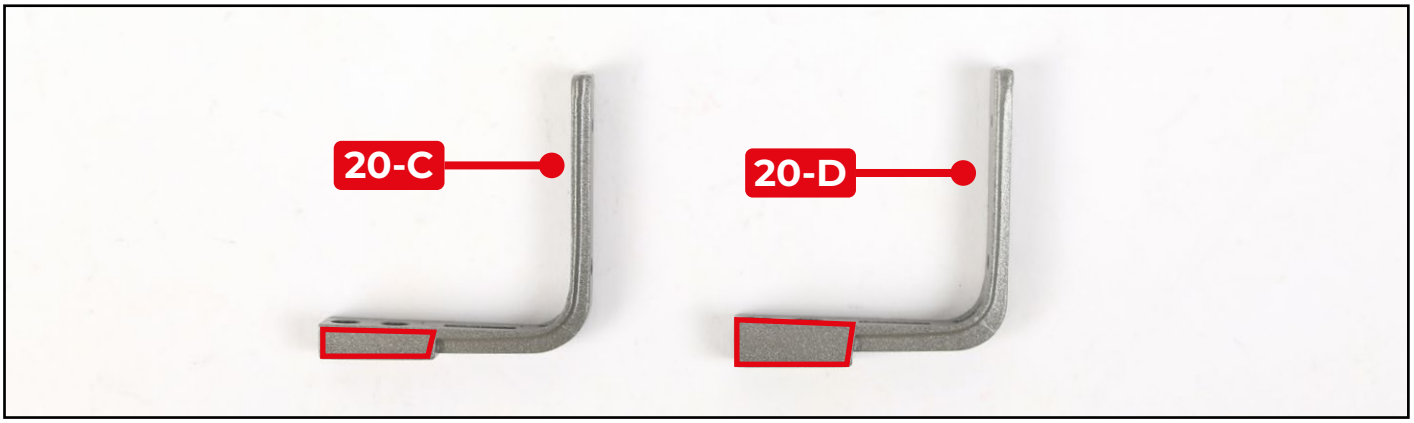


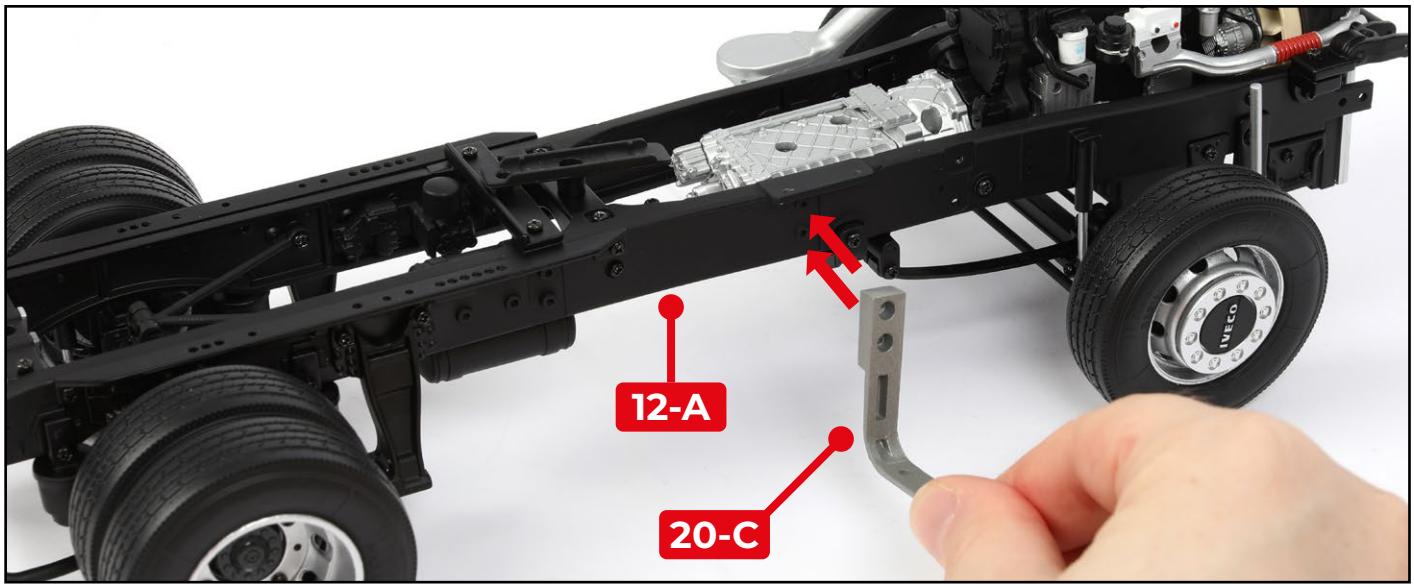


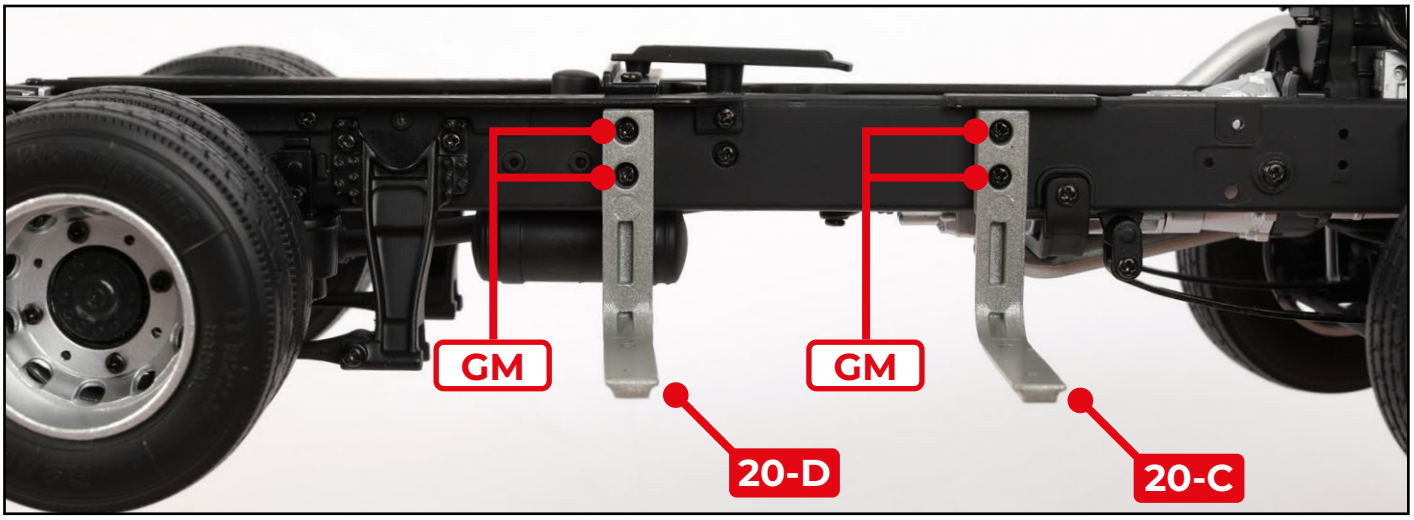
Step 1

Before beginning this Stage, position exhaust pipe 9-K as shown.

Stage 20: Building the fuel and additive tanks



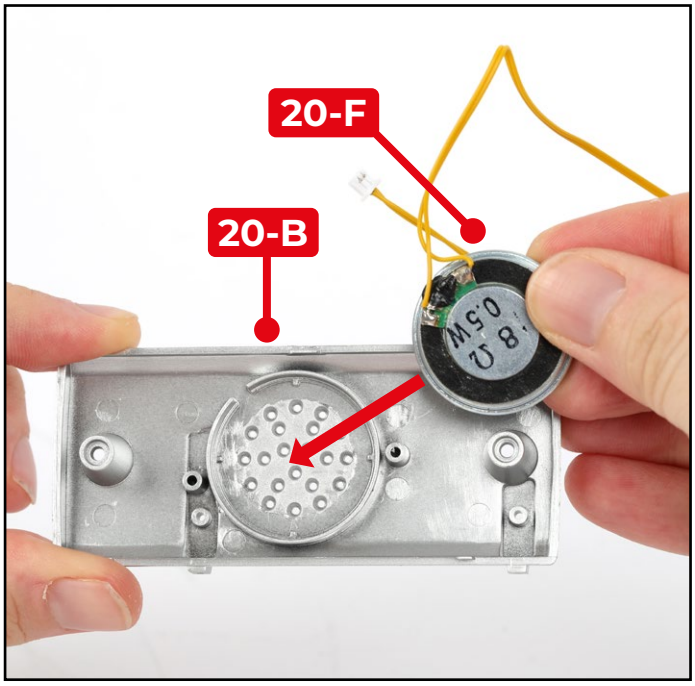


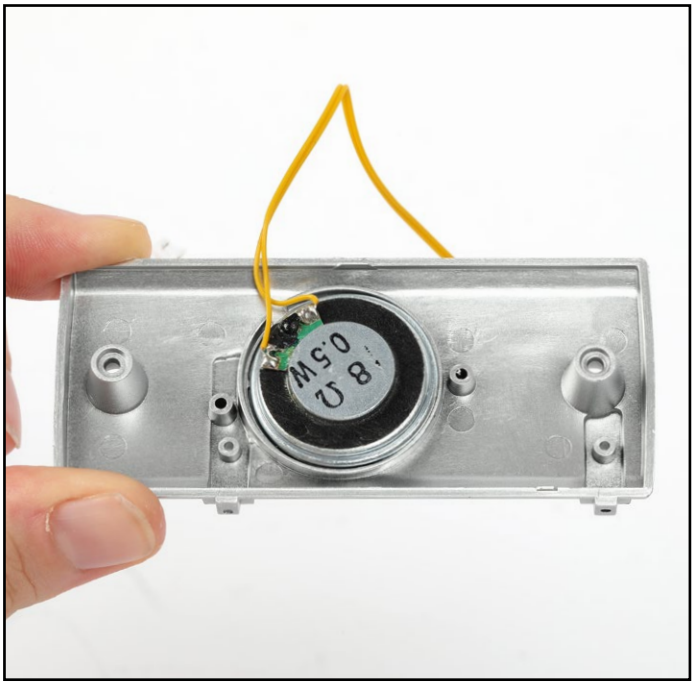


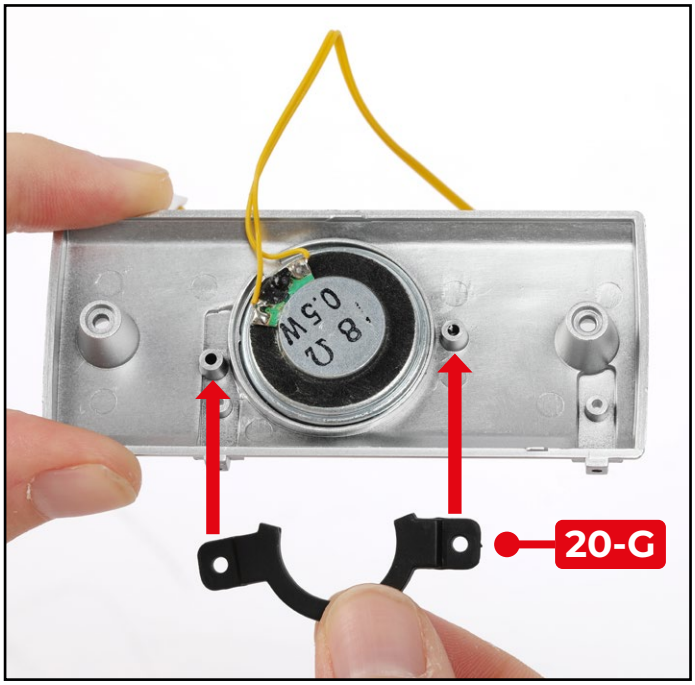
Step 2

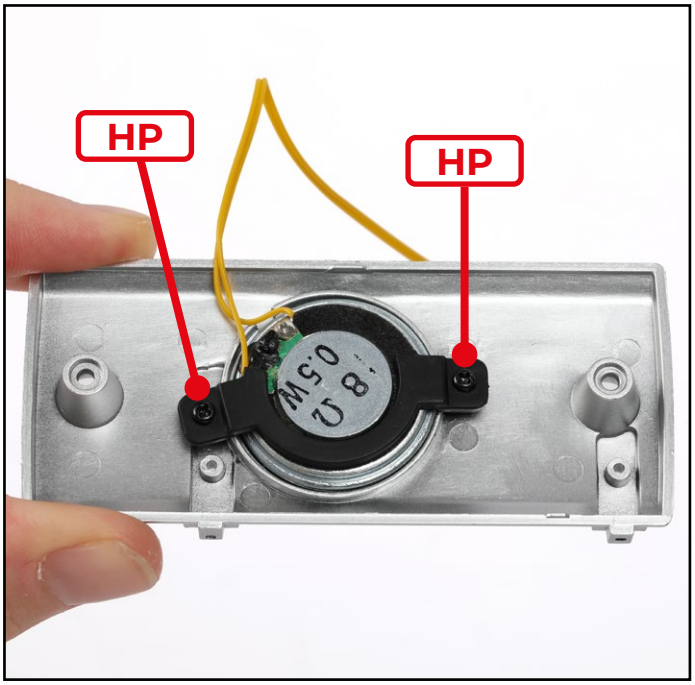
Identify fuel tank bracket 1 20-C and fuel tank bracket 2 20-D from their shapes as shown. Position fuel tank bracket 1 20-C on right tractor chassis rail 12-A and secure it with two GM screws. Position fuel tank bracket 2 20-D on the same chassis rail and secure it with two GM screws.

