MITSUBISHI ASSER FIGHTER



Pack 04 | Build Instructions

Your 1:18 model of the Japanese Zero is reproduced in the most exquisite detail, with electronics allowing you to recreate aeronautical operations such as take-off and landing, turning, firing and night combat. Lights, machine-gun and propeller sounds bring your legendary fighter plane to life.

In your fourth model pack, you will assemble:

STAGE 27: COCKPIT ASSEMBLY

STAGE 28: LEFT MAIN LANDING GEAR BASE

STAGE 29: LEFT MAIN LANDING GEAR BASE AND WHEEL

STAGE 30: ASSEMBLING THE LEFT MAIN LANDING GEAR (1)

STAGE 31: ASSEMBLING THE LEFT MAIN LANDING GEAR (2)

STAGE 32: ASSEMBLING THE LEFT WING

STAGE 33: ATTACHING A TYPE 99 CANNON TO THE WING

STAGE 34: INSTALLING THE LEFT MAIN MOTOR

STAGE 35: ASSSEMBLING THE MAIN COVERS

STAGE 36: ATTACHING THE LANDING GEAR COVERS









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.

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 magnetised 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.

When gluing parts together, glue may be applied to either of the two parts. Some experts find it asier to apply glue to a hole rather than a pin. Choose a method that works best for you.

It's a good idea to test fit your parts so that you can check their positioning before gluing.

Not suitable for children under the age of 14. This product is not a toy and is not designed for use in play. Keep the parts out of the reach of small children. Some parts may have sharp edges. Please handle them with care.



Stage 27: Cockpit assembly

In this stage we'll be affixing the instrument panel decals. Then, after attaching the pilot seat and seat adjustment lever to the rear bulkhead we'll have finished assembling the cockpit.



Cockpit



STAGE 27 PARTS



You will also need: superglue, small dish of water, tissue, cotton bud, tweezers

PARTS LIST

	PART	No.	MATERIAL
	027-01	1	ABS resin
	027-02	1	ABS resin Die-cast
	027-03	1	Decal



Attaching decals





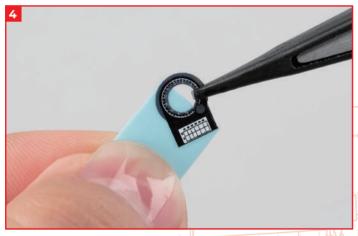
Attach decal **027-03** to the instrument panel assembled in stage 21. Prepare a small dish of water, a tissue, and cotton bud.



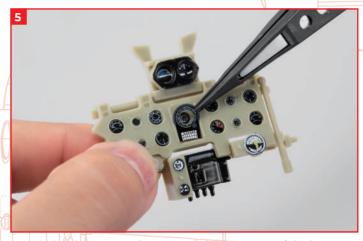
Float the decal **027-03** in the dish of water with the printed side facing up and wait for about 10 seconds.



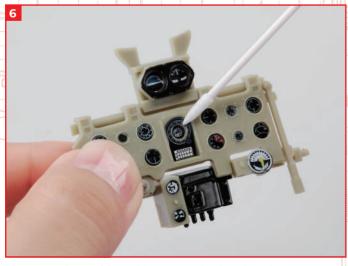
Remove the decal from the water using tweezers and place it on a tissue to absorb excess water.



Slide the decal with your finger and grab the part that comes off the mount with tweezers. If it's difficult to slide, the glue hasn't melted, so put it in water for a few seconds and try again.



Attach decal **027-03** to the compass in the centre of the instrument panel.

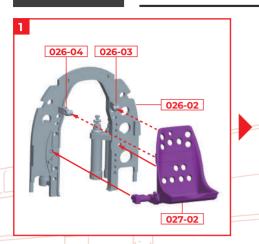


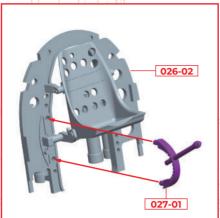


Fine-tune the position with a cotton bud so that the compass is in the centre of the decal circle, and absorb excess water.



Installing the pilot seat and adjustment lever



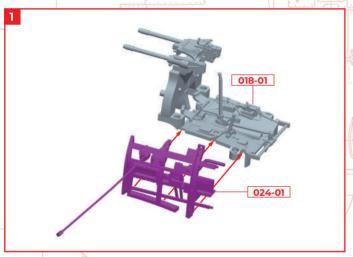


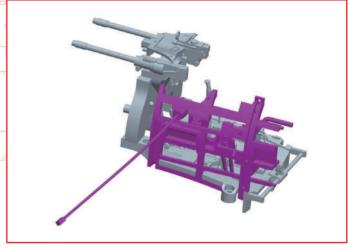


Insert the protrusions of seat 027-02 into the holes on the seat frames 026-03 & 026-04 assembled in stage 26, and glue the lower lugs into the cockpit partition. Then glue the seat adjustment lever 027-01 to the cockpit partition.

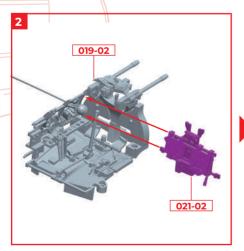
STEP 3

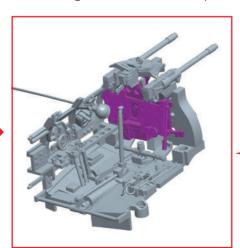
Assembling the cockpit frame





Glue the three tabs on the left side frame assembled in stage 25 to the three corresponding notches on the cockpit floor.



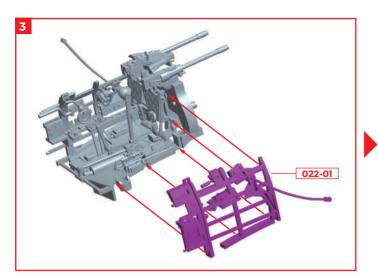


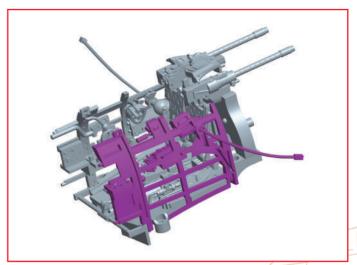
Glue the two lugs on the instrument panel completed in STEP 1 to the two holes on the left side frame of the cockpit.



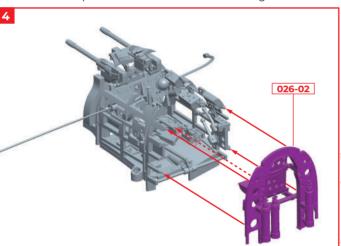
Push the two lugs on the instrument panel (circled right) into the two holes in the left cockpit frame (circled left).

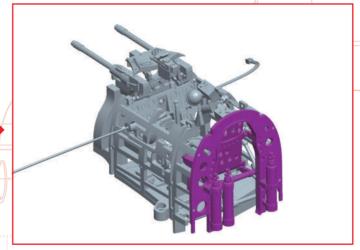






Glue the three tabs on the right side frame assembled in stage 24 to the three notches on the cockpit floor, and glue the two lugs on the instrument panel into the two holes on the right side frame.

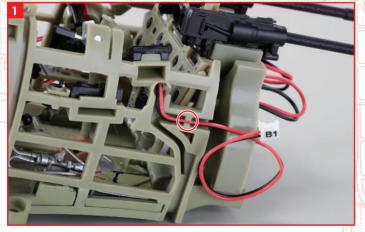




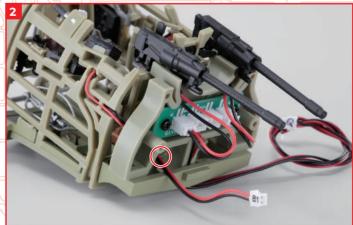
Align and glue the holes in the cockpit partition assembled in STEP 2 to the two protrusions on each of the left and right side frames. A little extra glue can be applied to adjoining surfaces in 1–4. Our video series shows you how and demonstrates the gluing technique.

Click here to watch.

Wiring everything up

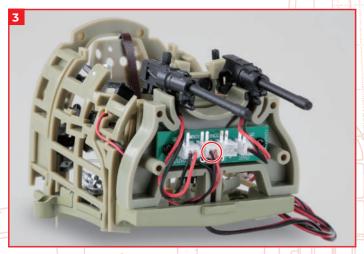


Pass the cord of the cockpit interior light **023-04** on the right side of the cockpit through the groove on the outside of the frame on the right side of the cockpit.



