



E-TYPE



Pack 04

BUILD INSTRUCTIONS

STAGE 24: SPARE WHEEL (1)

STAGE 25: SPARE WHEEL (2)

STAGE 26: SUBFRAME PARTS – 8

STAGE 27: FRONT LEFT BRAKE
AND SUSPENSION

STAGE 28: FRONT RIGHT BRAKE
AND SUSPENSION

STAGE 29: SUMP AND TORSION BARS

STAGE 30: COMPONENTS FOR THE
COOLING SYSTEM

STAGE 31: COMPONENTS FOR THE
FRONT SUBFRAME

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 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 Jaguar, the left or right hand side refers to each side as you are sitting in the car.



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 24: Spare Wheel (1)

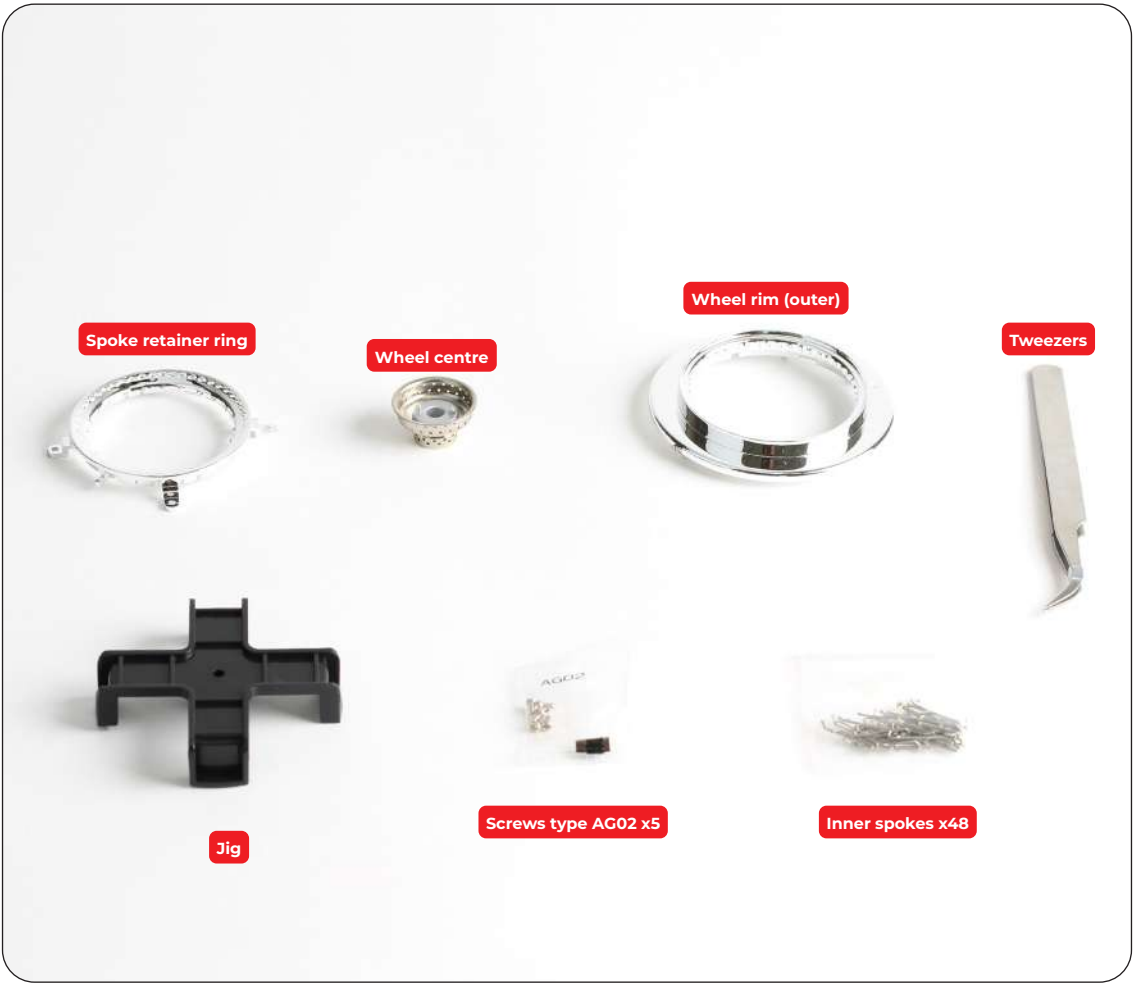
In this stage you will start working on the spare wheel. This is an intricate part of the build, so please take care to follow our very detailed method for fitting the spokes, paying close attention at every step! The result is a very exquisite piece of double lacing you will feel very proud to show off!

Watch our video for extra guidance here: <https://youtu.be/NdYp1kBoJSs>



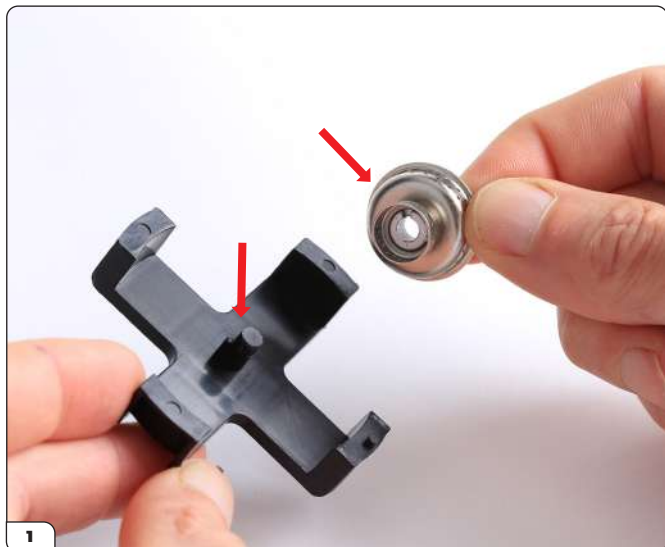
STAGE 24 PARTS LIST

Name
Spoke retainer ring
Wheel centre
Wheel rim (outer)
Tweezers
Jig
Screws type AG02 x5
Inner spokes x48



Stage 24: Spare Wheel (1)

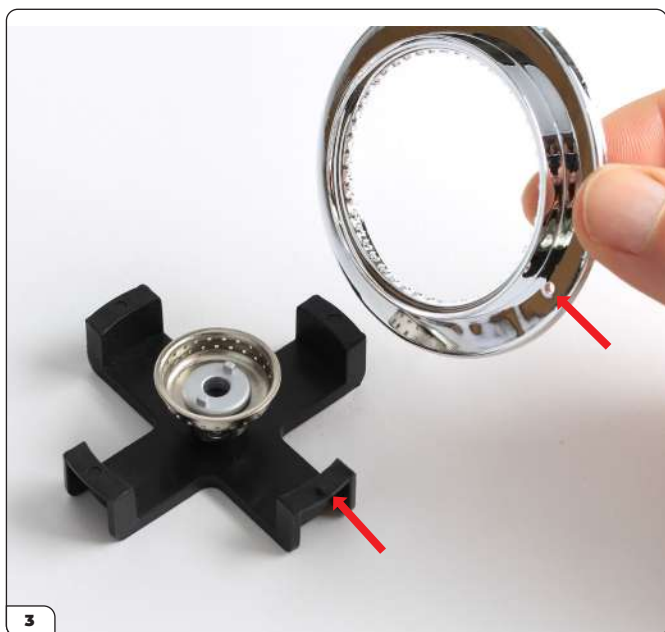
STEP 1



Take the wheel centre and note that there is a small notch that aligns with a corresponding tab on the jig (arrows). The jig is used here to assist with building the wheel and will be removed towards the end of the wheel-build.