Stage 20: Building the fuel and additive tanks





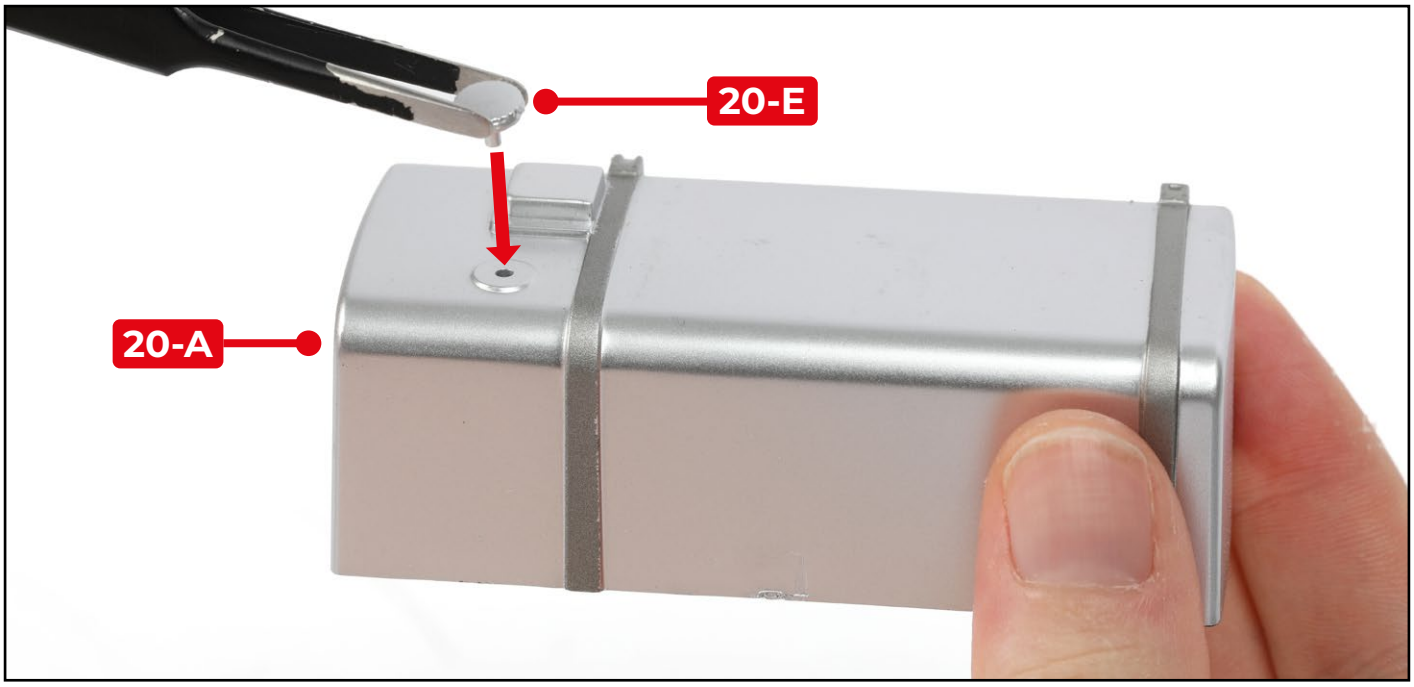


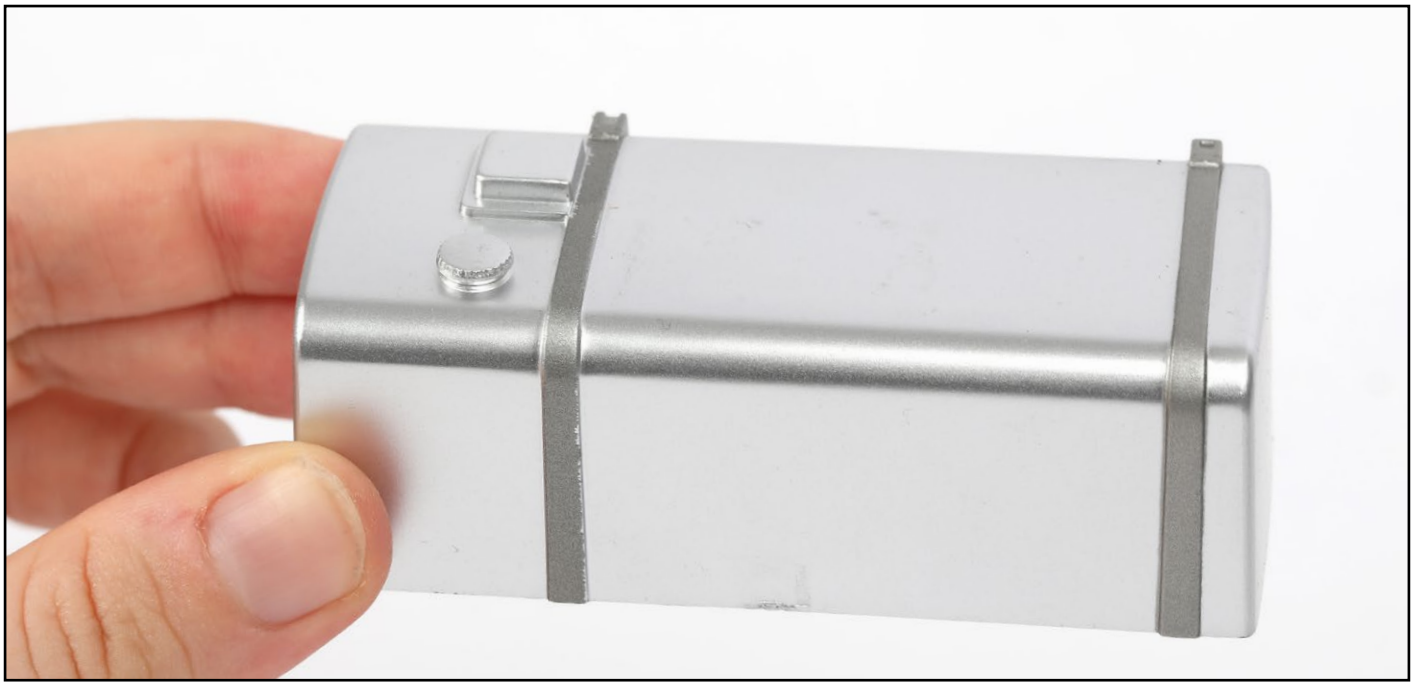


Step 3

Position speaker 20-F in the recess on fuel tank base 20-B, orienting the cable as shown. Position speaker support 20-G over the speaker, then secure it to the fuel tank base with two HP screws.

Stage 20: Building the fuel and additive tanks

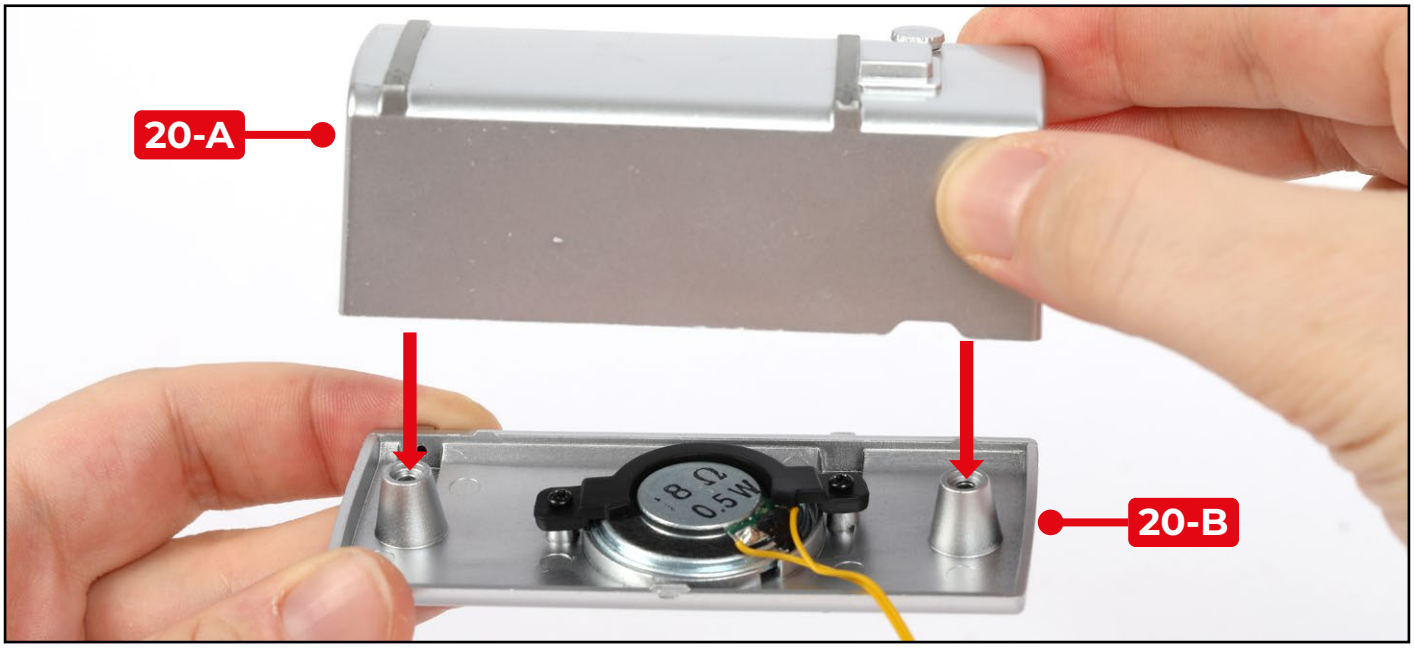


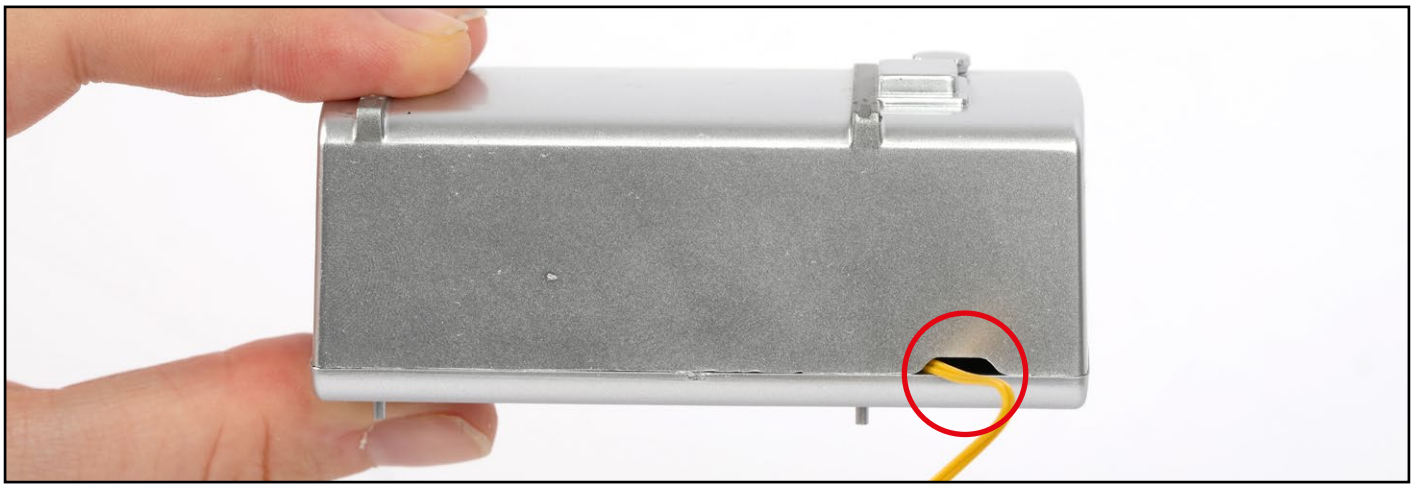


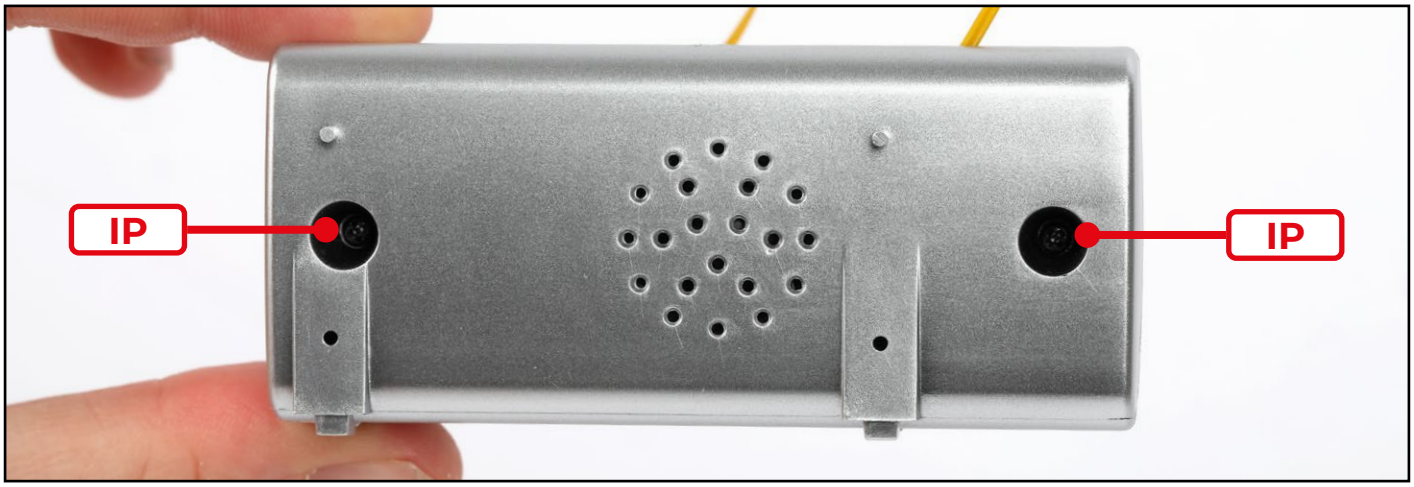
Step 4

Insert fuel tank cap 20-E into the corresponding hole in fuel tank 20-A.

Stage 20: Building the fuel and additive tanks



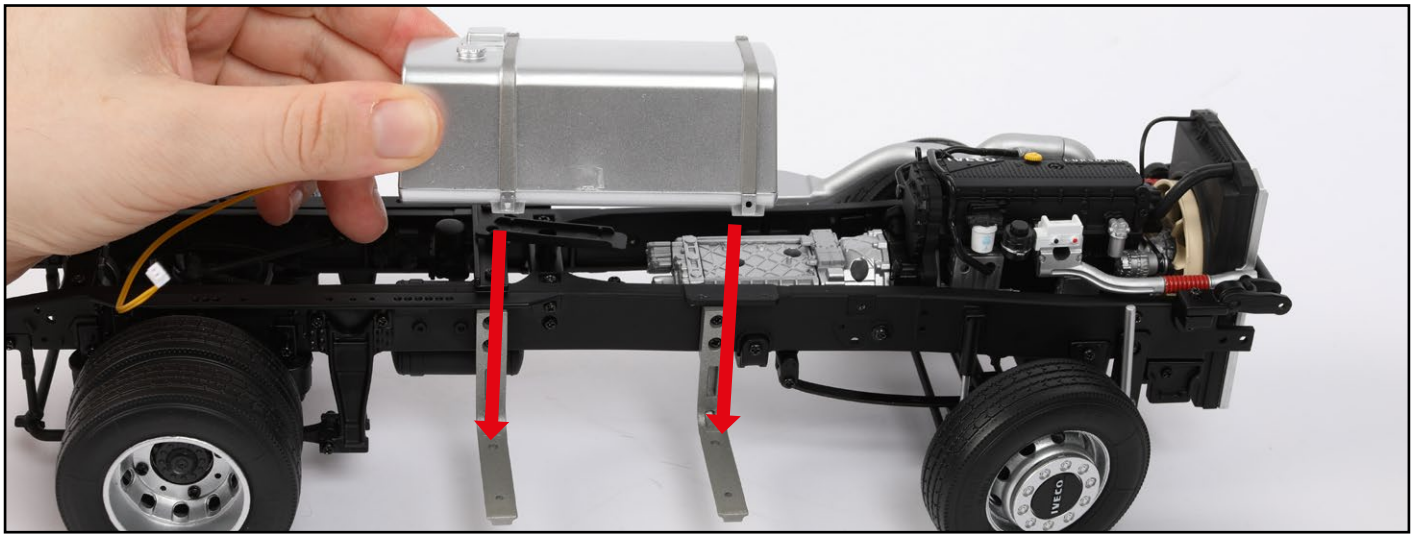


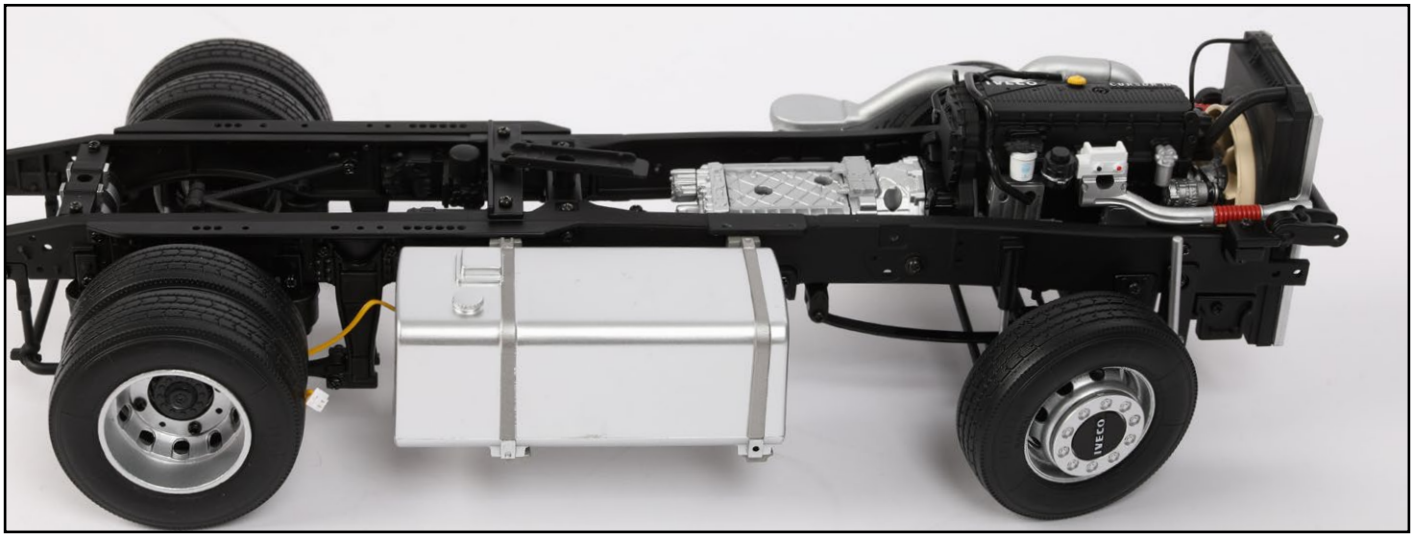


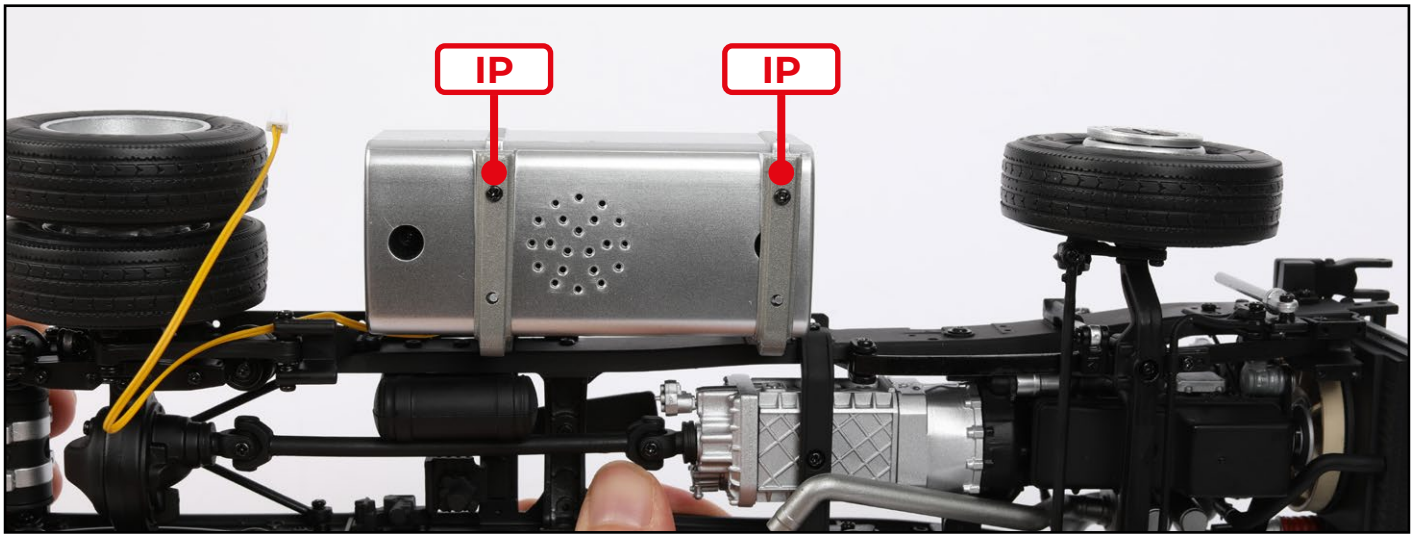
Step 5

Fit fuel tank 20-A to fuel tank base 20-B, ensuring that the speaker cable passes through the opening provided. Secure the two parts with two IP screws.

