FDNY®

FIRE TRUCK

TOWER LADDER 9

Pack 02

BUILD INSTRUCTIONS

STAGE 09: FRONT RIGHT WHEEL & LADDER NAME PLATE

STAGE 10: COMPONENTS FOR THE CAB ROOF AND FRONT WHEELS

STAGE 11: LEFT-HAND SIDE LIGHTBAR & COMPONENTS FOR THE CHASSIS

STAGE 12: COMPONENTS FOR THE FRONT BUMPER & FRONT RIGHT STABILIZER

STAGE 12B: MAIN CHASSIS, DOOR STEPS & WHEEL ARCHES

STAGE 13: COMPONENTS FOR THE CAB CENTRAL CONSOLE

STAGE 14: REAR RIGHT CAB DOOR & CAPTAIN'S SEAT

STAGE 15: CAB FLOOR AND ENGINEER'S SEAT

STAGE 16: COMPONENTS FOR THE MOBILE DATA TERMINAL, WING MIRRORS, CAB INSIDE ROOF & DOME LIGHTS

AGORA MODELS

Advice from the experts

Please keep ALL unused screws as they will be required in a later stage.

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.

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

The screwdriver can be magnetized by stroking it with a magnet (fridge magnet, etc.) enabling it to hold the 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 put a tiny smear of Vaseline, soap or light oil on the thread. That will lubricate it and make it easier to drive home.

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.

Left and Right! When building your fire truck, the left or right hand side refers to each side as you are sitting in the cab.

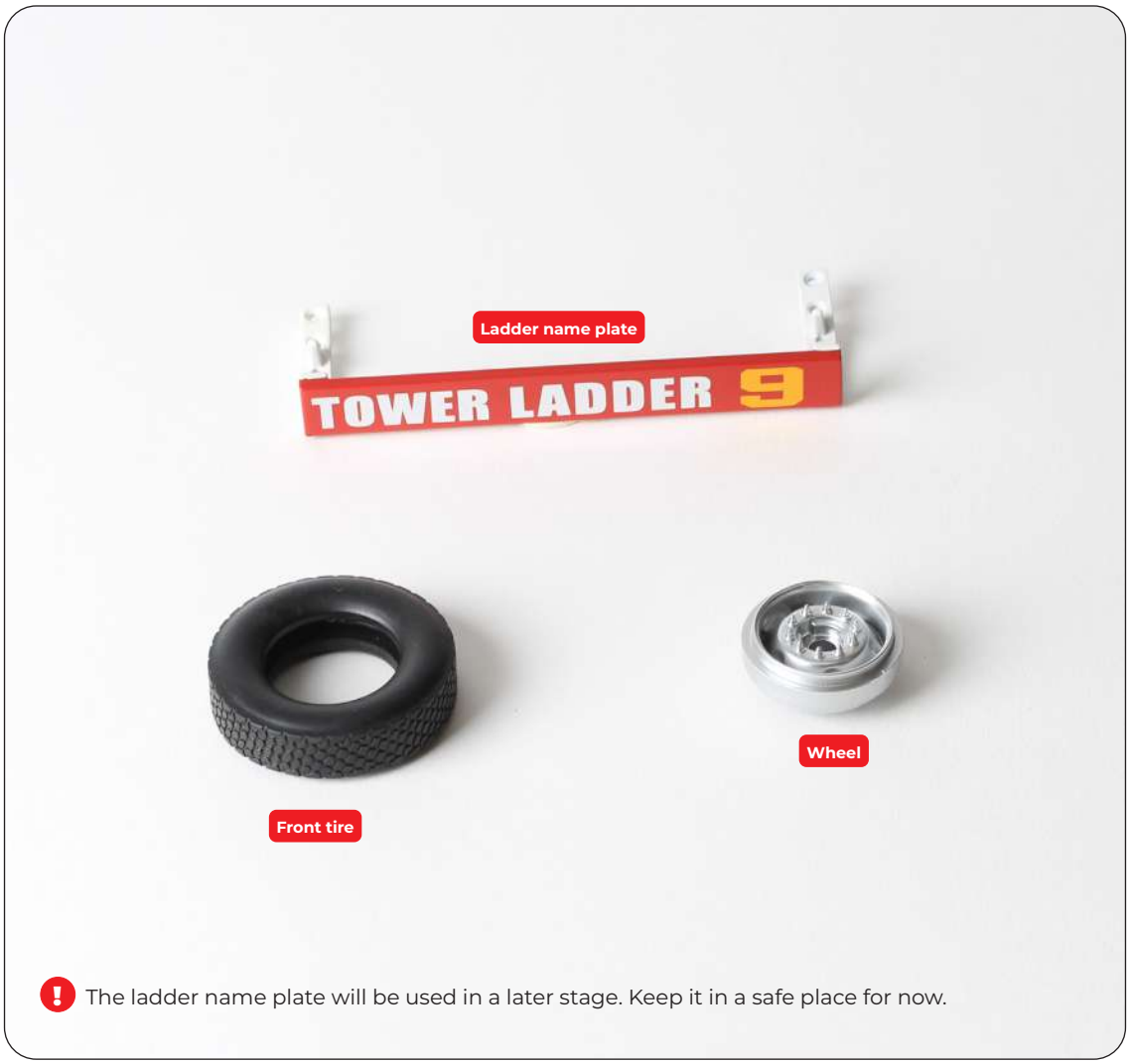
WARNING: Some parts are assembled using magnets. These magnets can cause serious injury if they are swallowed. Keep away from children. If you suspect a magnet has been swallowed, seek medical help straight away.

Stage 09: Front Right Wheel & Ladder Name Plate

In this first stage of pack 2, you will assemble the front right wheel.

STAGE 09 PARTS LIST

Name
Ladder name plate
Front tire
Wheel



The ladder name plate will be used in a later stage. Keep it in a safe place for now.

Stage 09: Front Right Wheel & Ladder Name Plate

STEP 1

The tire fits onto the wheel in the same way as the tires in stage 01. If the tire won't stretch, soak it in a hot water bath for two minutes.

Carefully remove the tire with tweezers and shake off the excess water. Blot the tire on kitchen paper or a cloth. Warning: be careful not to scald yourself on the hot water.

Working quickly while the tire is warm, push the wheel into the tire and stretch it around the outer flange of the wheel.

The wheel should now look like this.

Stage 09: Front Right Wheel & Ladder Name Plate

STAGE COMPLETE

Stage 10: Components for the Cab Roof and Front Wheels

You'll now add more components to the cab roof before assembling the front wheel axle and wheel hubs and attaching the front right wheel.

STAGE 10 PARTS LIST

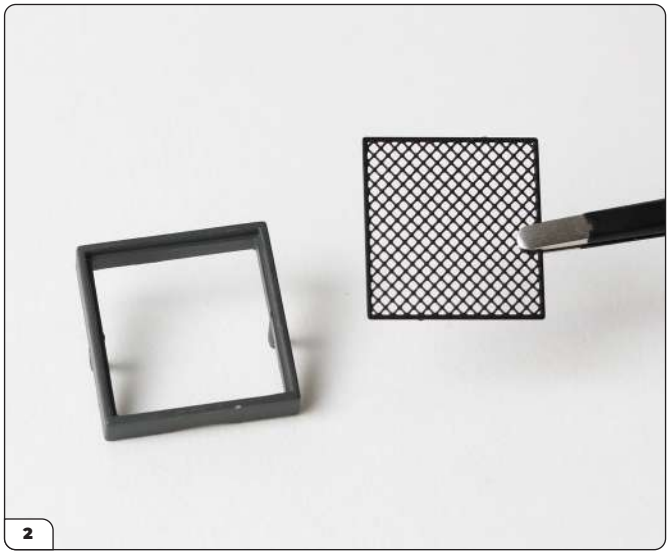
Name
Front axle
Track rod
Condenser
Condenser grille
Condenser grille frame
Right wheel hub
Left wheel hub
Coil springs x2
Fire extinguisher
Lightbar
Screws type L x2

The fire extinguisher will be installed in a later stage. Keep it in a safe place for now.

Stage 10: Components for the Cab Roof and Front Wheels

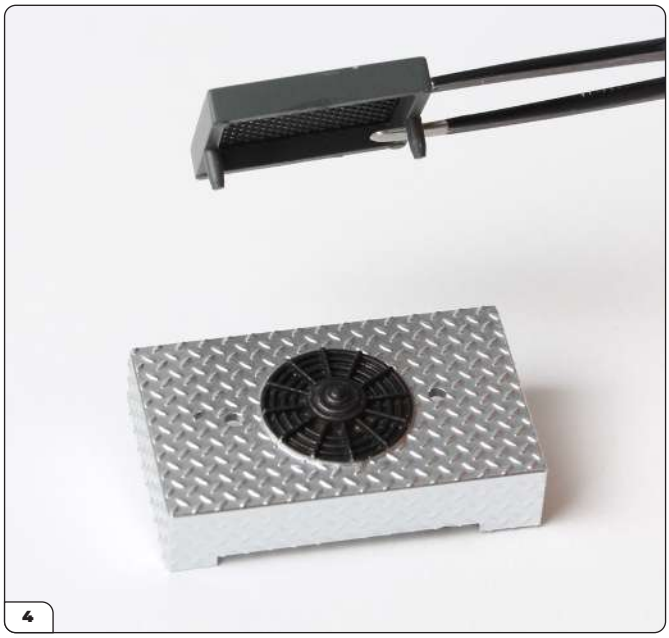
STEP 1

ASSEMBLING THE CONDENSER
Take the condenser grille frame and apply a lttle superglue around the ledge of the frame.



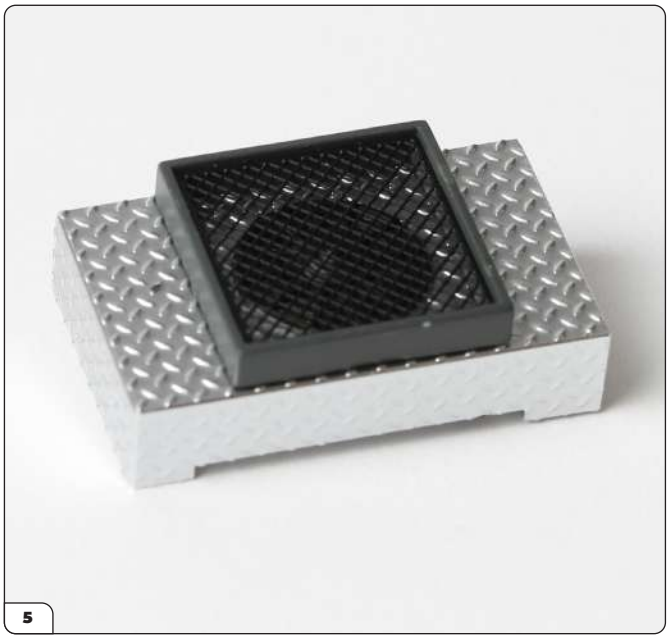
Carefully lay the condenser grille on the ledge.

The grille should sit on the condenser like this.

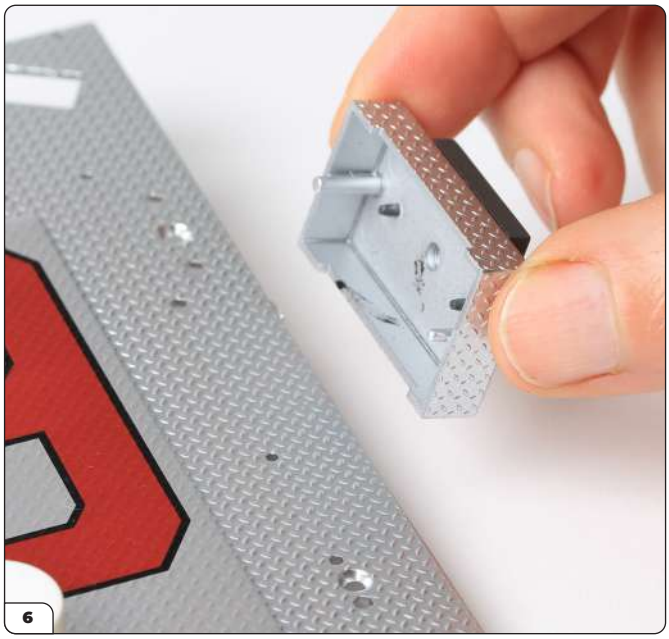


Align the two pegs on the condenser frame with the two corresponding holes on the condenser. Push the pegs firmly into the holes to fit.

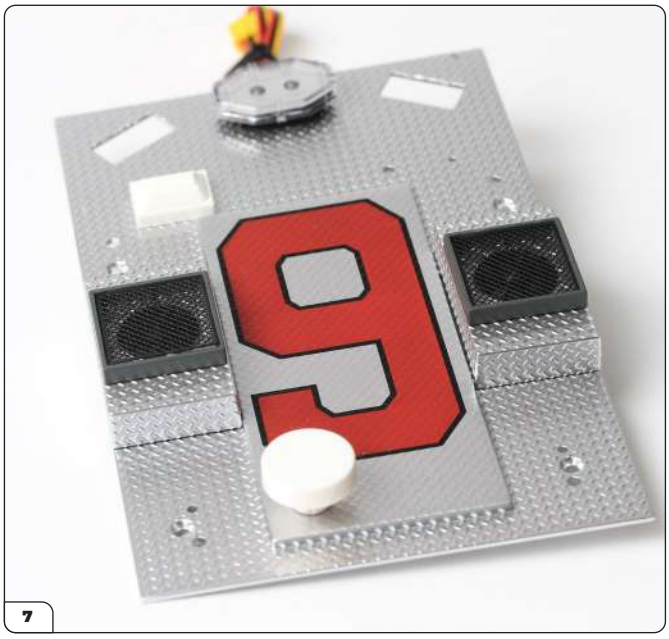
Stage 10: Components for the Cab Roof and Front Wheels



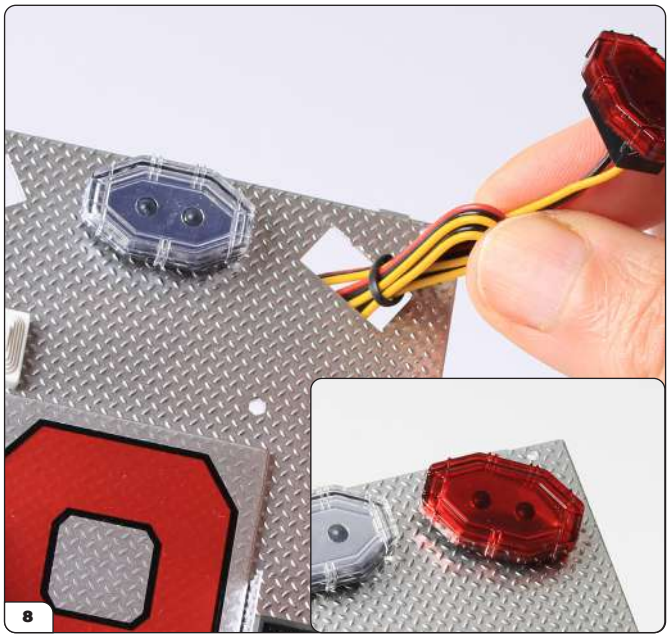
The condenser grille has now been fitted in place.



Push the two pegs on the underside of the condenser assembly into the corresponding holes in the cab roof. Note: the pegs and holes are different sizes to determine the correct fit.



The right-hand condenser unit has now been fixed to the cab roof.



Install the lightbar by feeding the cable through the opening in the roof before pushing the mounting firmly into place.

Stage 10: Components for the Cab Roof and Front Wheels

STEP 2


1


2

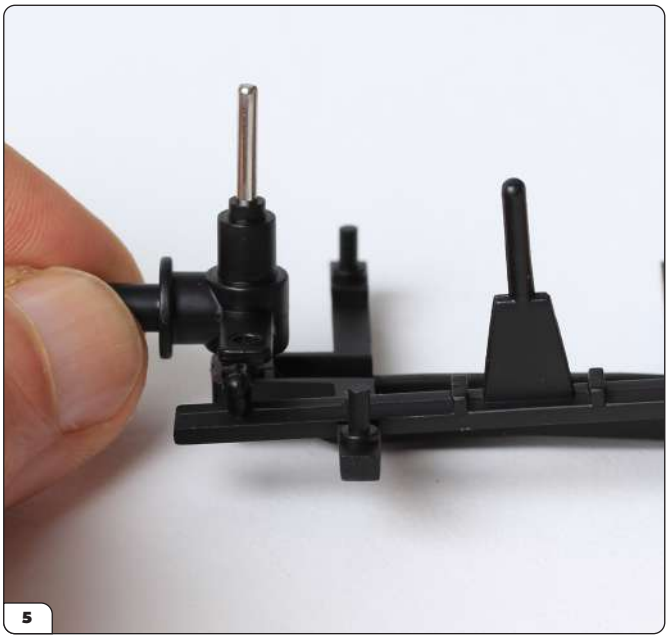
ASSEMBLING THE WHEEL HUBS, TRACK ROD AND FRONT RIGHT WHEEL
Take the right wheel hub and lower it onto this post of the main front axle. Note: the front main axle is symmetrical, so can be placed either way round.


3


4

Repeat on the opposite side to position the left wheel hub.

Stage 10: Components for the Cab Roof and Front Wheels



5

Now take the track rod and rest it on the main axle, just behind the wheel hubs. Lift up the left wheel hub and hook the projecting hole over the pin on the track rod. The pin clicks into the hole in the hub.

6

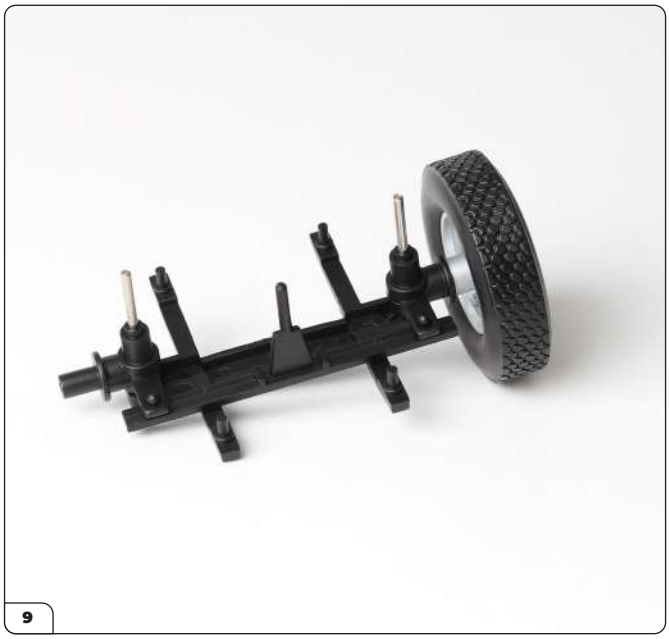
Repeat on the opposite side, lifting the right wheel hub and hooking it over the pin on the other end of the track rod.

7

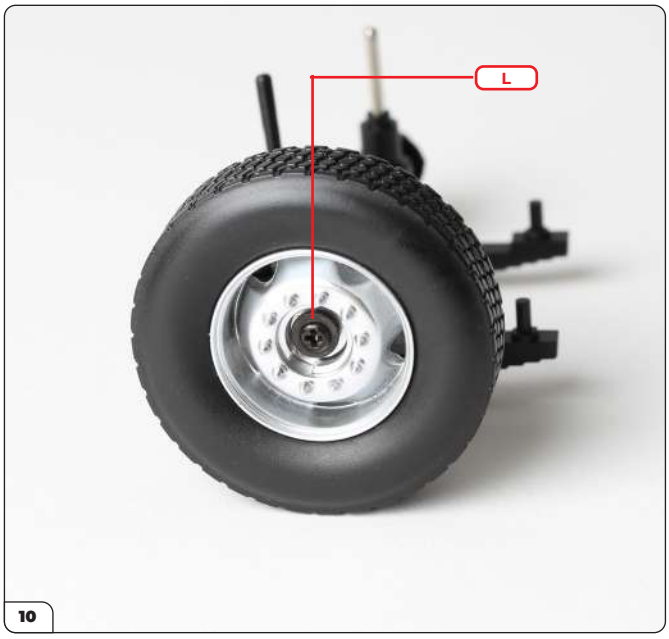
The track rod has now been fitted, connecting the two wheel hubs.

Stage 10: Components for the Cab Roof and Front Wheels

Align the front right wheel from stage 9 with the right wheel hub.



Push the wheel firmly onto the hub.

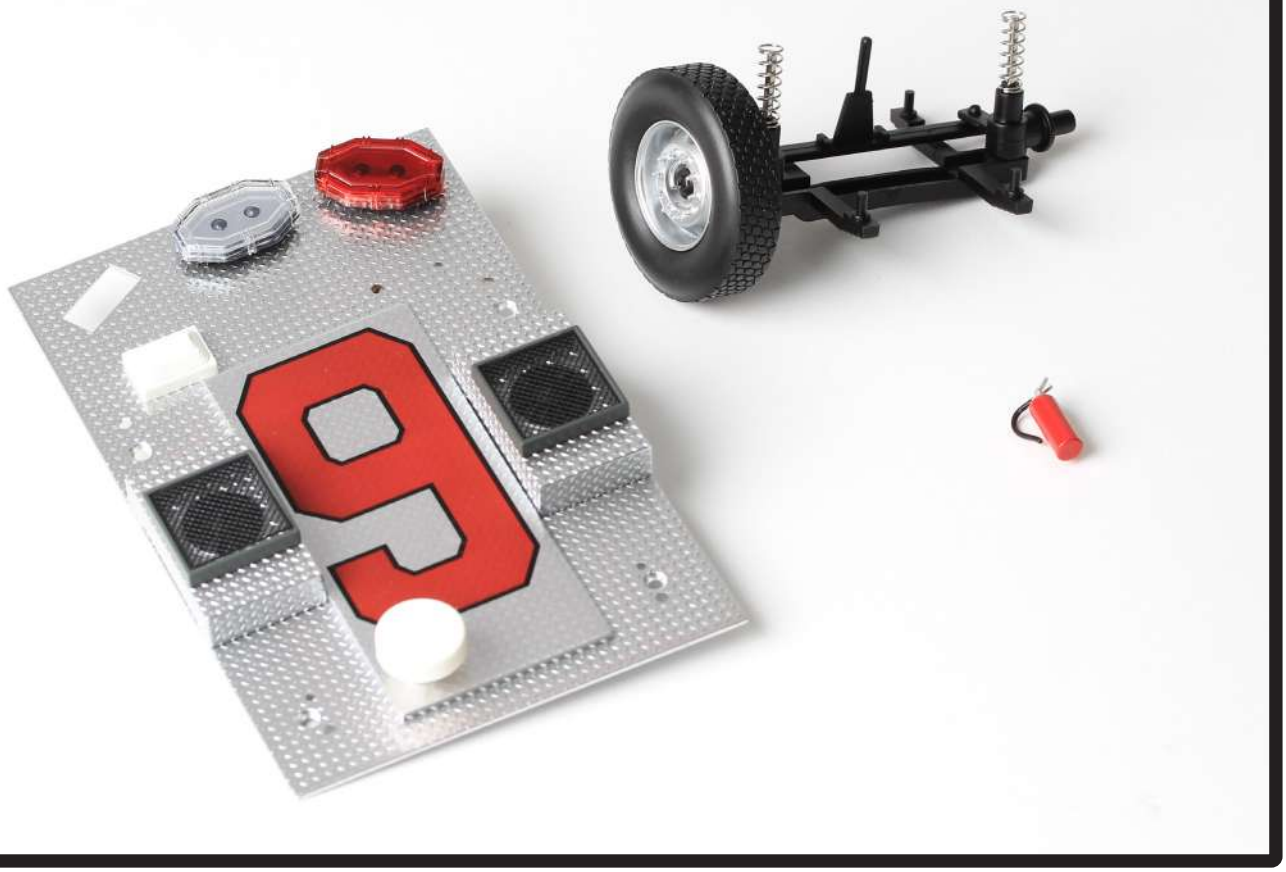


Secure the wheel in place using 1 x screw type L from stage 6. Keep the 2 x type L screws supplied with this stage for use in stage 12B.

Drop the two coil springs onto the axle post or keep them safe until they can be secured in place.