Pull the tip of the cockpit-light wire forward through the hole under the 7.7mm machine gun magazine.

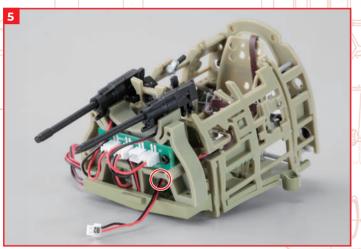




Insert the connector labelled Bl into the second socket from the left on the board of the 7.7mm machine gun magazine.



Pass the wire of the left interior light **025-04** through the groove on the outside of the frame on the left side of the cockpit.

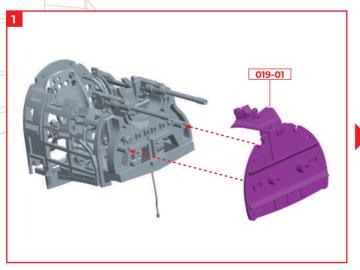


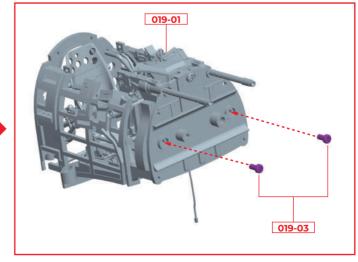
Pull the tip of the cockpit-light wire forward through the hole under the 7.7mm machine gun magazine.



Insert the connector labeled B2 into the second socket from the right on the board of the 7.7mm machine gun magazine.

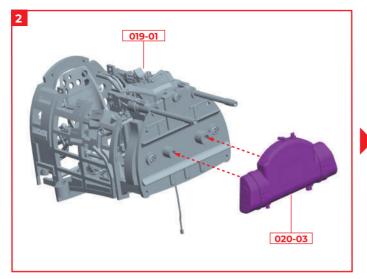
Attaching the front bulkhead and engine mount

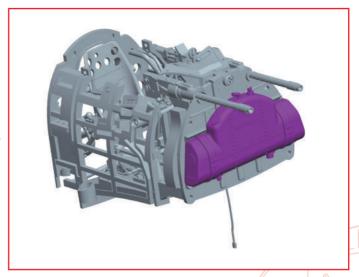




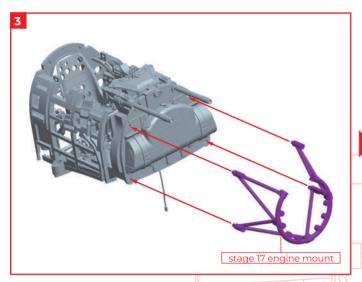
Fix the partition wall assembled in stage 19 to the cockpit using the two screws **019-03** that came with stage 19. The machine guns fit into the semi-circular notches at the top of the partition.

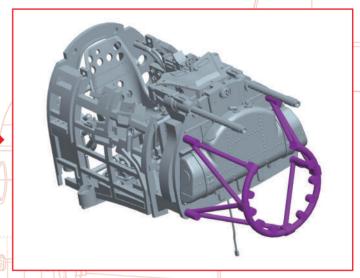






Fit the oil tank **020-03** that came with stage 20 into the partition wall. It does not glue.





Align the pins on the engine mount frame assembled in stage 17 with the four holes on the partition wall and glue them together.





Stage 28: Left Main Landing Gear Base



Stage 28 Assembly

Left Main Landing Gear Base

the base for the left landing gear base.
Setting the position indicator and gear will require a good deal of accuracy and precision.

PARTS LIST STAGE 28 PARTS MATERIAL 028-01 ABS resin 028-02 028-02 ABS resin 028-01 028-03 028-03 ABS resin 028-05 028-04 ABS resin 028-06 028-05 ABS resin 028-04 028-06 ABS resin 028-08 028-07 028-07 028-09 028-08 Plastic 028-09 Plastic You will also need: tweezers



Assembling the left landing gear base

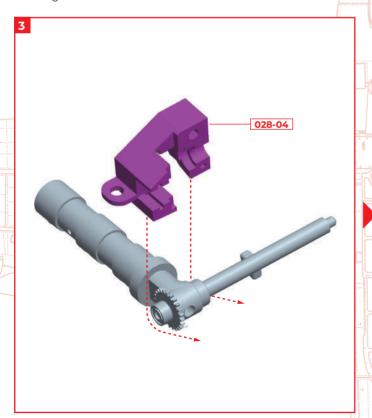


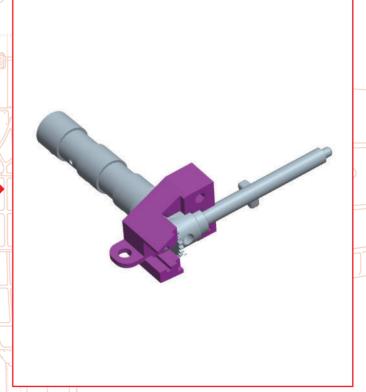




Fit the gears **028-09** onto the shaft of the shock absorber **028-01**.

Fit the bearing **028-07** onto the shaft of the shock absorber **028-01**

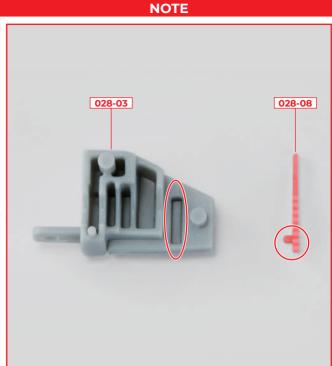




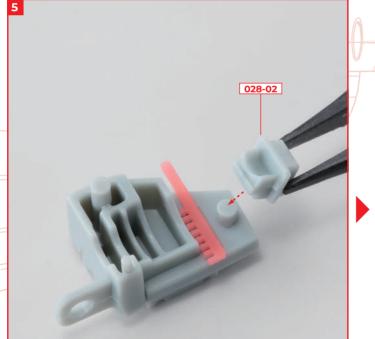
Fit part **028-04** onto the shock absorber **028-01**, keeping the shock absorber in a horizontal position.

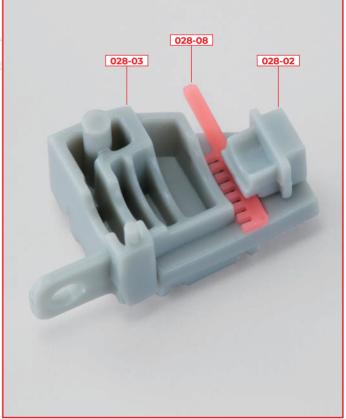






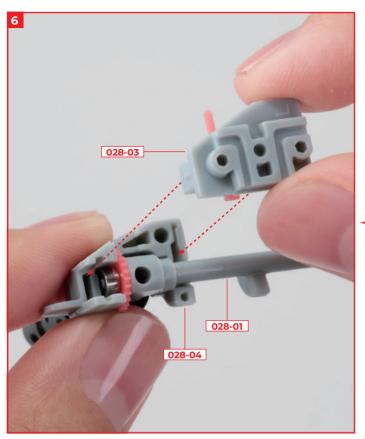
Align the pin on the leg position pointer **028-08** with the groove on the shaft retainer **028-03**.

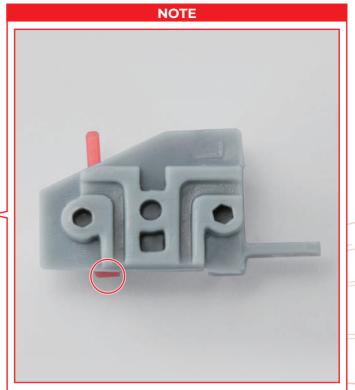




Push 028-02 onto the lug on 028-03 so that the leg position pointer 028-08 does not come off but can still slide within the groove.