Stage 20: Building the fuel and additive tanks



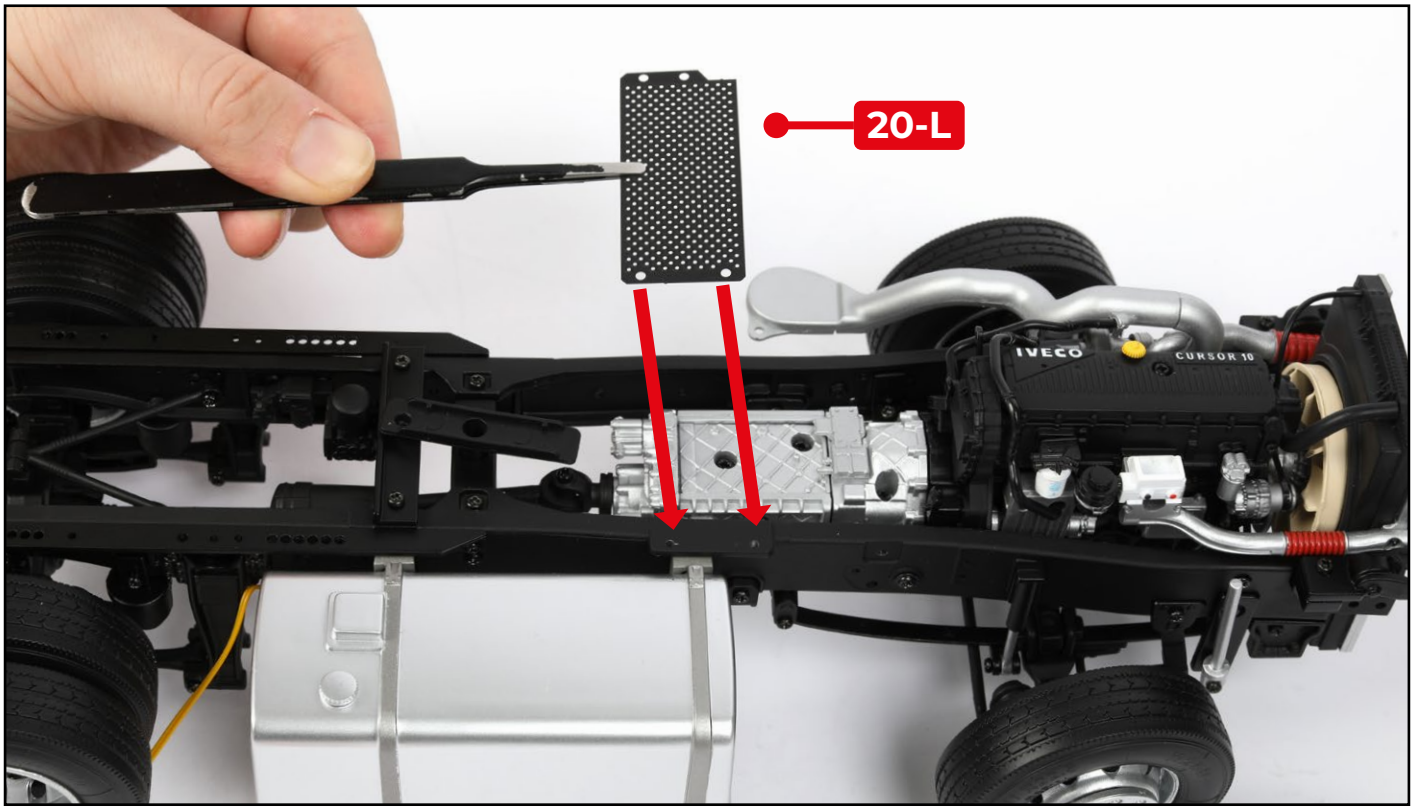


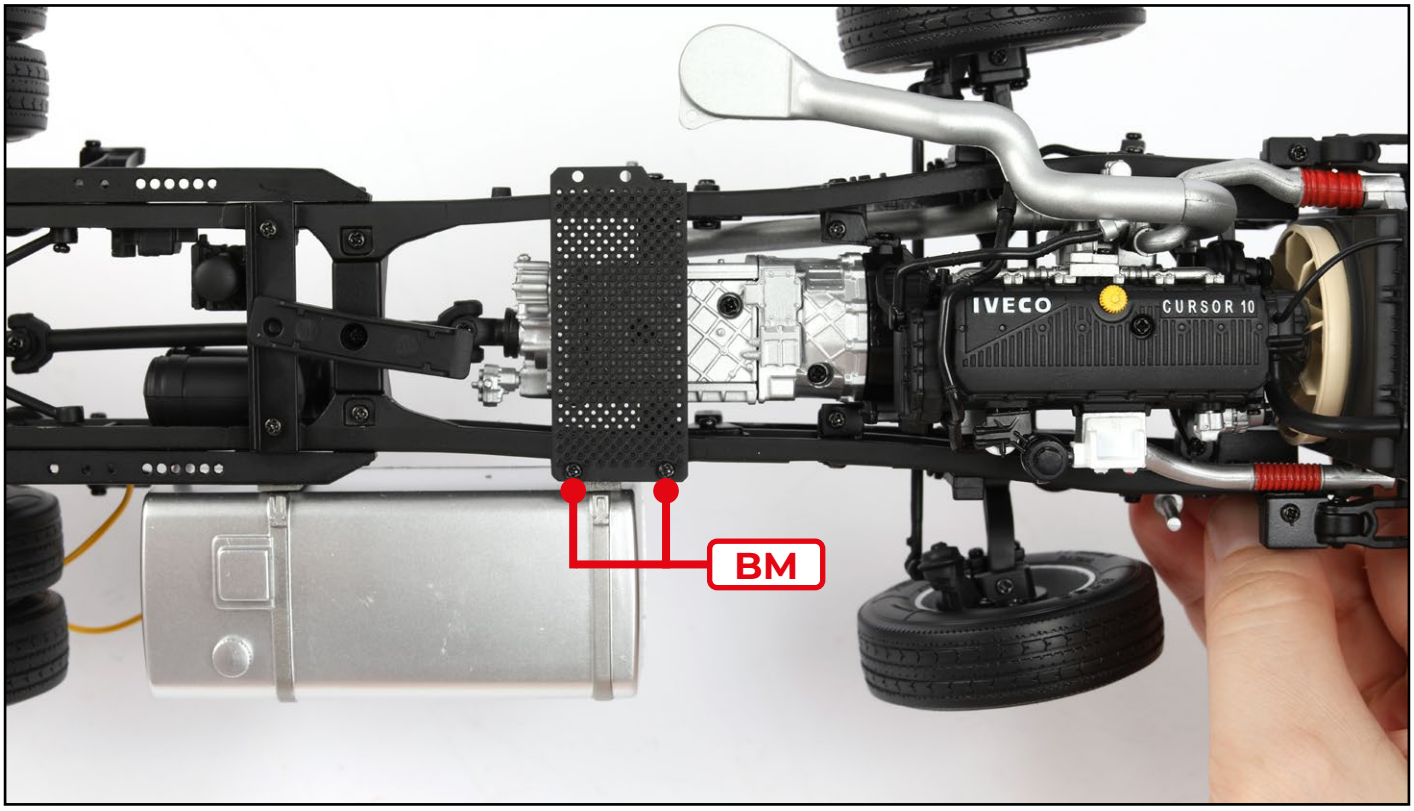


Step 6

Position the completed fuel tank on fuel tank brackets 20-C and 20-D, aligning the inner holes with the locating pins. Secure the tank from the outside with two IP screws.

Stage 20: Building the fuel and additive tanks

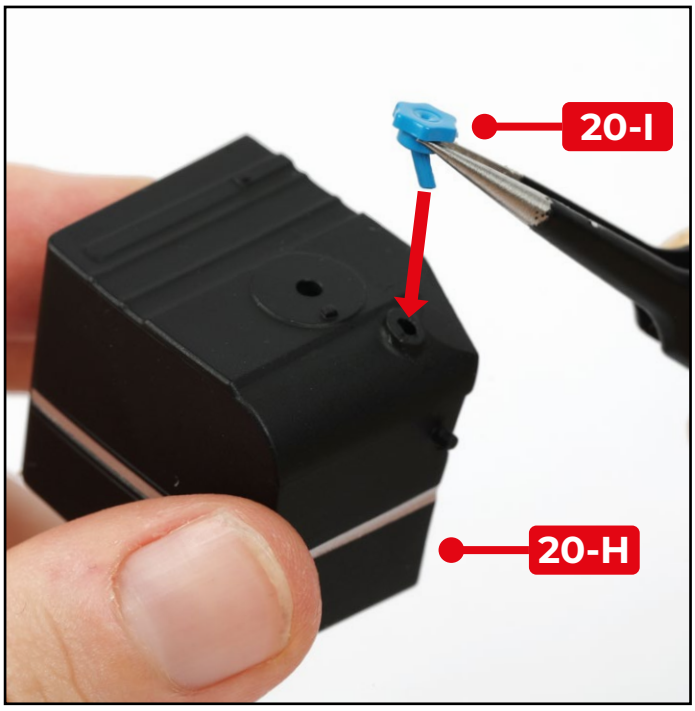




Step 7

Position walkway platform 2 20-L on right tractor chassis rail 12-A as shown, then secure it with two BM screws.

Stage 20: Building the fuel and additive tanks







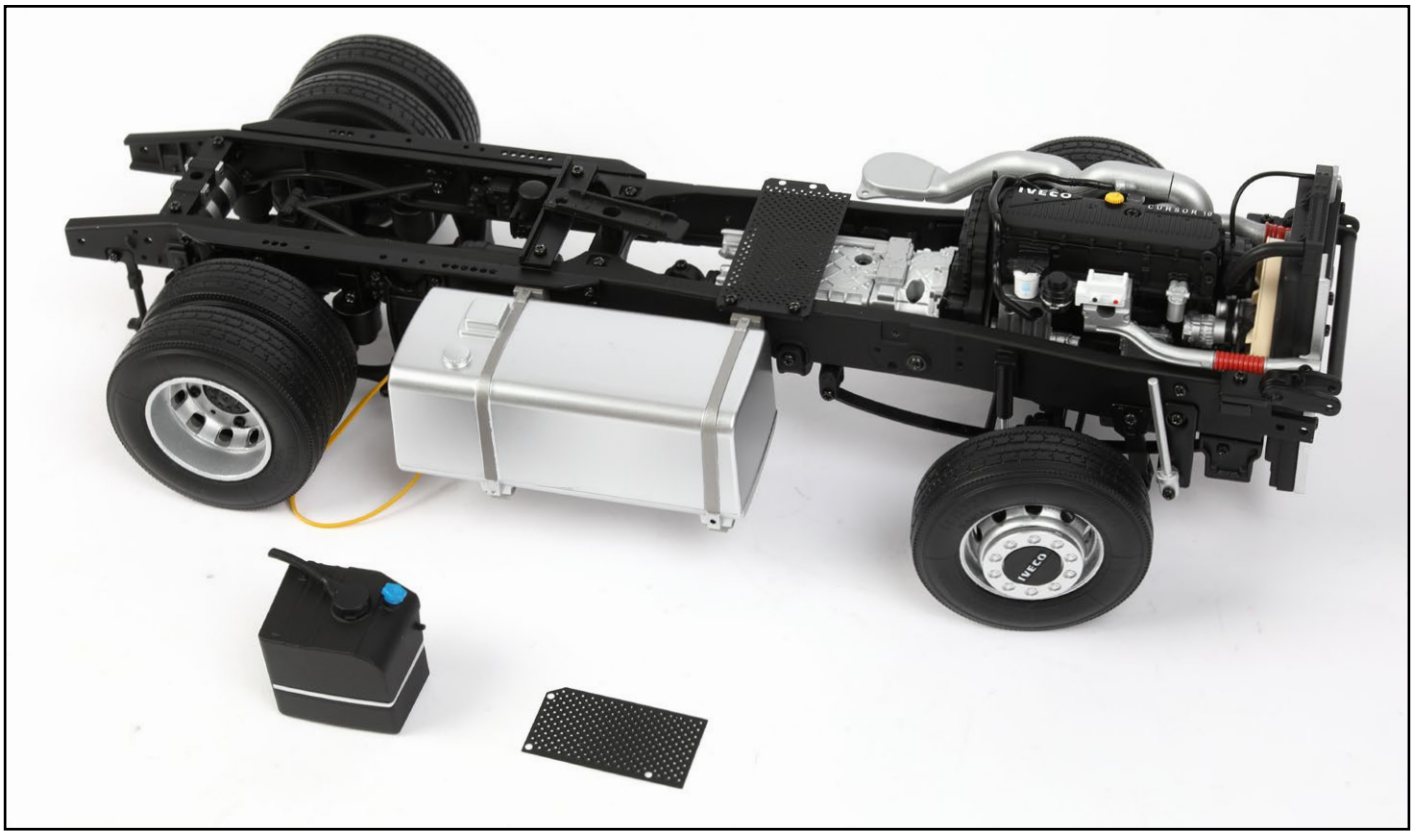


Step 8

Insert additive tank cap 20-I into additive tank 20-H. Fit additive tank supply pipe 20-J to the additive tank as shown.