Stage 10: Components for the Cab Roof and Front Wheels

STAGE COMPLETE

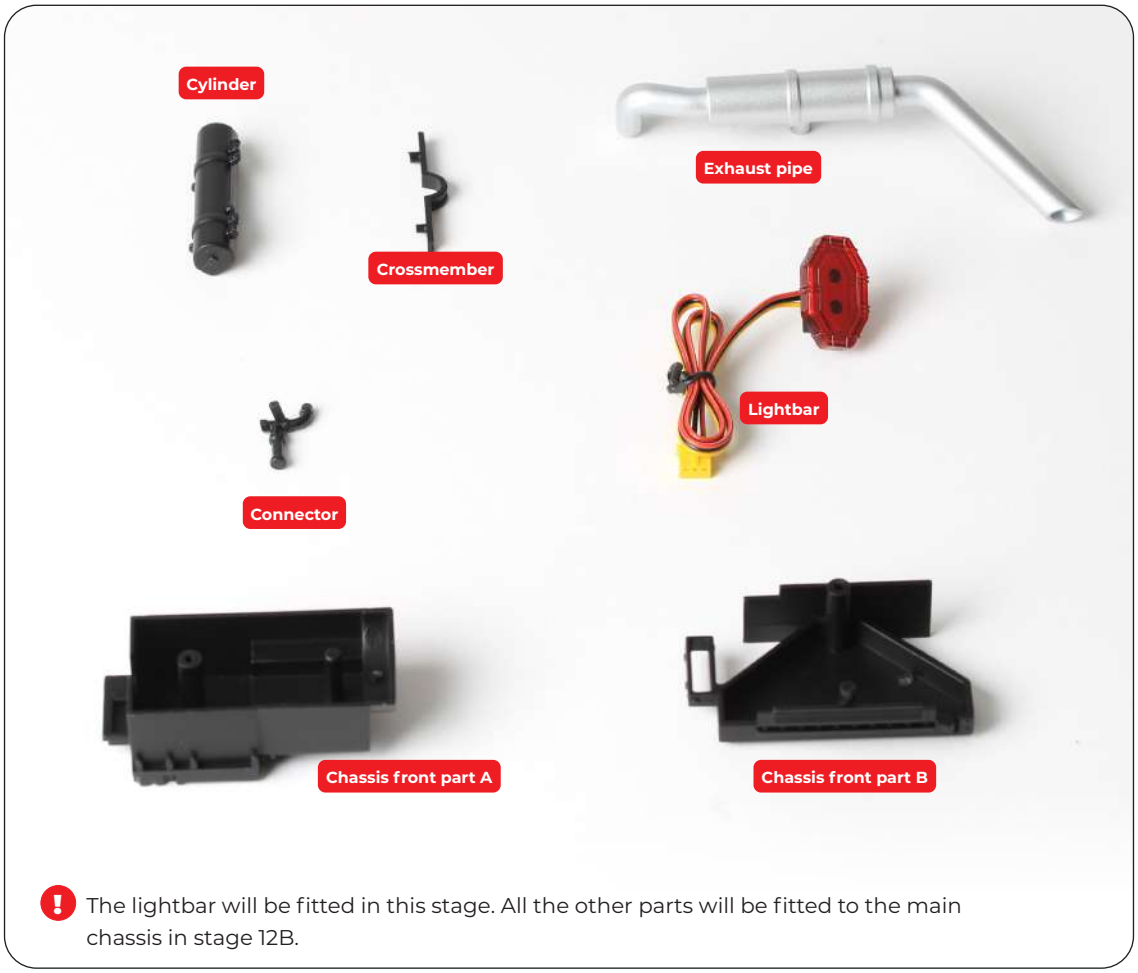


Stage 11: Left-hand Side Lightbar & Components for the Chassis

In this next stage, you'll fix the left-hand side lightbar to the roof, and unpack components that will be attached to the chassis supplied in the next stage.

STAGE 11 PARTS LIST

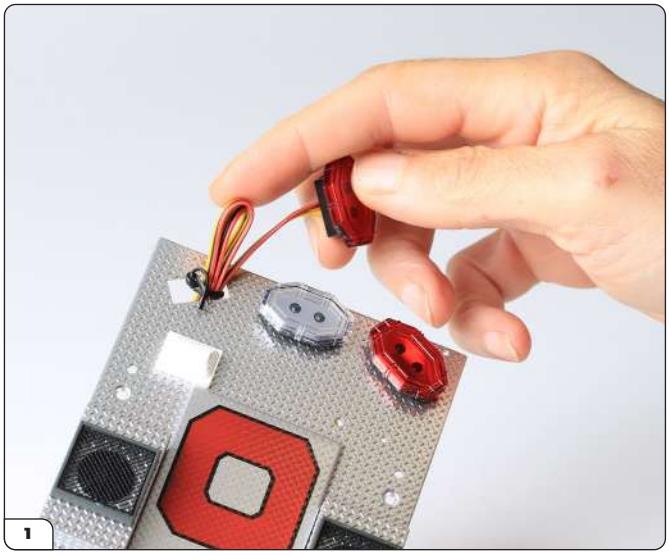
Name
Cylinder
Crossmember
Exhaust pipe
Connector
Lightbar
Chassis front part A
Chassis front part B



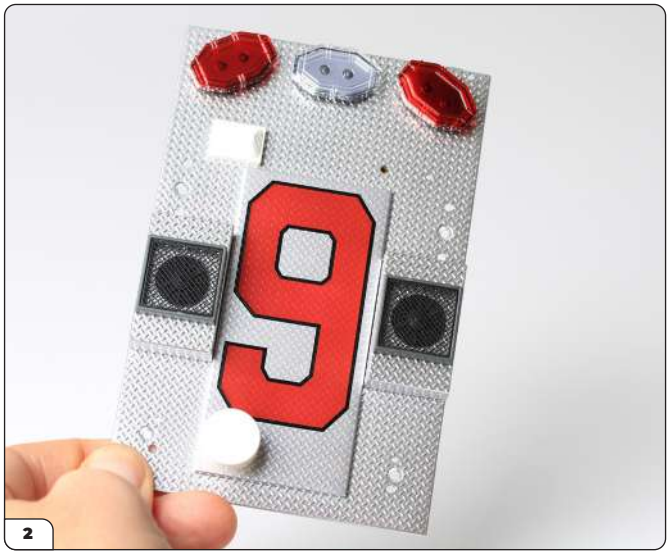
The lightbar will be fitted in this stage. All the other parts will be fitted to the main chassis in stage 12B.

Stage 11: Left-hand Side LightBar & Components for the Chassis

STEP 1



Fit the lightbar to the cab roof by feeding the cable through the opening in the roof before pushing the mounting firmly into place.



The left-hand lightbar has now been fitted.

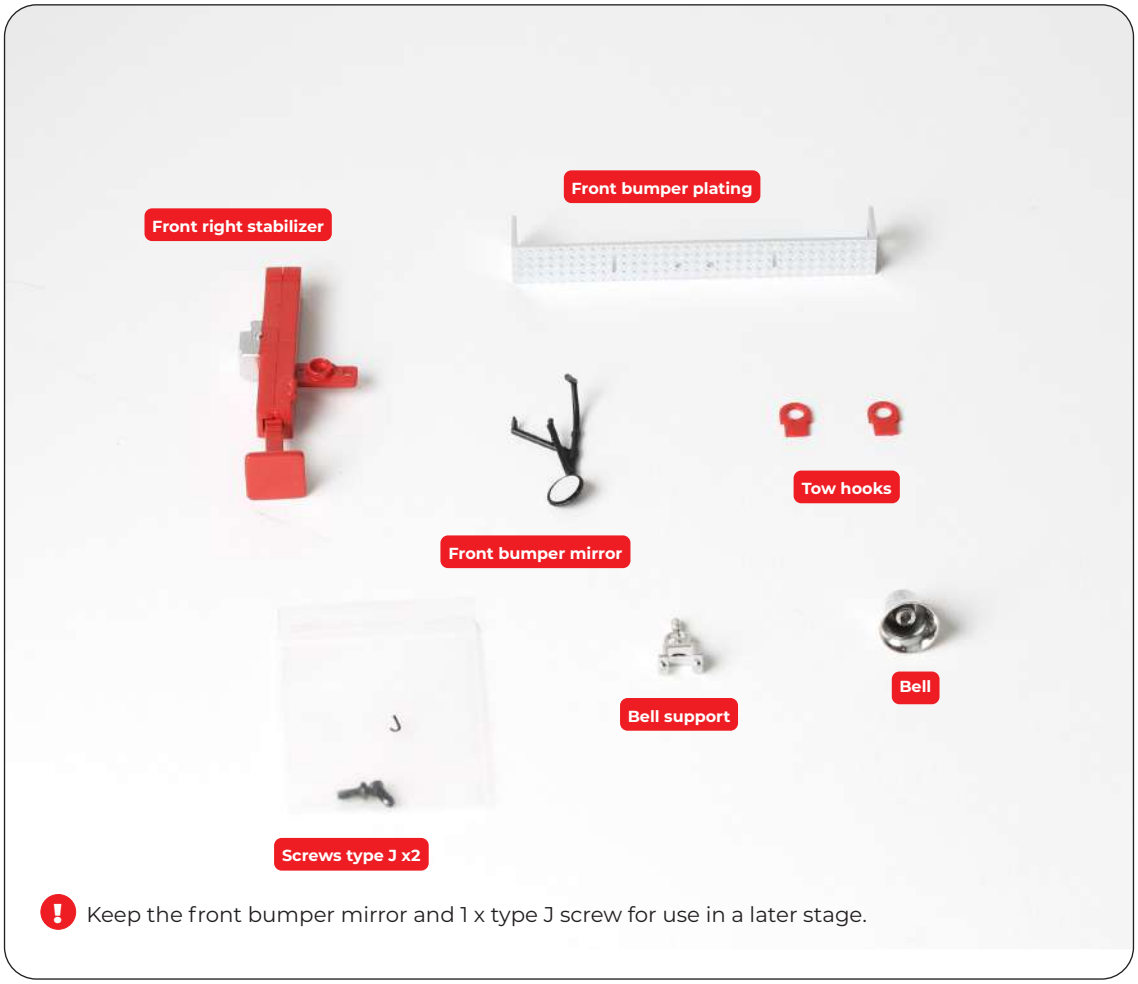
STAGE COMPLETE

Stage 12: Components for the Front Bumper & Front Right Stabilizer

In stage 12, you'll continue to work on the front bumper, adding the bell, tow hooks and front right stabilizer.

STAGE 12 PARTS LIST

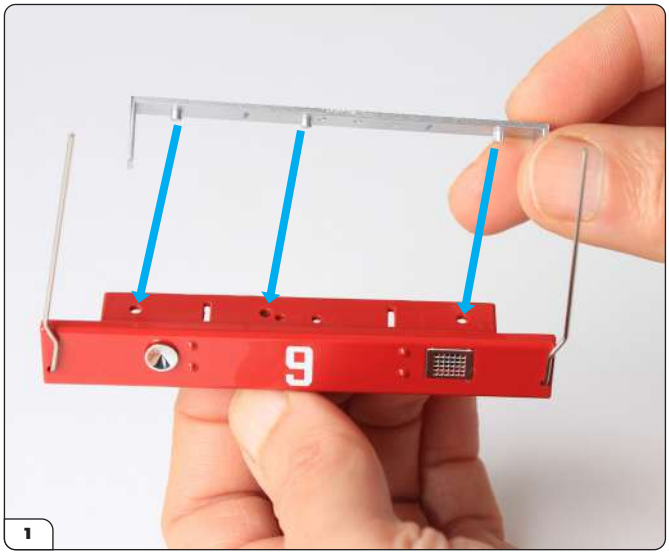
Name
Front right stabilizer
Front bumper plating
Front bumper mirror
Tow hooks
Bell support
Bell
Screws type J x2



Keep the front bumper mirror and 1 x type J screw for use in a later stage.

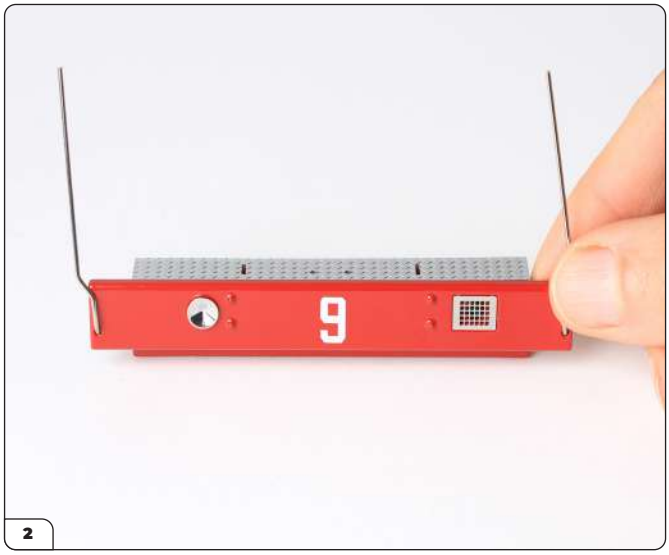
Stage 12: Components for the Front Bumper & Front Right Stabilizer

STEP 1



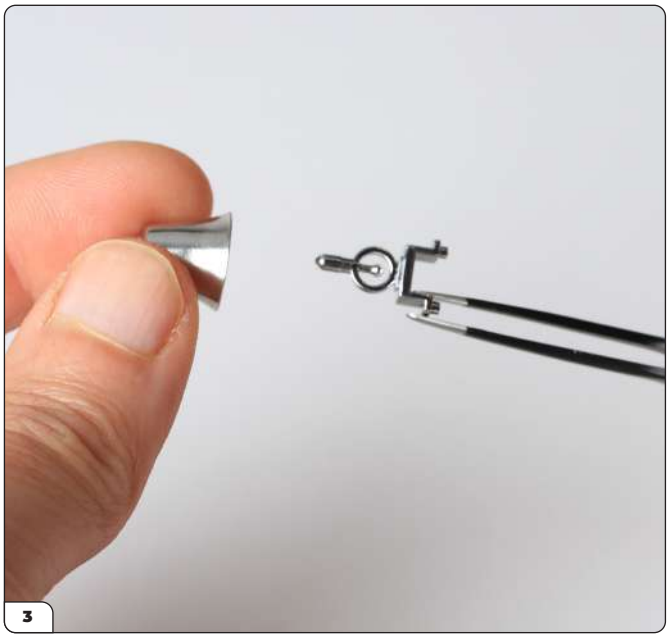
1

Align the front bumper plating with the front bumper that was assembled in stage 04.



2

Push the three pins firmly into the corresponding holes to fit.



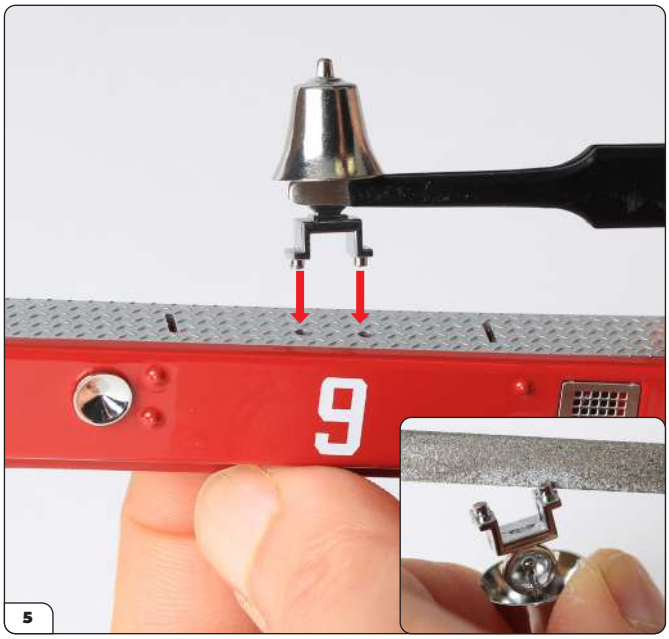
3

Next, assemble the bell. Align the bell support with the underside of the bell.

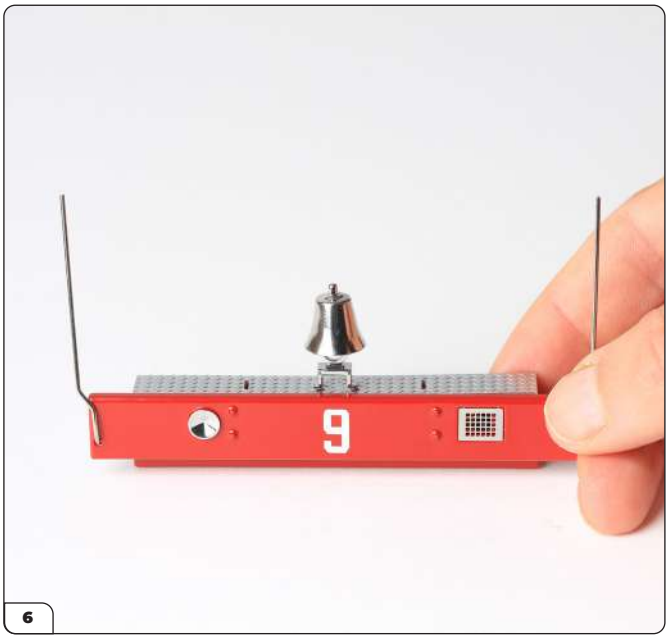
4

Firmly push the two parts together.

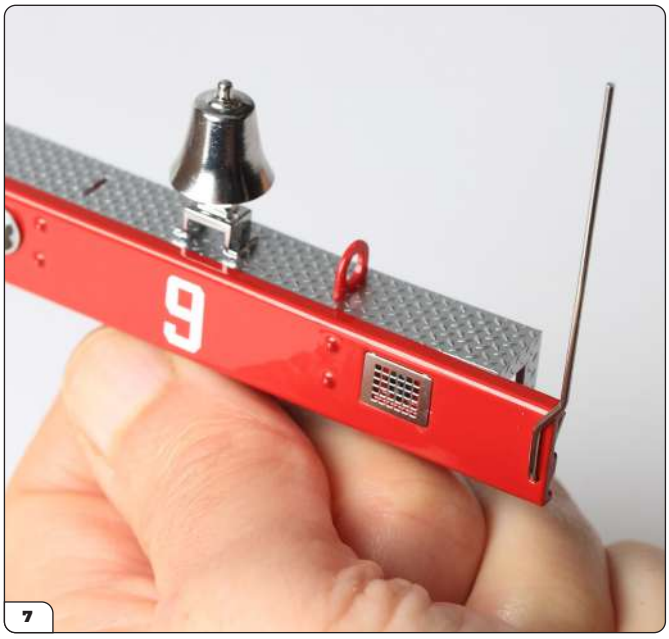
Stage 12: Components for the Front Bumper & Front Right Stabilizer



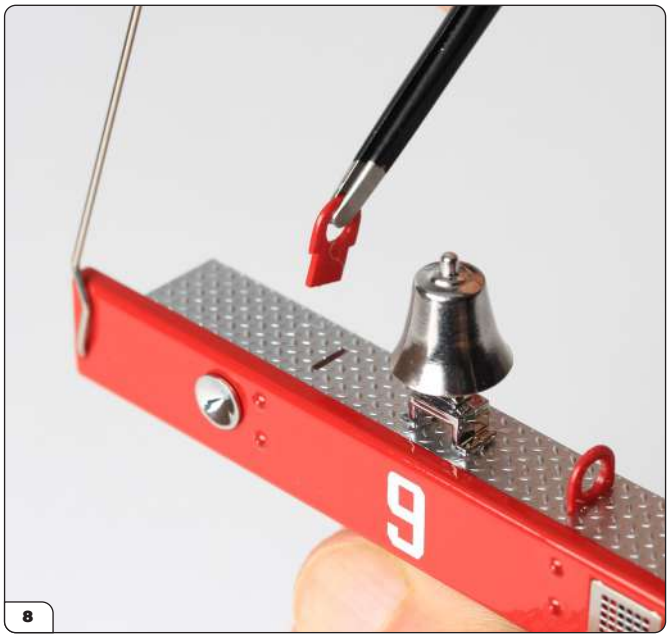
Align the two pins on the bell support with the two small holes in the centre of the bumper plating. Push the pins into the holes. If the fit is tight, try filing off a little excess paint from the pins (inset).



The fire truck bell is fitted firmly in place.



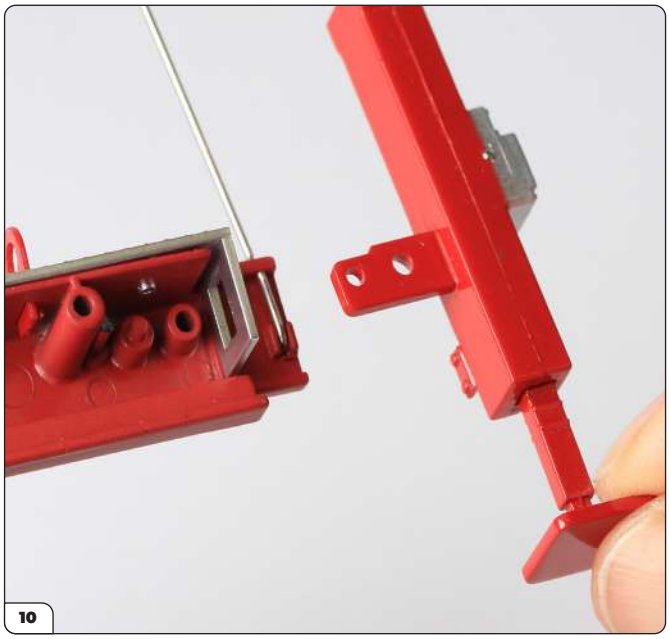
The tow hooks are fitted on both sides of the bell. Align the tab on the tow hook (they are both the same) with the slot on the bumper plating. Push into place.



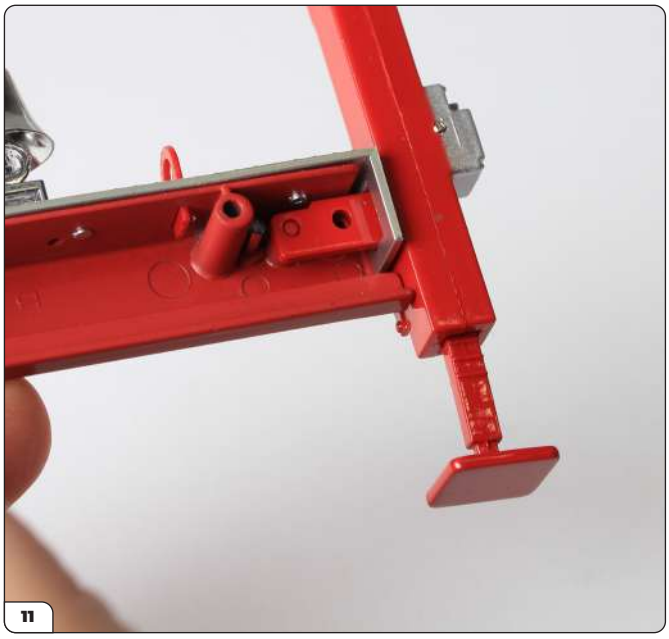
Repeat to fix the remaining tow hook.

Stage 12: Components for the Front Bumper & Front Right Stabilizer

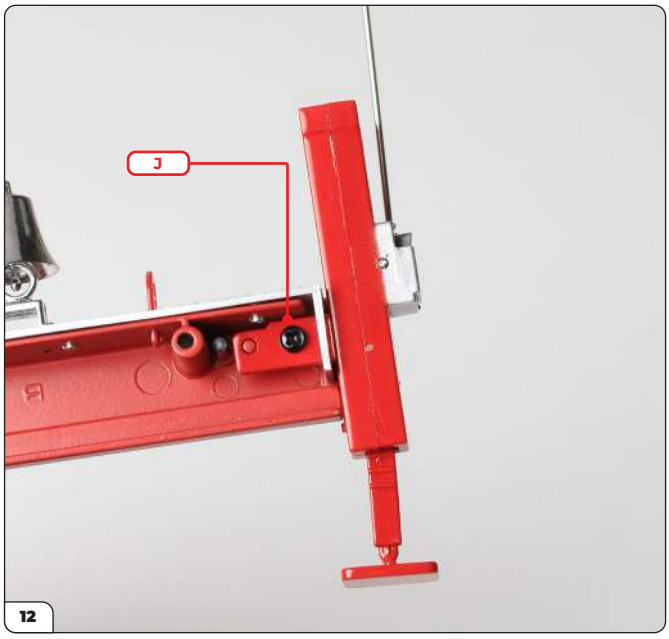
Both tow hooks have been fitted to the front bumper.



With the reverse side of the bumper facing you, align the bracket on the stabilizer with the hole and peg inside the bumper.