Fit the wheel centre onto the jig.

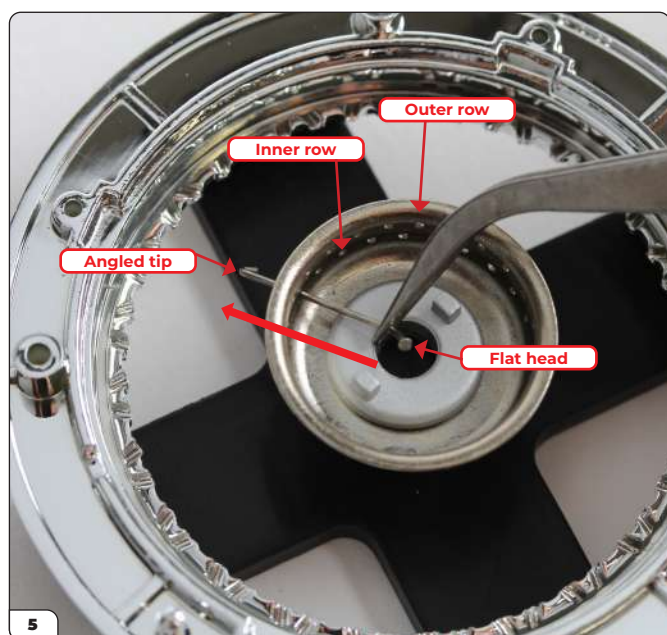


Take the wheel rim and align the hole on the outer edge with the pin on the jig (arrows).

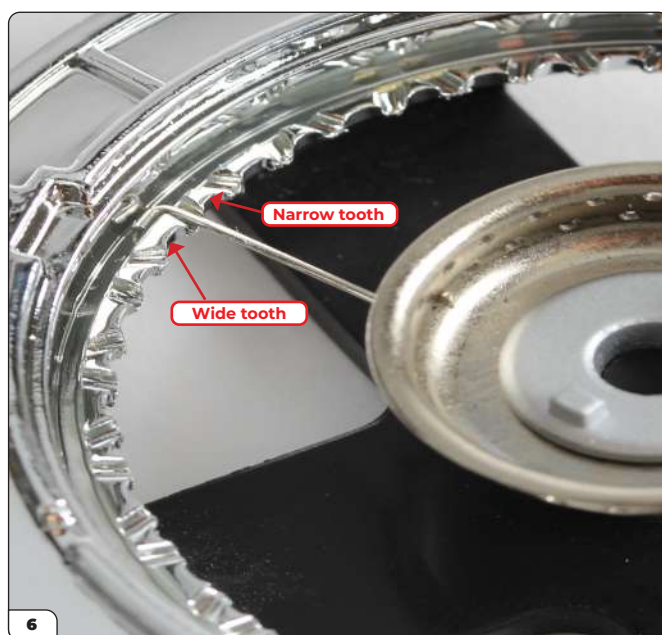


Fit the wheel rim onto the jig, pressing firmly to lock the rim into position.

Stage 24: Spare Wheel (1)



Before you begin, note that the inner edge of the spoke retainer ring has a series of 'teeth', alternating in size (see picture 6). Each spoke has a right-angled tip, and a flat head on the opposite end. Use your tweezers to thread the spokes and hook them into place. Start by threading a spoke, leading with the tip, through a hole in the innermost row of holes in the wheel centre.



Pull the spoke through the hole and hook the tip around the nearest 'wide' tooth that gives the spoke a comfortable fit.

NOTE: The key to fitting the spokes correctly is to adjust the tension on each spoke as you fit it by gently pushing and/or twisting the wheel centre with your thumb.



Then take another spoke and thread it through the next hole in the innermost row of the wheel centre. Pull the spoke through the hole and hook the tip around the next 'wide' tooth.



Fit the third spoke in the same way, and continue all the way around the wheel until you have filled all the holes on the inner row of the wheel centre. Check that they are hooked around the **wide teeth**. If they are not hooked around wide teeth, the spokes will not fit and the wheel parts will not fit together at the end of the build.

Stage 24: Spare Wheel (1)



This is how your wheel should look after fitting the first row of spokes.



Check that all the spokes have been fitted to the innermost row of the wheel centre. Next, you will fit spokes to the uppermost row.



Start in the same way, threading the tip of a spoke through a hole in the uppermost row.



The spoke tips will now face in the opposite direction to those fitted on the bottom row. Make sure that they are hooked around a 'wide' tooth otherwise they cannot be secured in place in a later step.

Stage 24: Spare Wheel (1)



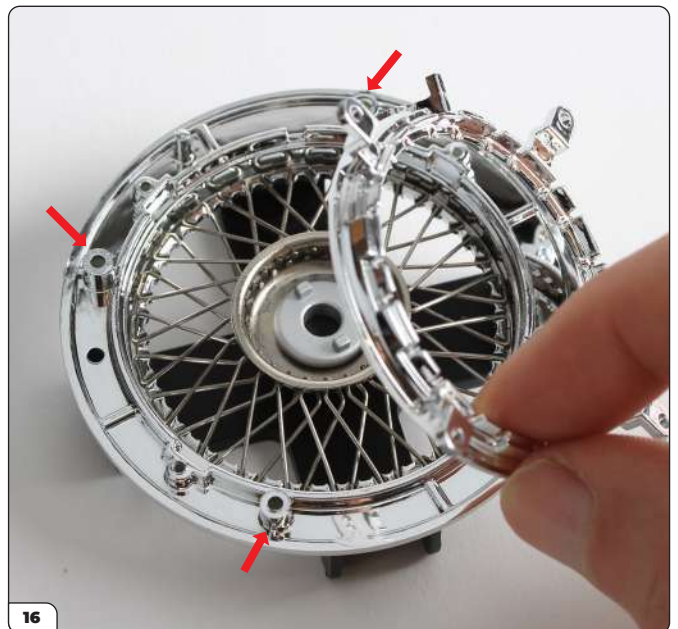
Repeat steps 11 & 12 to fit the second spoke in a hole adjacent to the first spoke on the upper row.



Continue to fit all the spokes in the same way, all the way round the upper row, ensuring that they hook around a **wide tooth**.



The second row of spokes has been fitted.



Prepare 4 x AG02 screws and have your screwdriver ready. Carefully align the spoke retainer ring over the wheel. The projecting screw holes on the ring will fit onto the raised screw holes as indicated. Lower the ring into position.