Stage 20: Building the fuel and additive tanks

STAGE 20 COMPLETE



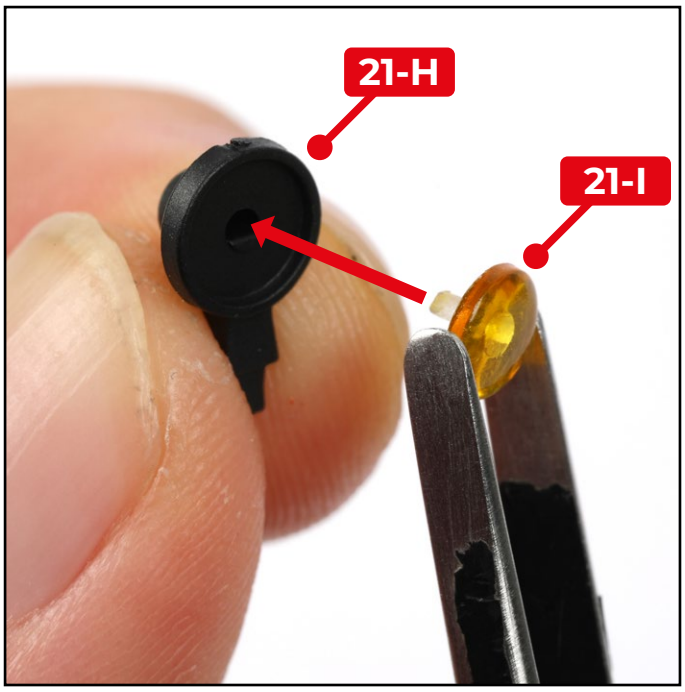
Stage 21: Attaching the cab suspension and the tractor-trailer connection assembly

STAGE 21 PARTS

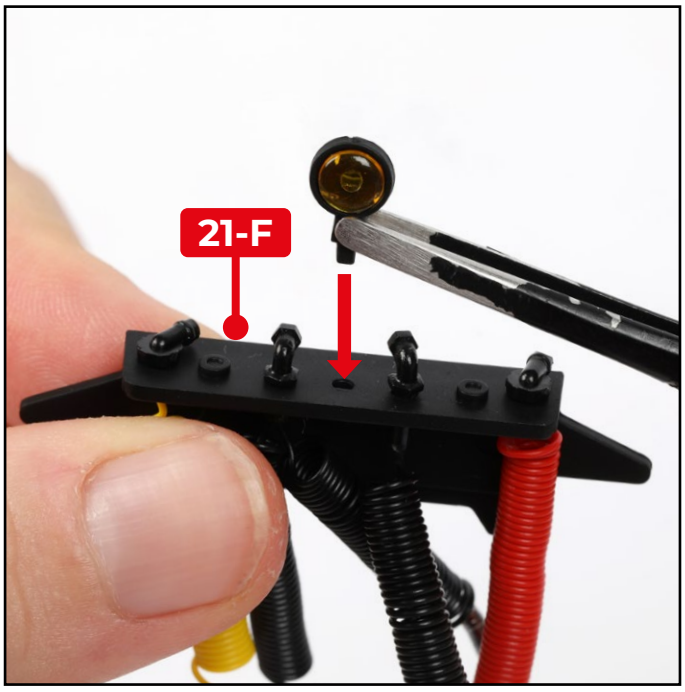


21-A: Controls cover
21-B: Electronic control unit (ECU)
21-C: Left support bracket
21-D: Right support bracket
21-E: Cab suspension units
21-F: Tractor-trailer connection assembly
21-G: Bracket
21-H: Spotlight
21-I: Spotlight lens
DM: 10 screws
GM: 3 screws
LM: 5 screws

Stage 21: Attaching the cab suspension and the tractor-trailer connection assembly





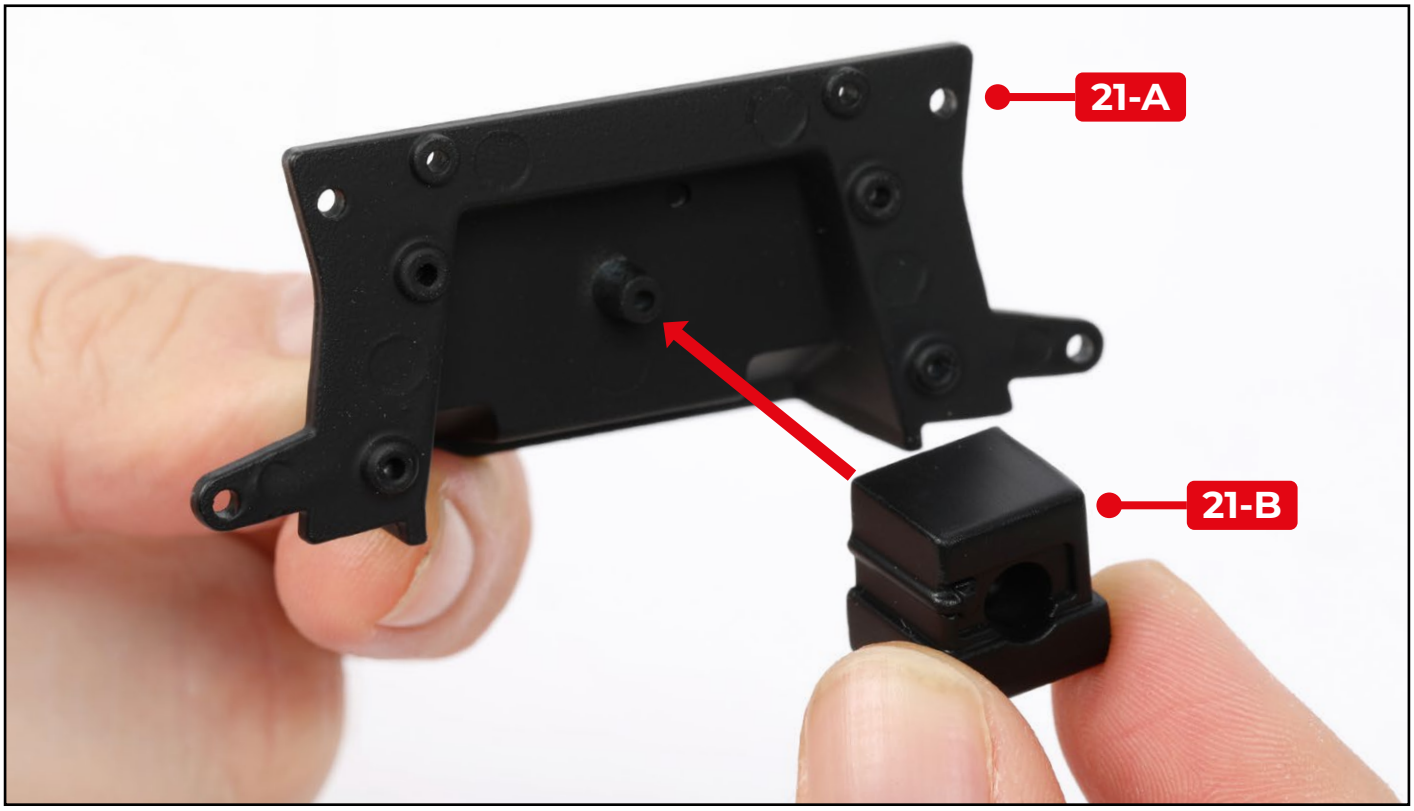


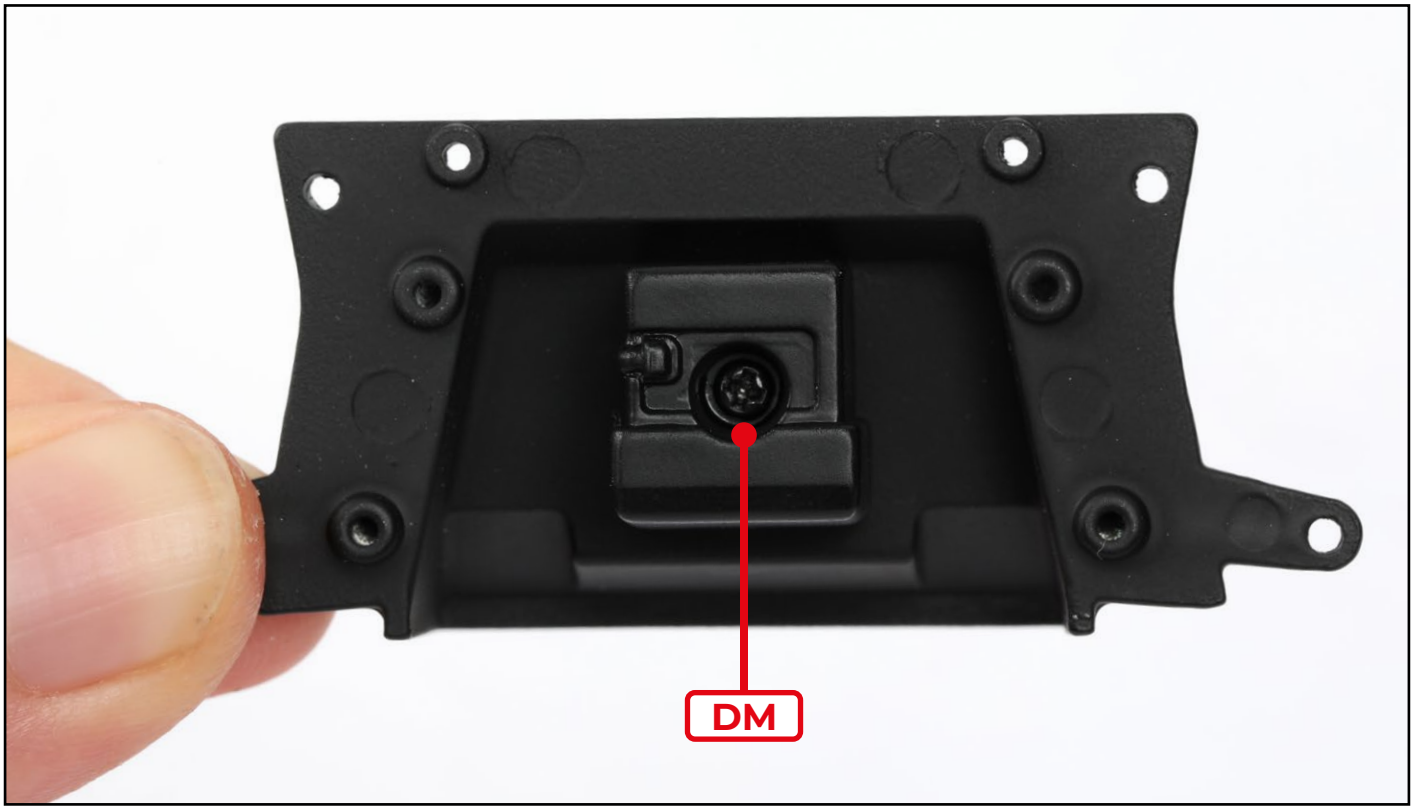


Step 1

Press spotlight 21-H and spotlight lens 21-I together. Position the assembled spotlight in the centre of tractor-trailer connection assembly 21-F.

Stage 21: Attaching the cab suspension and the tractor-trailer connection assembly

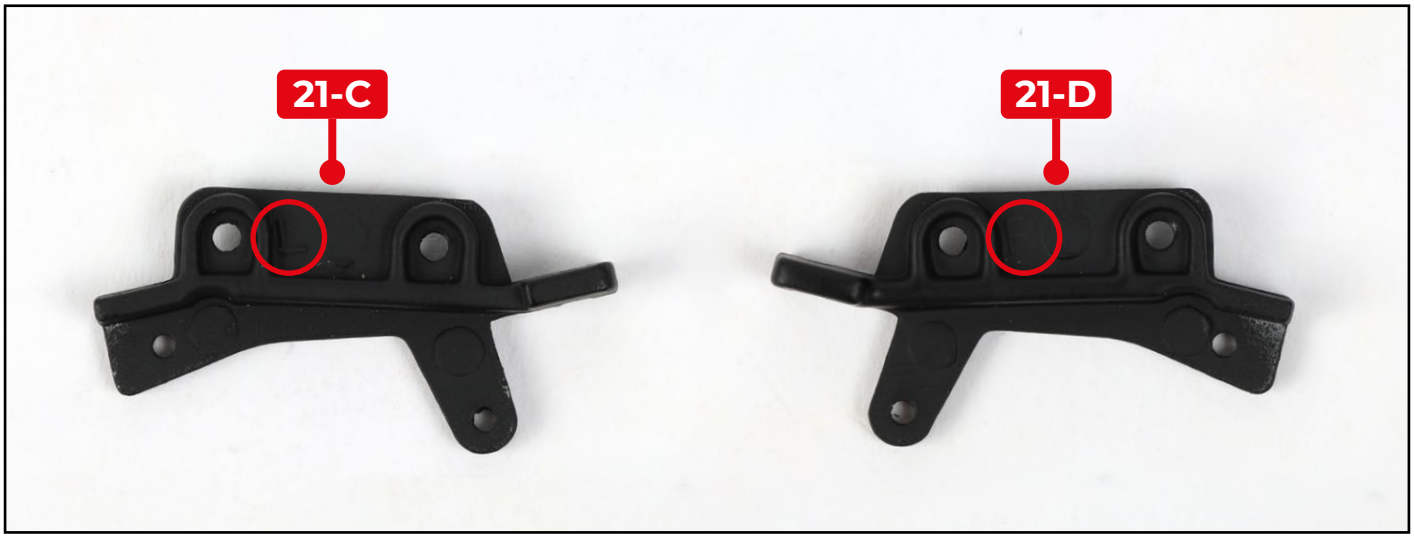


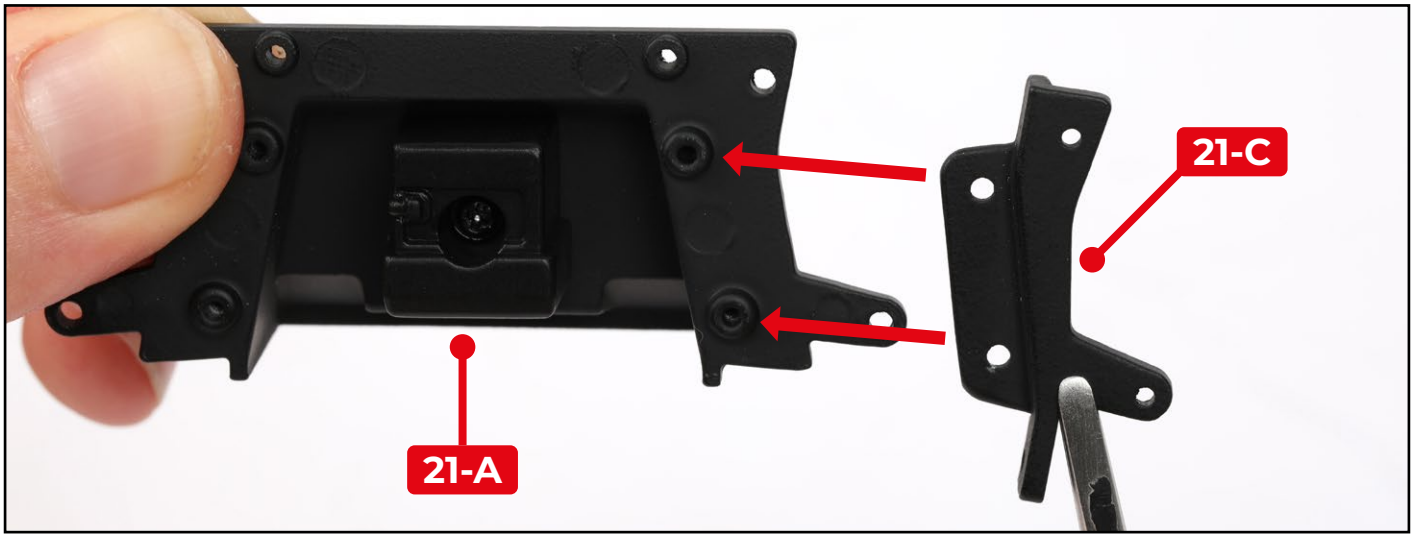


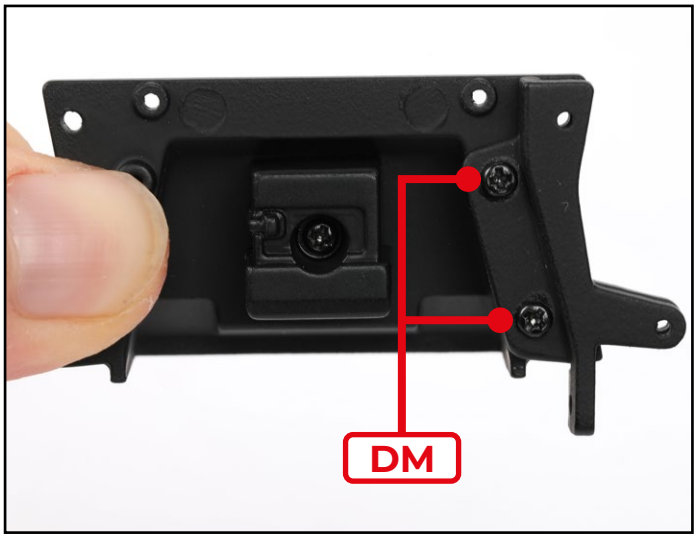
Step 2

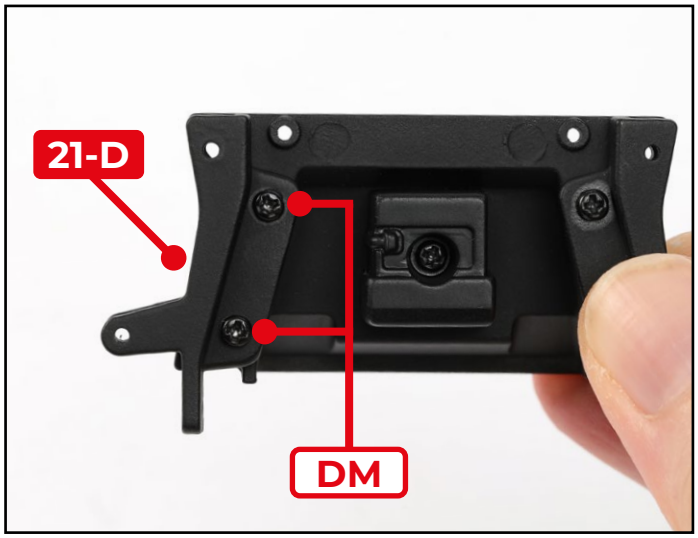
Position electronic control unit (ECU) 21-B on controls cover 21-A, then secure it with one DM screw.