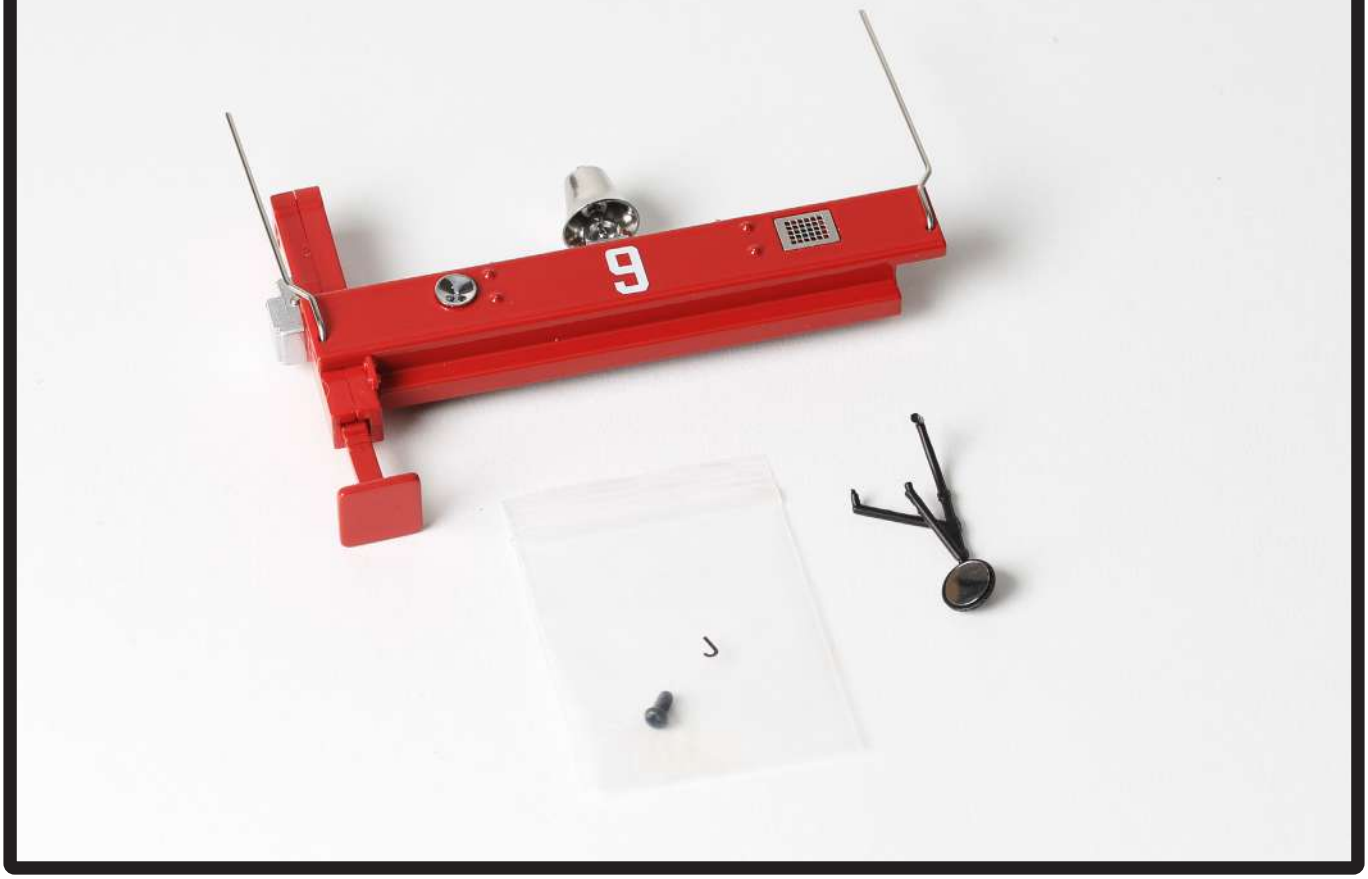
Fit the bracket over the hole and peg.



Secure the stabilizer in place using a type J screw. The stabilizer is operated by pushing it from the base to retract and pressing the small grey catch to extend it.

Stage 12: Components for the Front Bumper & Front Right Stabilizer

STAGE COMPLETE



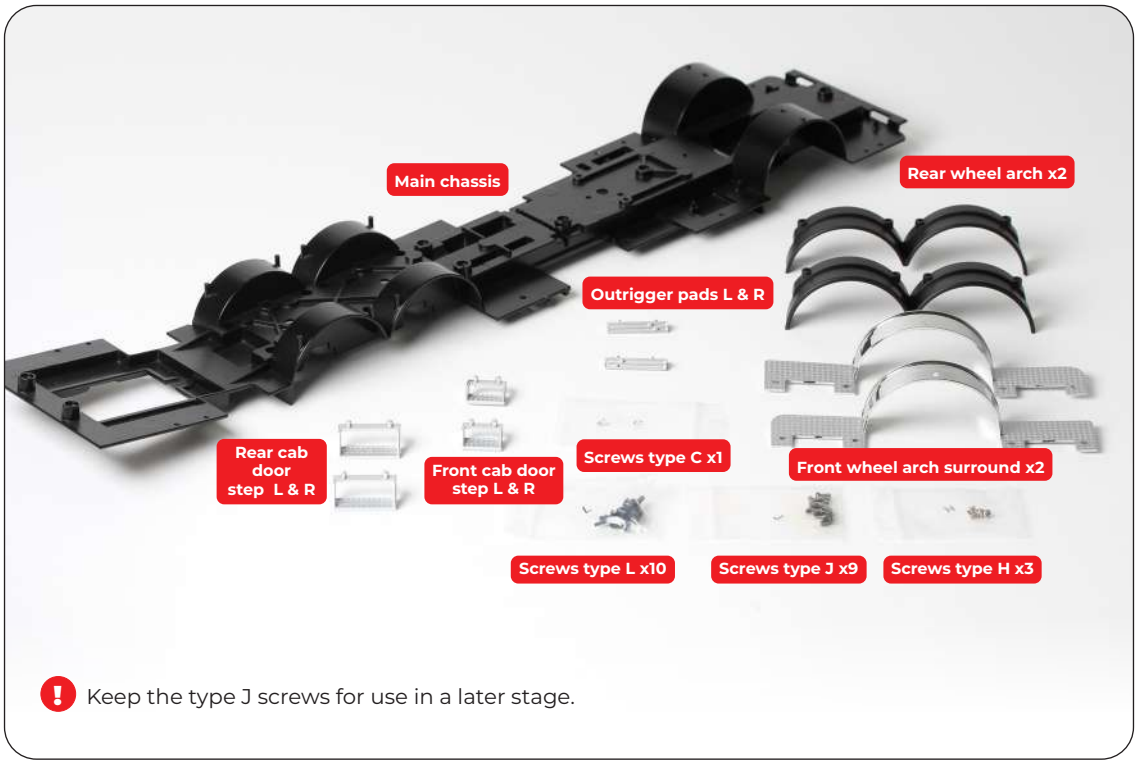
Stage 12B: Main chassis, Door Steps & Wheel Arches

Now you have the main chassis, you'll start to fix components to it, including the steps and wheel arches supplied in this stage.

Note: the chassis components listed below come in a separate box to the rest of the parts in pack 2.

STAGE 12B PARTS LIST

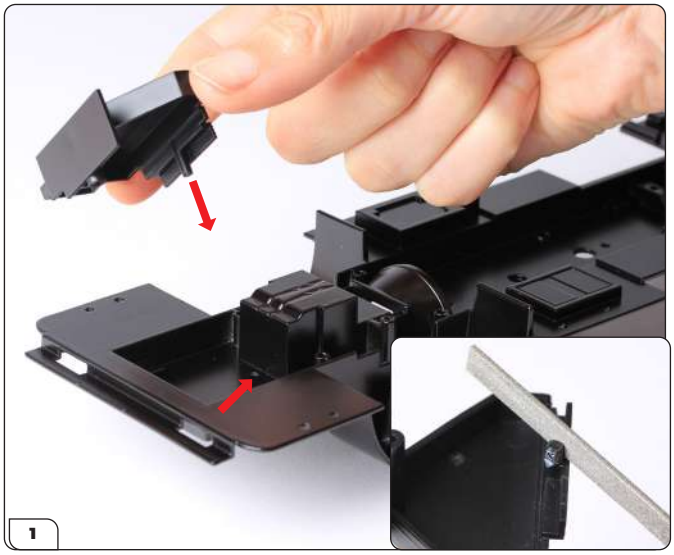
Name
Main chassis
Outrigger pads L & R
Rear wheel arch x2
Rear cab door step L & R
Front cab door step L & R
Front wheel arch surround x2
Screws type C x1
Screws type L x10
Screws type J x9
Screws type H x3



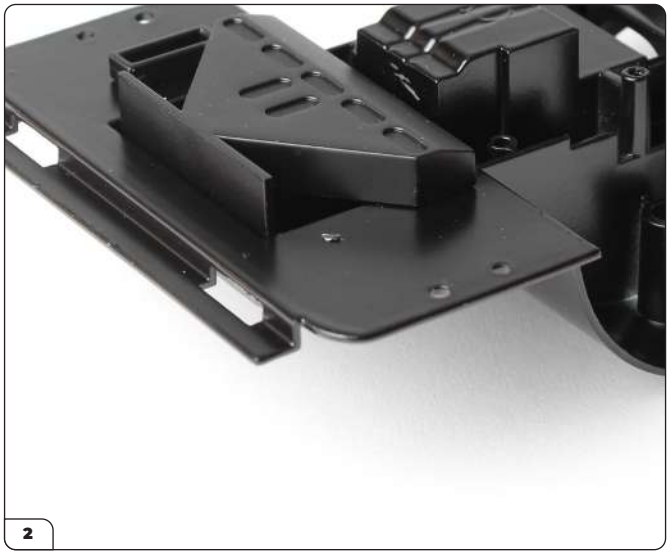
! Keep the type J screws for use in a later stage.

Stage 12B: Main chassis, Door Steps & Wheel Arches

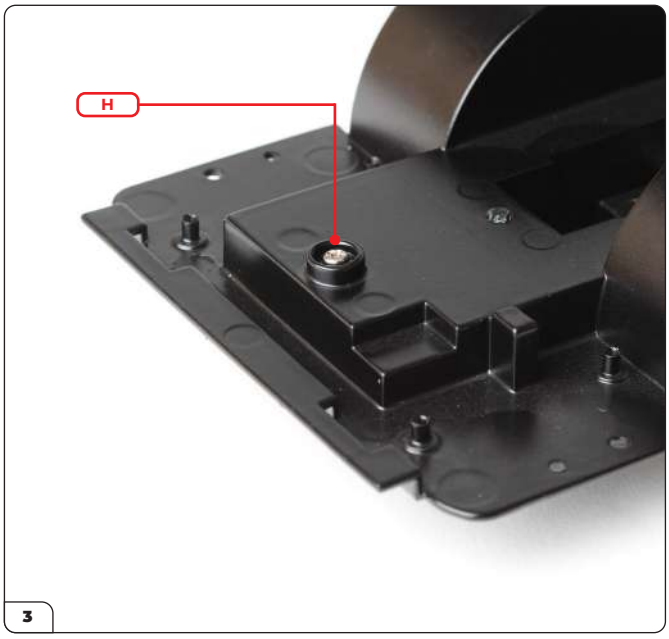
STEP 1



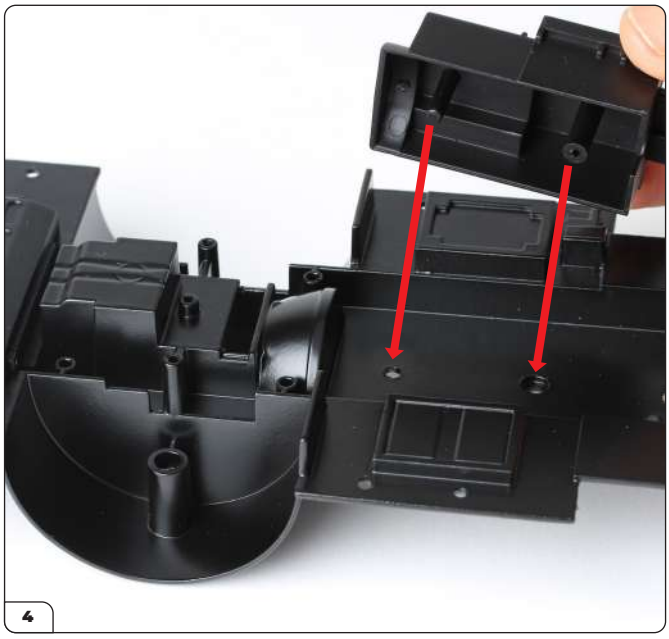
Rest the main chassis upside down on your work surface, and take the chassis front part B from stage 11. Align the peg on the chassis part with the hole at the front end of the main chassis, and push into place. Gently file any excess paint off the peg if the fit is too tight (inset).



Push the chassis front part B firmly to fit.

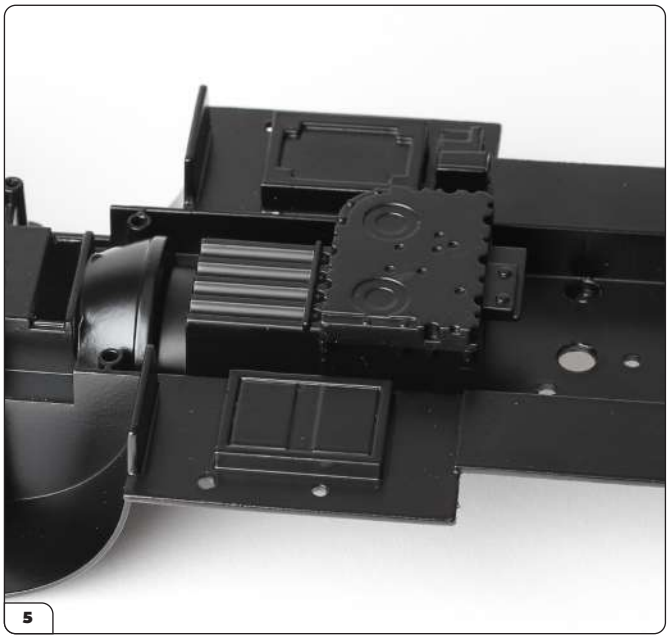


Turn the main chassis the right way up and secure the chassis front part B in place with a type H screw.



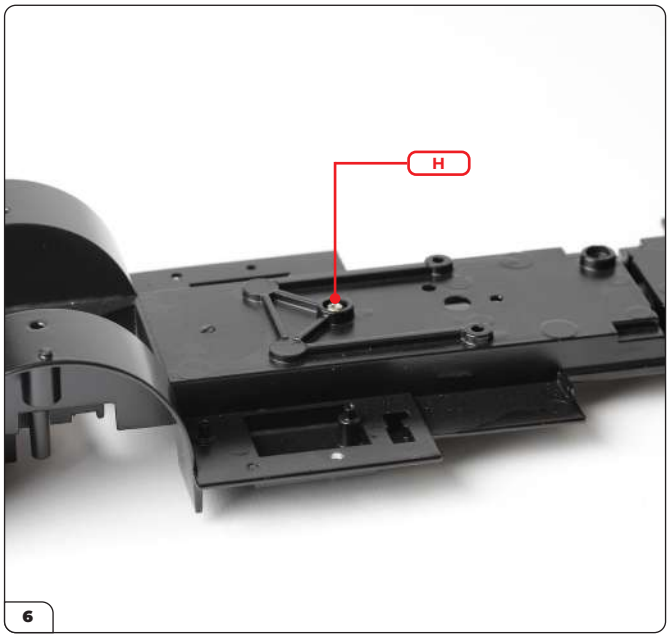
Working from the underside of the chassis again, take the chassis front part A and align the peg and raised screw hole with the corresponding holes on the main chassis, just behind the front wheel arches. If necessary, remove any paint or flash from the holes in the chassis.

Stage 12B: Main chassis, Door Steps & Wheel Arches



5

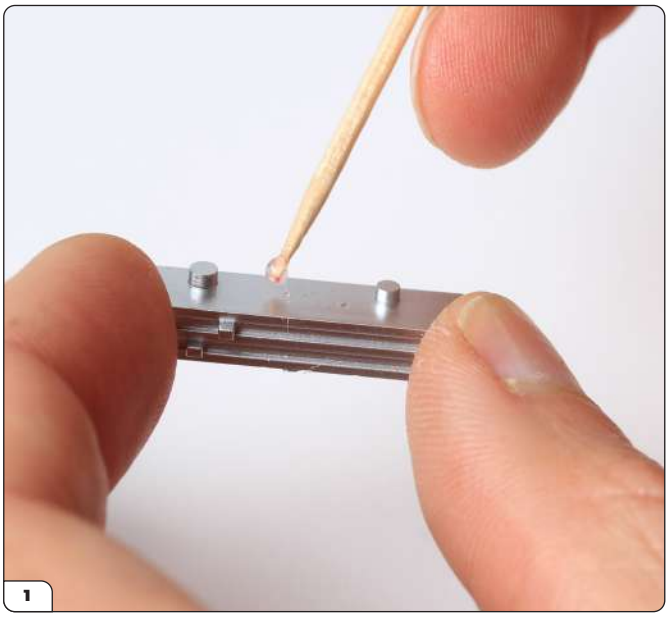
This is how the chassis front part A should look once fixed in the correct position.



6

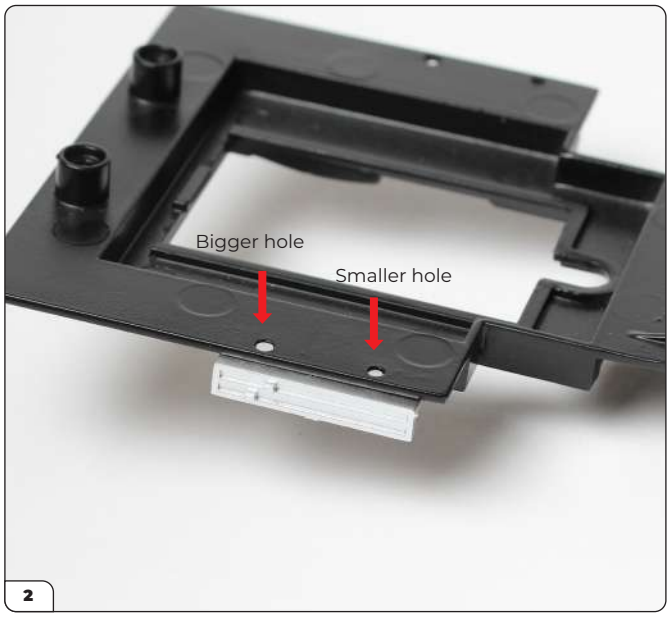
Turn the main chassis over again to secure chassis part A in place using a type H screw.

STEP 2



1

Now take the outrigger pads and note that there is a left and a right part. The pegs are different sizes to determine the correct fit. Apply a little glue to the right outrigger pad. Note: it's a good idea to test fit the outrigger pads and steps to check for a good fit before applying glue.

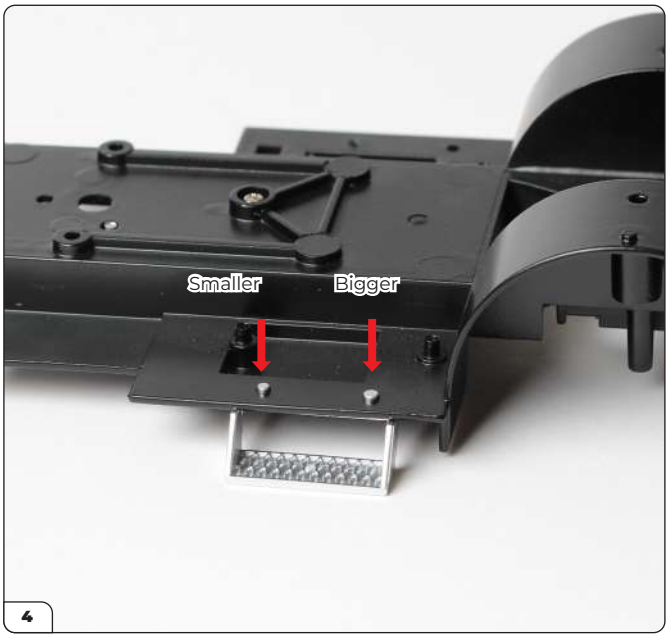


2

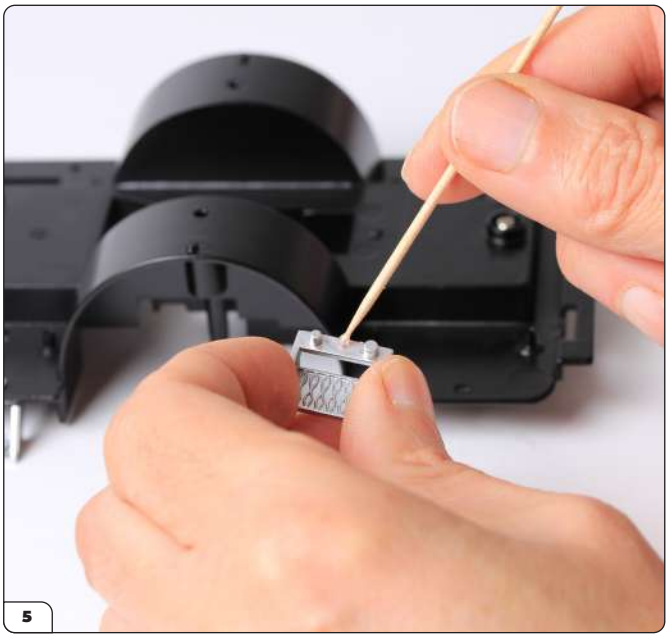
Push the two pegs on the right outrigger pad into the corresponding holes on the right-hand side at the rear of the chassis.

Stage 12B: Main chassis, Door Steps & Wheel Arches

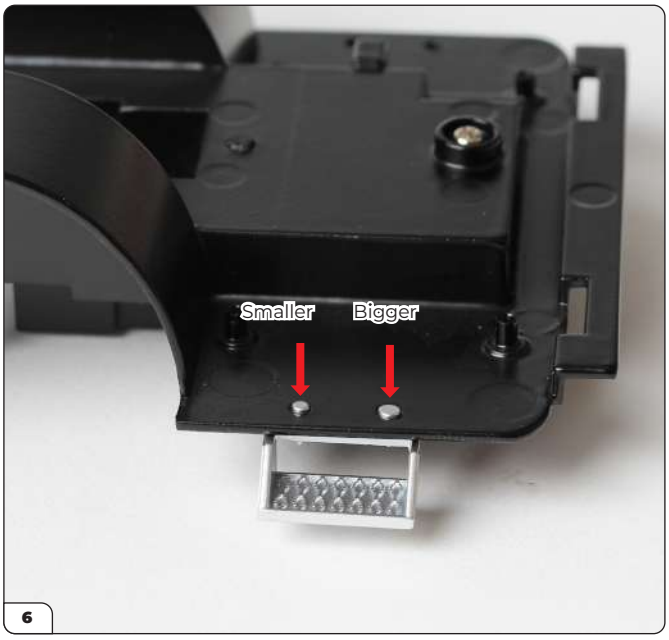
Next, take the right-hand rear cab door step (again, the different sized pegs determine the correct placement) and apply a little glue to the flat surface.



Push the pegs on the step into the corresponding holes on the right-hand side of the chassis.

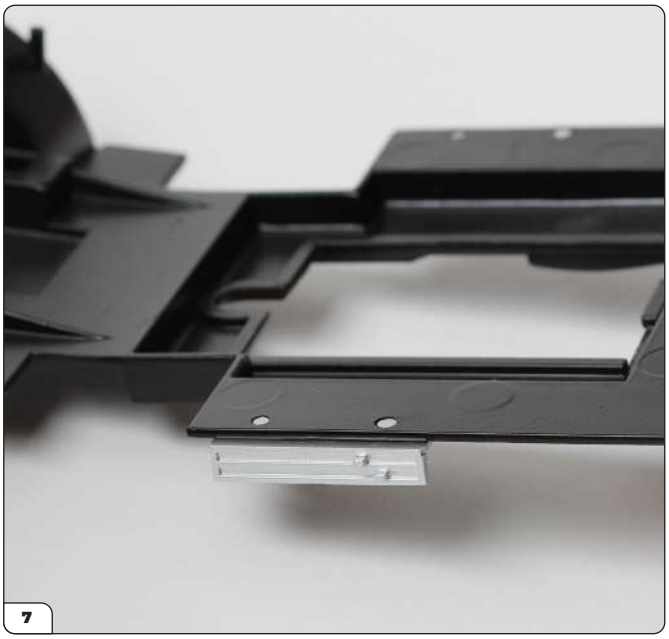


Take the right-hand front door step and apply a little glue to the flat surface.

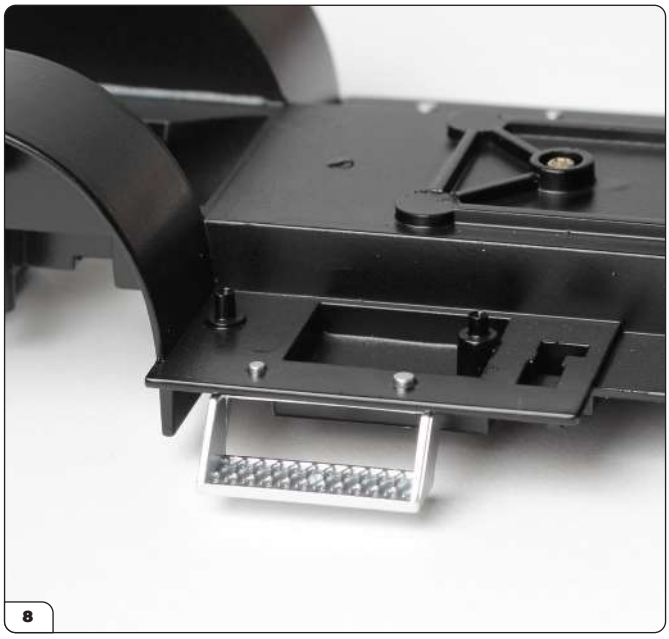


Push the pegs into the correspondng holes at the front of the main chassis.