Stage 24: Front Left Wheel (1)



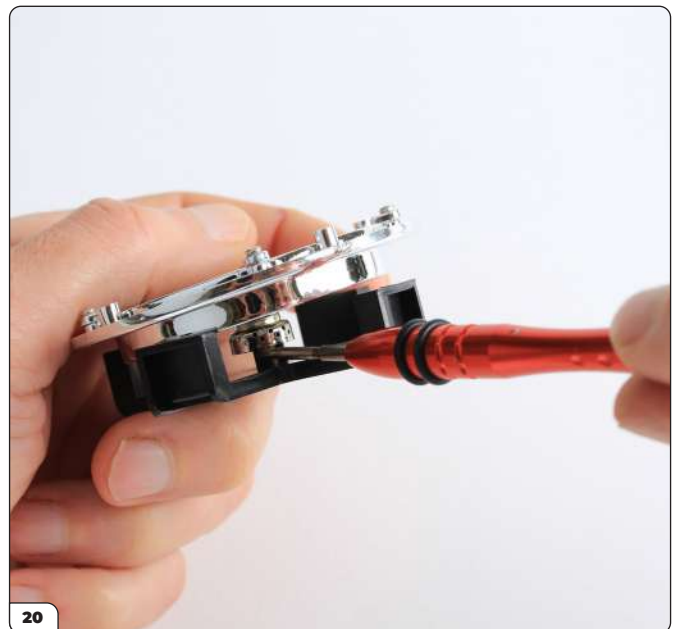
Hold the retainer in position so that the spokes are secured as you fit an AG02 screw.



Keep holding everything together as you fit the remaining 3 x AG02 screws.



All four screws have been fitted and the spokes are now held securely in place.



Gently prise the wheel off the jig. Do not pull the wheel – try to carefully release it using a screwdriver or similar tool that will act as a lever.

Stage 24: Spare Wheel (1)

STAGE COMPLETE



Stage 25: Spare Wheel (2)

In this next stage you will complete the wheel, lacing more spokes and fitting the tyre.



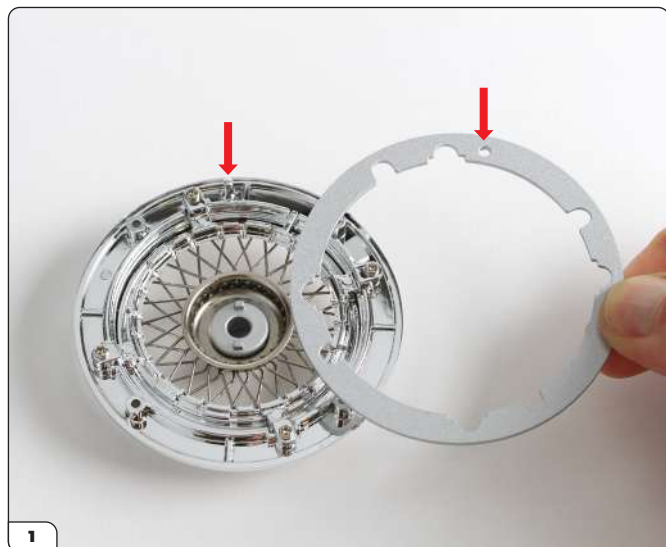
STAGE 25 PARTS LIST

Name
Spacer ring
Wheel rim
Spokes type B x12
Spokes type A x12
Screws type AG03 x5



Stage 25: Spare Wheel (2)

STEP 1



Take the spacer ring and align it over the wheel from stage 24. There is a hole on the ring with a corresponding peg on the wheel (arrows) to ensure the correct fit.



Lower the ring onto the wheel and press firmly until it clicks into place.

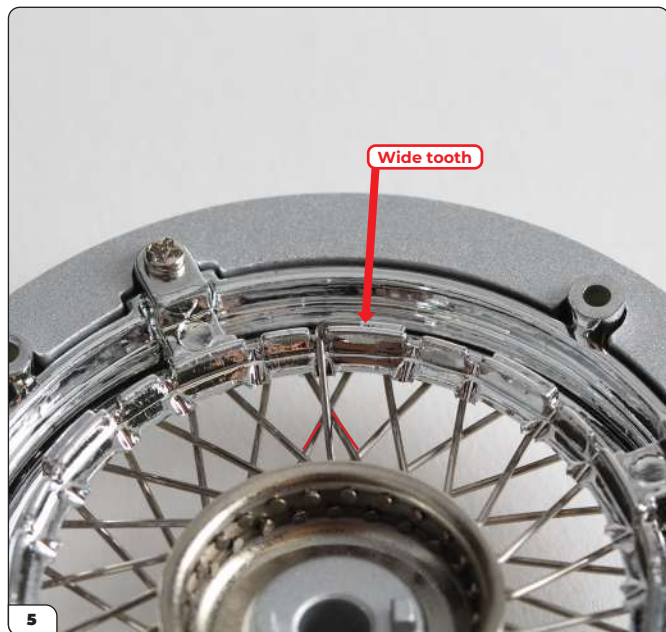


Turn the wheel over so that the smaller side of the wheel centre is facing you. Note that there are two rows for threading the spokes – an inner row and an outer row. You're going to start on the inner row.

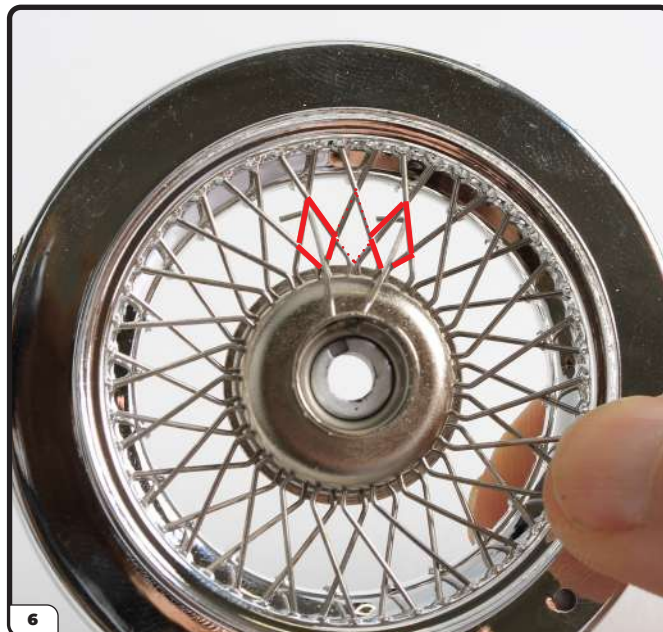


Using tweezers, thread a type A spoke through a hole on the **inner row**. Direct the tip of the spoke through the diamond-shaped opening (coloured red above) so that the tip pokes through to the opposite side.

Stage 25: Spare Wheel (2)



Turn the wheel over and check that the tip will hook onto a **wide** tooth on the opposite side. If it doesn't fit a wide tooth, start again, threading the spoke through the next diamond-shaped hole along.



Once you are happy that the first spoke is fitted correctly, thread the next spoke through an adjacent hole in the lower row, but this time, poke it through the diamond-shaped hole that is two-along.