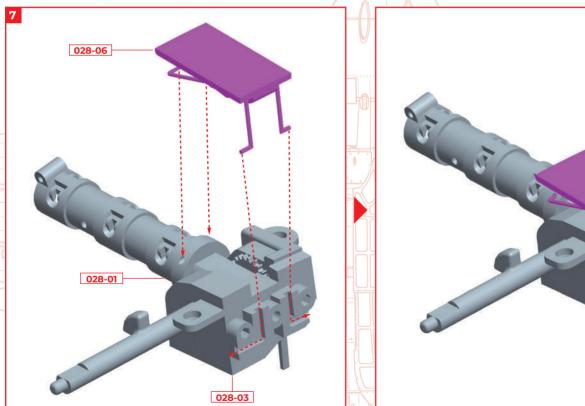


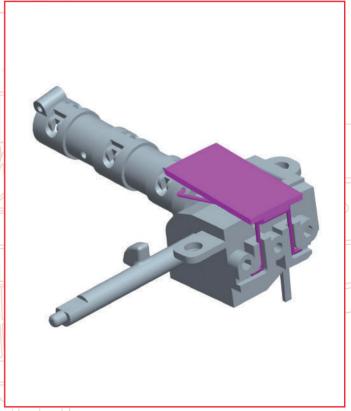




Keep the leg position pointer 028-08 in the lowest position when fitting.

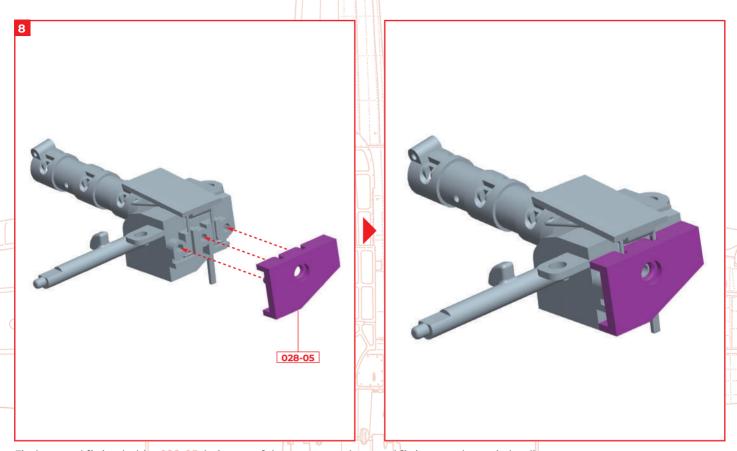
Fit 028-03 assembled in 5 onto 028-04 assembled in 3. Work with the shock absorber 028-01 in the horizontal position.



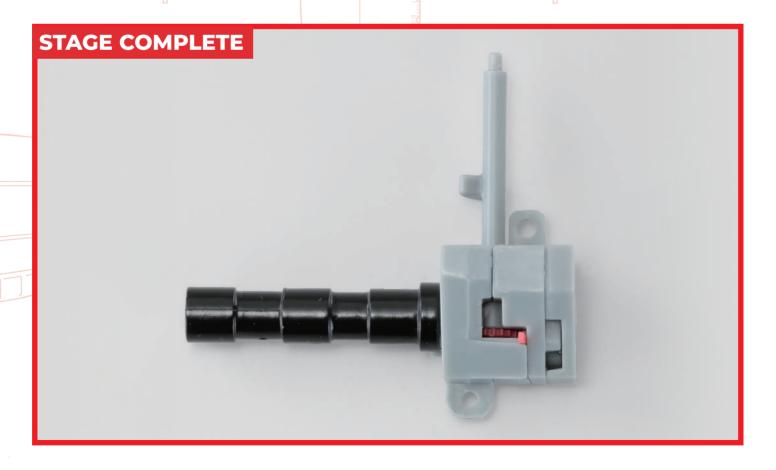


Spread the metal fittings attached to the centre of the main landing gear cover 028-06 and fit them into the holes on the shock absorber 028-01. Next, fit the metal fitting attached to the end of the main landing gear cover 028-06 into the L-shaped grooves on the shaft retainer 028-03.





Fit the metal fitting holder **028-05** being careful not to move the metal fittings on the main landing gear cover.





Stage 29: Assembling the Left Main Landing Gear Base and Wheel



Stage 29 Assembly

Landing Gear Base and Wheel

In this stage we'll add another gear to the left landing gear base and assemble the wheel as well.

029-01 029-02 029-03 029-04 029-05 029-06

*029-04 will not be used in this stage. Keep it in a safe place until required.

STAGE 29 PARTS

PARTS LIST

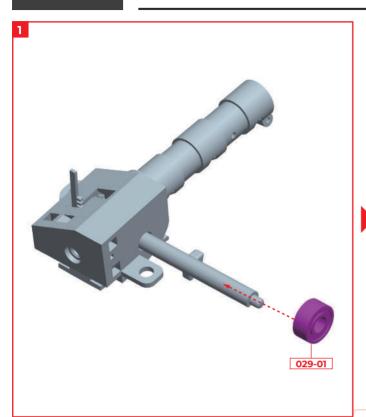
PART	No.	MATERIAL
029-01	1	Steel
029-02	1	Plastic
029-03	1	PVC
029-04	1	ABS resin
029-05	1	ABS resin
029-06	1	ABS resin

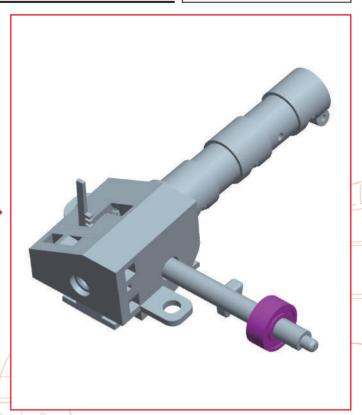
You will also need: tweezers



Assembling the left landing gear

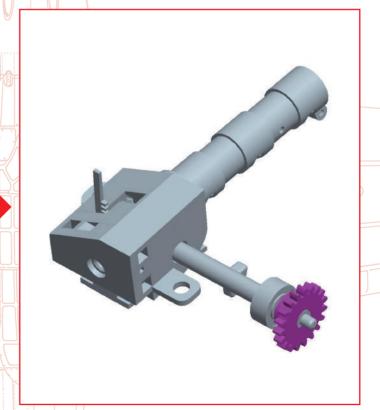






Fit the bearing 029-01 onto the shaft of the shock absorber assembly from stage 28.

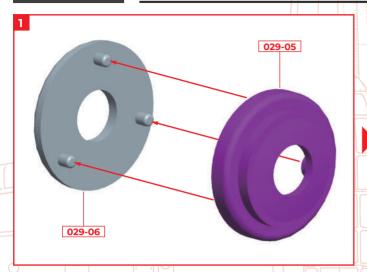


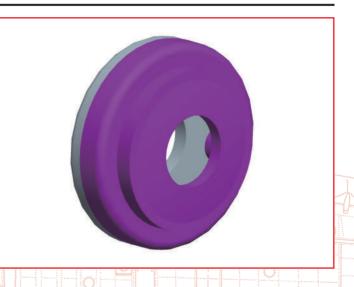


Fit gear **029-02** onto the shaft of the shock absorber.

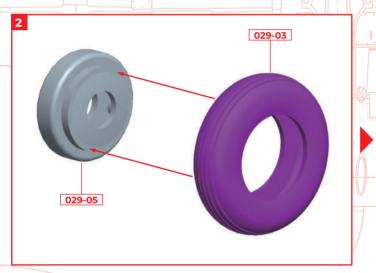


STEP 2 Assembling the wheel





Fit and glue wheel parts **029-05** and **029-06**.





Fit the tyre 029-03 to the wheel assembled in 1, pulling and tucking the centre ring into the grooves on the wheel.





Stage 30: Assembling the Left Main Landing Gear (1)



Stage 30 Assembly

Left Main Landing Gear

In this stage we'll be assembling the part of the landing gear which absorbs the actual impact of landing the aircraft. Look sharp as there's lots of small parts to handle here as well as points where it can be difficult to get everything in the right place.

030-01 030-02 030-02 030-04 030-05 030-07 030-08 030-09 030-10 You will also need: superglue, tweezers.