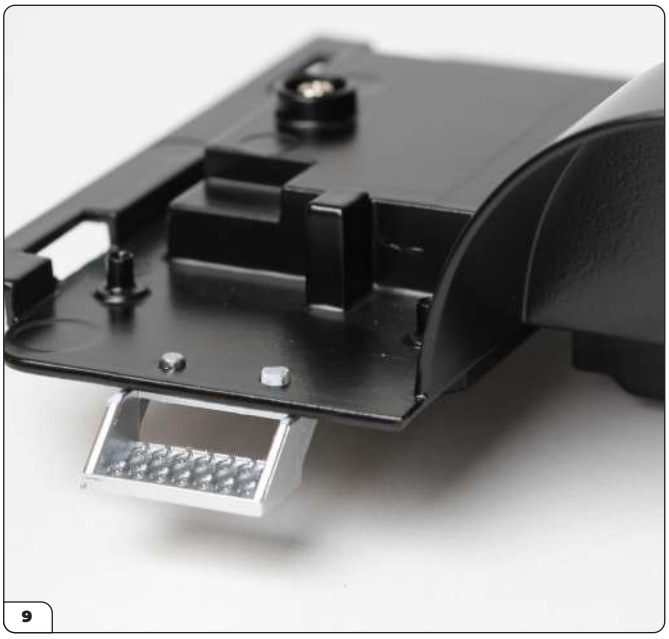
Stage 12B: Main chassis, Door Steps & Wheel Arches



Repeat to fix the outrigger pad to the left-hand side of the chassis...



... followed by the left-hand rear cab-door step...

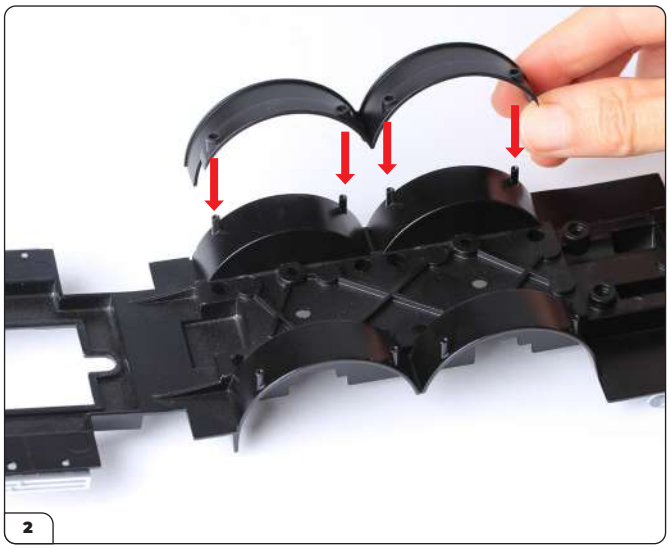


... and the left-hand front cab-door step.

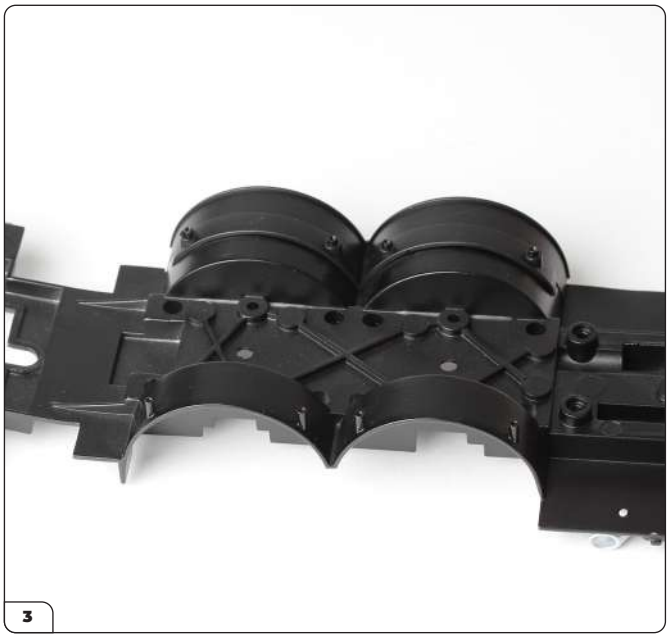
Stage 12B: Main chassis, Door Steps & Wheel Arches

STEP 3

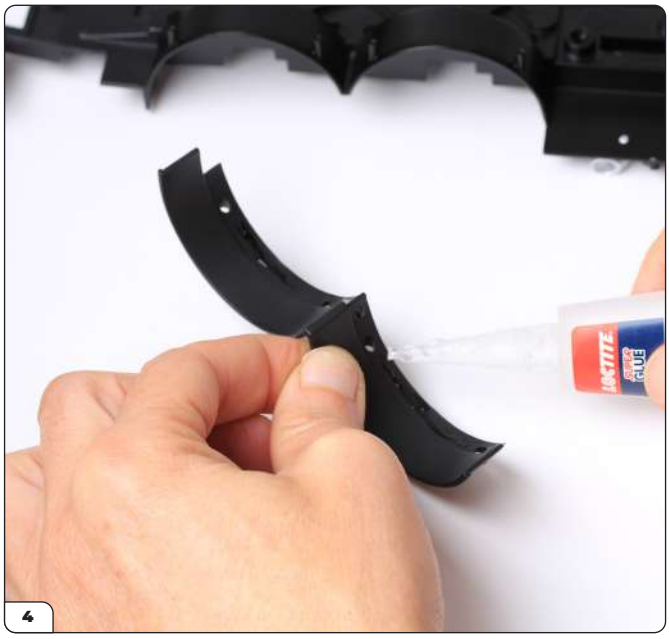
Now the steps are in place, the wheel arches can be assembled. Start by test-fitting the wheel arches on the left-hand side of the main chassis before gluing the flange that rests on the chassis.



Align the four holes with the four pins on the chassis.



Press the wheel arches firmly in place.



Repeat to fit the second wheel arch to the right-hand side of the chassis. Test-fit the parts before applying a little glue to the flange.

Stage 12B: Main chassis, Door Steps & Wheel Arches

5

Align the arch on the right-hand side of the chassis...

6

... and press firmly into place.

7

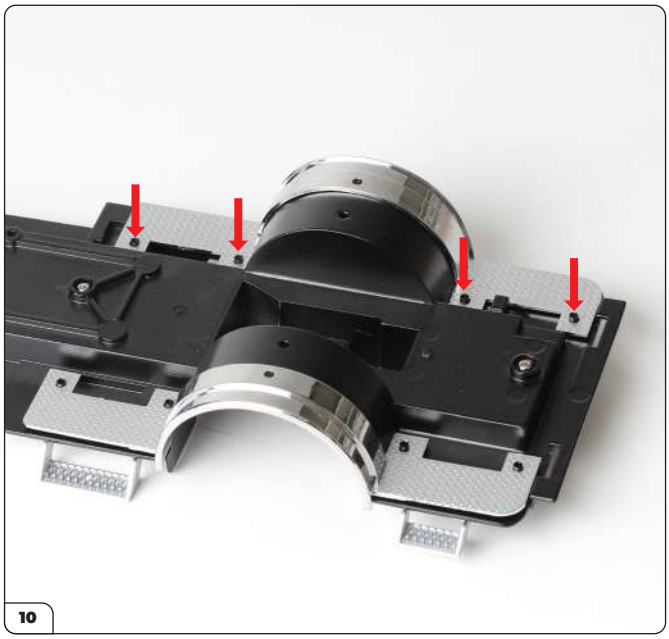
The process is similar to fix the chrome-finish wheel arch surrounds to the front of the chassis. Start by test-fitting the parts on each side. Apply a little glue to the flange on the right-hand arch surround where it will be in contact with the chassis.

8

Align the four holes and pegs, and then press firmly to fit into place on the right-hand side of the main chassis.

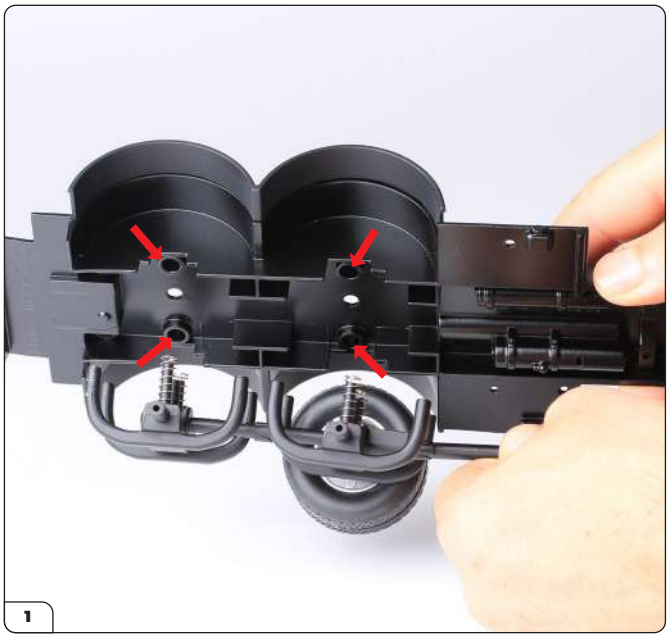
Stage 12B: Main chassis, Door Steps & Wheel Arches

Repeat to fix the wheel arch surround on the left-hand side. Apply a little glue to the flange...



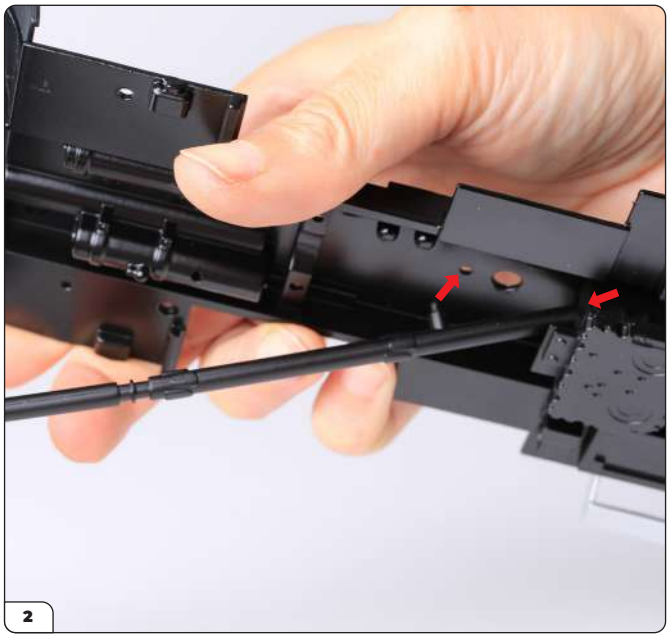
... align the four pegs and holes, and then press firmly into place.

STEP 4



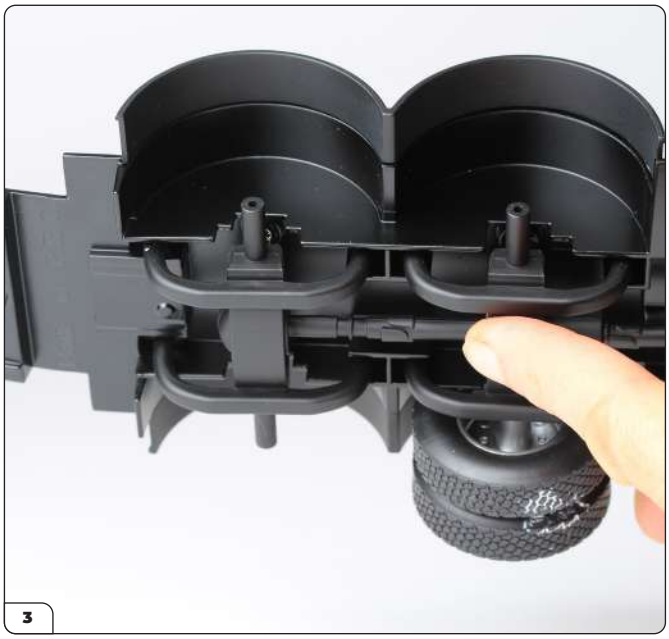
ATTACHING THE DRIVESHAFT TO THE CHASSIS

Take the driveshaft/axle assembly from stage 6, and align the four coil springs and their posts with the four holes under the rear of the main chassis.



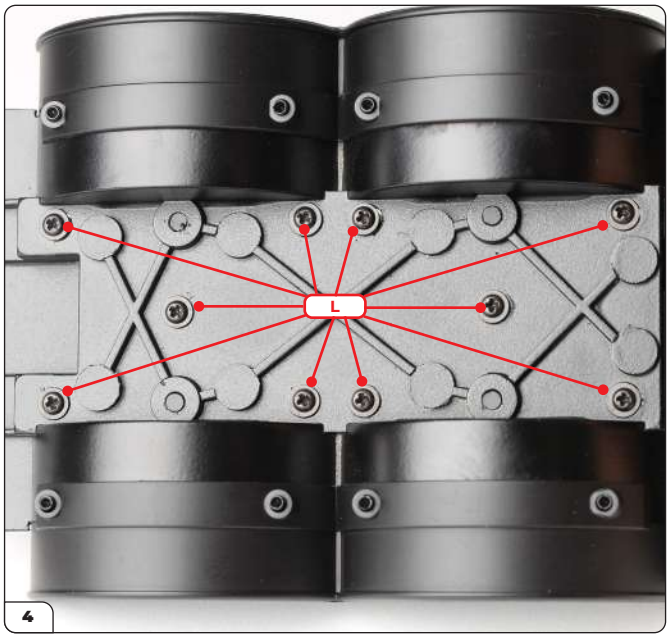
At the same time, push the front end of the driveshaft into chassis front part A and align the peg on the driveshaft with the hole in the main chassis.

Stage 12B: Main chassis, Door Steps & Wheel Arches



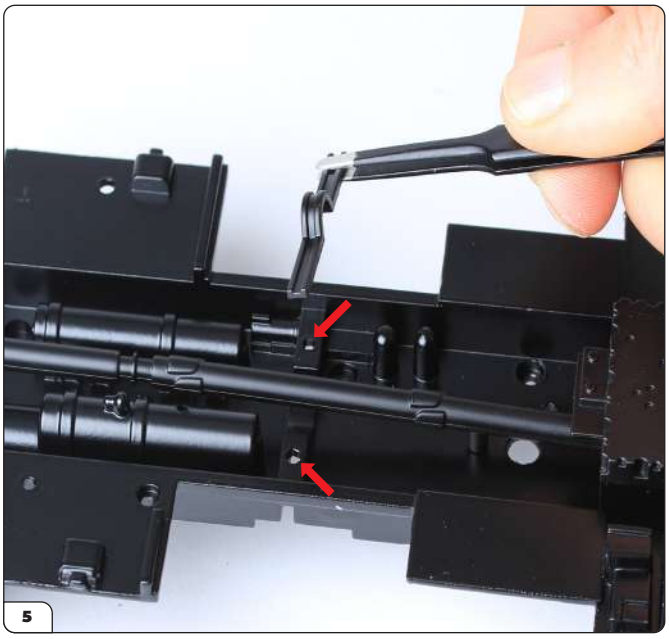
3

Push the driveshaft/axle assembly into position on the main chassis, hold it in place, and turn the main chassis over to that you can see the ten screw holes between the rear wheel arches.



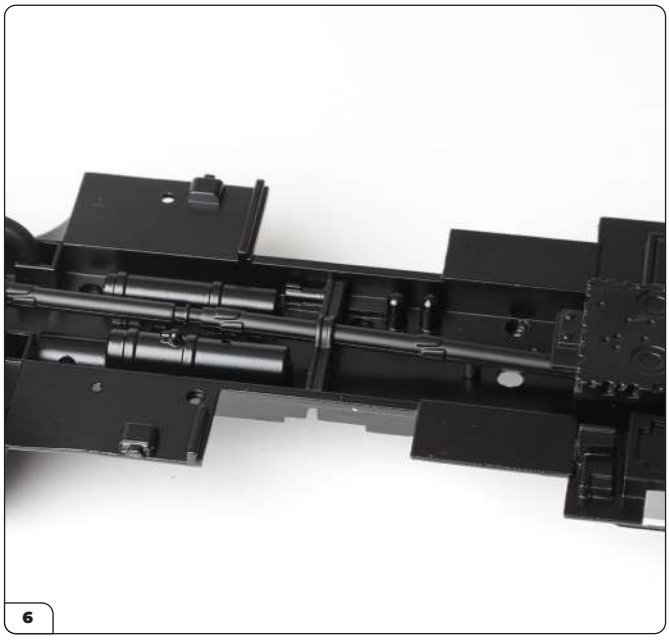
4

Secure the driveshaft/axle assembly in place using 10 x type L screws. Do not overtighten the screws here – the axle suspension should move freely to allow the wheels to move up and down.



5

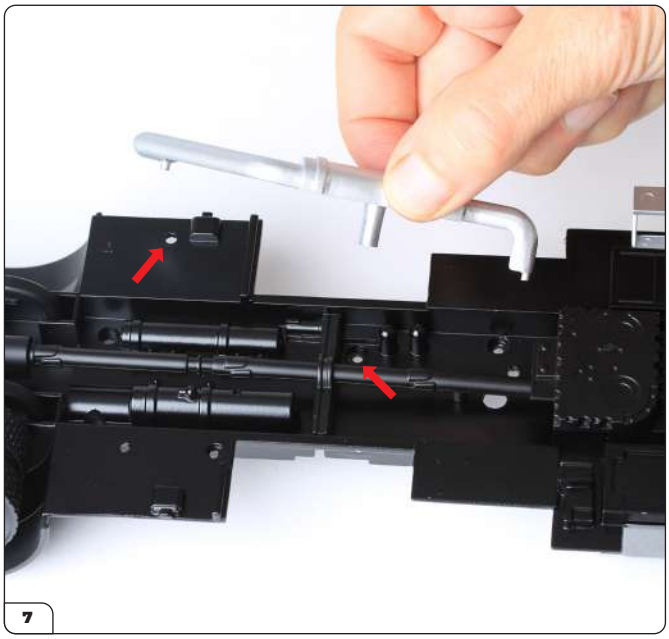
Working back on the underside of the main chassis, take the crossmember from stage 11 and align the pegs on each end with the two holes on the main chassis, either side of the driveshaft. Note: the holes on the main chassis are different sizes so the crossmember will only fit one way round.



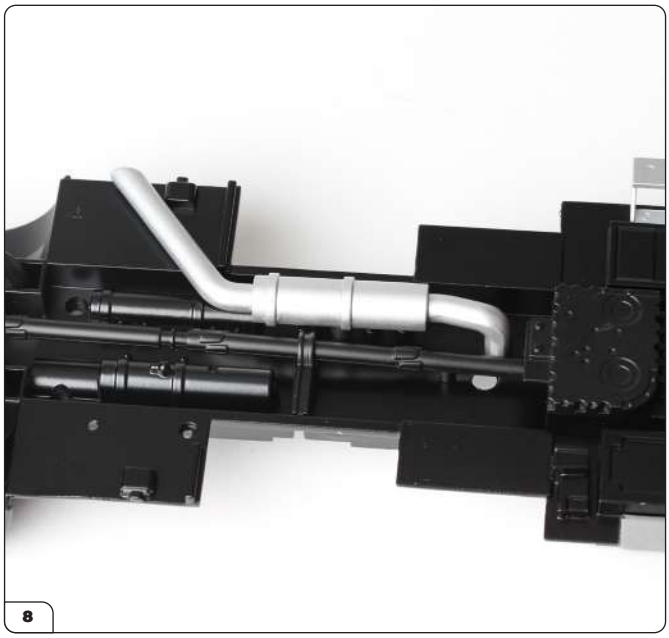
6

Press the crossmember firmly to fit into place.

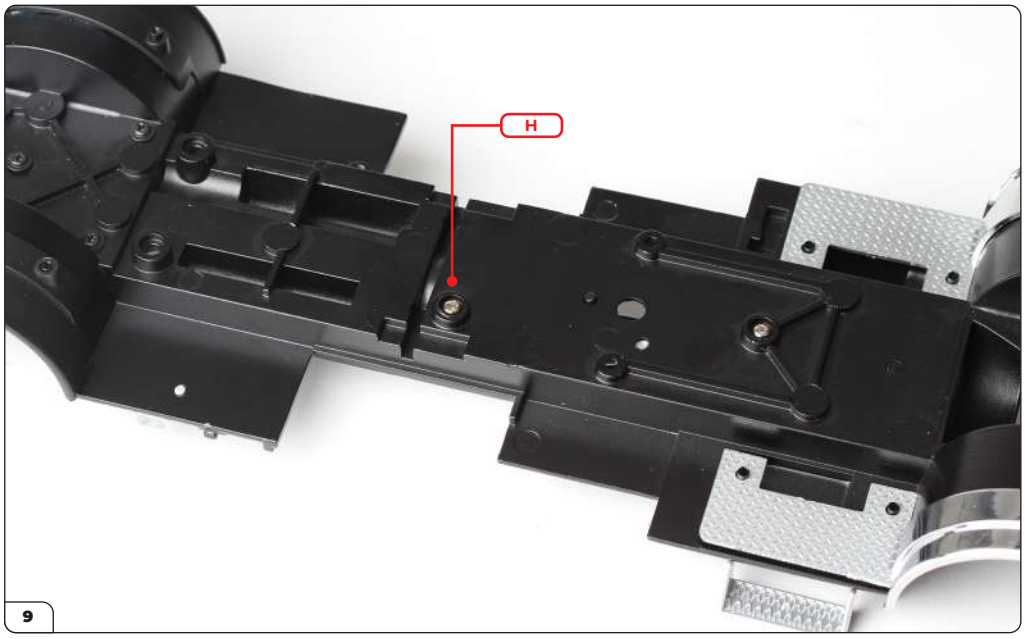
Stage 12B: Main chassis, Door Steps & Wheel Arches



Align the two pegs on the exhaust pipe from stage 11 with the two holes on the underside of the main chassis.

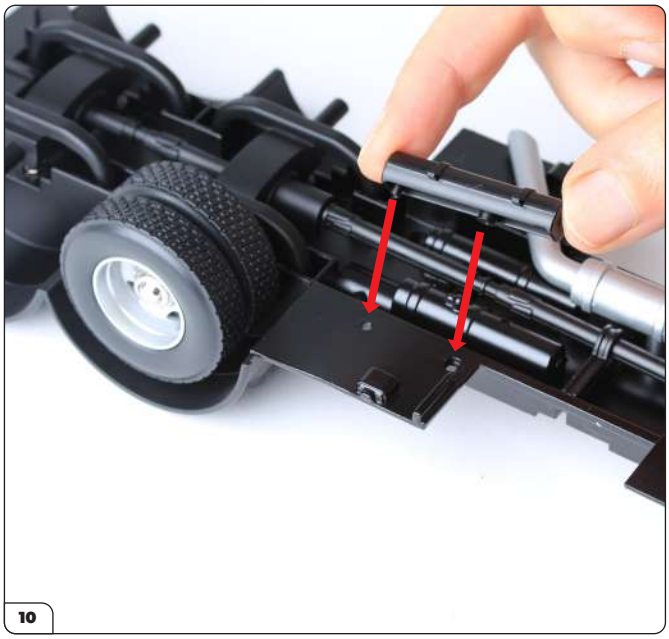


Push the pegs into the holes and press firmly to fit.



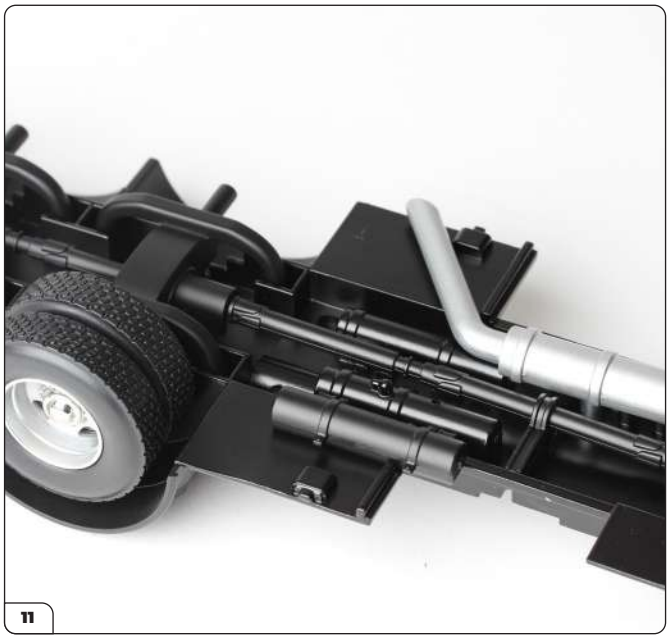
Secure the exhaust pipe in place from the upper side of the main chassis using a type H screw.