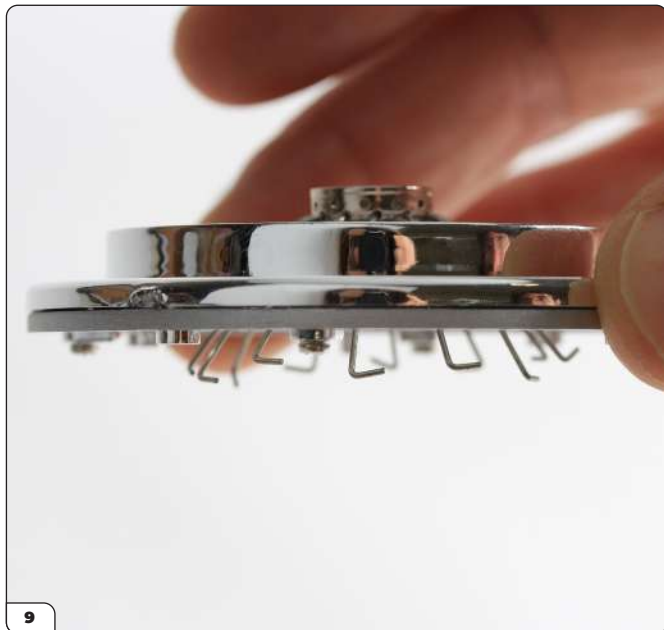


Continue to thread the type A spokes all the way around the inner row, pushing the tip through alternate diamond-shaped openings as indicated.



All 12 x type A spokes have been fitted to the inner row.

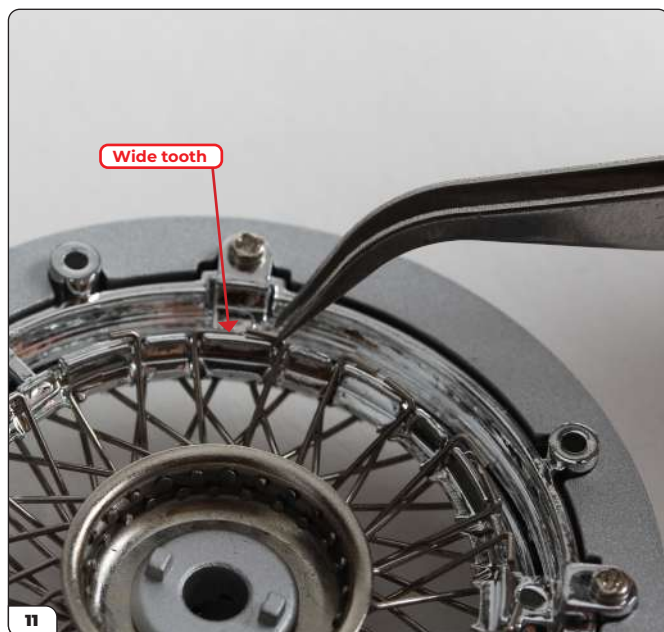
Stage 25: Spare Wheel (2)



The 12 spokes should poke out on the opposite side of the wheel like this. Leave them all loose for now.



Fit the type B spokes to the outer row of the wheel centre, just above the type A spokes.



When you fit the first type B spoke, thread it through an empty diamond-shaped opening (see step 12) and check that it will hook around a **wide** tooth on the opposite side as shown here.



When you thread the type B spoke through to the opposite side, it should cross a type A spoke and fit through an empty diamond-shaped opening. Check that it will hook a wide tooth, but do not hook it just yet, leave the spokes loose.

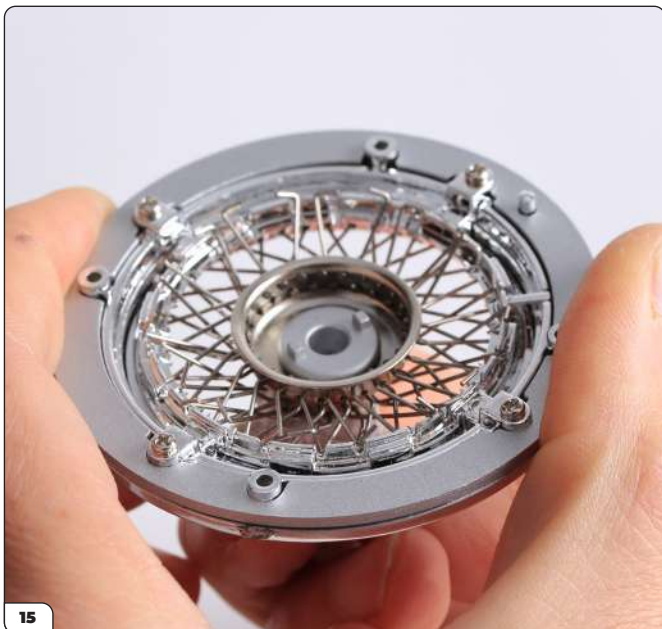
Stage 25: Spare Wheel (2)



All 12 x type B spokes have been fitted to the outer row of the wheel centre and are left loose on the underside.



Use a piece of cotton wool or kitchen paper to hold the pin ends of the spokes in place in the inner and outer rows of the wheel centre.



Keep holding the cotton wool firmly as you turn the wheel over.



Keep holding the wheel centre firmly, as you gently hook the ends of spokes A and B around the teeth. Use your thumb in a stroking motion, or tweezers here. The fit of the spokes can be lightly adjusted by gently pressing and/or twisting the wheel centre with your thumb.

Stage 25: Spare Wheel (2)



Spokes A and B are correctly hooked in place around the teeth.



Take the inner wheel rim and align the four screw holes and the pin (arrowed).



Press the inner wheel rim into place.



Fix the inner wheel rim in place with 4 x AG03 screws.

Stage 25: Spare Wheel (2)



21 Take the completed wheel and the tyre from stage 15. Prepare a hot water bath by filling a small bowl with boiling water. Soak the tyre in the water for 2 minutes.



22 Carefully remove the tyre from the water bath using tongs or tweezers - the tyre will be very hot! Shake off any excess water and dab on kitchen paper or a towel.



23 Working quickly while the tyre is pliable, push the wheel into the tyre and twist to fit the outer wheel rim under the inner rim of the tyre.



24 Keep pushing and pulling, working around the tyre, until the side walls fit comfortably over the wheel rim on both sides.

Stage 25: Spare Wheel (2)



The tyre has been fitted to the wheel.