	PART	No.	MATERIAL	
	030-01	1	Die-cast	
	030-02	1	ABS resin	
	030-03	1	ABS resin	
	030-04	1	ABS resin	
	030-05	1	ABS resin	
	030-06	1	ABS resin	
	030-07	1	Steel	
	030-08	1	Steel	
	030-09	1	Steel	
	030-10	1	Steel	

PARTS LIST

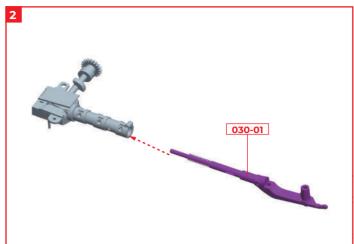


Assembling the left landing gear

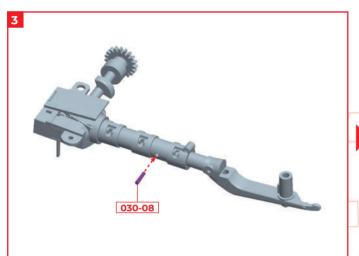




Insert the left main landing gear support **030-01** into the spring **030-07**.



Insert the support assembled in 1 into the base of the left main landing gear assembled in stage 29.



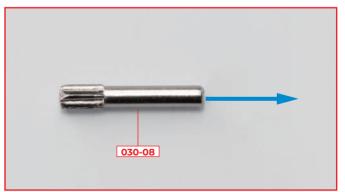


Push the parts together, and insert the pin 030-08 into the hole in the base of the left main landing gear.

NOTE

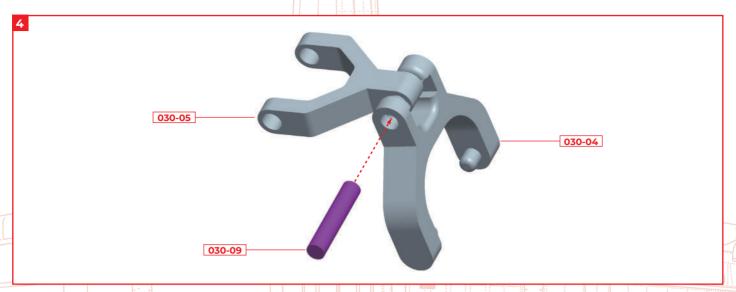


If the pin **030-08** is inserted into the groove on the left main landing gear support **030-01** the support will not come off.

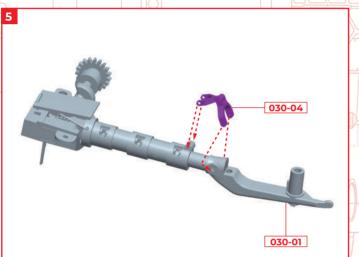


Insert the pin **030-08** with the smooth end first. Push until the pin is completely inside the hole.

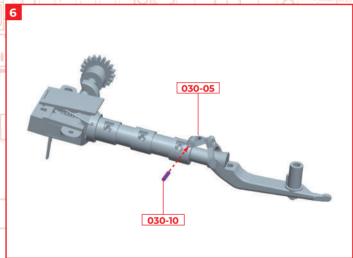




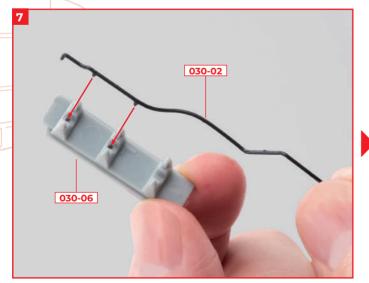
Combine the lower arm 030-04 and the upper arm 030-05 and fix them with pin 030-09.

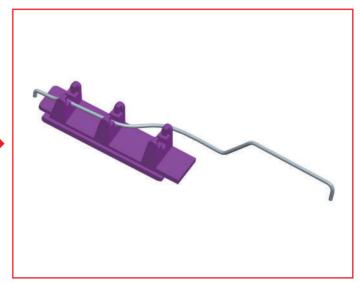


Insert the lugs on the lower arm **030-04** of the arm assembled in 4 into the holes on the left main landing gear support **030-01**.



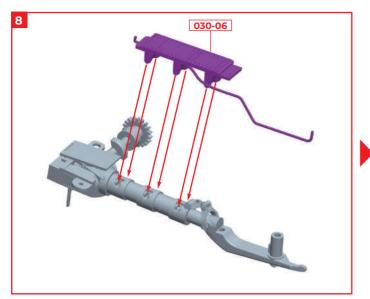
Fit the holes on the upper arm **030-05** onto the tip of the left main landing gear base, and insert the pin **030-10** to secure it in place.

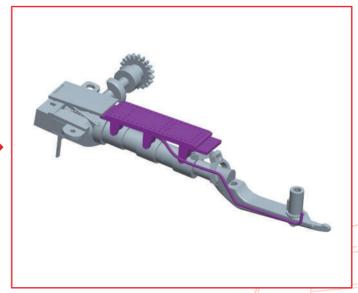




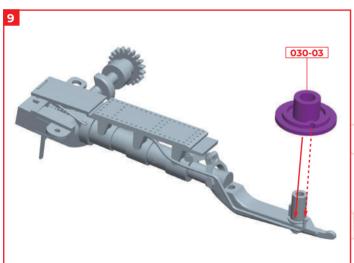
Glue the lugs on the brake line 030-02 to the two holes in the left main landing gear base cover 030-06.

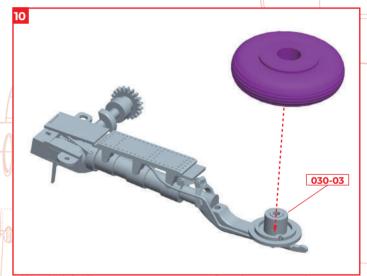






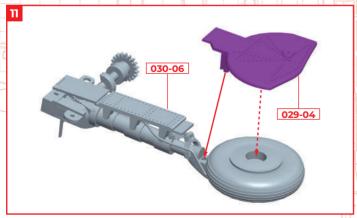
Glue the 6 lugs on the left main landing gear base cover **030-06** assembled in 7 to the left main landing gear base. Note that the brake line runs on the outside of the third pair of lugs.





Glue the left brake disc 030-03 to the left main landing gear support 030-01, and insert the tip of the brake line 030-02 into the hole on 030-03.

Fit the wheel assembled in stage 29 onto the left brake disc 030-03. Do not glue.

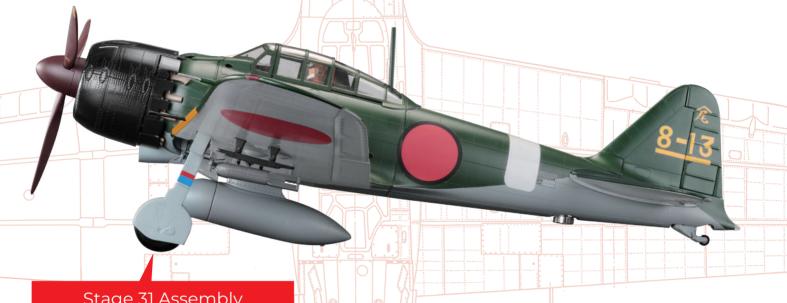


Glue the lugs on the left tyre cover **029-04** to the hole in the left main landing gear support. Be careful not to glue it to the left main landing gear base cover **030-06**.





Stage 31: Assembling the **Left Landing Gear (2)**

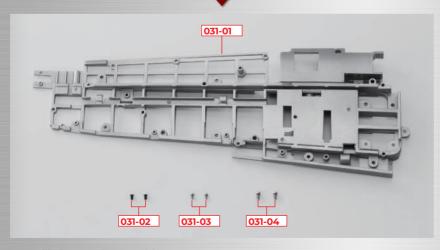


Stage 31 Assembly

Left Main Landing Gear

In this stage we'll finish up assembling the left landing gear.

STAGE 31 PARTS



You will also need: screwdriver.

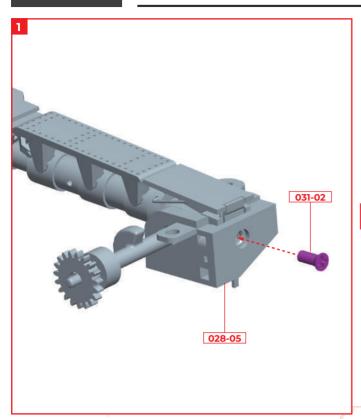
* 031-01,031-03,031-04 will not be used in this stage. Keep them in a safe place.