Stage 12B: Main chassis, Door Steps & Wheel Arches



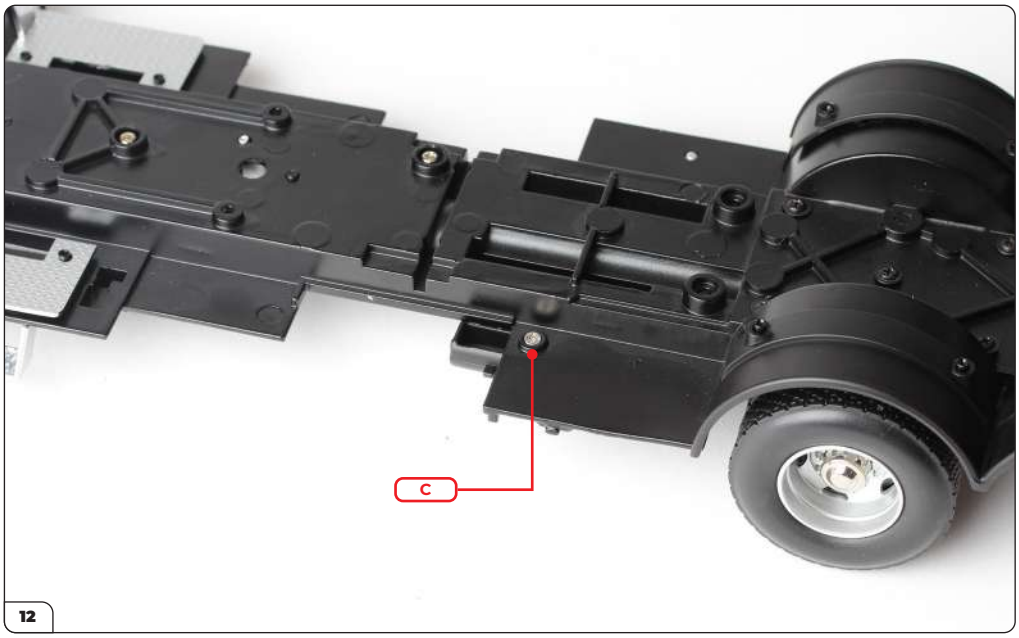
10

Take the cylinder from stage 11 and, working on the underside, align the two pegs with the two holes on the main chassis as shown.



11

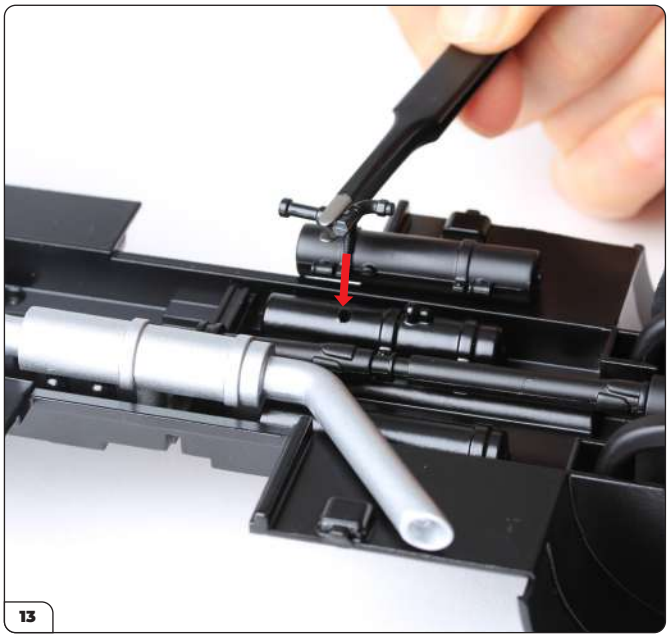
Press the cylinder firmly into position.



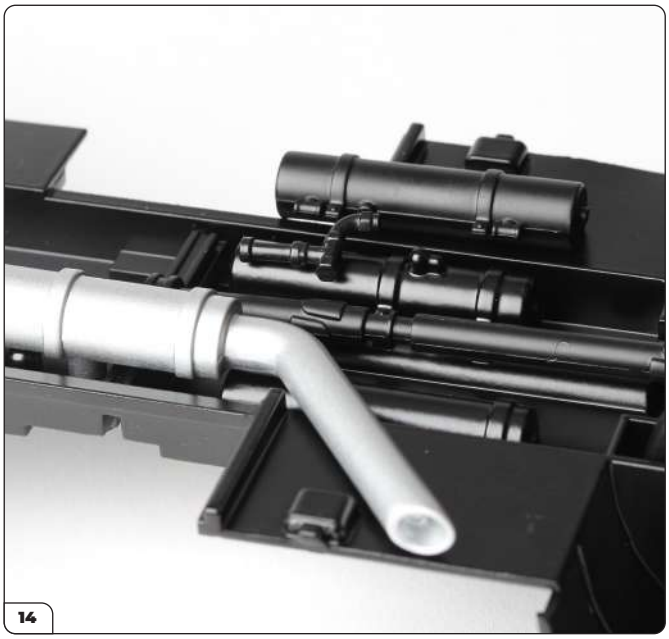
12

Turn the chassis over and secure the cylinder in place using a type C screw.

Stage 12B: Main chassis, Door Steps & Wheel Arches



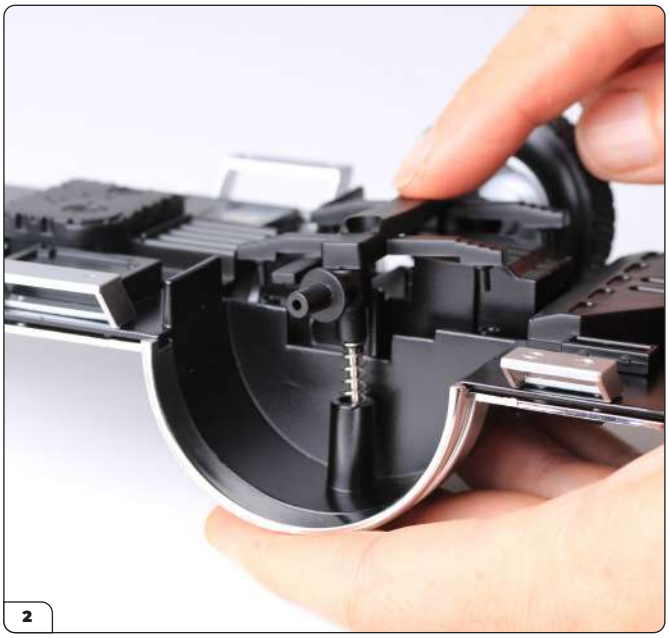
Continuing on the underside, fit the connector from stage 11 onto the cylinder already in the central section of the main chassis.



Push the connector firmly to fit into place.

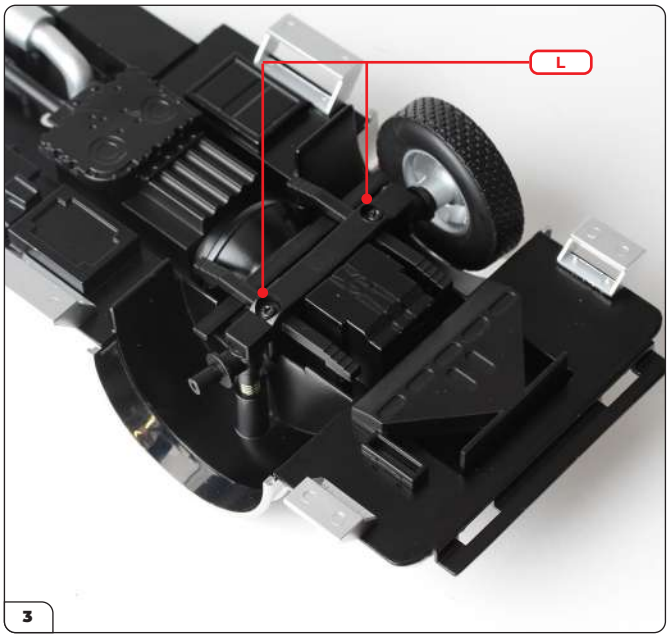
STEP 5

MOUNTING THE FRONT AXLE TO THE MAIN CHASSIS
Align the two posts with coil springs on the front axle with the two tubes under the front wheel arches. Ensure that the track rods are facing the rear of the chassis.



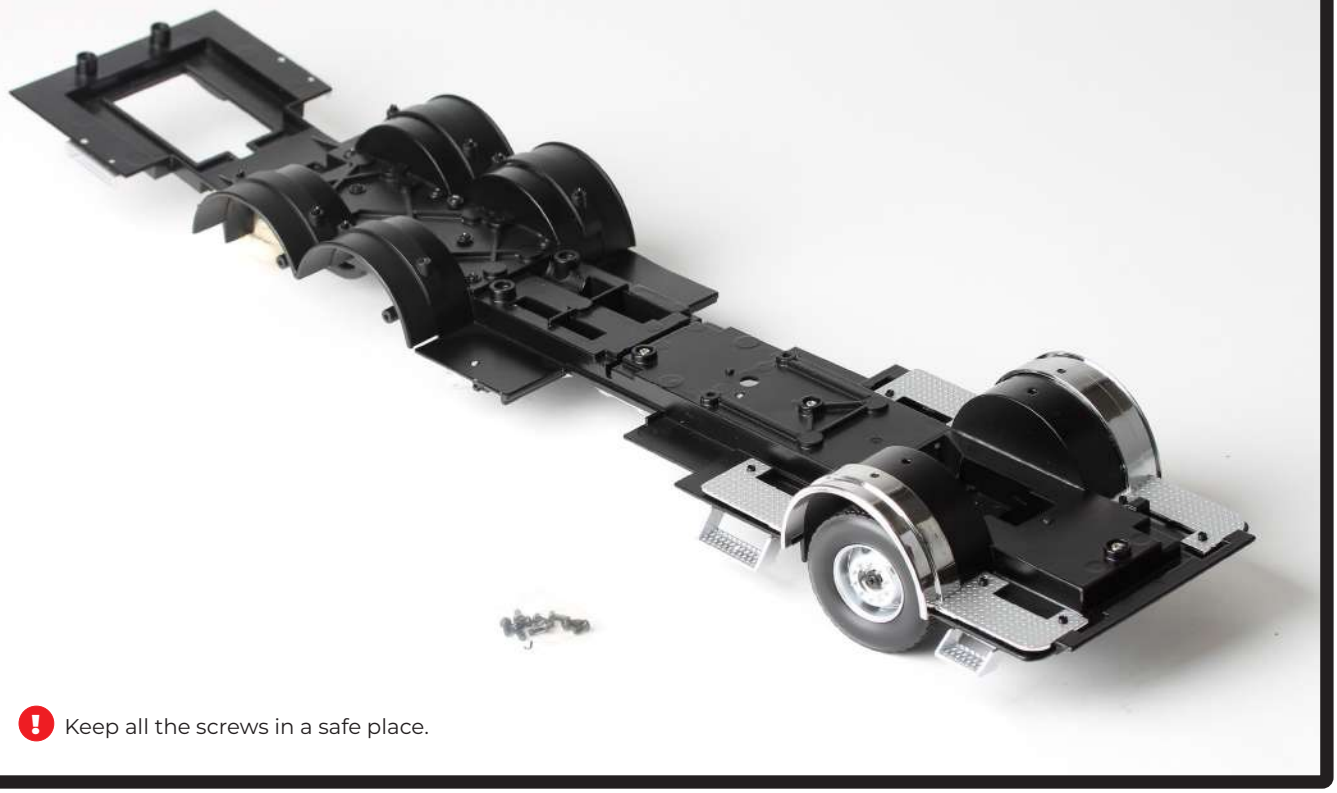
Push the coil springs into the tubes on both sides.

Stage 12B: Main chassis, Door Steps & Wheel Arches



Secure the front axle in place using 2 x type L screws supplied with stage 10.

STAGE COMPLETE



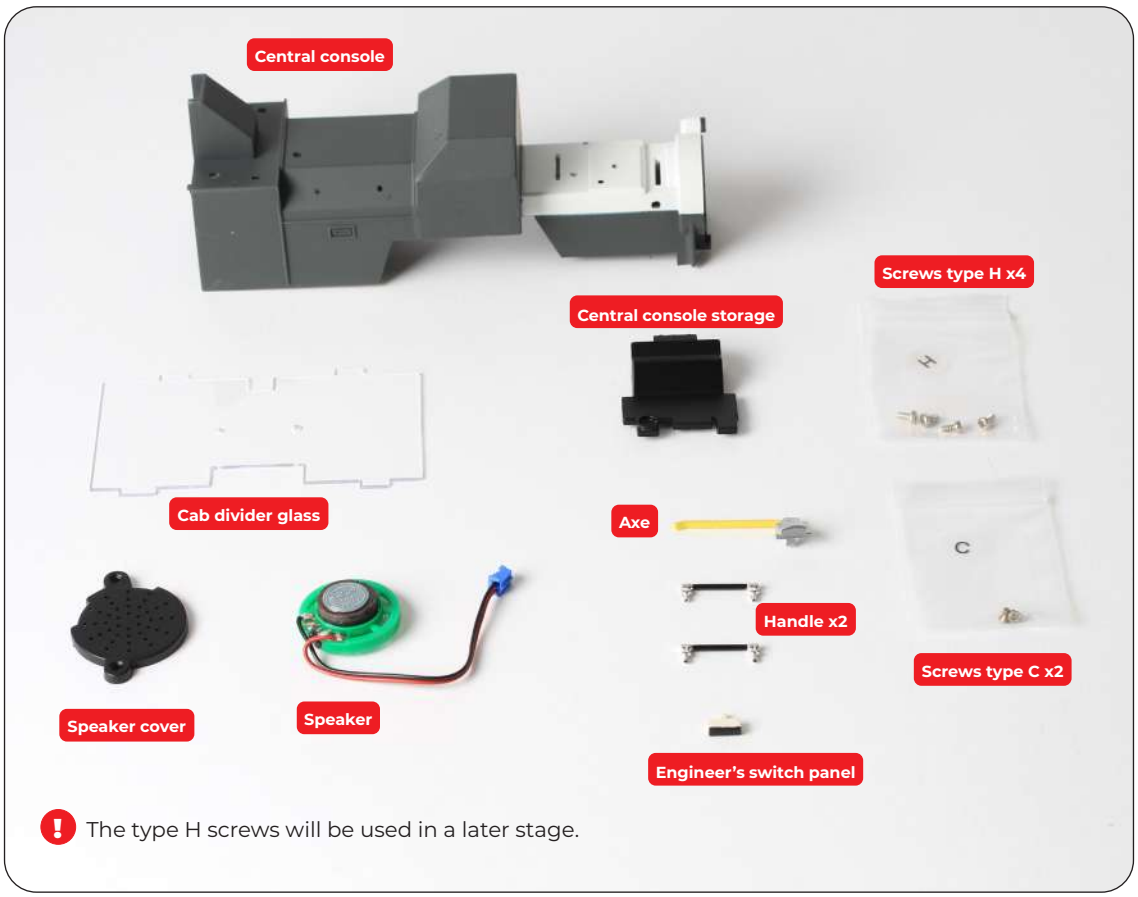
Keep all the screws in a safe place.

Stage 13: Components for the Cab Central Console

The cab will be the focus over the next few stages. You'll start by assembling components onto the central console.

STAGE 13 PARTS LIST

Name
Central console
Cab divider glass
Central console storage
Speaker cover
Speaker
Axe
Handle x2
Engineer's switch panel
Screws type H x4
Screws type C x2

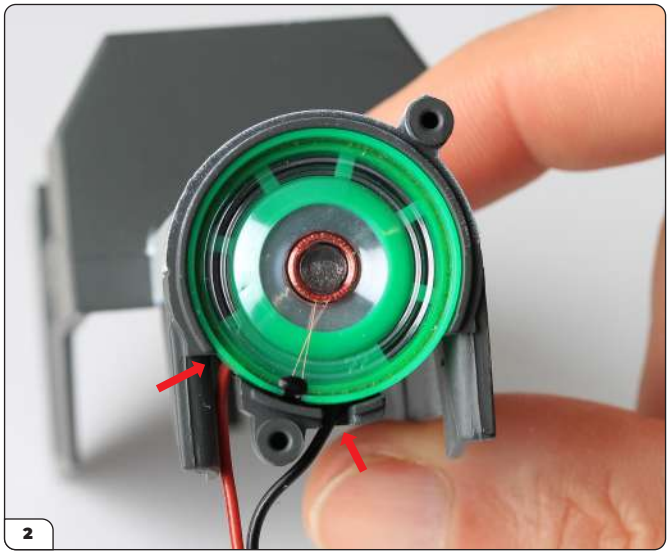


The type H screws will be used in a later stage.

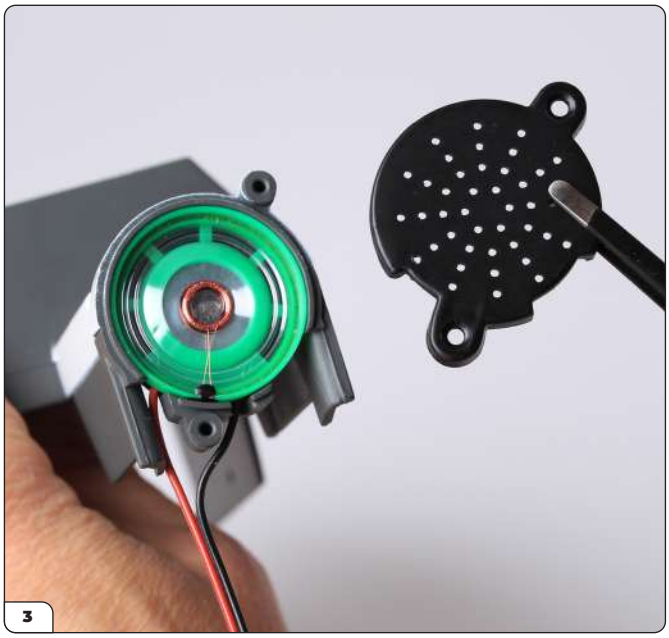
Stage 13: Components for the Cab Central Console

STEP 1

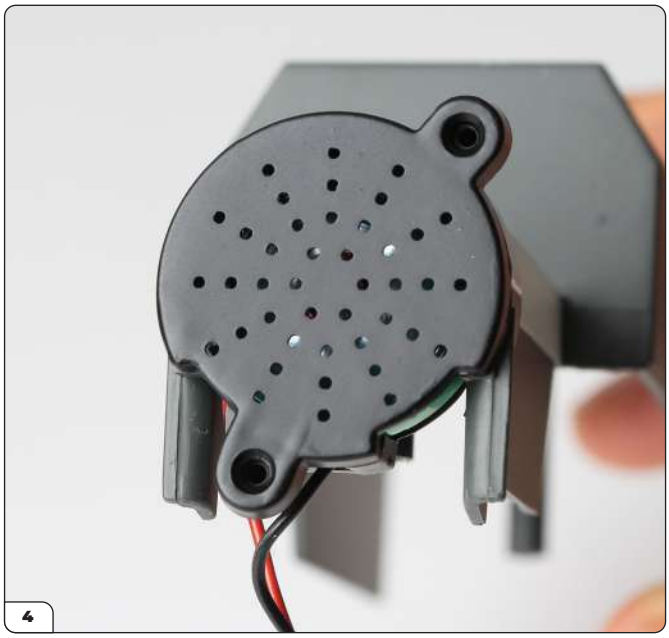
Align the speaker with the end of the central console as shown.



Press into position, making sure that the red and black cables are routed through the two slots either side of the screw hole.

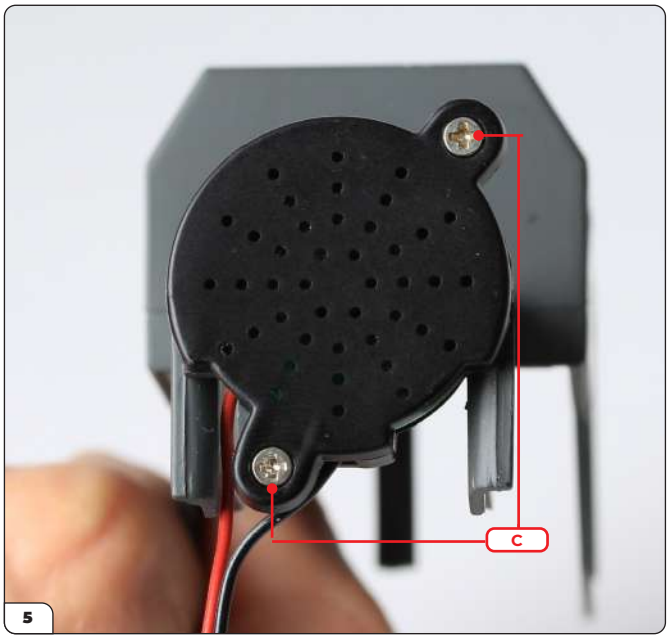


Line up the two screw holes on the speaker cover with the two screw holes on the console.

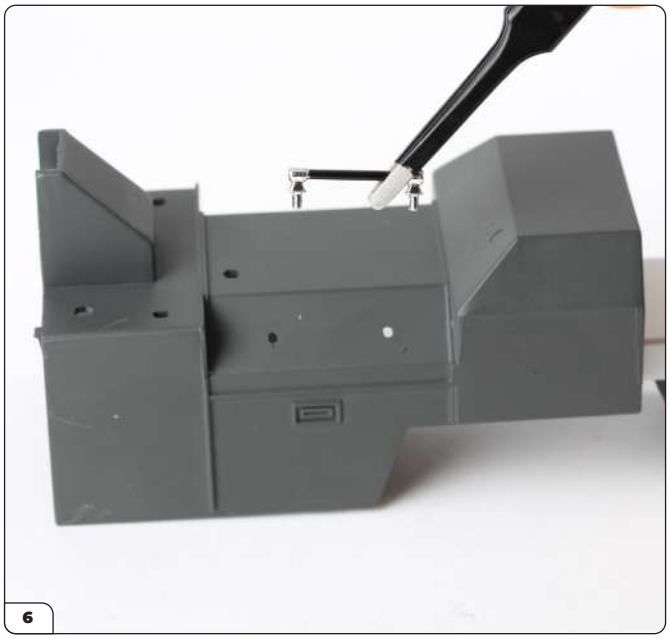


Fit the speaker cover in place.

Stage 13: Components for the Cab Central Console

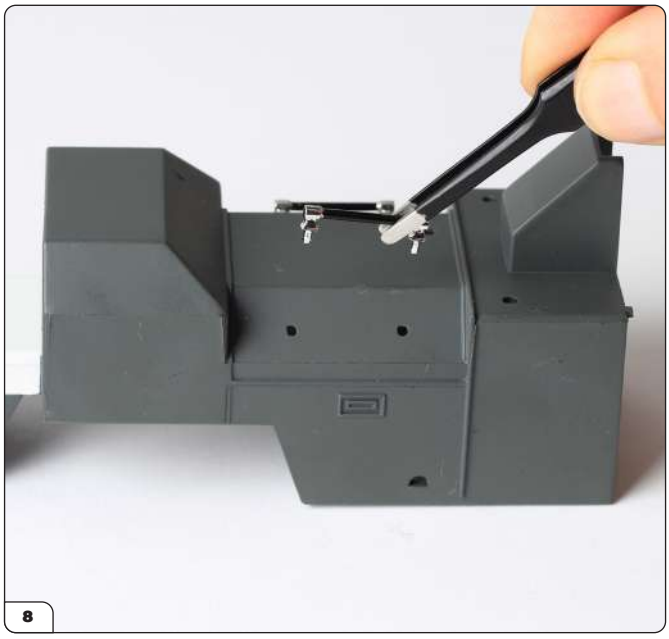


Secure the speaker cover with 2 x type C screws.



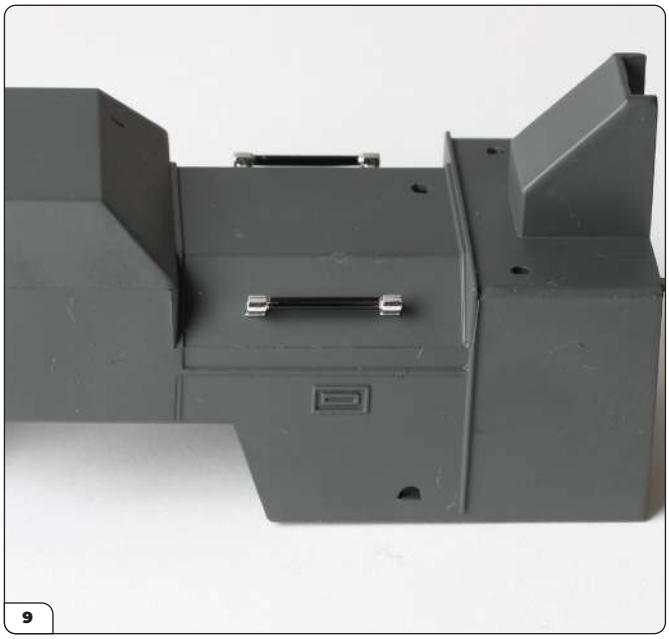
The handles can now be fitted on either side of the console. Line up the two pins on the handle with the two tiny holes on the side of the central console.