Stage 21: Attaching the cab suspension and the tractor-trailer connection assembly





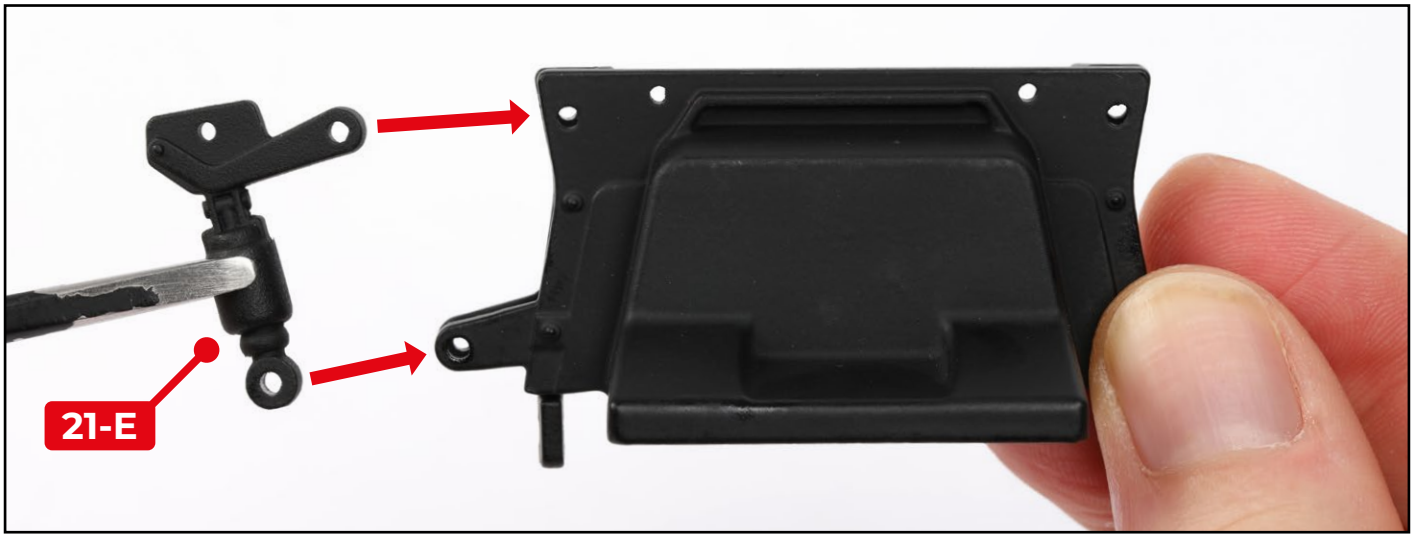




Step 3

Identify left support bracket 21-C by the L marking and right support bracket 21-D by the R marking. Position left support bracket 21-C on controls cover 21-A and secure it with two DM screws. Position right support bracket 21-D on the controls cover and secure it with two DM screws.

Stage 21: Attaching the cab suspension and the tractor-trailer connection assembly







Step 4

Position one cab suspension unit 21-E as shown, then secure it with two LM screws. Position the second cab suspension unit 21-E on the opposite side and secure it with two LM screws.

Stage 21: Attaching the cab suspension and the tractor-trailer connection assembly



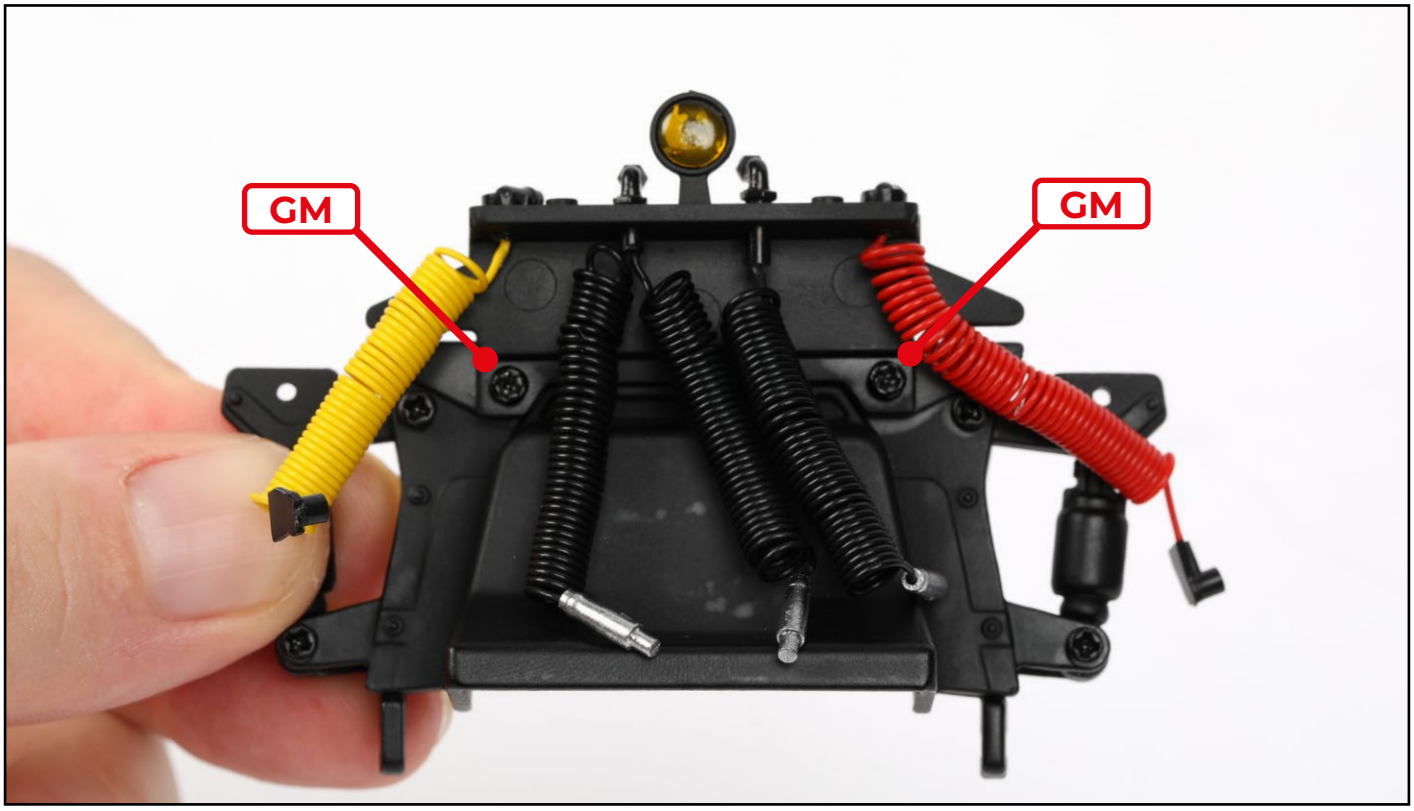


Step 5

Position bracket 21-G as shown.

Stage 21: Attaching the cab suspension and the tractor-trailer connection assembly

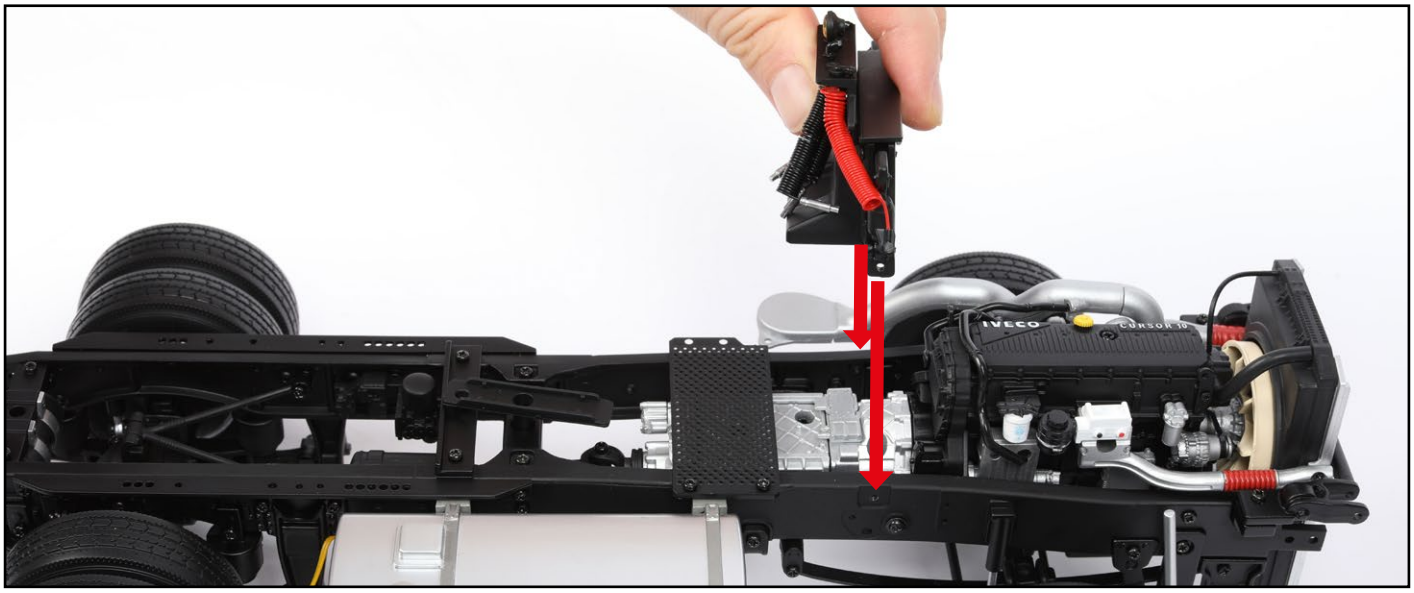


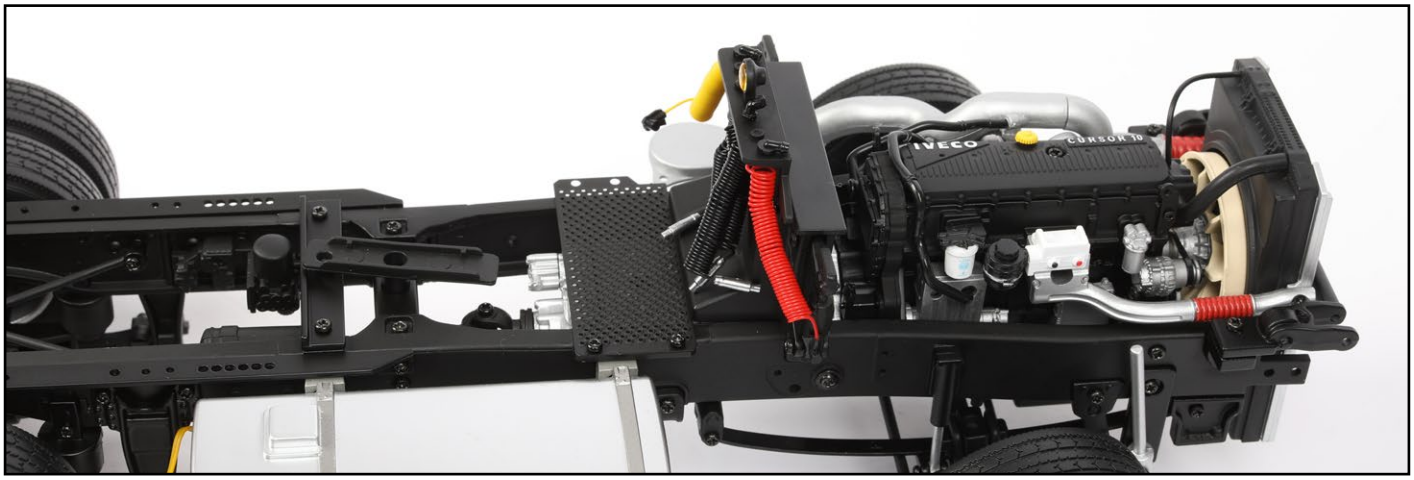


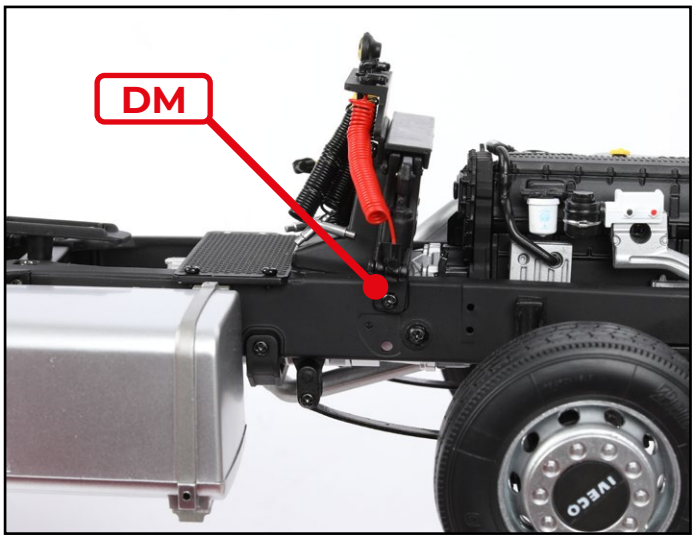
Step 6

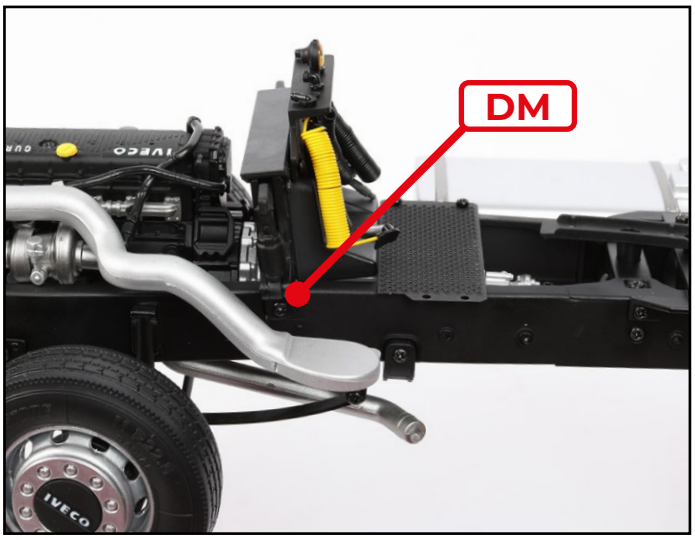
Position tractor-trailer connection assembly 21-F as shown, then secure it with two GM screws.

Stage 21: Attaching the cab suspension and the tractor-trailer connection assembly







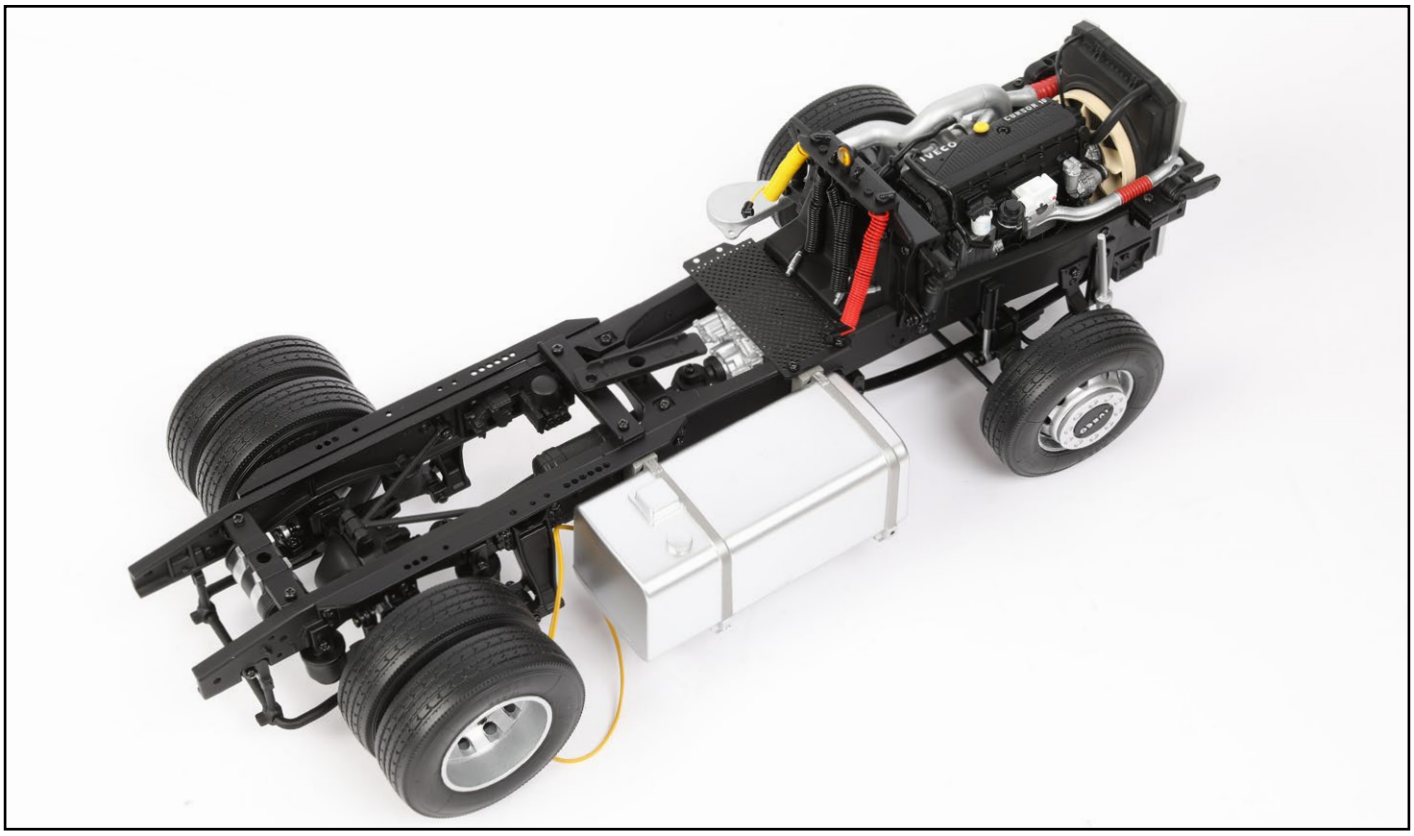


Step 7

Position the completed assembly on the tractor chassis as shown. Secure it to left tractor chassis rail 11-A and right tractor chassis rail 12-A with two DM screws, one on each side.