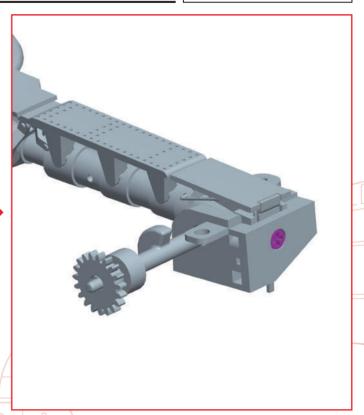
PARTS LIST

PART	No.	MATERIAL
031-01	1	ABS resin
031-02	2 (1 spare)	Steel
031-03	2 (1 spare)	Steel
031-04	2 (1 spare)	Steel

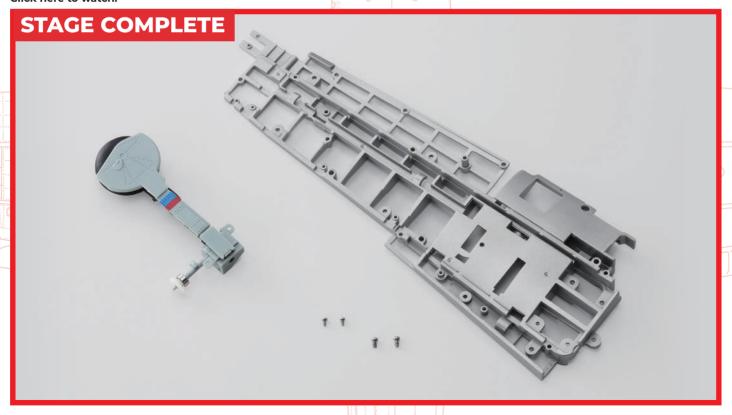






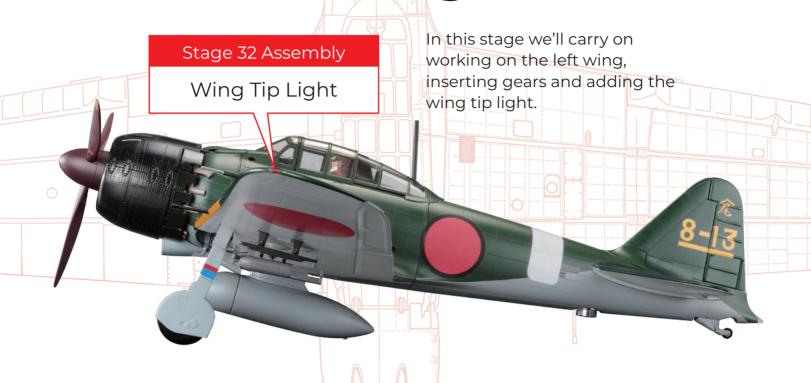


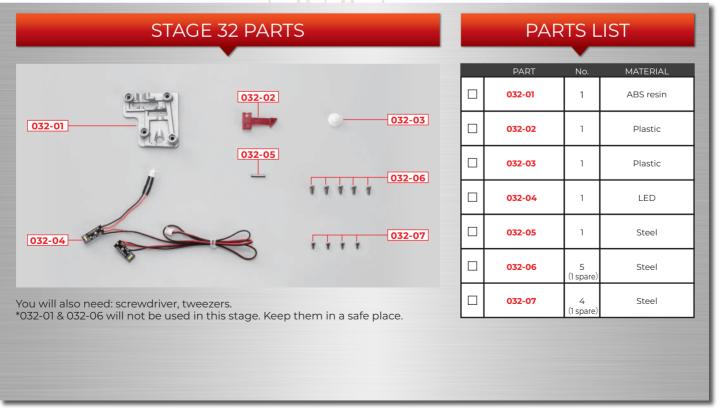
Fix the metal fitting holder **028-05** assembled in stage 28 using screw **031-02**. Check the movement of the landing gear: the gear should turn to lift the landing gear and the wheel should push in. You can watch a video for a demonstration here. **Click here to watch.**





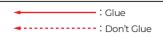
Stage 32: Assembling the Left Wing

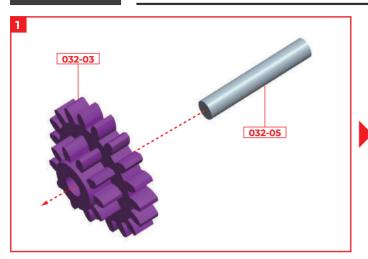


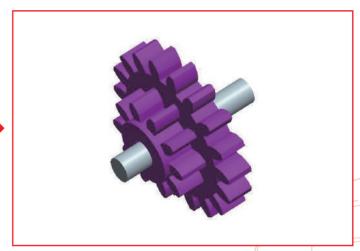




Assembling the gear complex



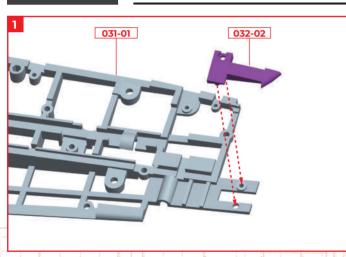


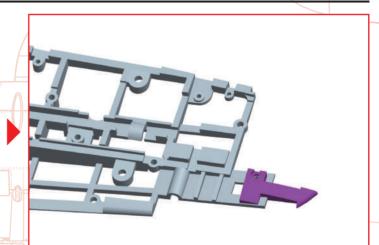


Insert the shaft **032-05** into the gear **032-03**. Keep it in a safe place until required in a later stage.

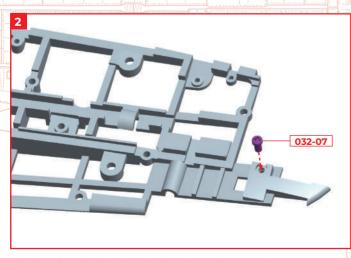
STEP 2

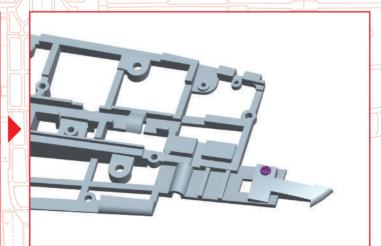
Attaching the wing tip light (L)





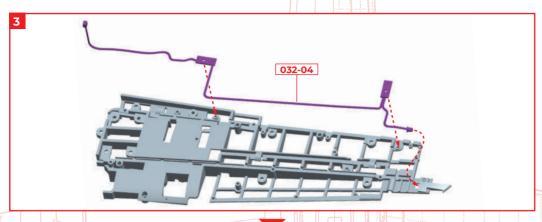
Fit the wing tip light 032-02 onto the wing frame 031-01 that came wth stage 31.





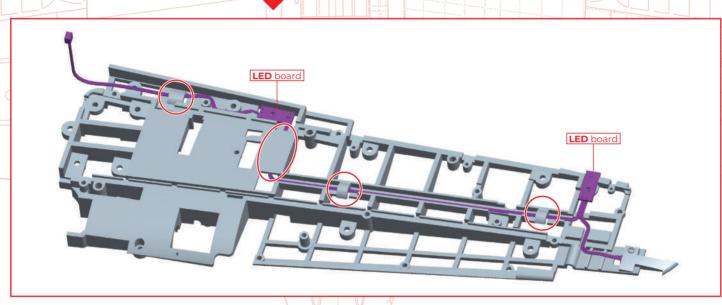
Fix the wing tip light **032-02** in place using a **032-07** screw.





Pass the LED wire **032-04** through the wing frame and insert the LED at the end into the wing tip light **032-02**. The wire runs under the frame in four places, shown circled in the diagram below. Check that the wire runs around any screw holes.

This process can also be done in reverse, inserting the LED into the wing tip light before fixing the wire in the correct positions on the wing.





Fix the two LED boards on **032-04** in place using 2 x screws **032-07**.

NOTE



The two LED boards **032-04** should be attached with the writing facing upwards.





Stage 33: Attaching a Type 99 mkll 20 mm Machine Gun



Type 99 mkll 20 mm Machine Gun

In this stage we'll be installing the landing gear limit switch as well as assembling the Type 99 mkll 20 mm machine gun and then attaching this to the landing gear frame.