Push the handle firmly into position. If the handle is not secure, apply a little glue.



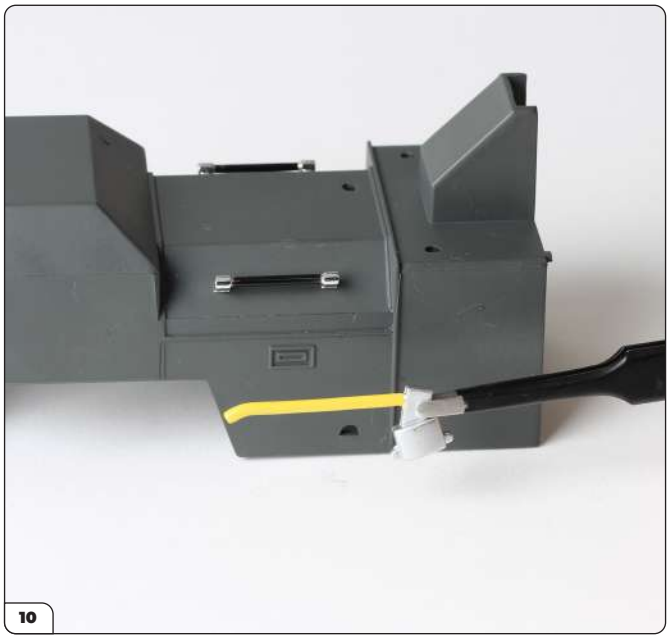
Repeat on the opposite side of the console to fit the remaining handle.

Stage 13: Components for the Cab Central Console



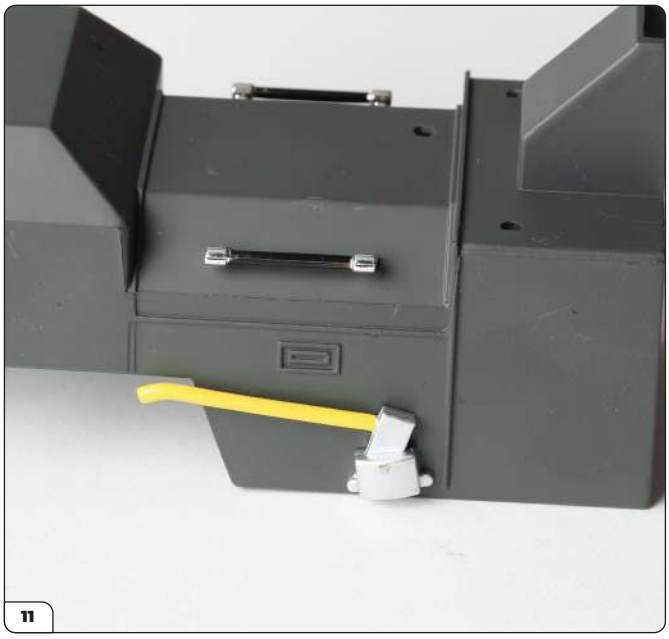
9

Both handles have now been fitted.



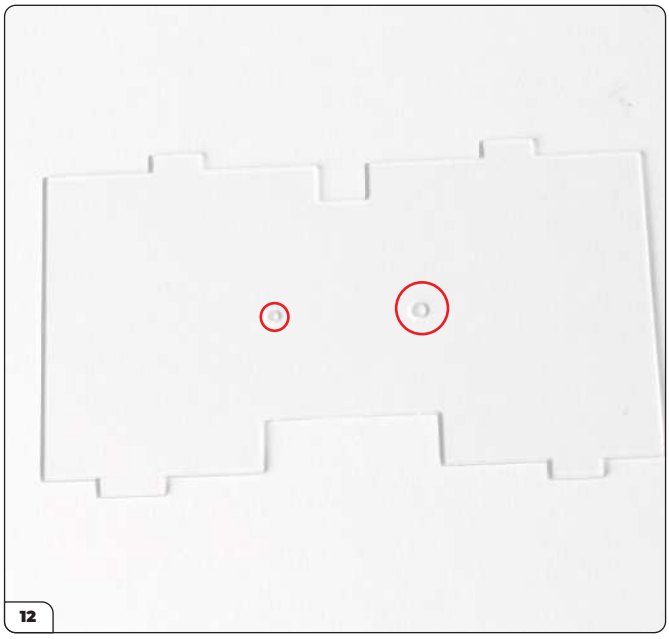
10

Align the pin on the axe with the hole in the side of the console, below the left-hand handle.



11

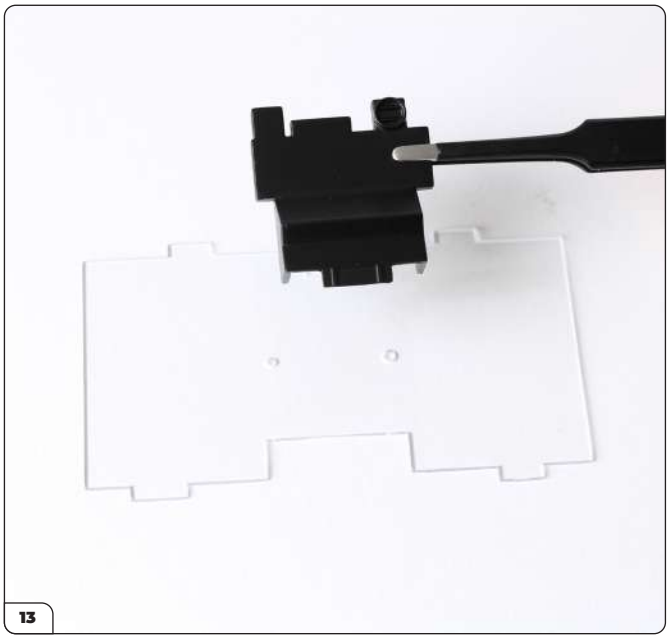
Push the axe firmly into position.



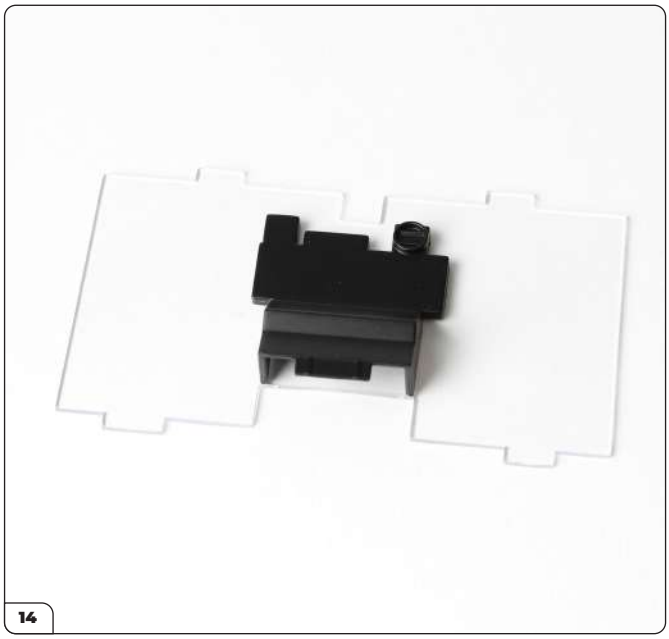
12

Now take the cab divider glass and note that the two holes in the middle are different sizes.

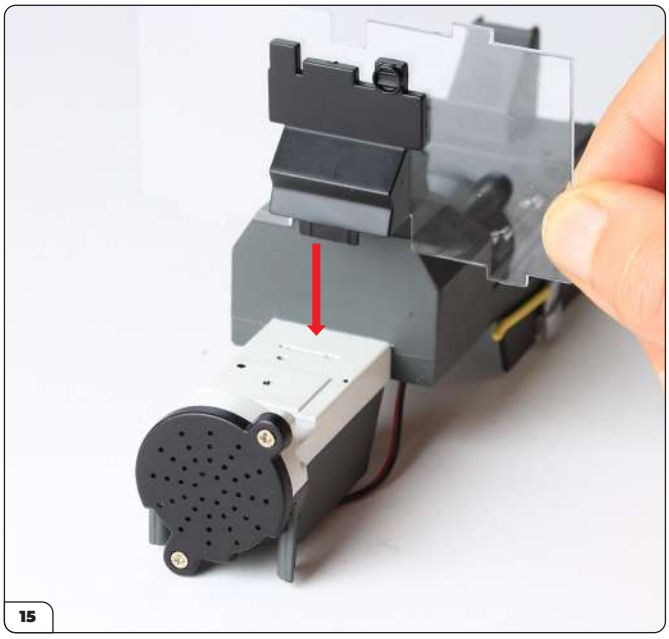
Stage 13: Components for the Cab Central Console



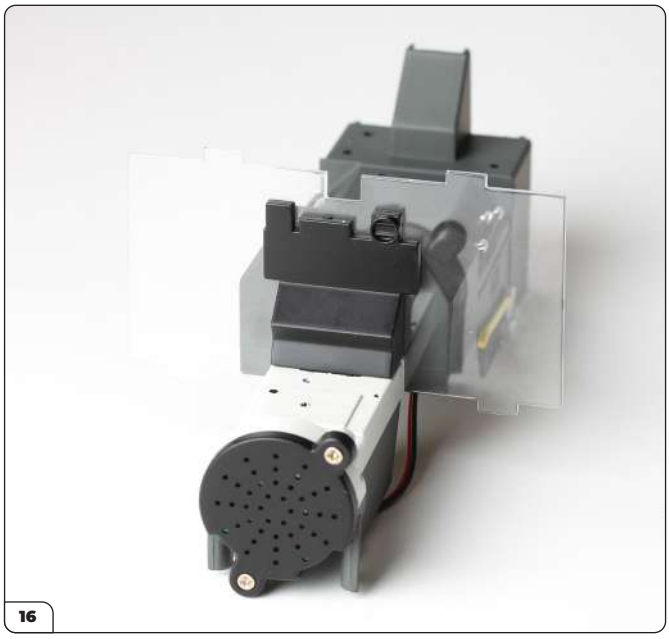
Aign the two pegs on the central console storage with the two holes on the divider glass (the size of the holes will ensure you have the correct orientation).



Press the central console storage firmly to fit.

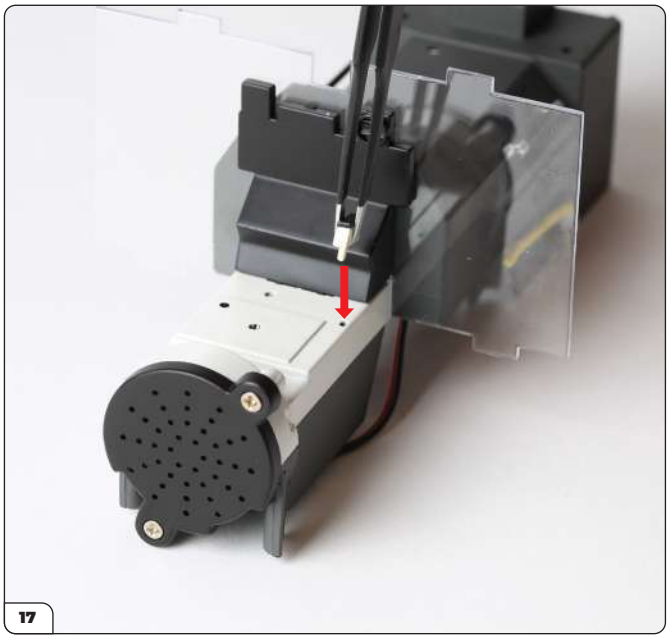


Position the storage/glass assembly over the central console as shown, and align the tab on the bottom of the console storage with the slot on the console.

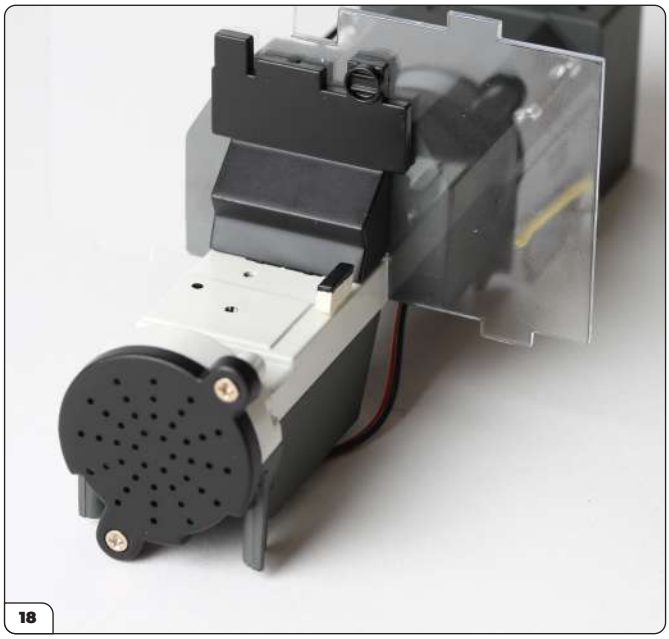


Press the tab firmly into the slot.

Stage 13: Components for the Cab Central Console

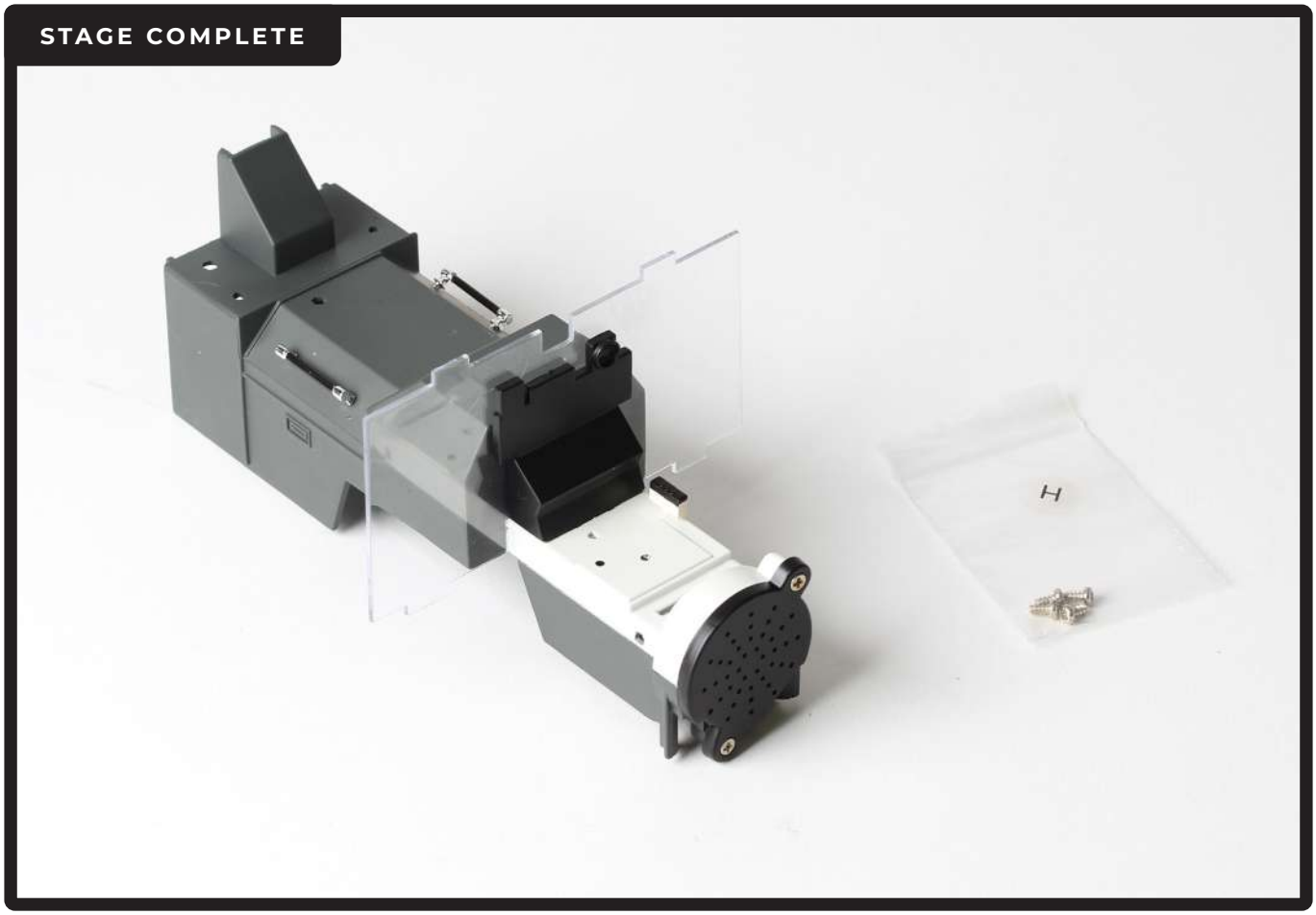


Lastly in this stage, take the engineer's switch panel and align the pin on its bottom edge with the hole on the central console.



Press firmly to fit.

STAGE COMPLETE



Stage 14: Rear Right Cab Door & Captain's Seat

Next you'll assemble the rear-right cab door and the captain's seat.

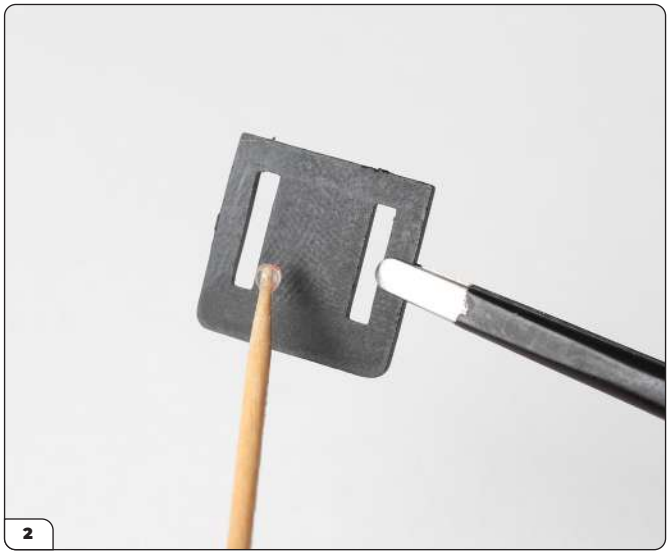
STAGE 14 PARTS LIST

Name
Inner cab panel
Seat support
Outer door panel
Inner door panel
Outer door handle
Gear
Window winder
Captain's seat
Screws type H x1

Stage 14: Rear Right Cab Door & Captain's Seat

STEP 1

Align the seat support with the captain's seat so the raised screw hole is facing you. Check that the screw hole is nearest the back of the seat, not the front.



Apply a little glue to the flat surface of the seat support.

Push the support onto the seat and press firmly.

Stage 14: Rear Right Cab Door & Captain's Seat

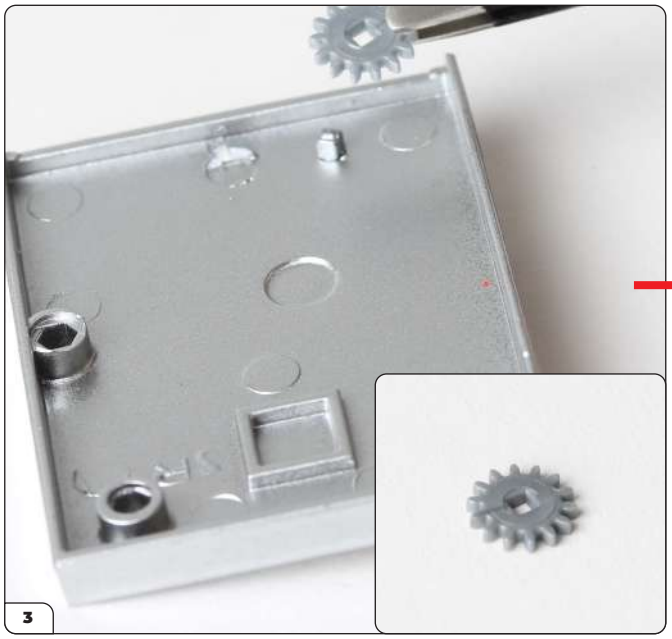
STEP 2

1

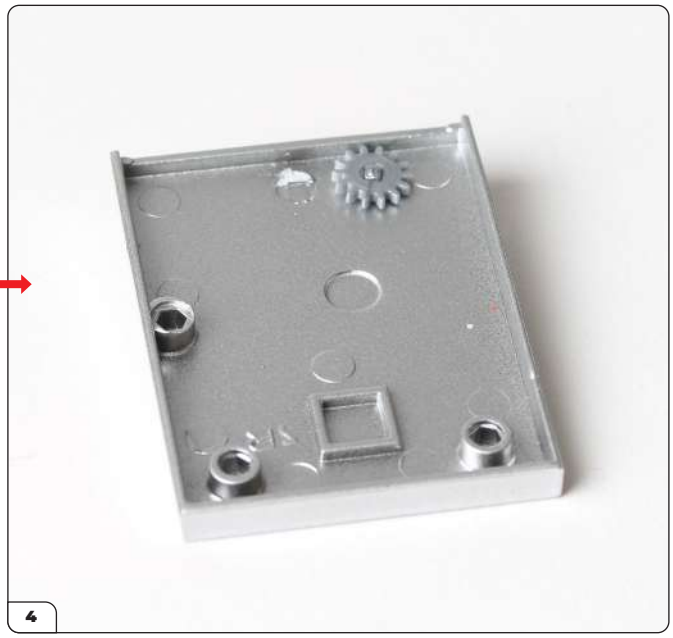
2

ASSEMBLING THE REAR-RIGHT CAB DOOR

Push the handle into the hole in the inner door panel. Press firmly until you feel it click into place.



3



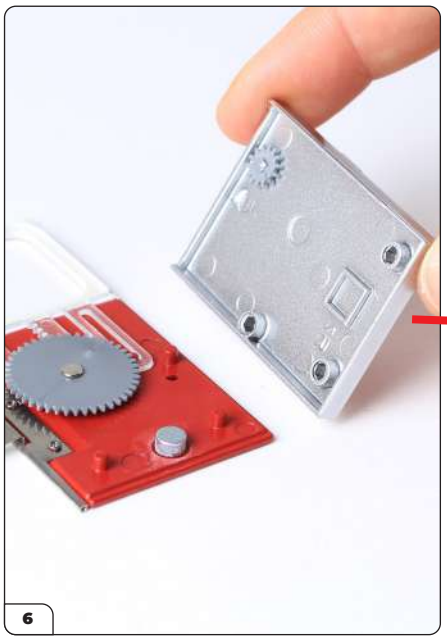
4

Check that you have the gear the correct way up – the flatest side faces up. Push it onto the square peg on the inside of the inner door panel.

Stage 14: Rear Right Cab Door & Captain's Seat

5

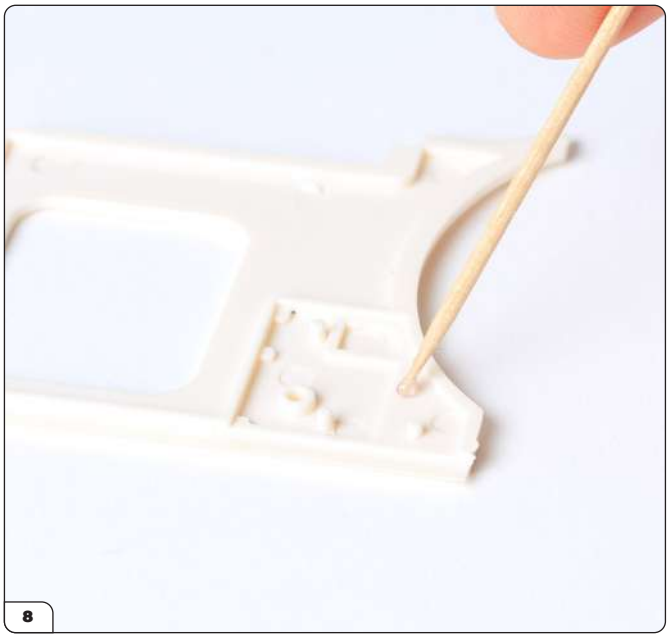
Apply a drop of superglue to each of the three peg holes as indicated (circled).



6

Align the three peg holes on the inner door panel with the three pegs of the inner side of the outer door panel before pressing the parts firmly together.

7



8

Take the inner cab panel and note that there are two fixing pins. It might be easier if you test fit the parts, then glue the raised areas that will sit underneath the hinge (see picture 12).

9

Align the four holes on the door hinge with the four pins on the inner cab panel. Press the hinge firmly in place.

Stage 14: Rear Right Cab Door & Captain's Seat

10

Apply a drop of superglue to the recess for the door handle.