Stage 21: Attaching the cab suspension and the tractor-trailer connection assembly

STAGE 21 COMPLETE



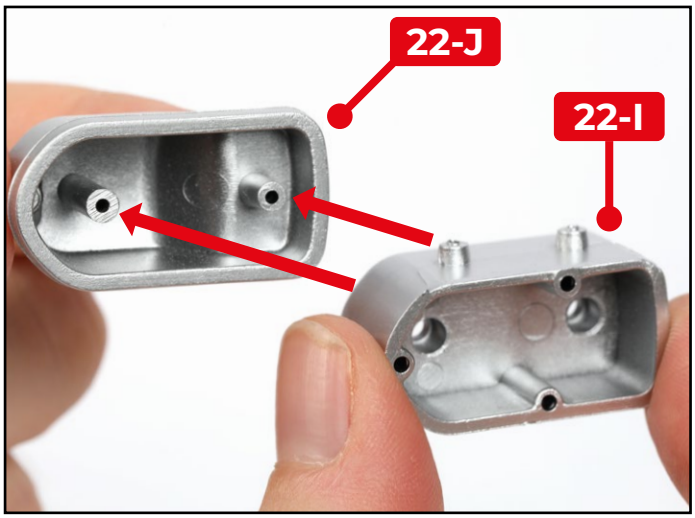
Stage 22: Attaching the battery compartment, the air filter and the catalytic converter

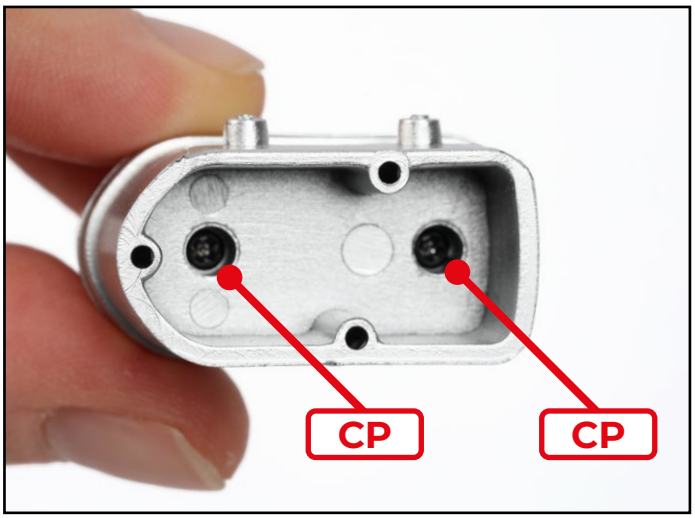
STAGE 22 PARTS



22-A: Battery compartment cover 1
22-B: Battery compartment cover 2
22-C: Air intake duct 1
22-D: Air intake duct 2
22-E: Bracket
22-F: Battery compartment base
22-G: Air filter 1
22-H: Air filter drain plug
22-I: Catalytic converter housing 1
22-J: Catalytic converter housing 2
22-K: Catalytic converter housing 3
22-L: Knob
22-M: Air filter 2
CP: 10 screws
DM: 8 screws
FP: 3 screws
JP: 6 screws

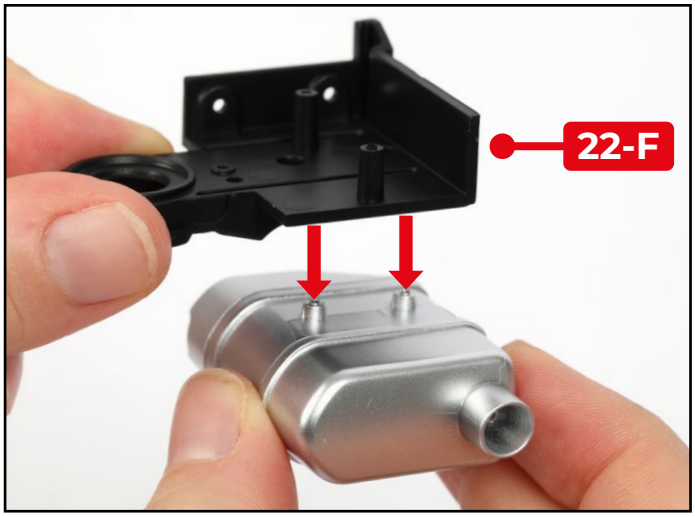
Stage 22: Attaching the battery compartment, the air filter and the catalytic converter

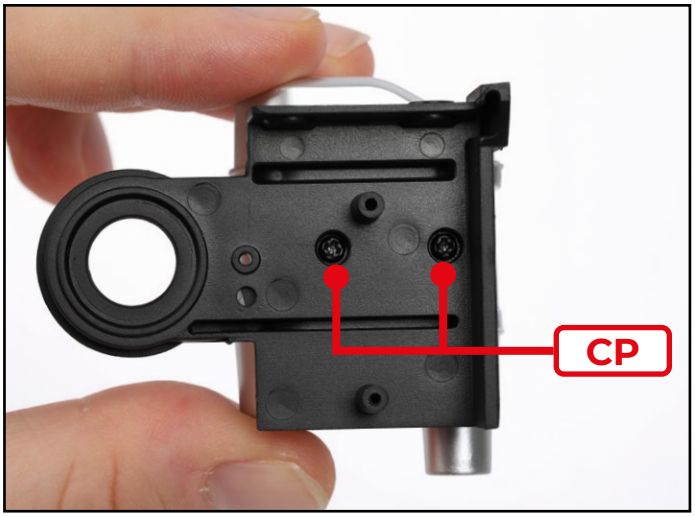








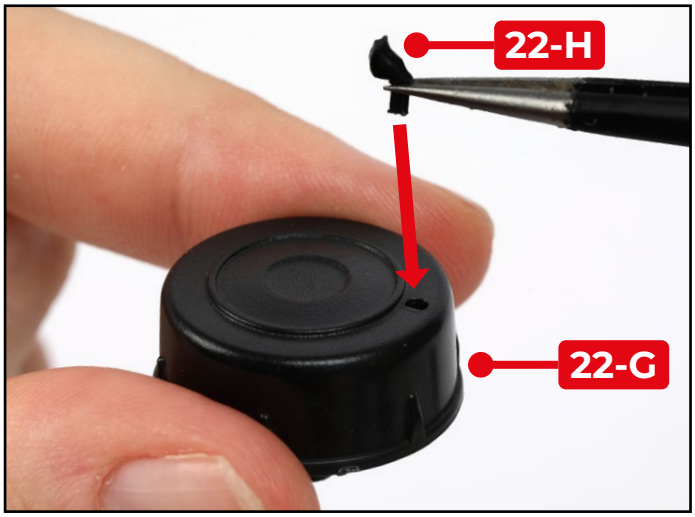




Step 1

Fit catalytic converter housings 22-I and 22-J together, then secure them with two CP screws. Fit catalytic converter housing 3 22-K to the assembly. Position the completed catalytic converter housing on battery compartment base 22-F, then secure it with two CP screws.

Stage 22: Attaching the battery compartment, the air filter and the catalytic converter

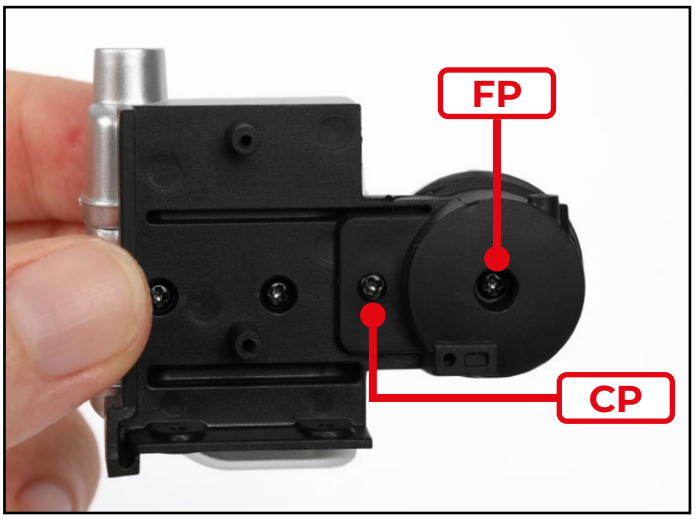












Step 2

Press air filter drain plug 22-H into air filter 1 22-G. Fit air filter 1 22-G and air filter 2 22-M together around the projecting section of battery compartment base 22-F, using the projection as the central support. Secure the air filter through air filter 2 22-M with one FP screw at the centre and one CP screw at the base.

Stage 22: Attaching the battery compartment, the air filter and the catalytic converter





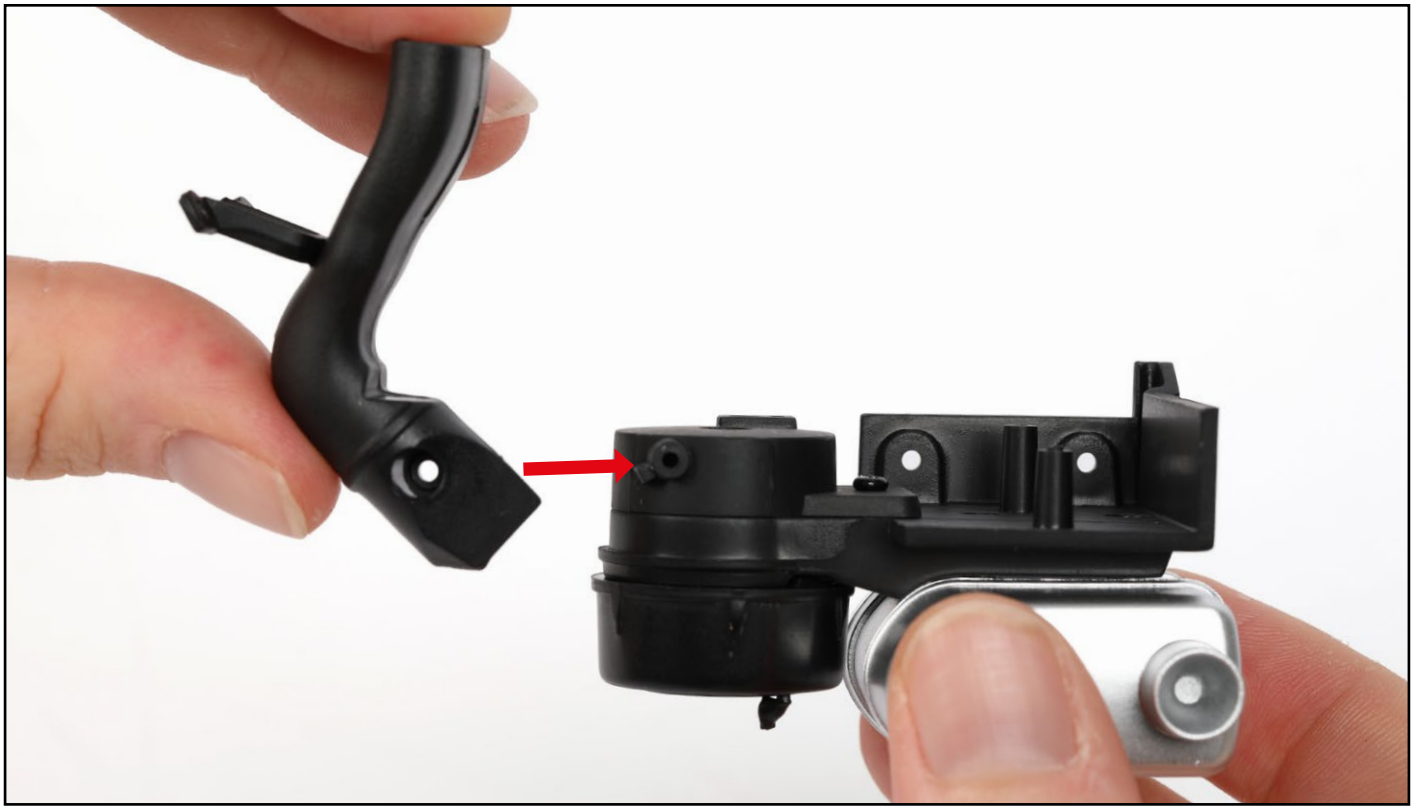


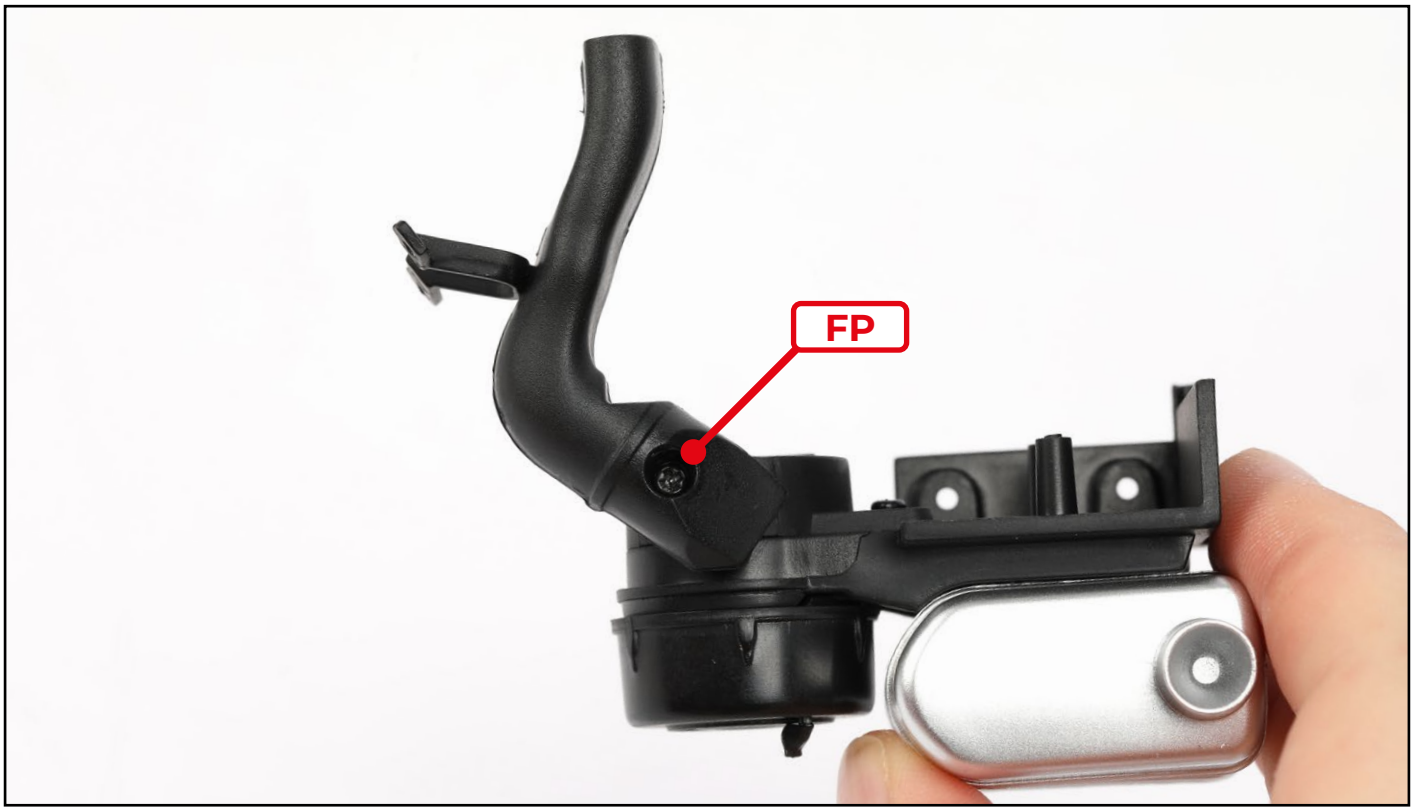


Step 3

Fit bracket 22-E into its mounting point on air intake duct 1 22-C, then secure it with one CP screw. Press air intake duct 1 22-C and air intake duct 2 22-D together.