033-02

You will also need: screwdriver, long-nose pliers

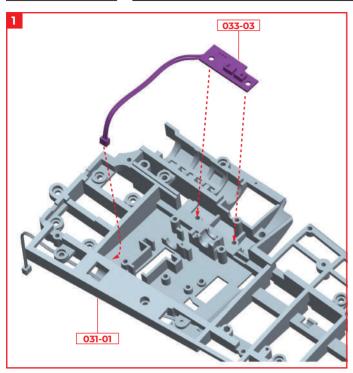
PARTS LIST

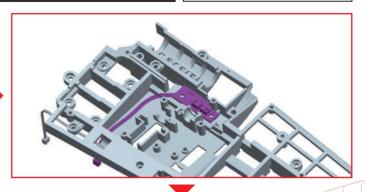
PART	No.	MATERIAL
033-01	1	ABS resin
033-02	1	LED
033-03	1	Circuit board
033-04	4 (1 spare)	Steel

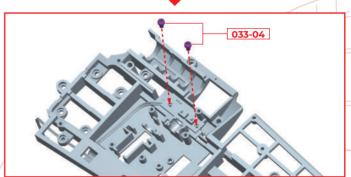


Attaching the landing gear switch





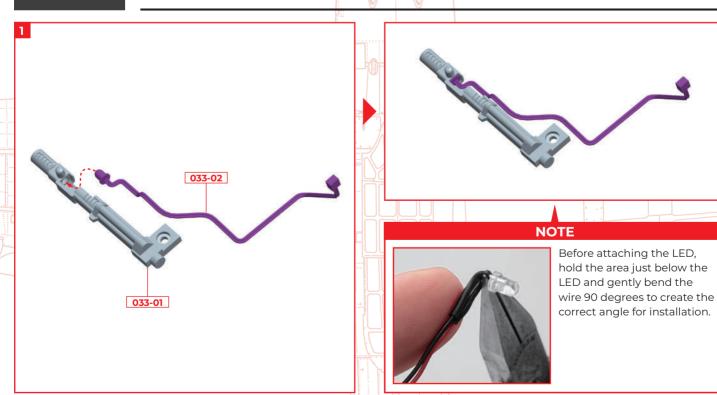




Fix the switch **033-03** to the frame **031-01** using 2 x **033-04** screws. Feed the end of the switch wire through the gap to the opposite side of the wing.

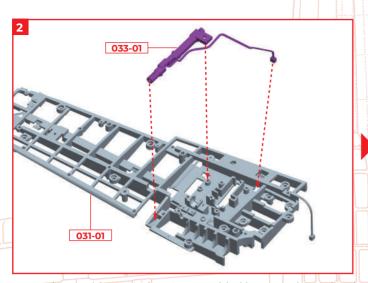
STEP 2

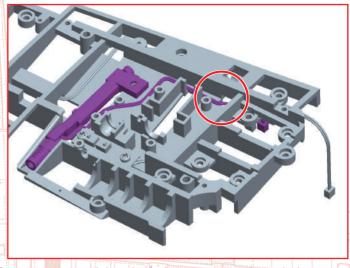
Assembling and attaching the Type 99 mkll 20 mm machine gun



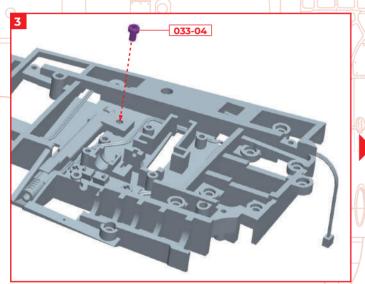
Insert the LED 033-02 into the 20-mm machine gun 033-01, pushing it in place gently but firmly.

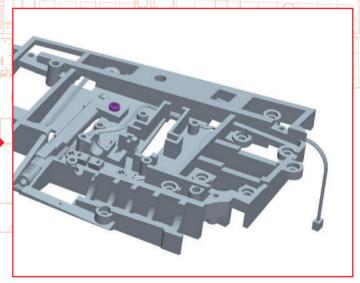




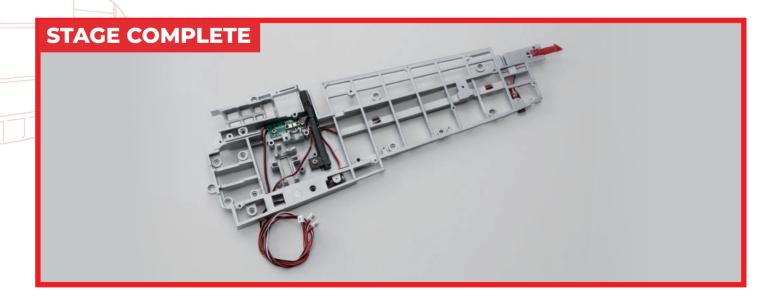


Lower the machine gun 033-01 assembled in 1 onto the main wing frame 031-01. Feed the wire from LED 033-02 through the same hole as the switch 033-03.





Fix the machine gun 033-01 in place using an 033-04 screw. Check that the wire is routed around any screw holes and fixings.





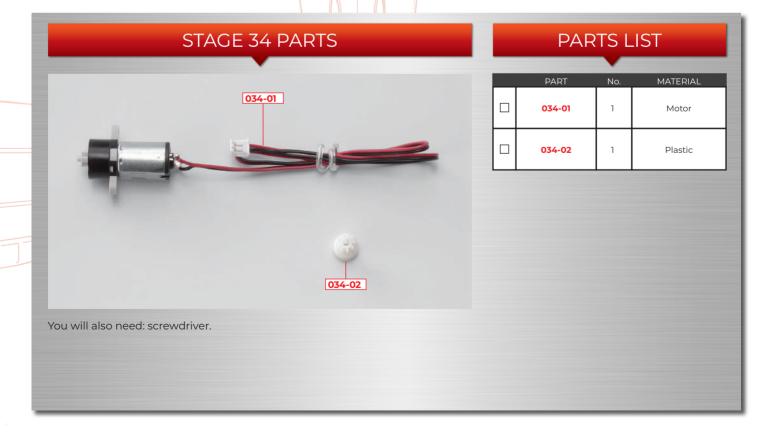
Stage 34: Attaching the Left Landing Gear & Motor



Stage 34 Assembly

Landing Gear / Motor

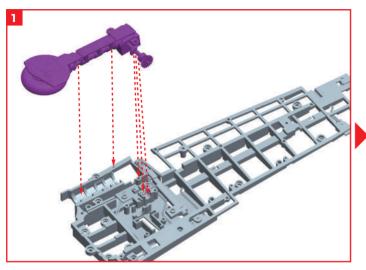
In this stage we'll attach the left landing gear as well as the motor (which drives this side forward) to the left wing frame.

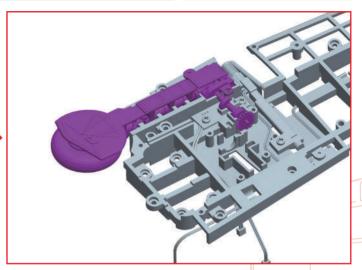




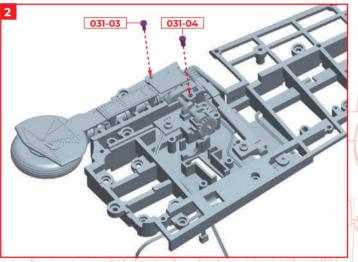
Attaching the left landing gear and motor

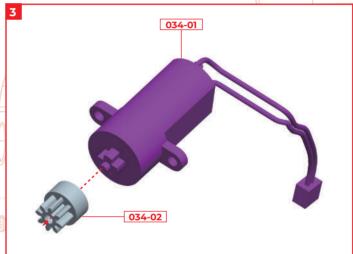






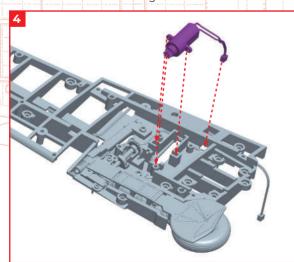
Fit the landing gear assembled in stage 31 to the main wing frame.

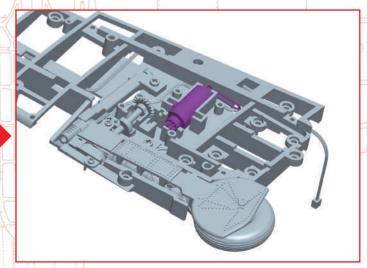




Secure the landing gear in place using the screws **031-03** & **031-04** that came with stage 31.