11

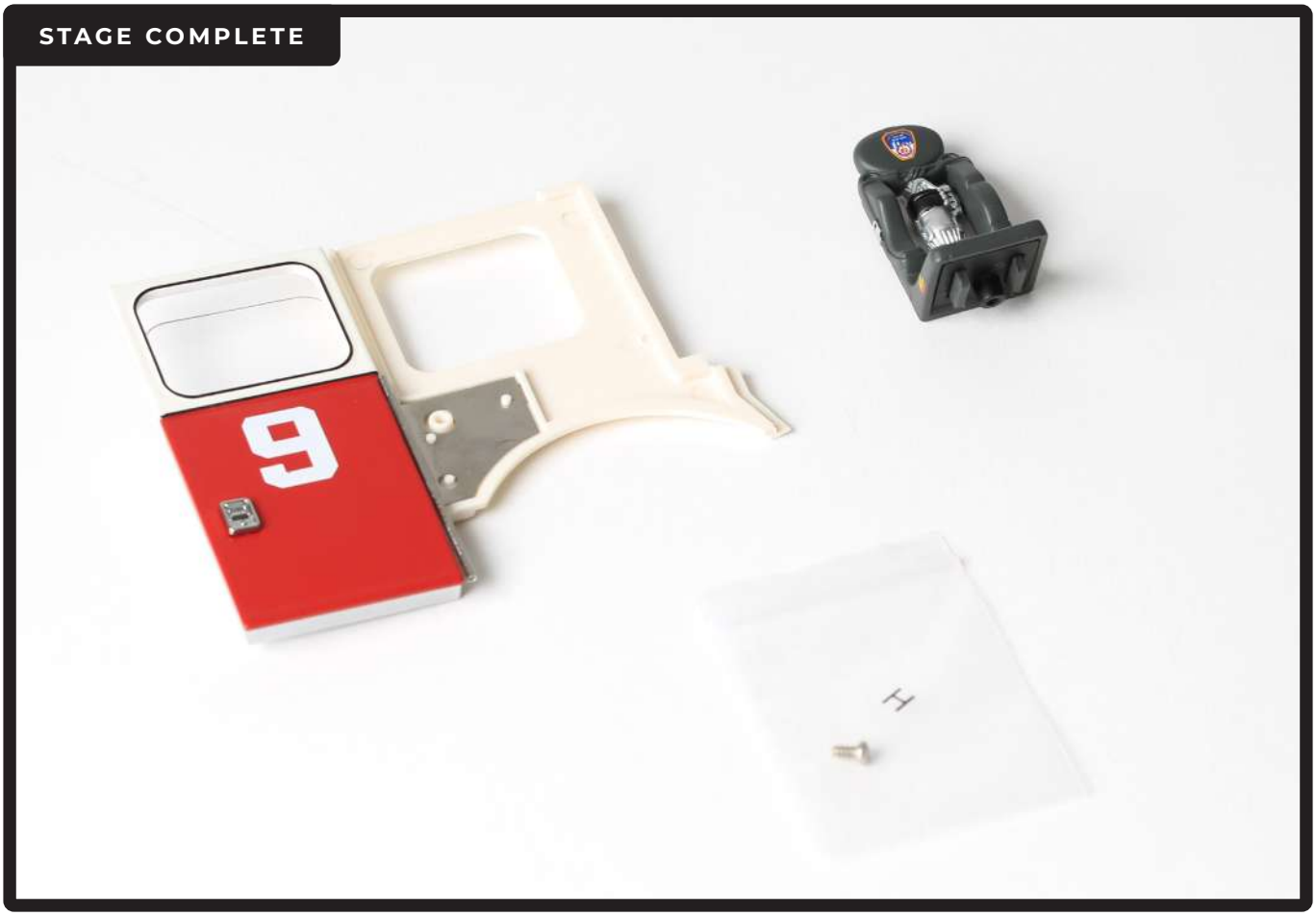
Press the handle into position. This is a D-shaped fitting to ensure the correct fit.

12

The handle has now been fitted.

Stage 14: Rear Right Cab Door & Captain's Seat

STAGE COMPLETE

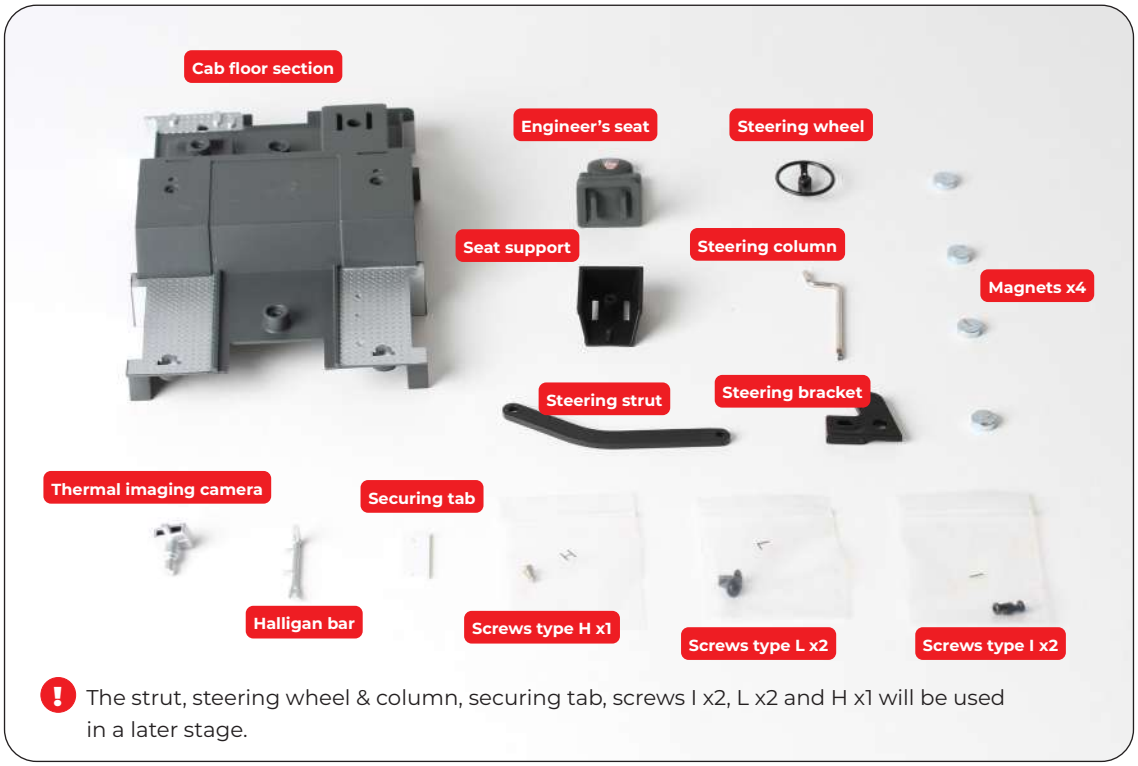


Stage 15: Cab Floor and Engineer's seat

The cab will start to take shape in this next stage as you combine the central console with the cab floor, install the engineer's and captain's seats, and add more all-important rescue equipment. Note how all seats, except the engineer's seat, have air packs located in the back of the seat so all fire fighters have to do is hook them on their shoulders.

STAGE 15 PARTS LIST

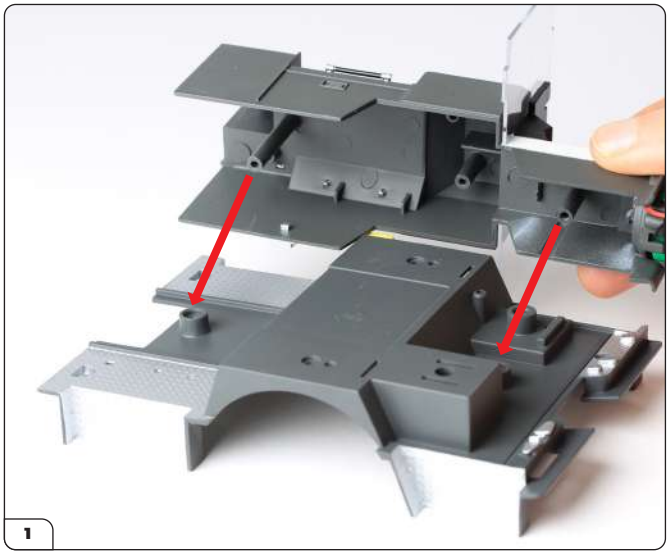
Name
Cab floor section
Engineer's seat
Steering wheel
Seat support
Steering column
Steering strut
Steering bracket
Thermal imaging camera
Halligan bar
Securing tab
Magnets x4
Screws type H x1
Screws type L x2
Screws type I x2



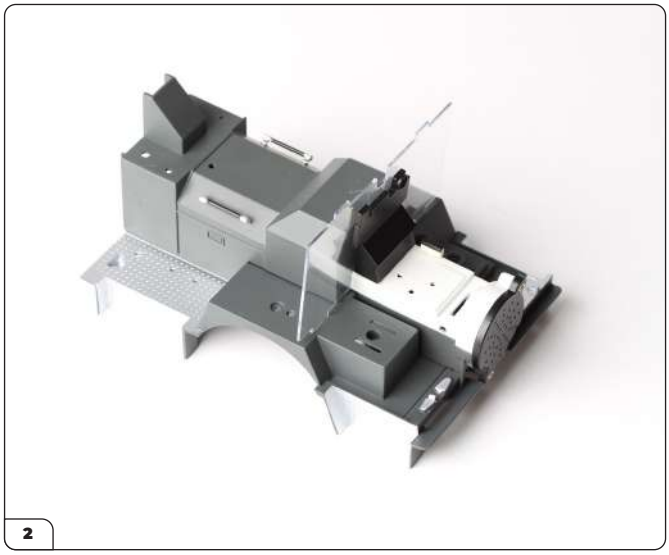
The strut, steering wheel & column, securing tab, screws I x2, L x2 and H x1 will be used in a later stage.

Stage 15: Cab floor and Engineer's seat

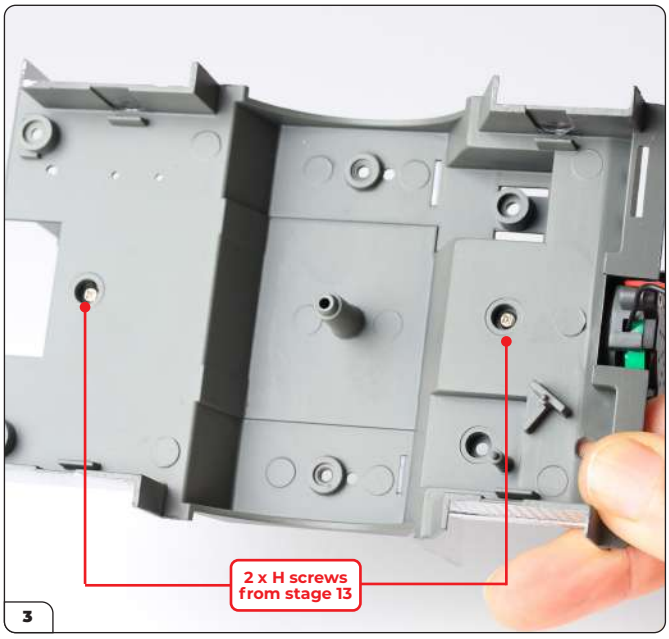
STEP 1



Place the cab floor on your work surface and align the underside of the centre concole over the top, making sure not to trap the speaker cable. The two posts at the ends of the console will fit into the raised screw sockets on the floor as shown.



The centre console has been fitted to the cab floor.



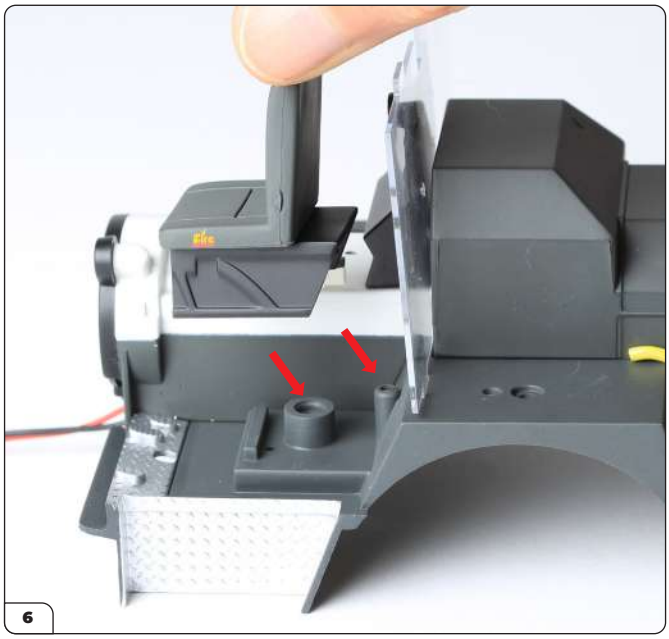
Secure the centre console to the floor from the underside with 2 x type H screws from stage 13.

Line up the engineer's seat with the seat support, checking that the tabs under the seat are in the same orientation as the slots on the support.

Stage 15: Cab floor and Engineer's seat

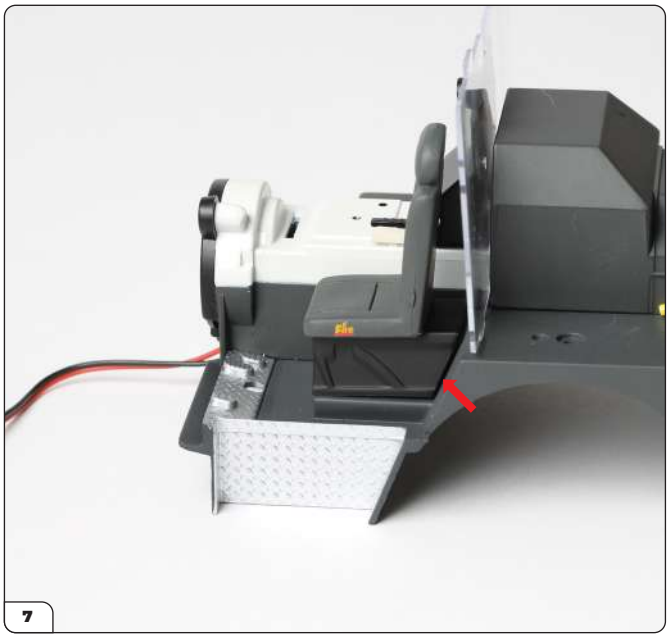
5

Push the seat firmly onto the support.



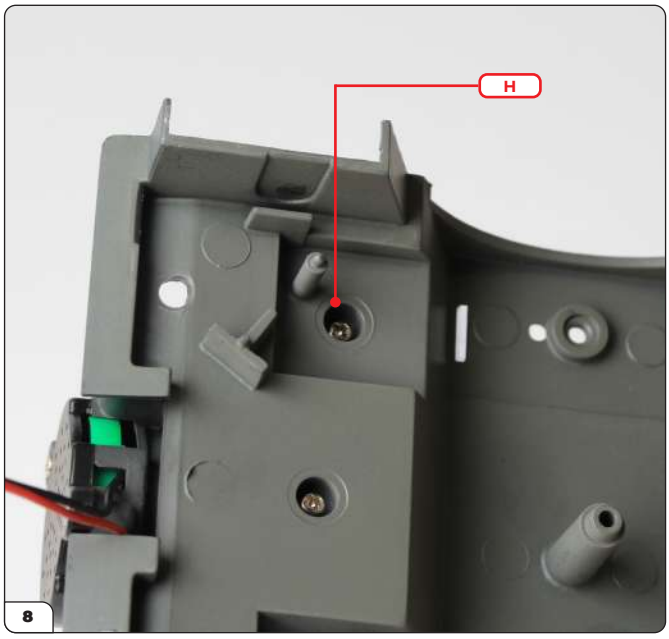
6

The engineer's seat can now be fitted to the cab floor. Align the pegs under the support with the raised holes on the floor (arrows).



7

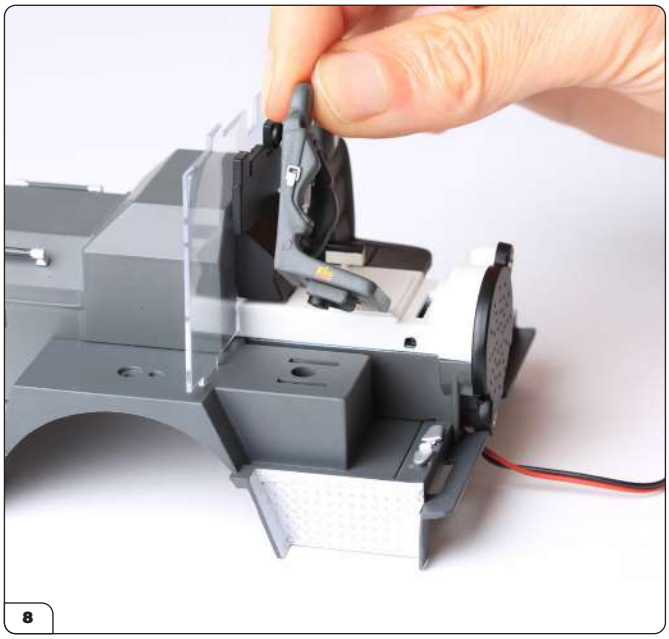
The seat support is angled at the back to match the shape of the floor.



8

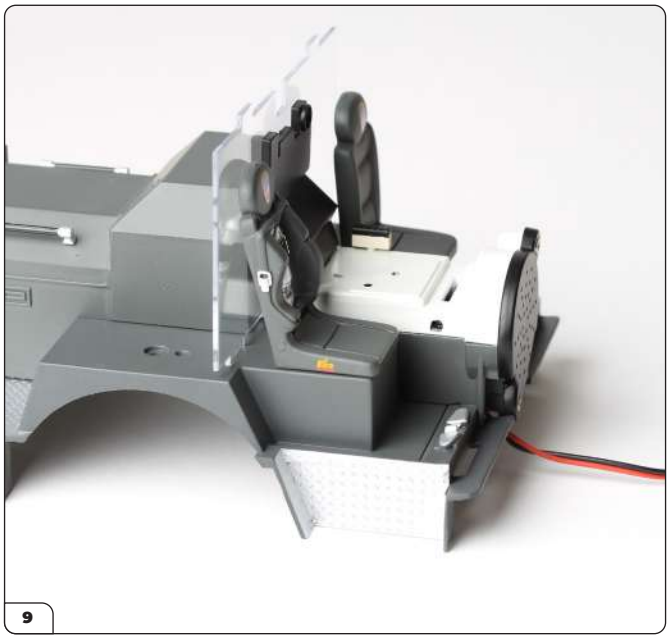
Secure the engineer's seat in place from the underside using a type H screw from stage 13.

Stage 15: Cab floor and Engineer's seat



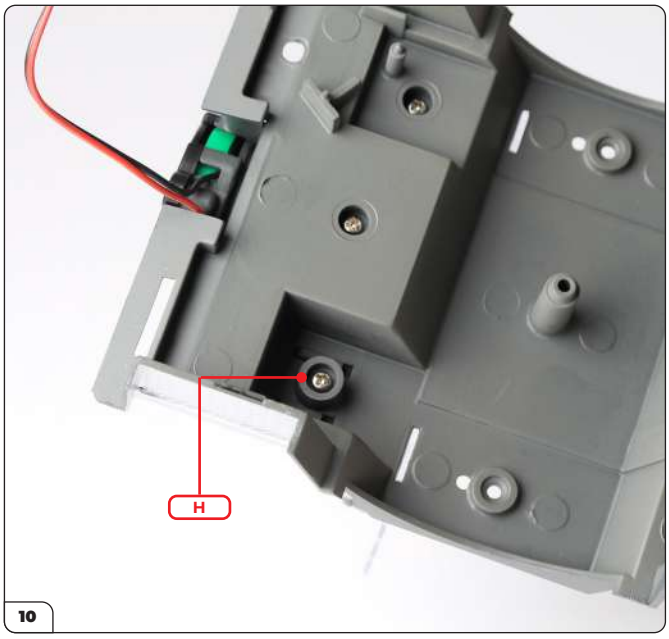
8

The support for the captain's seat already forms part of the floor. Take the captain's seat from stage 14 and align the tabs and screw socket on the bottom of the seat as shown.



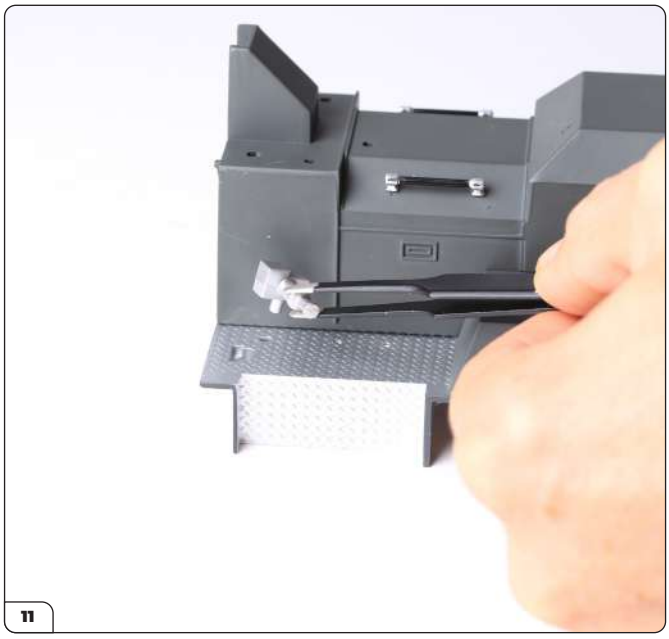
9

Press the seat firmly in place.



10

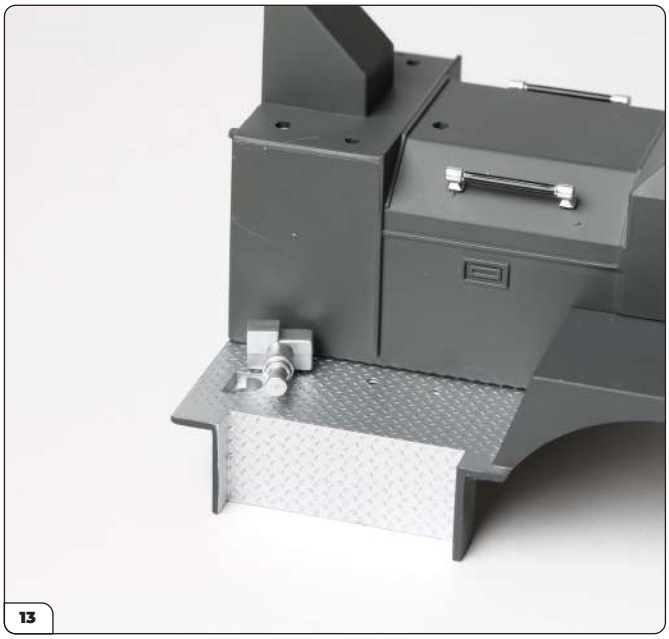
Secure the captain's seat from the underside using another type H screw from stage 13.



11

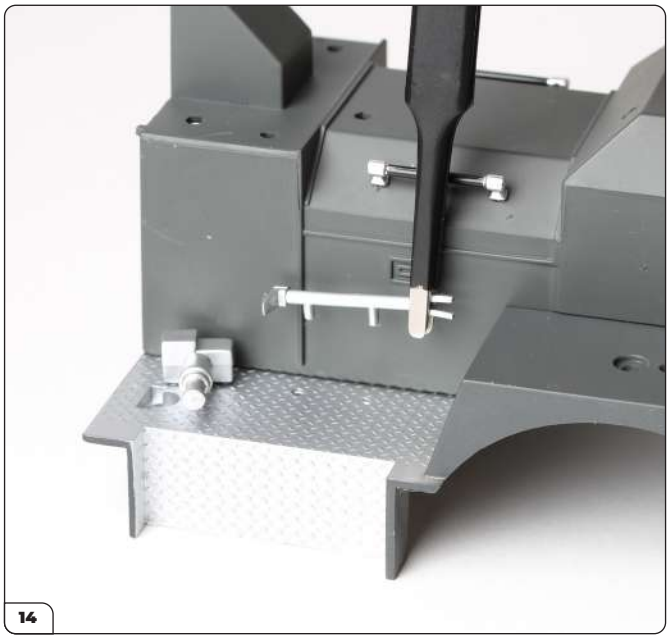
Align the peg on the thermal imaging camera with the hole in the floor at the rear of the cab on the right-hand side. This is a D-shaped fitting to ensure the correct orientation.

Stage 15: Cab floor and Engineer's seat



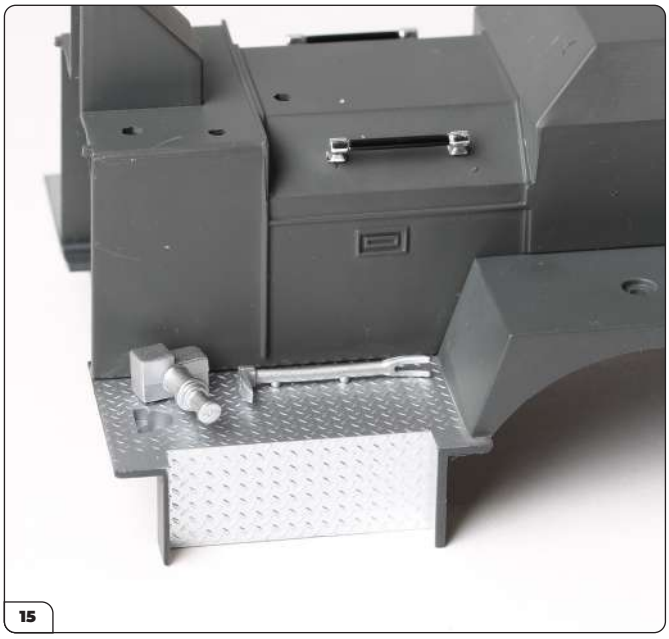
13

Press firmly to fit into place as shown.