STAGE COMPLETE



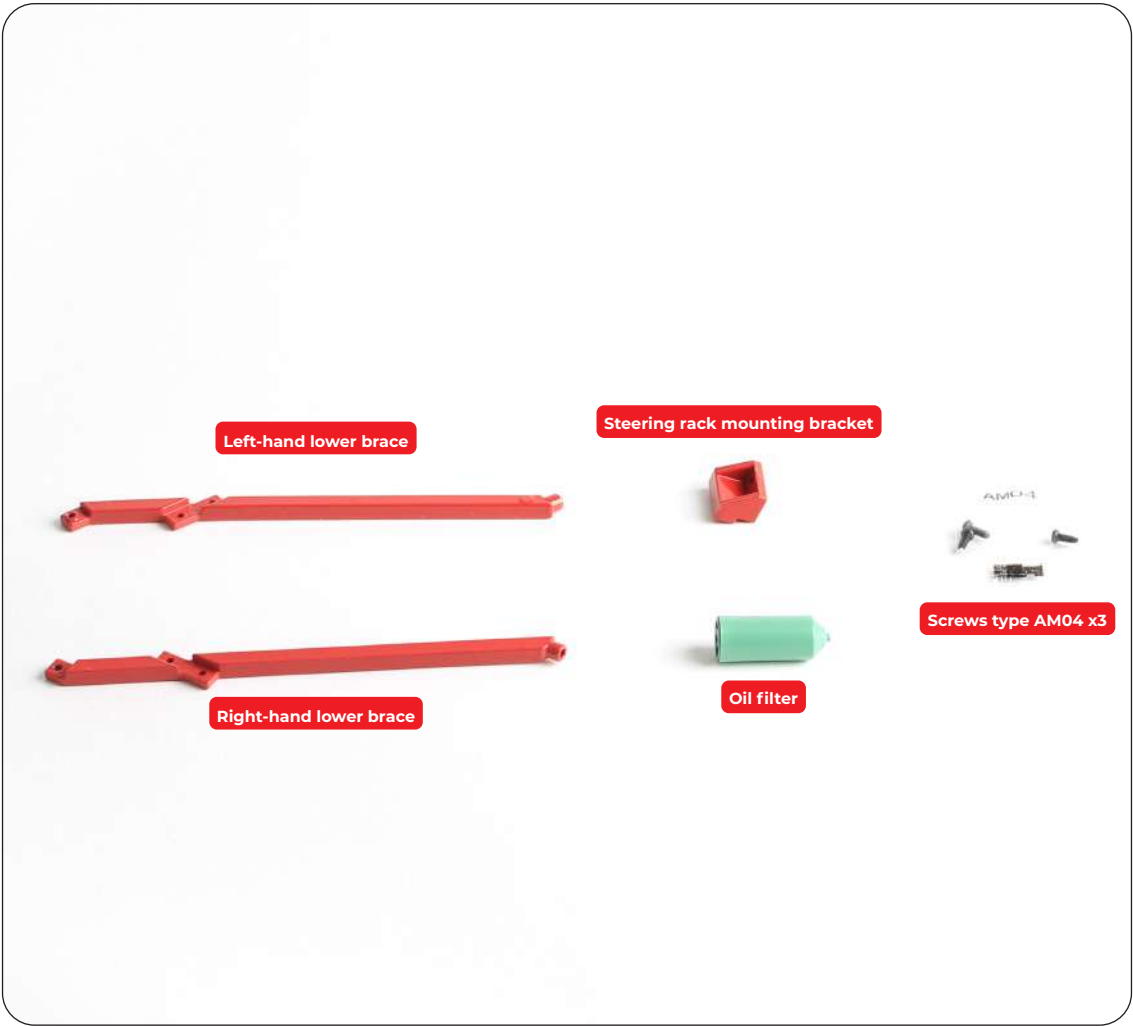
Stage 26: Subframe Parts – 8

You will now continue to build the subframe – fitting one of the diagonal braces to the front crossmember.



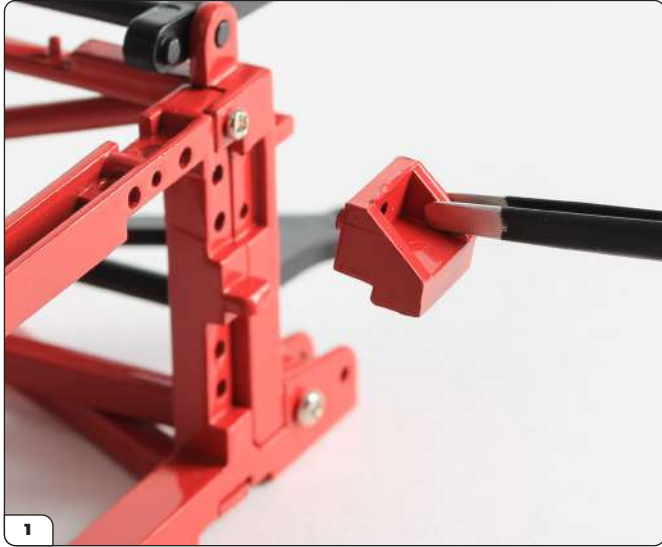
STAGE 26 PARTS LIST

Name
Left-hand lower brace
Steering rack mounting bracket
Right-hand lower brace
Oil filter
Screws type AM04 x3

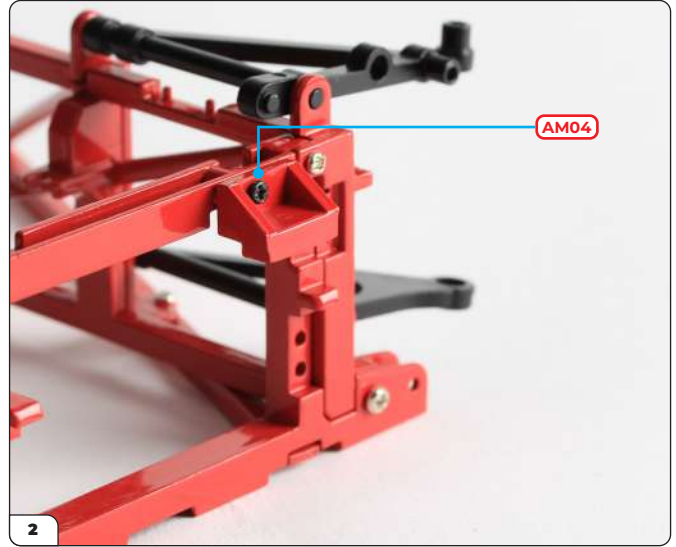


Stage 26: Subframe Parts – 8

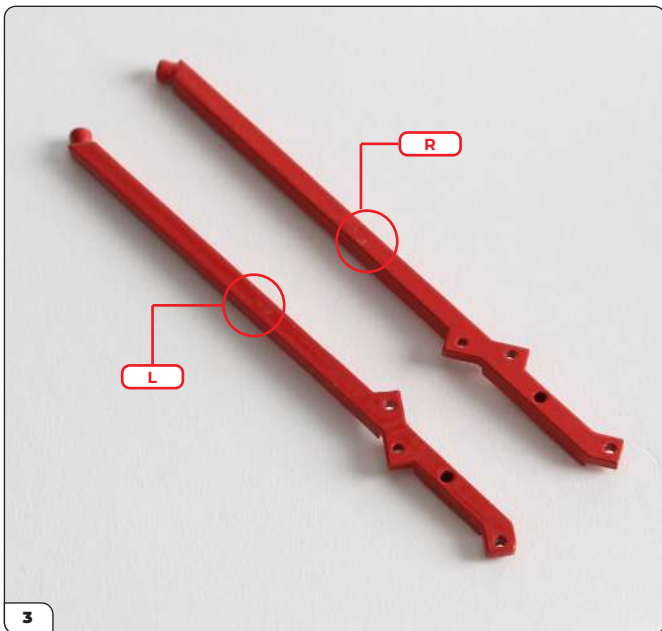
STEP 1



Align the steering rack mounting bracket with the front crossmember on the subframe assembly from stage 22.