Stage 22: Attaching the battery compartment, the air filter and the catalytic converter

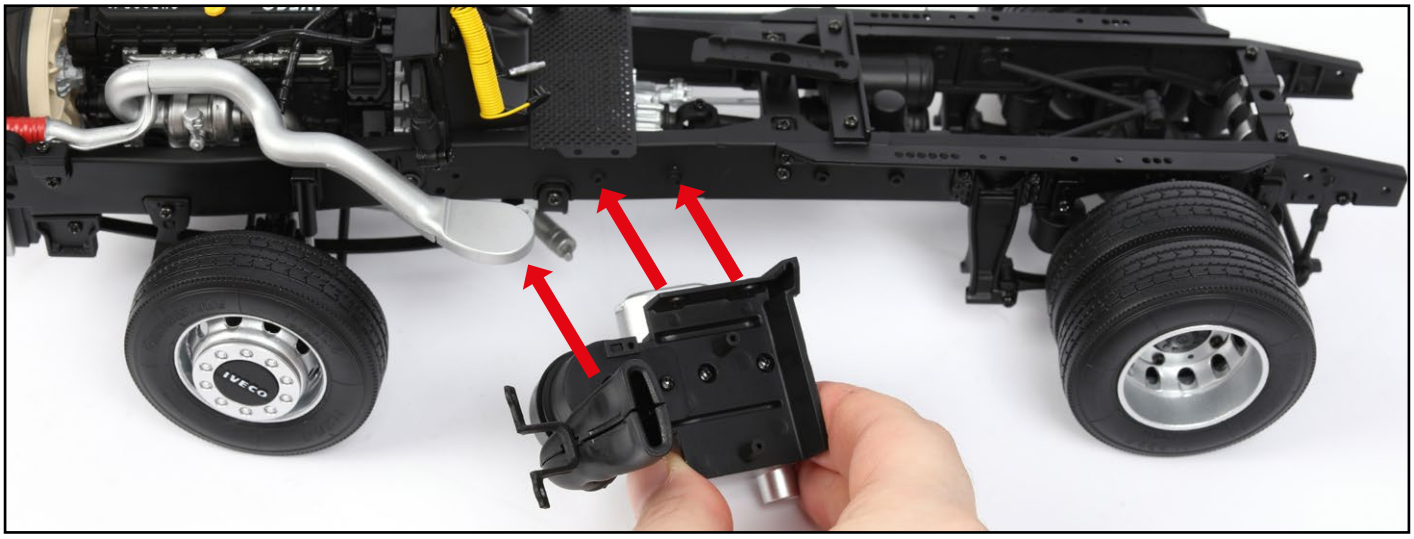


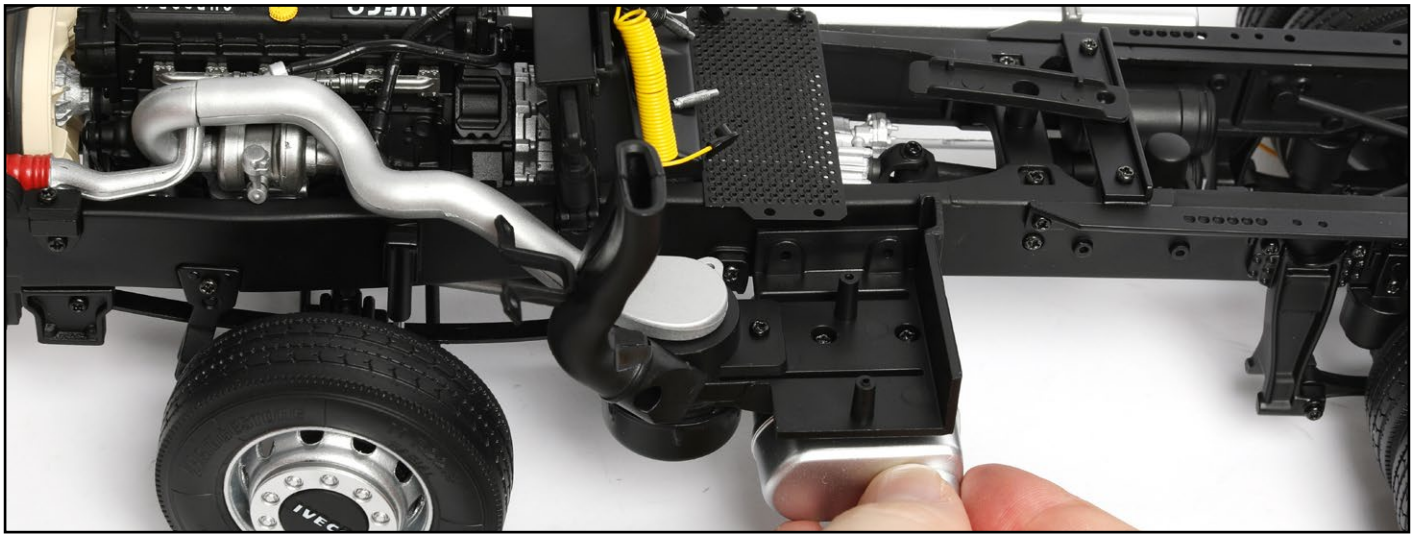


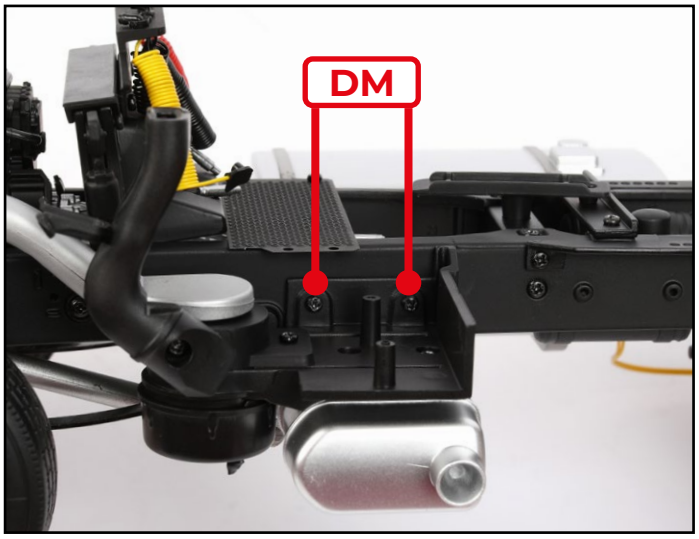
Step 4

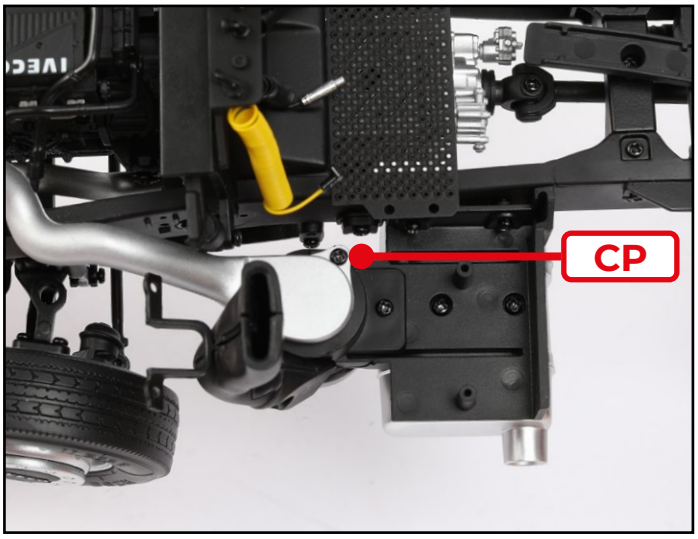
Position the assembled air intake duct 22-C/22-D on air filter 22-G/22-M as shown, then secure it with one FP screw.

Stage 22: Attaching the battery compartment, the air filter and the catalytic converter





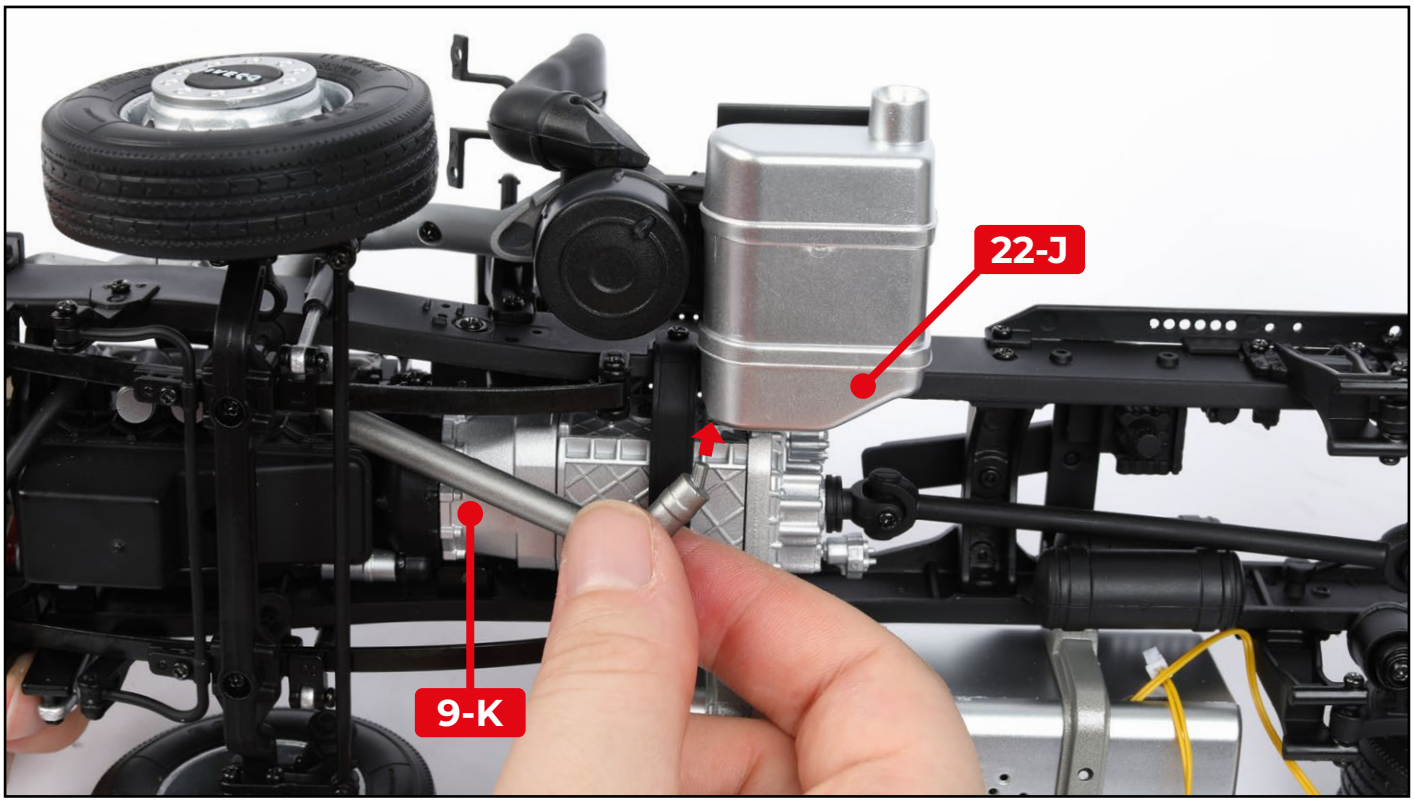


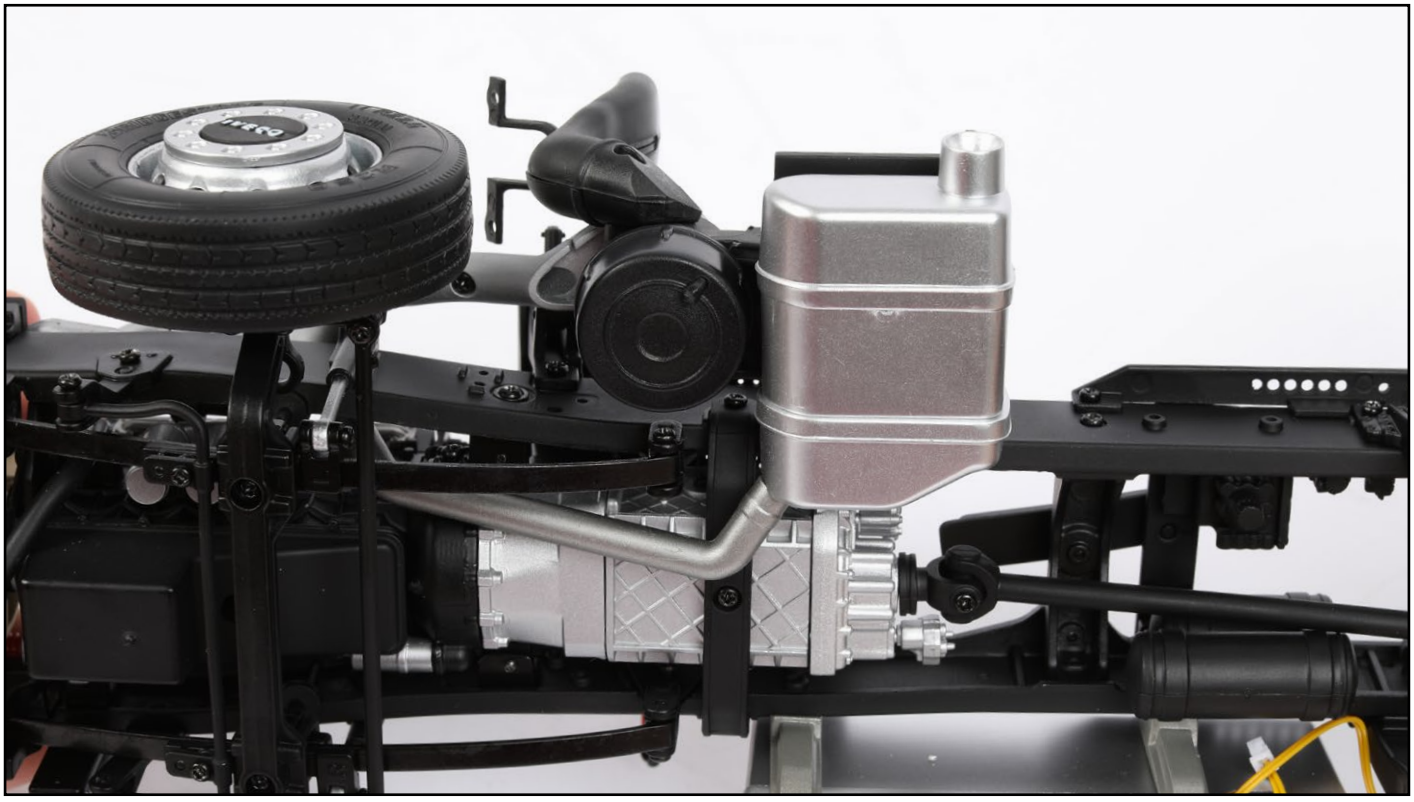


Step 5

Position the completed battery compartment base assembly on left tractor chassis rail 11-A as shown, then secure it with two DM screws. Secure turbocharger air inlet 4 9-H to air filter 2 22-M with one CP screw.