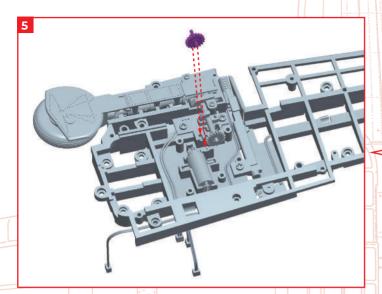
Fit the gear 034-02 to the motor 034-01. Pay attention to the orientation of the gear.



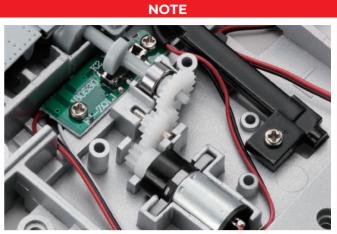


Fit the motor assembled in 3 to the wing frame. Pass the wire through the same hole in the wing as the previous two wires.

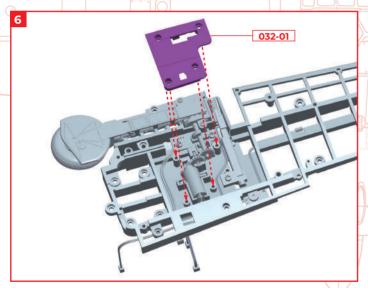




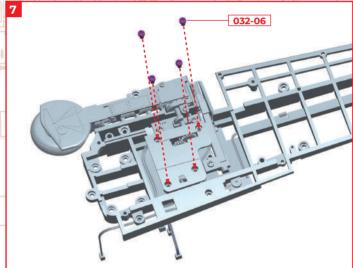
Fit the gear and shaft assembled in stage 32.



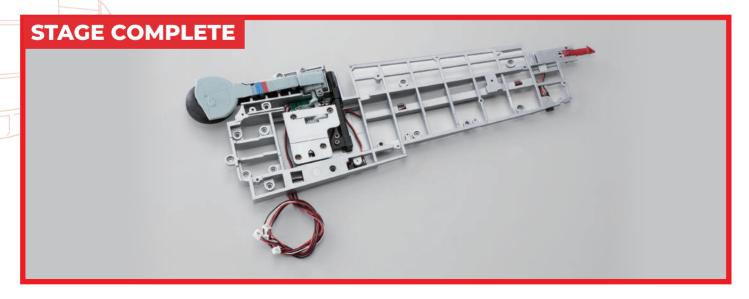
Make sure the landing gear and motor gear properly engage when installing these parts.



Fit the cover **032-01** that came with stage 32.



Fix the cover in place using four screws ${\color{red}032\text{-}06}$ that came with stage 32.





Stage 35: Assembling the Landing Gear Covers

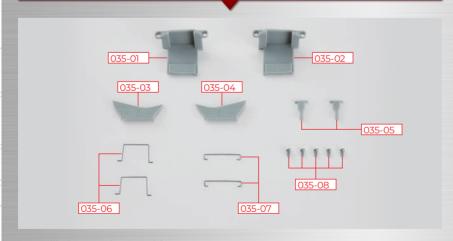


Stage 35 Assembly

Landing Gear Covers

In this stage we'll be assembling the cover parts for the landing gear when retracted into the wing when not in use.

STAGE 35 PARTS



You will also need: screwdriver. * 035-01, 035-02, 035-08 will not be used in this stage. Keep them in a safe place until required in a later stage.

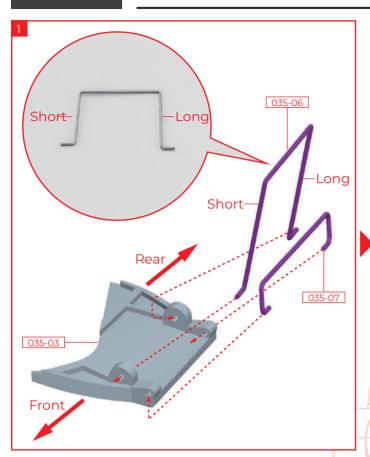
PARTS LIST

PART	No.	MATERIAL
035-01	1	ABS
035-02	1	ABS
035-03	1	ABS
035-04	1	ABS
035-05	2	ABS
035-06	2	Steel
035-07	2	Steel
035-08	5 (1 spare)	Steel



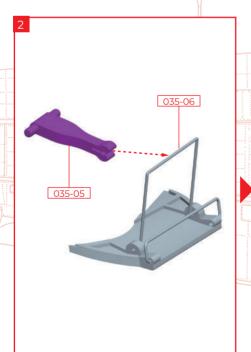
Assembling the right landing gear







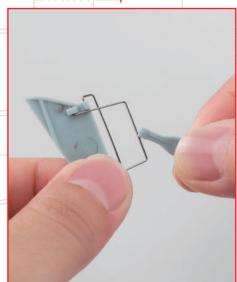
Attach the metal fittings **035-06** & **035-07** to the right landing gear cover. Study the picture to check you have the correct orientation: the short end of **035-03** faces the front, and the short arm of **035-06** faces the front.





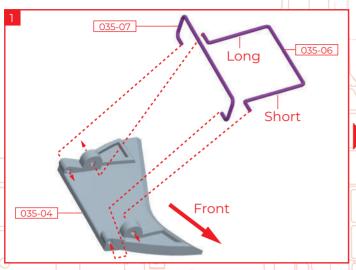


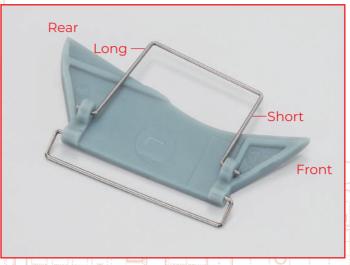
Fit the connector **035-05** onto the metal fitting **035-06.**



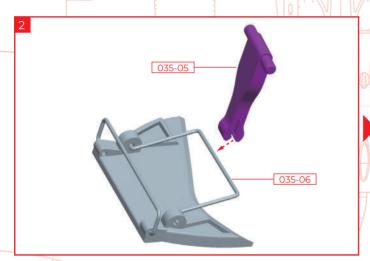


Assembling the left cover



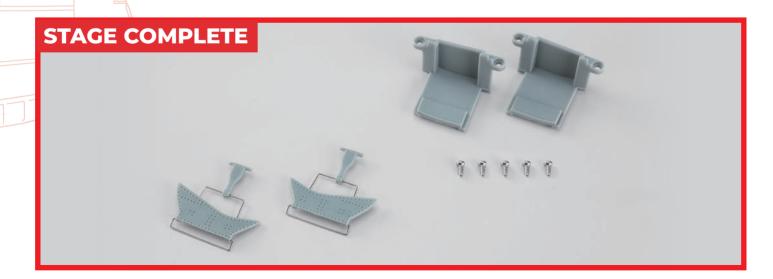


Attach the metal fittings 035-06 & 035-07 to the left landing gear cover 035-04. The short end of 035-04 faces the front, and the short arm of 035-06 attaches to the front end.





Fit the connector **035-05** onto the metal fitting **035-06**.





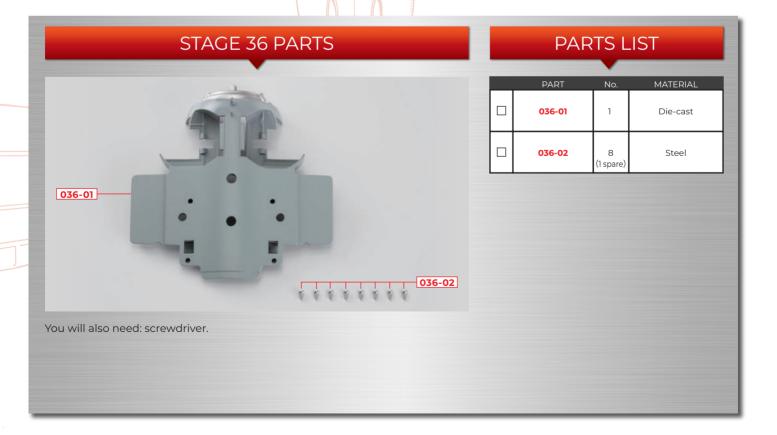
Stage 36: Attaching the Landing Gear Covers and Wing Frame to the Wing Base Frame



Stage 36 Assembly

Wing Frame

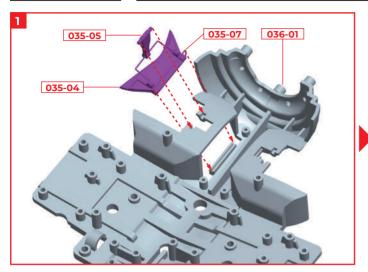
In this stage we'll be attaching the landing gear covers and left wing frame to the wing base frame. We'll also be attaching the carburettor and supercharger.