Fit the bracket in place with an AM04 screw.



Take the lower braces and note that they are marked left (L) and right (R).



With the subframe assembly upside down on your worksurface, take the left-hand lower brace and feed it between the lower wishbone and the bottom of the subframe (see also step 5).

Stage 26: Subframe Parts – 8



Fit the end of the lower brace into the recess on the front crossmember (arrow No. 1). Check that the brace interlocks with the subframe (arrow No. 2).



Secure the brace into position with an AM04 screw.

STAGE COMPLETE



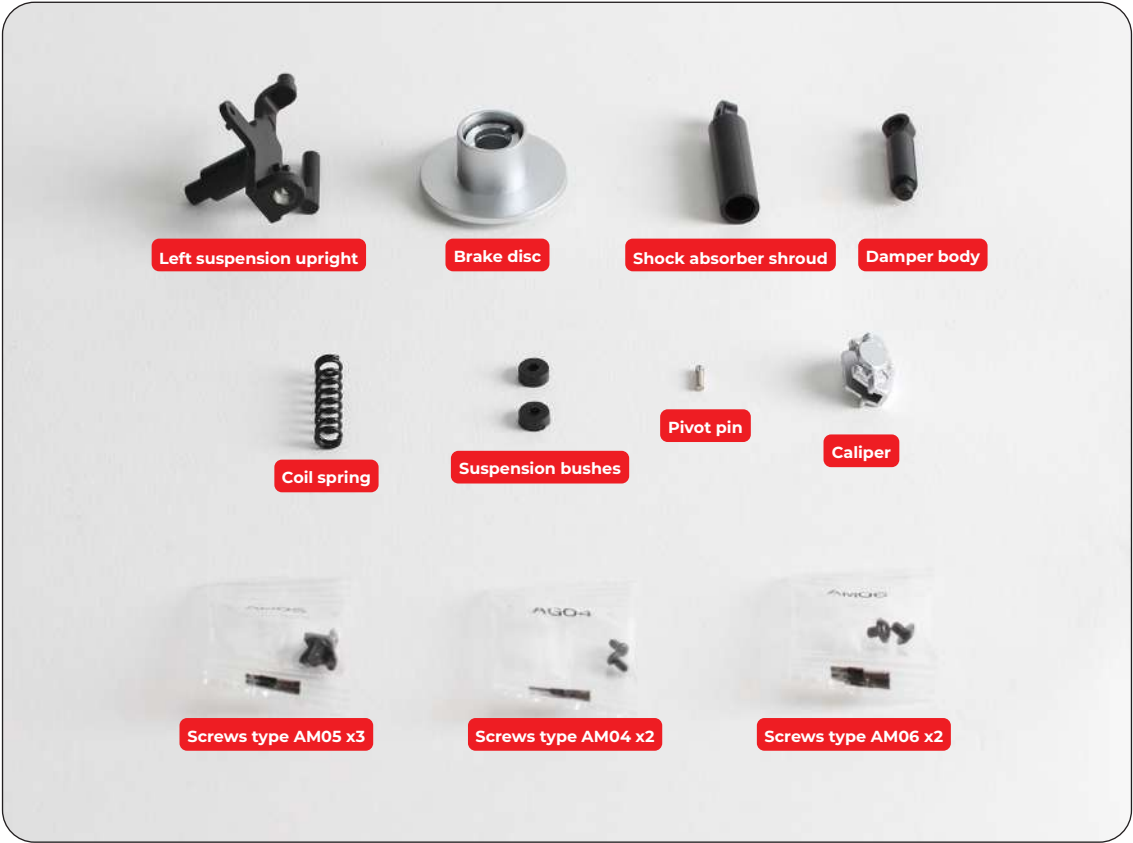
Stage 27: Front Left Brake and Suspension

In this stage you will assemble components for the left-hand suspension.



STAGE 27 PARTS LIST

Name
Left suspension upright
Brake disc
Shock absorber shroud
Damper body
Coil spring
Suspension bushes
Pivot pin
Caliper
Screws type AM05 x3
Screws type AM04 x2
Screws type AM06 x2



Stage 27: Front Left Brake and Suspension

STEP 1



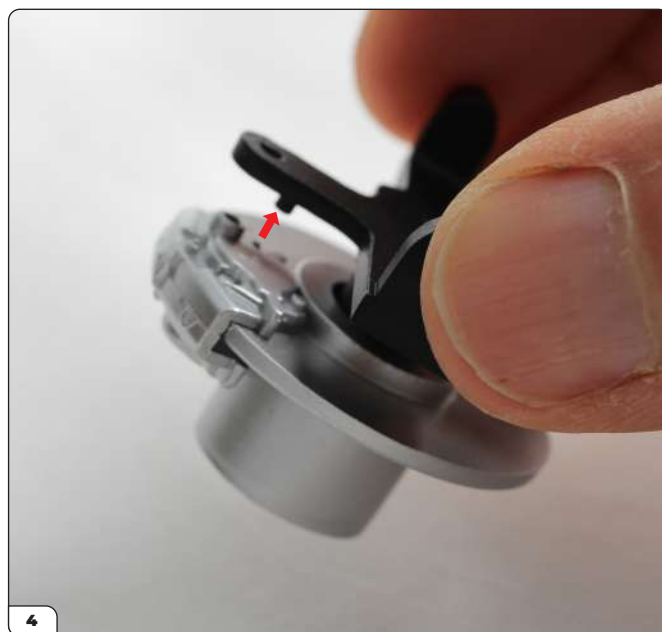
Align the brake disc and the caliper as shown.



Slot the caliper onto the brake disc.



Fit the brake disc onto the central part of the left suspension upright, ensuring that the caliper is aligned with the locating pin. Note: if the suspension upright supplied is marked with an 'R', check Stage 28 to find the left suspension upright, marked 'L'.



The underside of the caliper fits onto the locating pin.

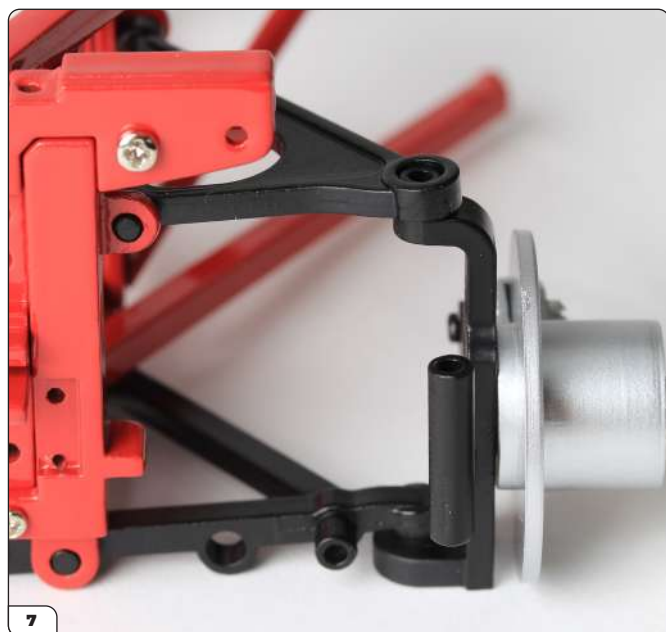
Stage 27: Front Left Brake and Suspension