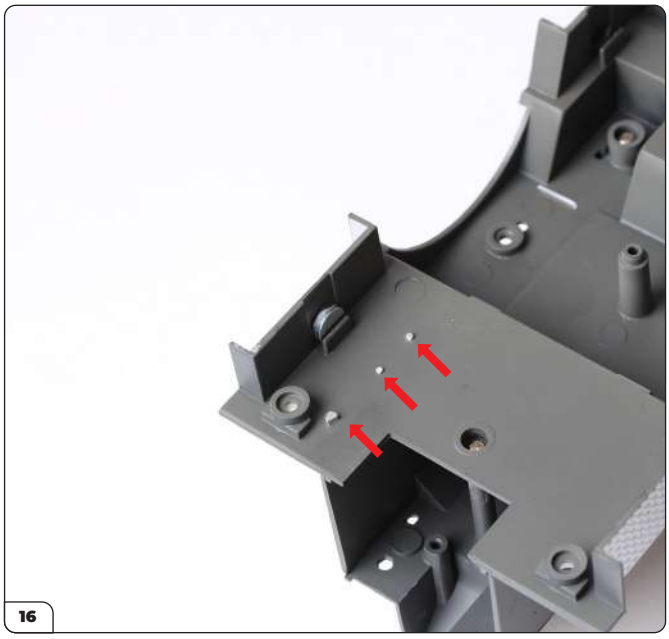
14

Align the two pins on the halligan bar with the two small holes in the floor, next to the thermal imaging camera. Push firmly to fit into place.



15

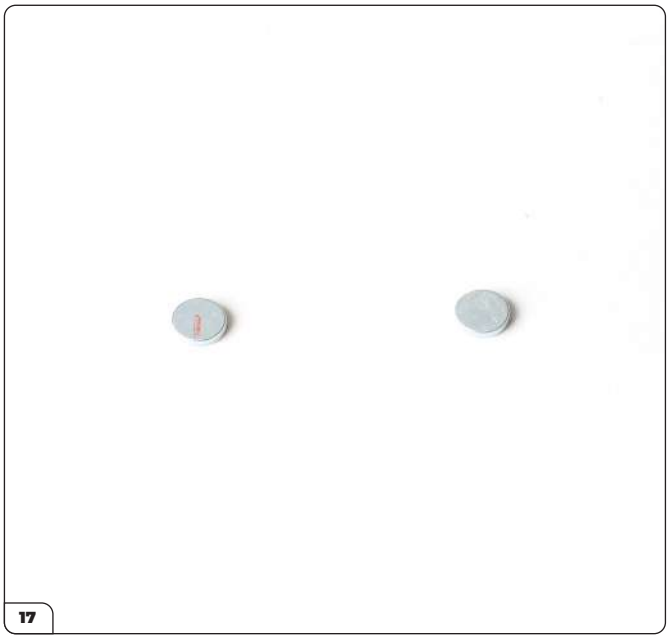
The tools stored in the jumpseat area on the right-hand side have been installed.



16

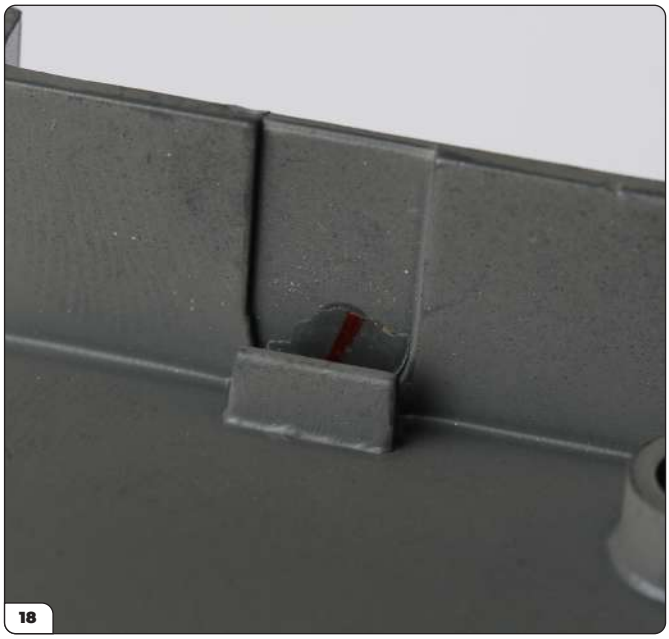
Check that the tools have been firmly fitted into place by looking at the pins from the underside of the cab floor.

Stage 15: Cab floor and Engineer's seat



17

Now the magnets will be fitted to the floor. Note that each magnet has a red line on one side. The line corresponds to the red line in the four sockets on the side walls on the underside of the floor.

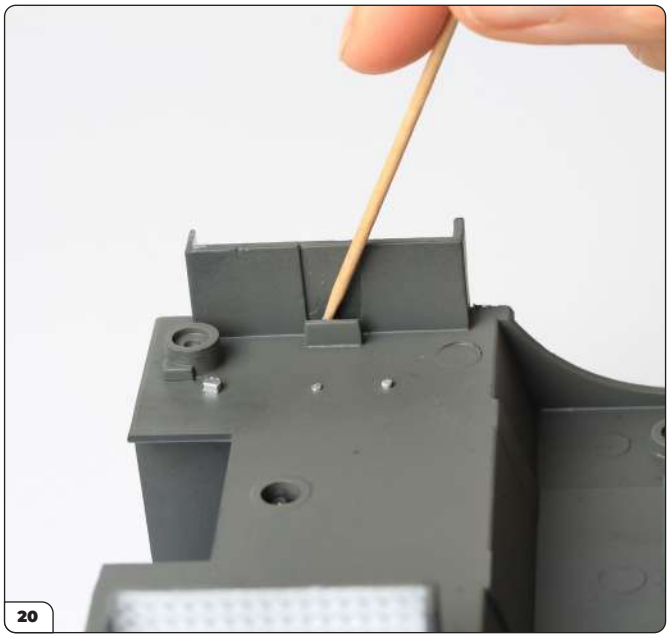


18

The red line is visible in each recess in the four corners of the underside of the floor.

19

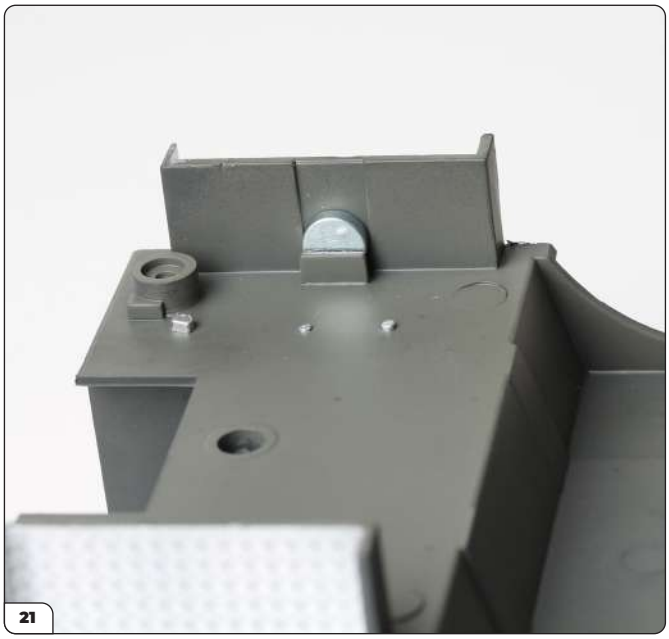
If the red line isn't clearly visible on the magnet, you can check which side of the magnet should face outwards on the floor by placing it on one of the doors. The side with the red line should stick to the door.



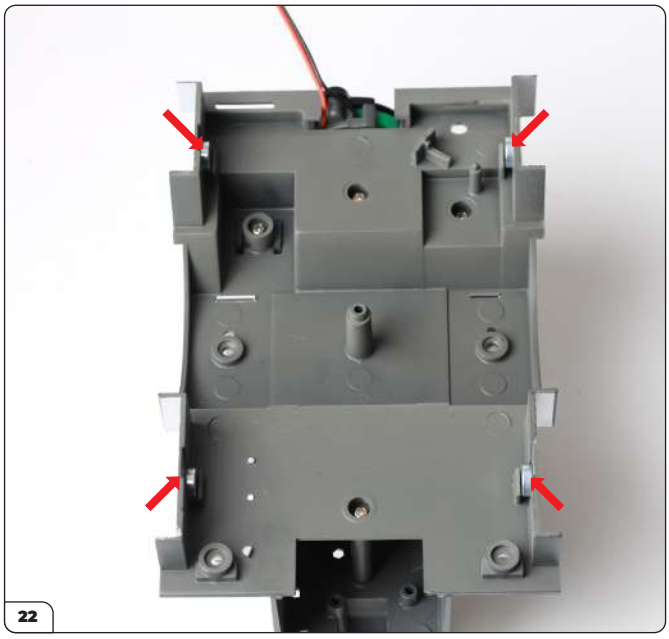
20

Carefully apply a little glue to the bottom of the recess on the floor as shown.

Stage 15: Cab floor and Engineer's seat

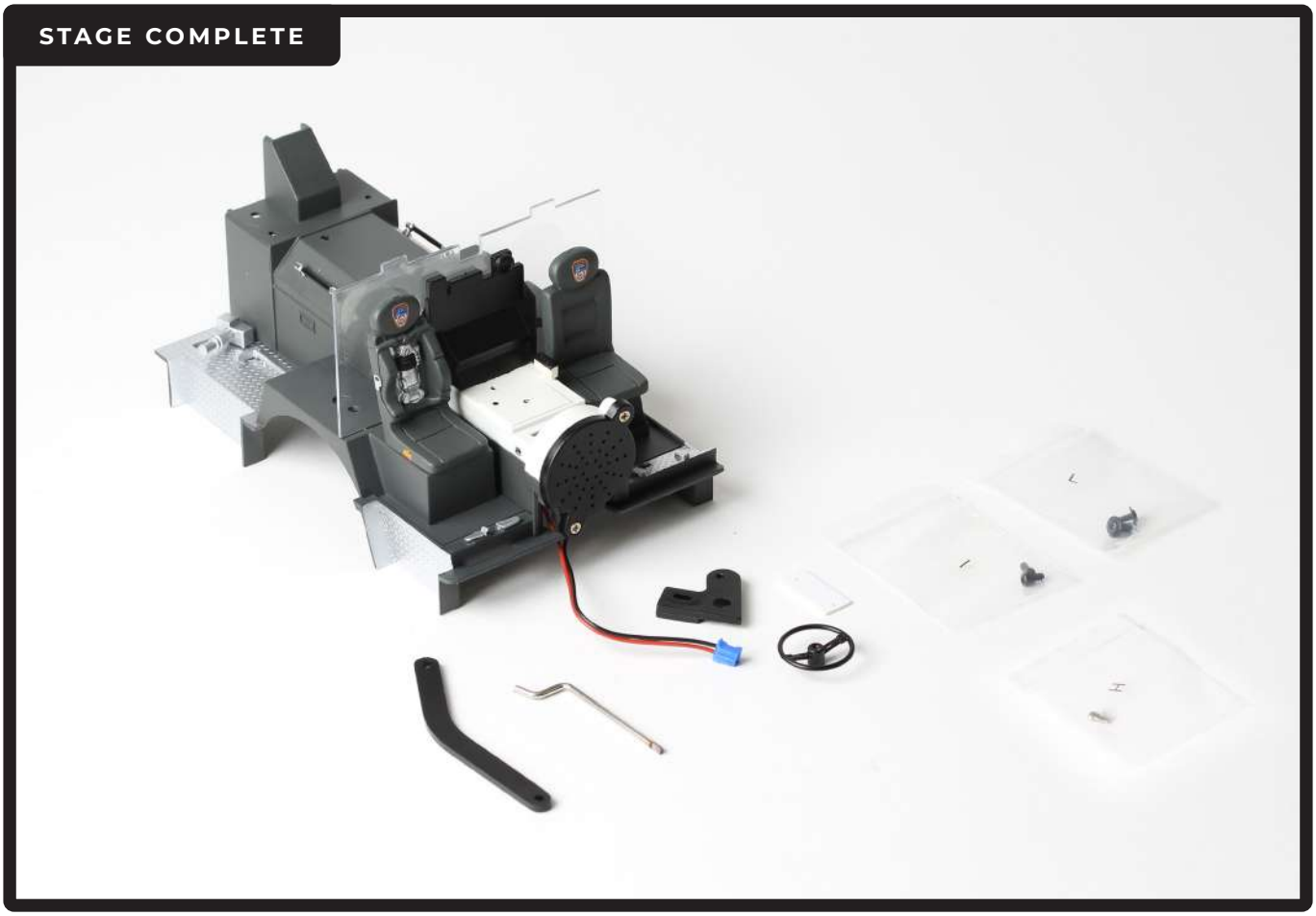


Place a magnet in the recess with the red line on the magnet facing the red line in the recess.



The remaining three magnets are fixed in the same way in the remaining three recesses. In this picture, all four magnets have been glued in place.

STAGE COMPLETE

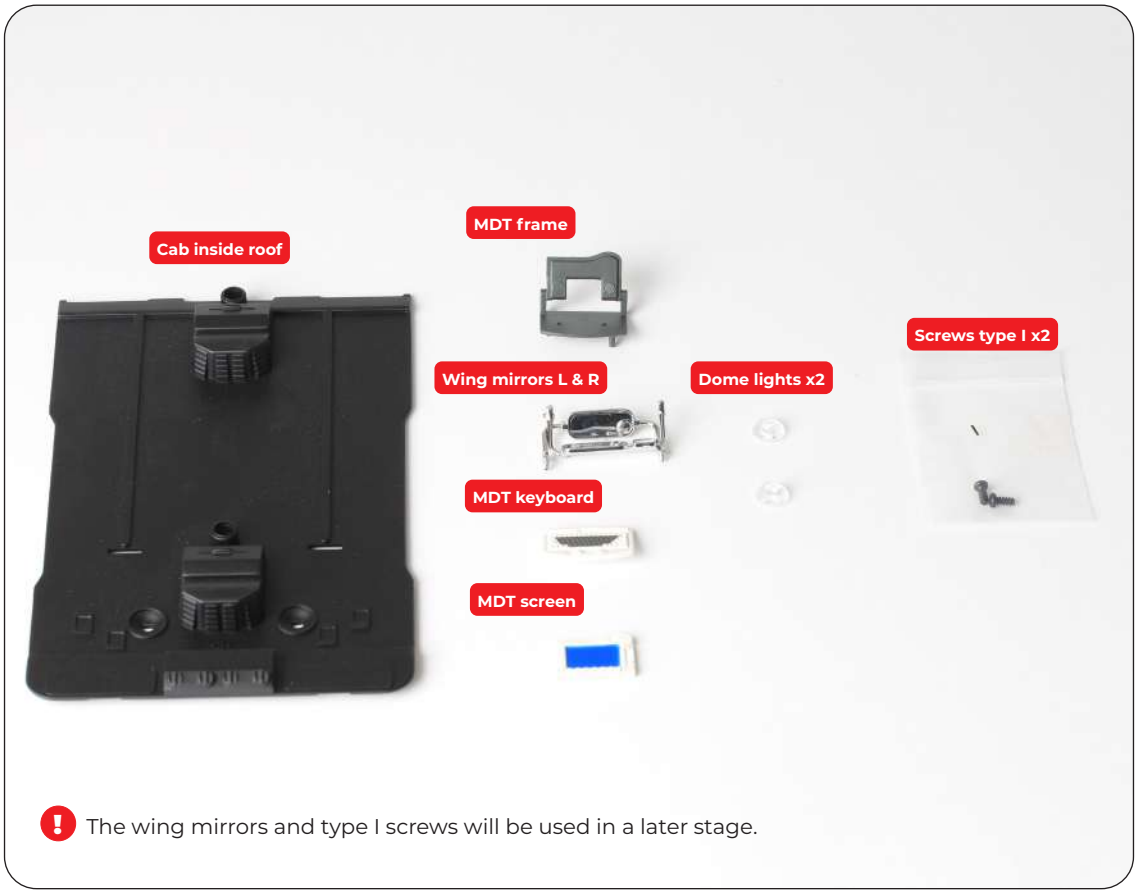


Stage 16: Components for the Mobile Data Terminal, Wing Mirrors, Cab Inside Roof & Dome Lights

In this final stage of pack 2, you'll assemble and install the mobile data terminal (MDT) and add dome lights to the interior cab roof.

STAGE 16 PARTS LIST

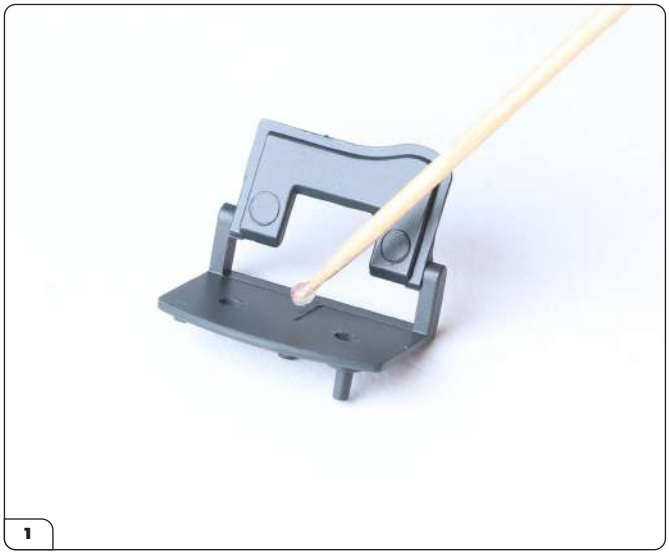
Name
Cab inside roof
MDT frame
Wing mirrors L & R
MDT keyboard
MDT screen
Dome lights x2
Screws type I x2



The wing mirrors and type I screws will be used in a later stage.

Stage 16: Components for the Mobile Data Terminal, Wing Mirrors, Cab Inside Roof & Dome Lights

STEP 1



Start by applying a little glue to the base of the MDT frame.

Align the pegs on the underside of the keyboard with the two holes on the frame. Check you have the keyboard in the correct orientation – the flat edge faces the back – and then press the pegs firmly into the holes.

The keyboard has been fitted.

Apply a little more glue to the vertical part of the frame.

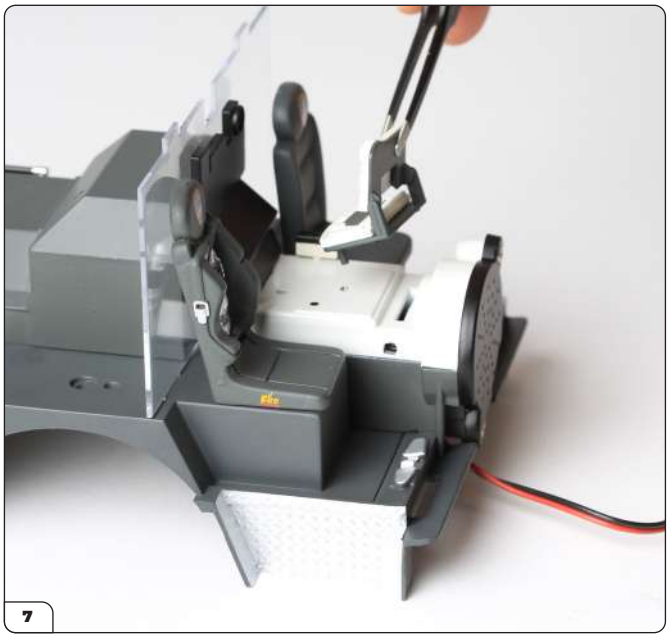
Stage 16: Components for the Mobile Data Terminal, Wing Mirrors, Cab Inside Roof & Dome Lights

5

Check that the screen is positioned with the curved side facing up before pressing it onto the frame.

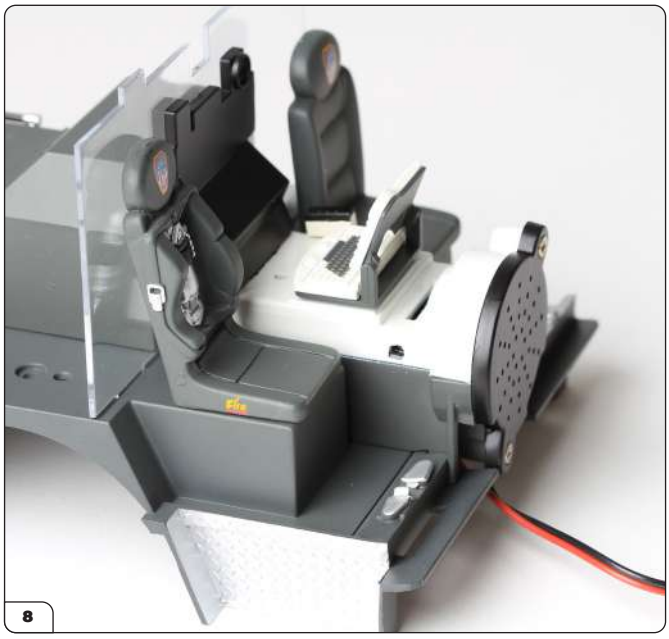
6

The MDT has been assembled and is ready to be fitted to the cab.



7

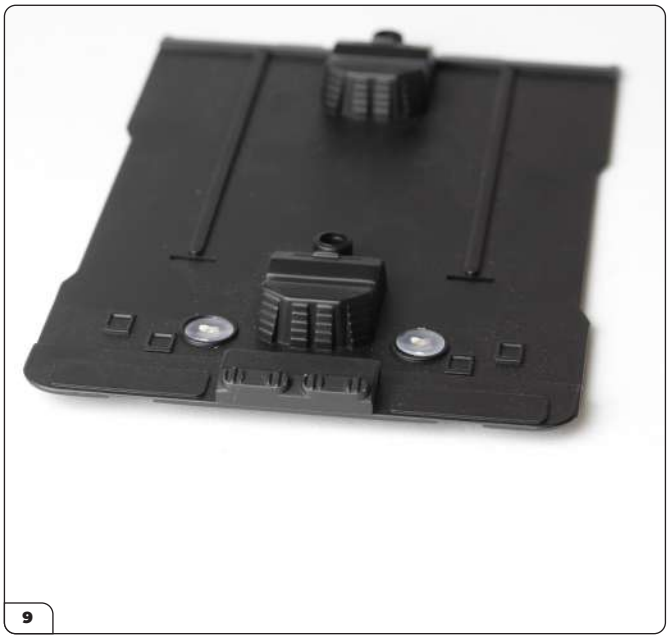
Align the peg on the bottom of the MDT with the hole in the central console, between the two front seats.



8

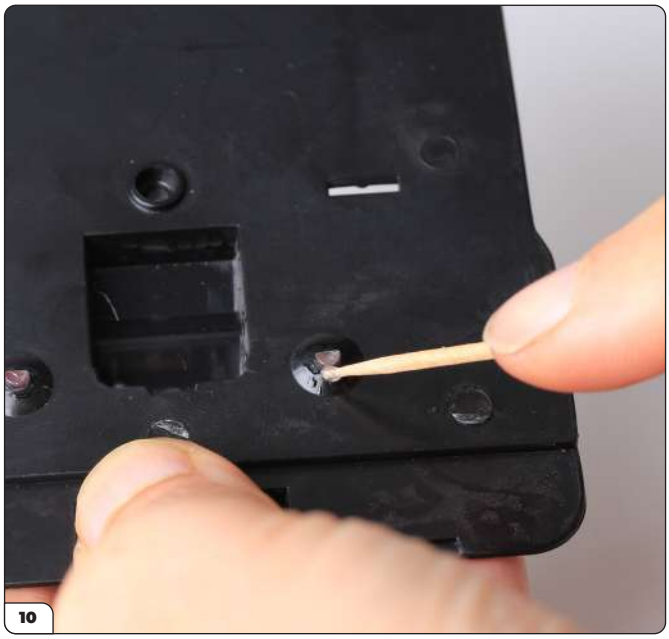
Press firmly to fit.

Stage 16: Components for the Mobile Data Terminal, Wing Mirrors, Cab Inside Roof & Dome Lights



9

Place the cab inside roof on your work surface, flat side facing down. Place the dome lights in the two circular recesses as shown. Push them into place.



10

If necessary, apply a little PVA glue to the back of each light to hold them in place.

11

The wing mirrors will be fitted to the cab front doors as shown. However, they can easily get damaged during the build, so you may prefer to leave them off until later in the build.

Stage 16: Components for the Mobile Data Terminal, Wing Mirrors, Cab Inside Roof & Dome Lights

STAGE COMPLETE