Stage 22: Attaching the battery compartment, the air filter and the catalytic converter

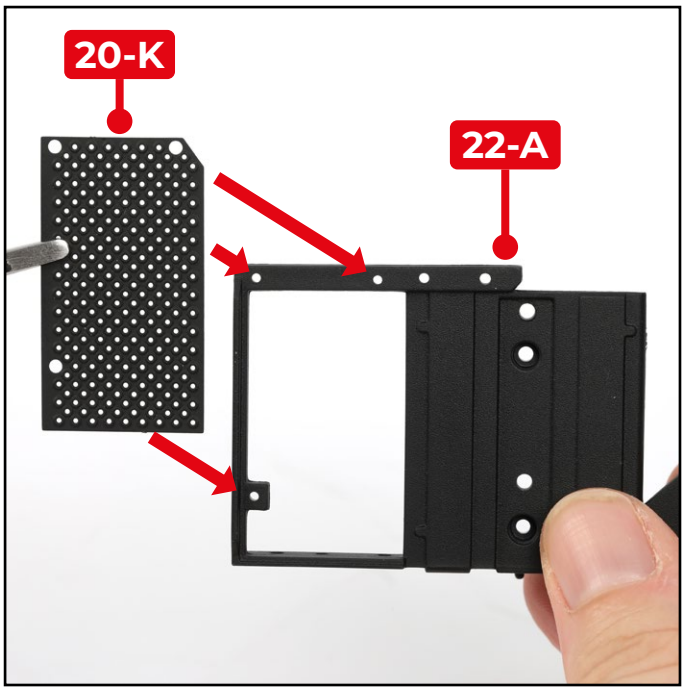


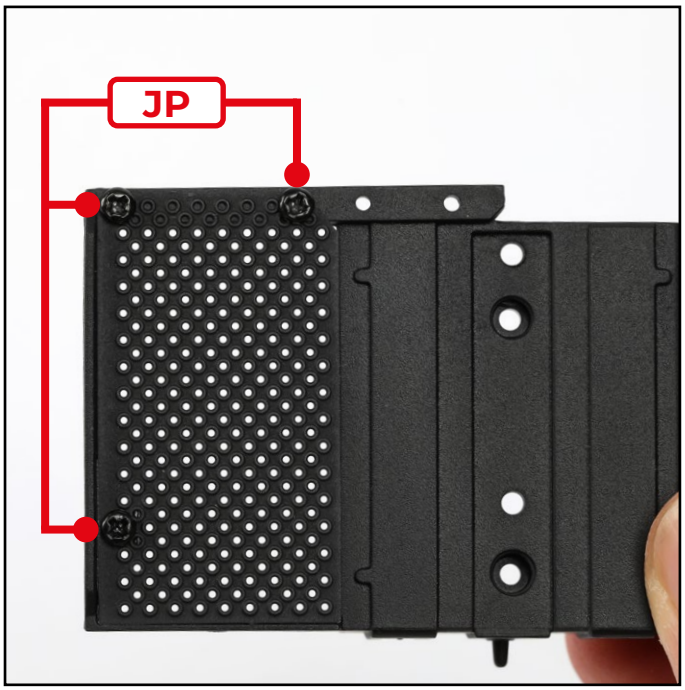


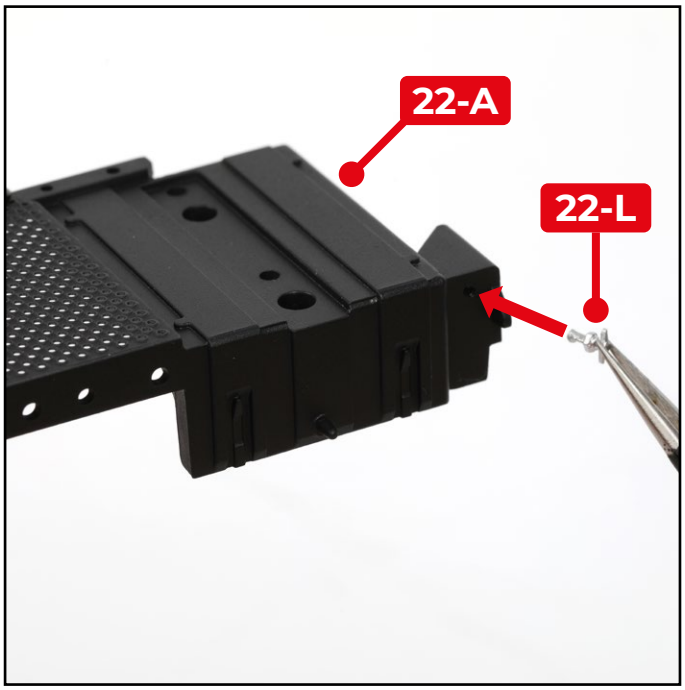
Step 6

Connect exhaust pipe 9-K to catalytic converter housing 2 22-J.

Stage 22: Attaching the battery compartment, the air filter and the catalytic converter





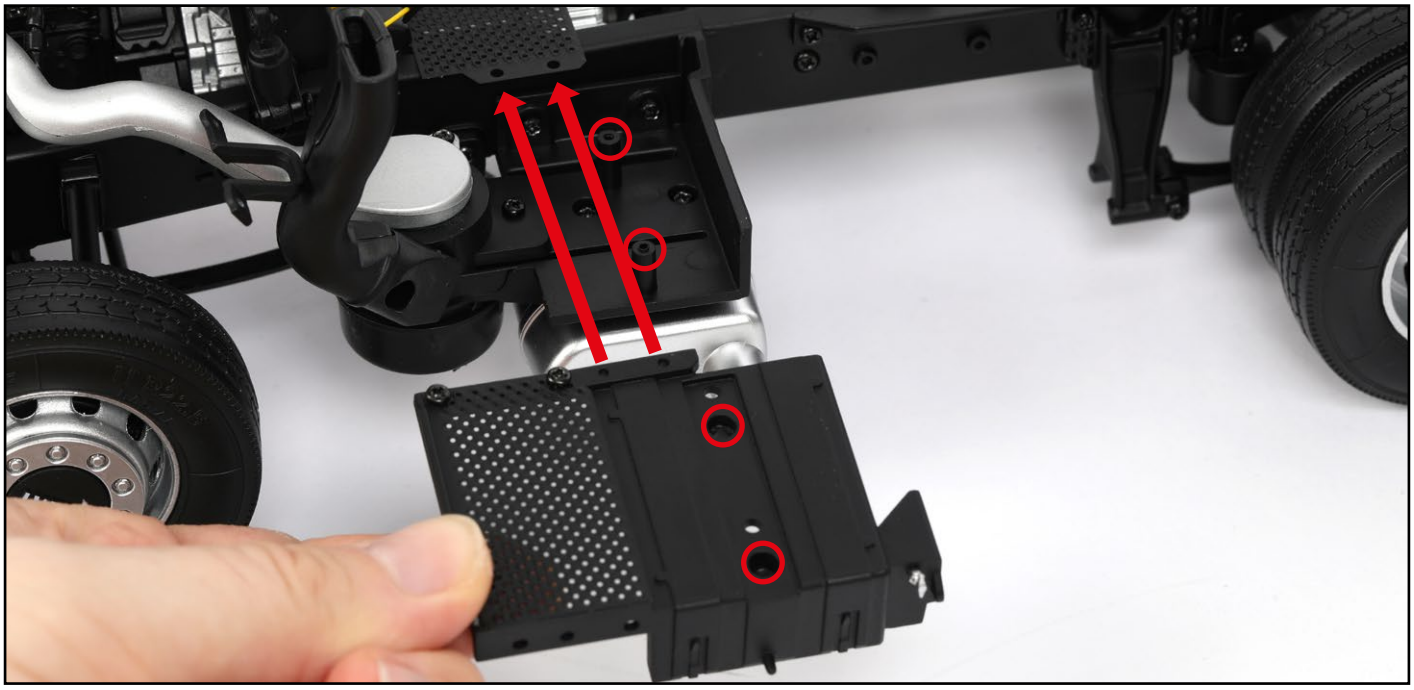




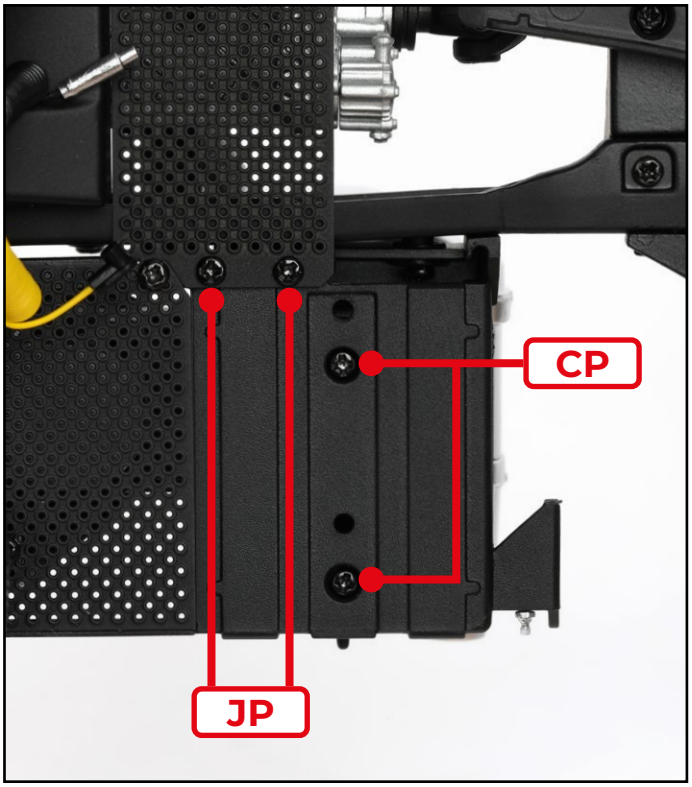
Step 7

Retrieve walkway platform 1 20-K from Stage 20. Position it on battery compartment cover 1 22-A, then secure it with three JP screws. Press knob 22-L into the side of battery compartment cover 1 22-A.

Stage 22: Attaching the battery compartment, the air filter and the catalytic converter



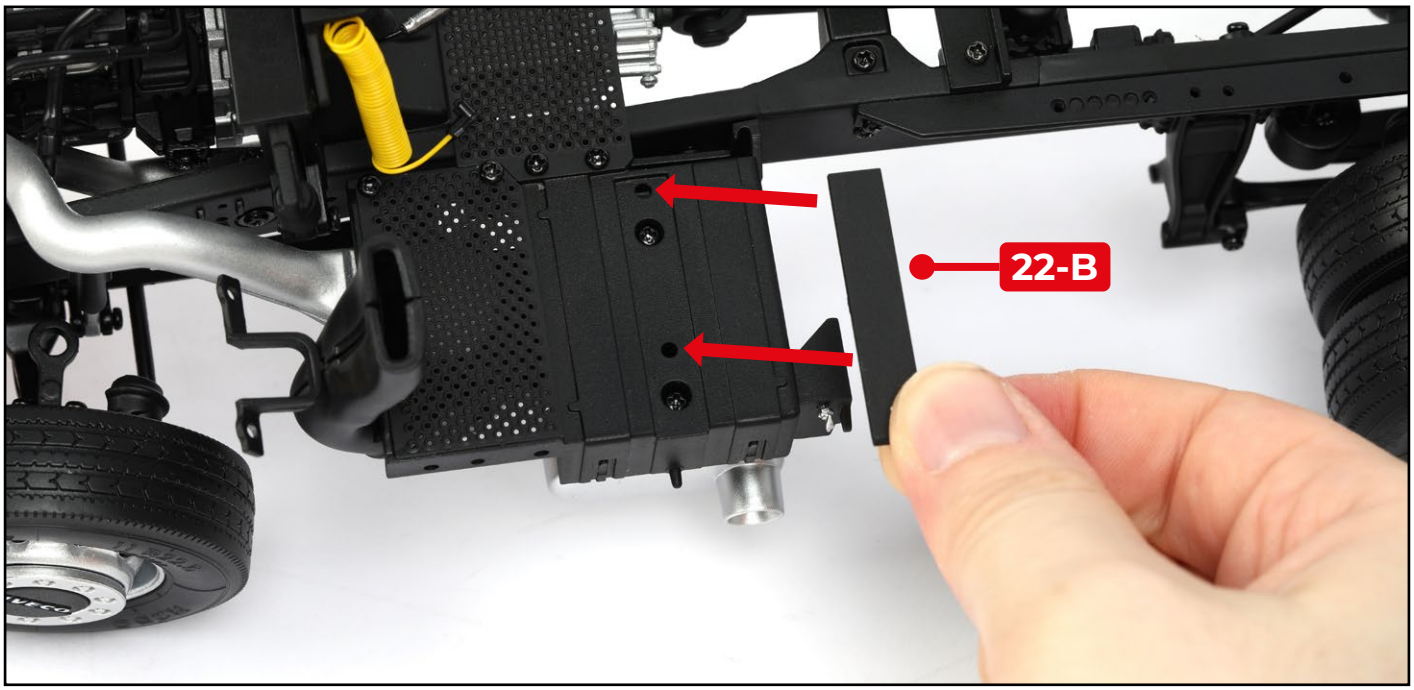


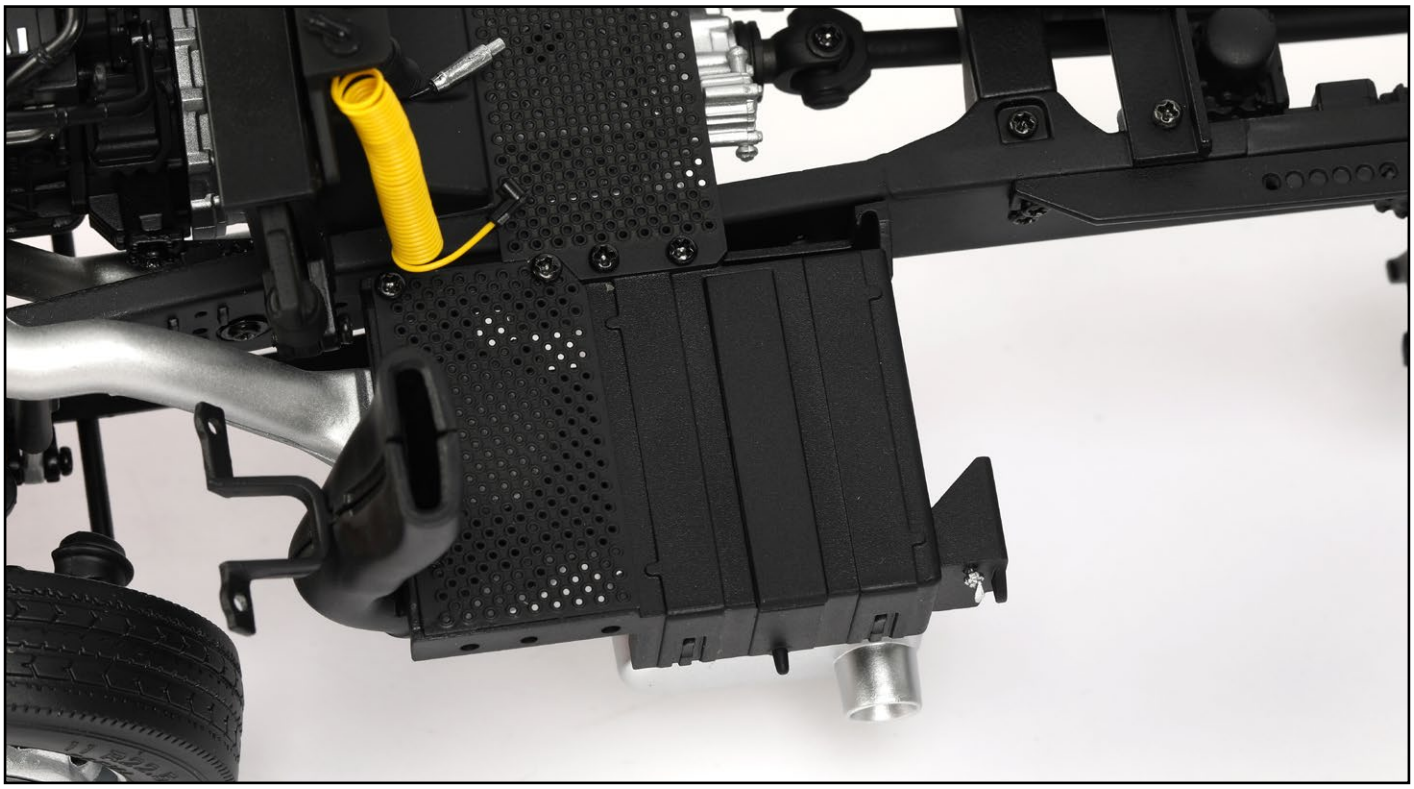


Step 8

Position battery compartment cover 1 22-A on the battery compartment base assembly already fitted to the chassis, then secure it with two CP screws. Secure battery compartment cover 1 22-A to walkway platform 2 20-L with two JP screws.

Stage 22: Attaching the battery compartment, the air filter and the catalytic converter





Step 9

Position battery compartment cover 2 22-B on the assembly as shown.

Stage 22: Attaching the battery compartment, the air filter and the catalytic converter

STAGE 22 COMPLETE