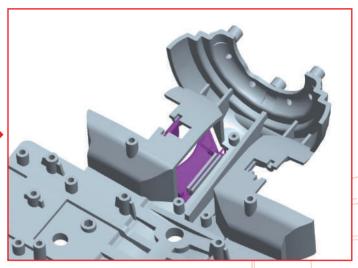




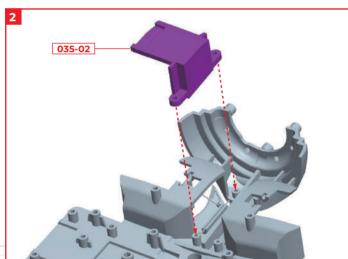
Attaching the left landing gear cover





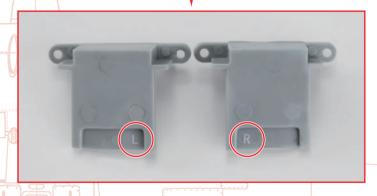


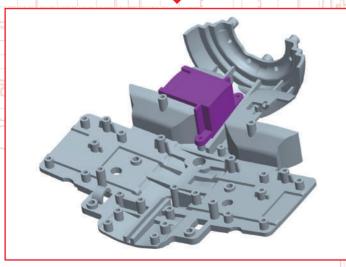
Fit connector **035-05** and metal fittings **035-07** that are attached to the left landing gear cover assembled in stage 35 to the main wing base frame **036-01**.



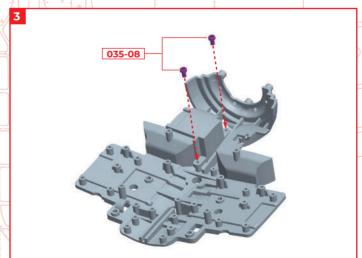
NOTE

Support units **035-01** & **035-02** are marked left (L) and right (R). Check you have the correct part.





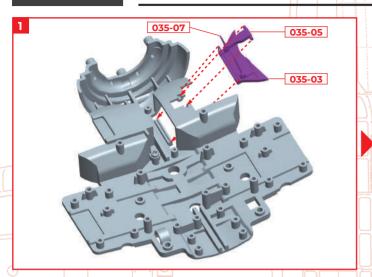
Attach part 035-02 (left).

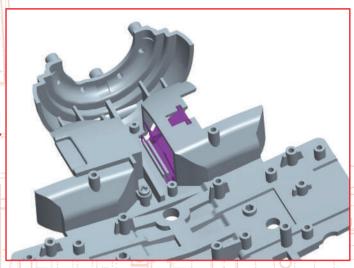


Fix part 035-02 in place using two screws 035-08 that came with stage 35.

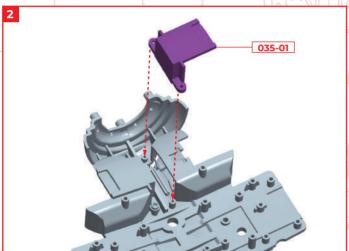


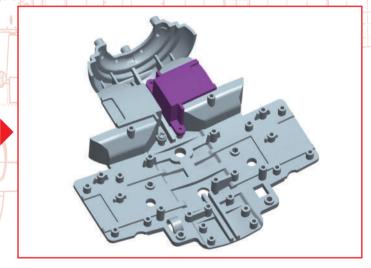
Attaching the right landing gear cover



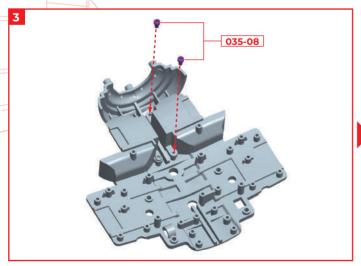


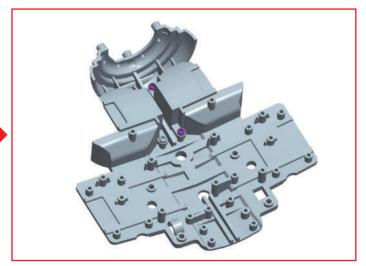
Fit connector **035-05** and metal fittings **035-07** that are attached to the right landing gear cover assembled in stage 35 to the main wing base frame **036-01**.





Attach support unit 035-01 (right).

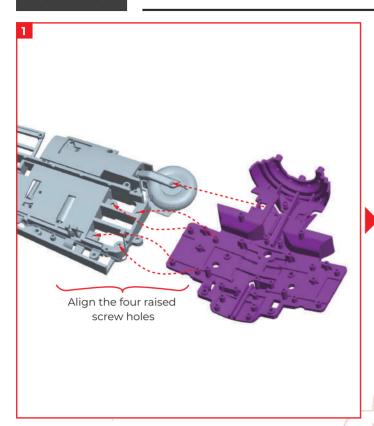


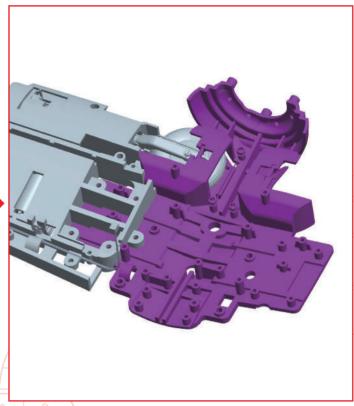


Fix support unit **035-01** in place using two screws **035-08** that came with stage 35.

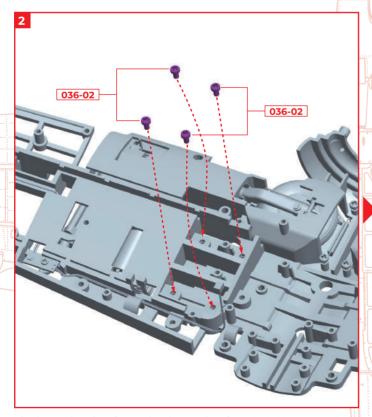


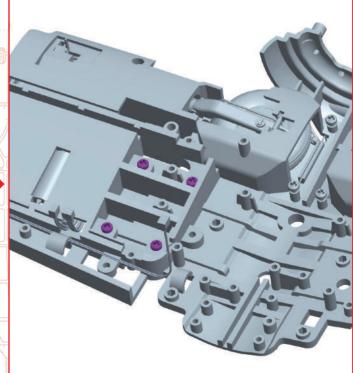
Attaching the wing frame





Align the left main wing frame assembled in stage 34 with the main wing base frame **036-01** assembled in STEP 2.

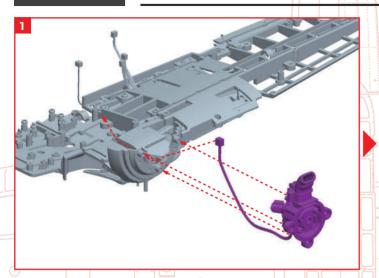


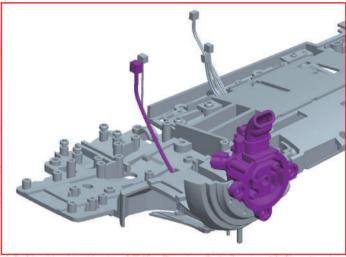


Fix the main wing frame in place using four **036-02** screws.

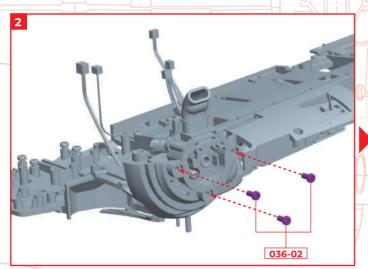


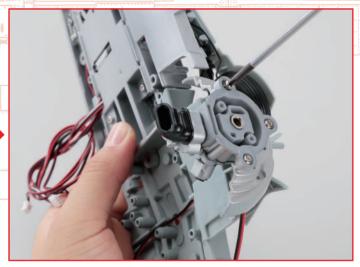
Installing the carburettor and supercharger





Fit the carburettor and supercharger unit assembled in stage 15 to the main base frame 036-01.





Secure in place using three 036-02 screws.