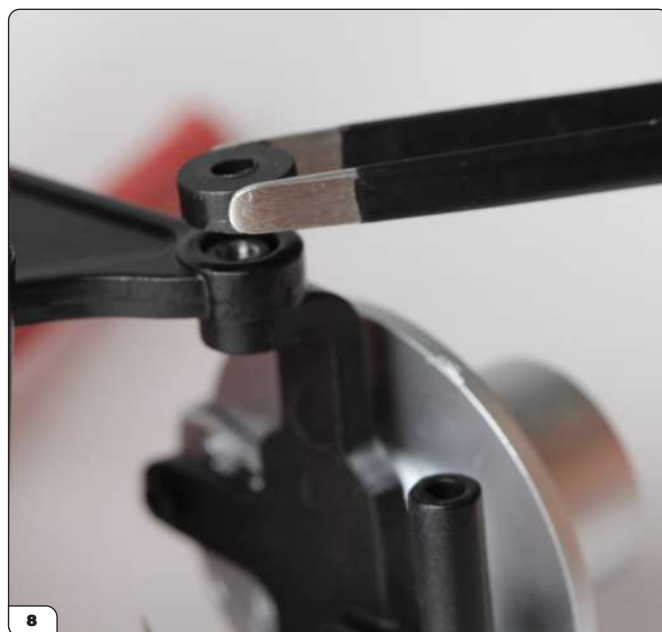
Secure the caliper to the upright with an AG04 screw.



Align the brake disc assembly with the upper and lower wishbones on the subframe from stage 26.



Fit the ends of the wishbones onto the suspension upright.



Fit a suspension bush over the hole on the upper wishbone.

Stage 27: Front Left Brake and Suspension



Secure the suspension bush to the suspension upright with an AM05 screw. Do not overtighten the screw as the upright must be free to turn.



Fit the other suspension bush over the hole and the tip of the lower wishbone.



Secure the suspension bush in place with another AM05 screw. Again, do not overtighten the screw as the upright must be free to turn.

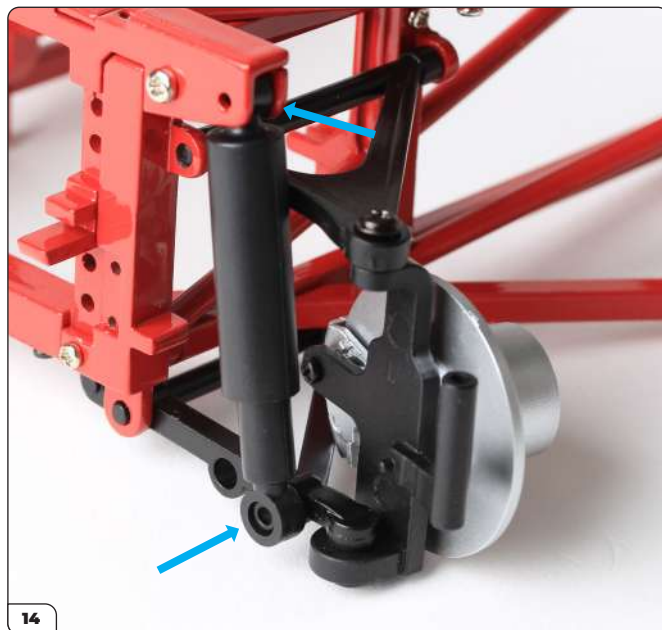


Take the shock absorber shroud, coil spring and damper body and arrange them as shown. The damper body fits into one end of the coil spring and the other end of the spring fits into the shock absorber shroud.

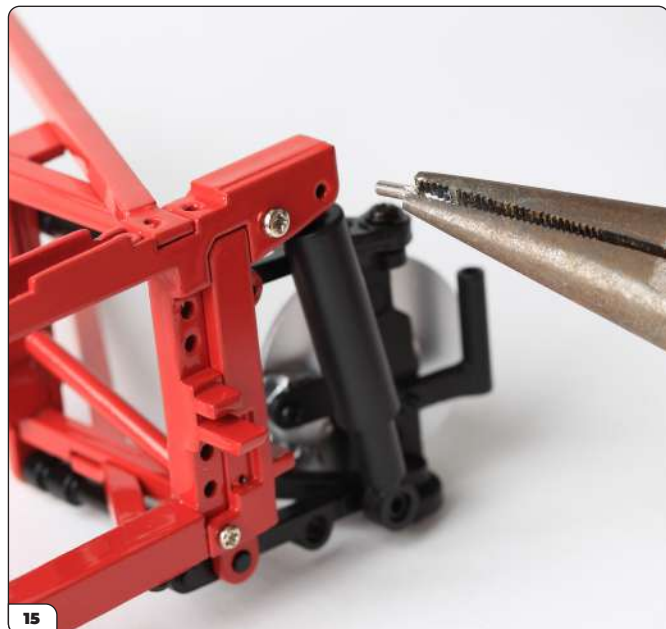
Stage 27: Front Left Brake and Suspension



Slide the shock absorber shroud, coil spring and damper body together like this.



Take the shock absorber assembly and fit one end to the subframe, and the other end to the lower wishbone as shown.



Take the pivot pin and note that one end is smooth, the other end is splined. Using pliers, push the smooth end of the pin into the hole on the subframe, making sure it goes through the eye of the shock absorber shroud.

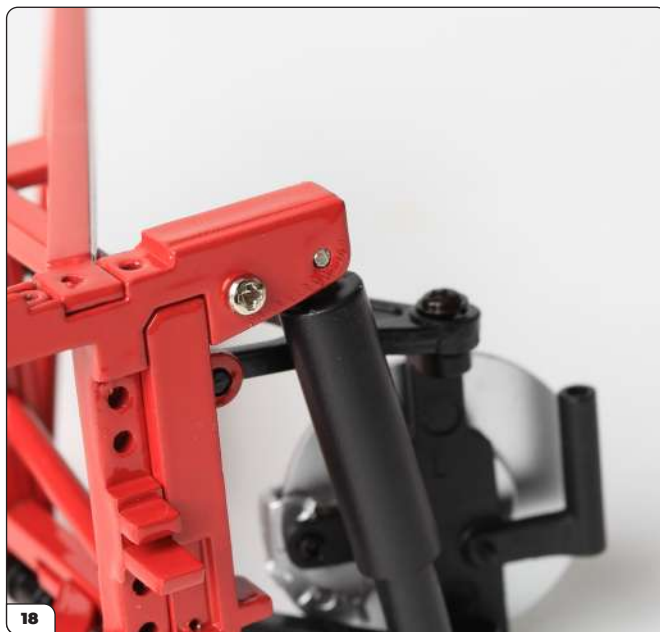


Push the pin in to secure the shock absorber in place.

Stage 27: Front Left Brake and Suspension



Squeeze the pin with pliers to press it fully into the hole.



The pivot pin is now securing the shock absorber shroud in place.



Pushing the spring and the damper body into the shock absorber shroud, fit the eye of the damper body onto the lower wishbone and secure in place with an AM06 screw.

Stage 27: Front Left Brake and Suspension

STAGE COMPLETE



Stage 28: Front Right Brake and Suspension

You will now repeat the steps in stage 27 to fit the right-hand suspension.



STAGE 28 PARTS LIST

Name
Right suspension upright
Brake disc
Shock absorber shroud
Damper body
Coil spring
Suspension bushes
Pivot pin
Caliper
Screws type AM05 x3
Screws type AG04 x2
Screws type AM06 x2



Stage 28: Front Right Brake and Suspension

STEP 1



Align the brake disc and the caliper as shown, then slide the caliper over the edge of the brake disc.



Fit the brake disc onto the central part of the right suspension upright, ensuring that the caliper is aligned with the locating pin.



The brake disc and caliper are correctly positioned on the suspension upright. Check that the underside of the caliper fits onto the locating pin.



Secure the caliper to the upright with an AG04 screw.

Stage 28: Front Right Brake and Suspension



Align the brake disc assembly with the upper and lower wishbones on the subframe.



Fit the ends of the upper and lower wishbones onto the suspension upright. Fit a suspension bush over the hole on the upper wishbone.



A suspension bush sits on top of the upper wishbone.



Secure the suspension bush to the suspension upright with an AM05 screw. Do not overtighten the screw as the upright must be free to turn.

Stage 28: Front Right Brake and Suspension



Fit the other suspension bush over the hole and the tip of the lower wishbone.



Secure the suspension bush in place with another AM05 screw. Again, do not overtighten the screw as the upright must be free to turn.



Take the shock absorber shroud, coil spring and damper body and arrange them as shown. The damper body fits into one end of the coil spring and the other end of the spring fits into the shock absorber shroud.

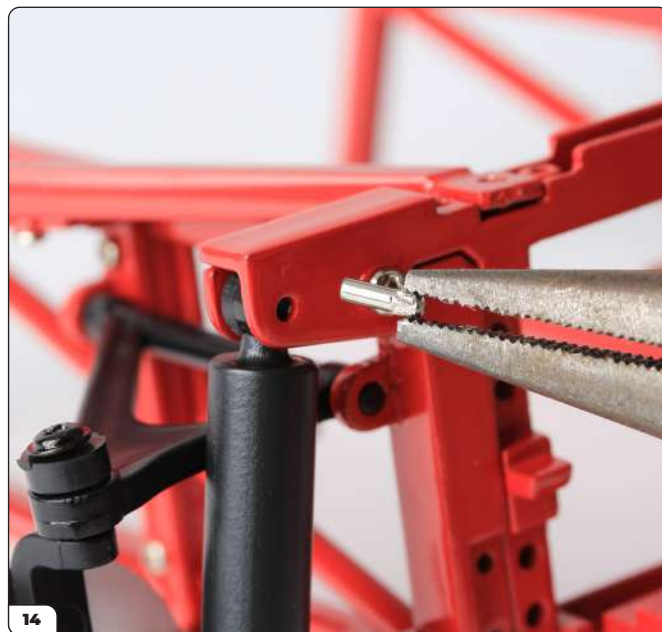


Slide the shock absorber shroud, coil spring and damper body together like this.

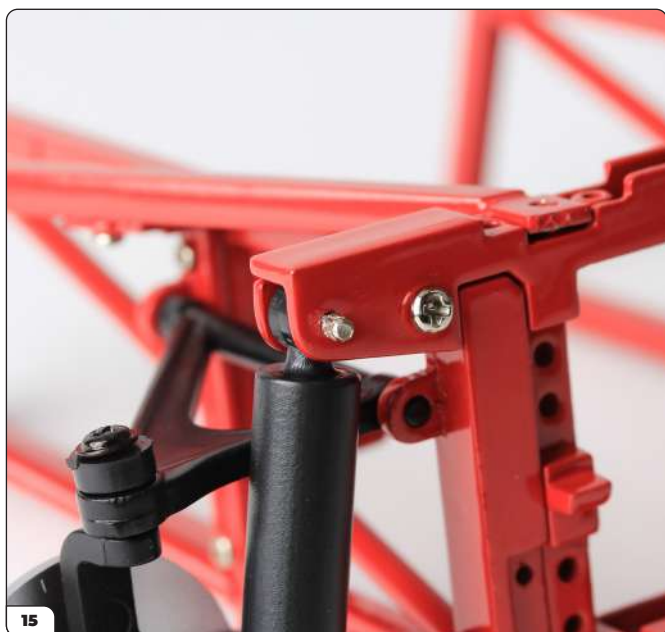
Stage 28: Front Right Brake and Suspension



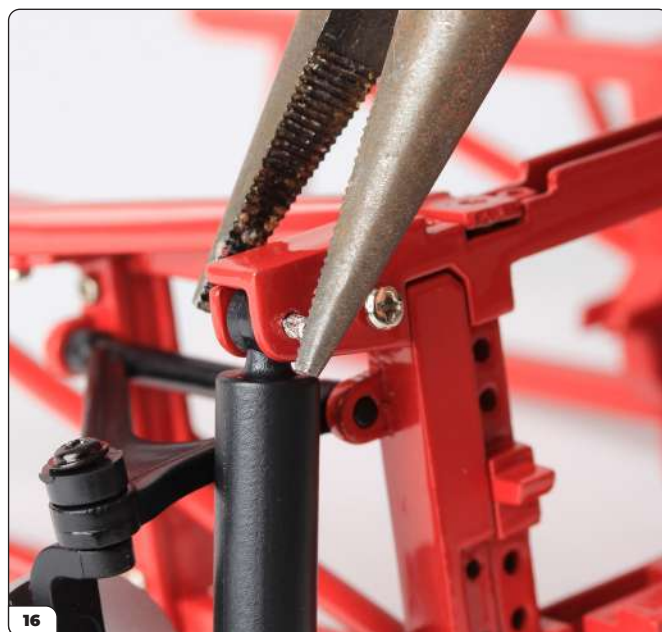
Take the shock absorber assembly and fit one end to the subframe, and the other end to the lower wishbone as shown.



Using pliers, push the smooth end of the pivot pin into the hole on the subframe, making sure it goes through the eye of the shock absorber shroud.



Push the pin in to secure the shock absorber in place.



Squeeze the pin with pliers to press it fully into the hole.

Stage 28: Front Right Brake and Suspension



The pivot pin is now securing the shock absorber shroud in place.



Pushing the spring and the damper body into the shock absorber shroud, fit the eye of the damper body onto the lower wishbone and secure in place with an AM06 screw.

STAGE COMPLETE



Stage 29: Sump and Torsion Bars

In this next stage you will fit the torsion bar assembly onto the sump. This will then be fitted to the engine at a later stage.



STAGE 29 PARTS LIST

Name
Sump
Torsion bar assembly



Stage 29: Sump and Torsion Bars

STEP 1



Align the prongs on the end of the torsion bar assembly with the notch on the end of the sump.



Press the parts together firmly.

STAGE COMPLETE



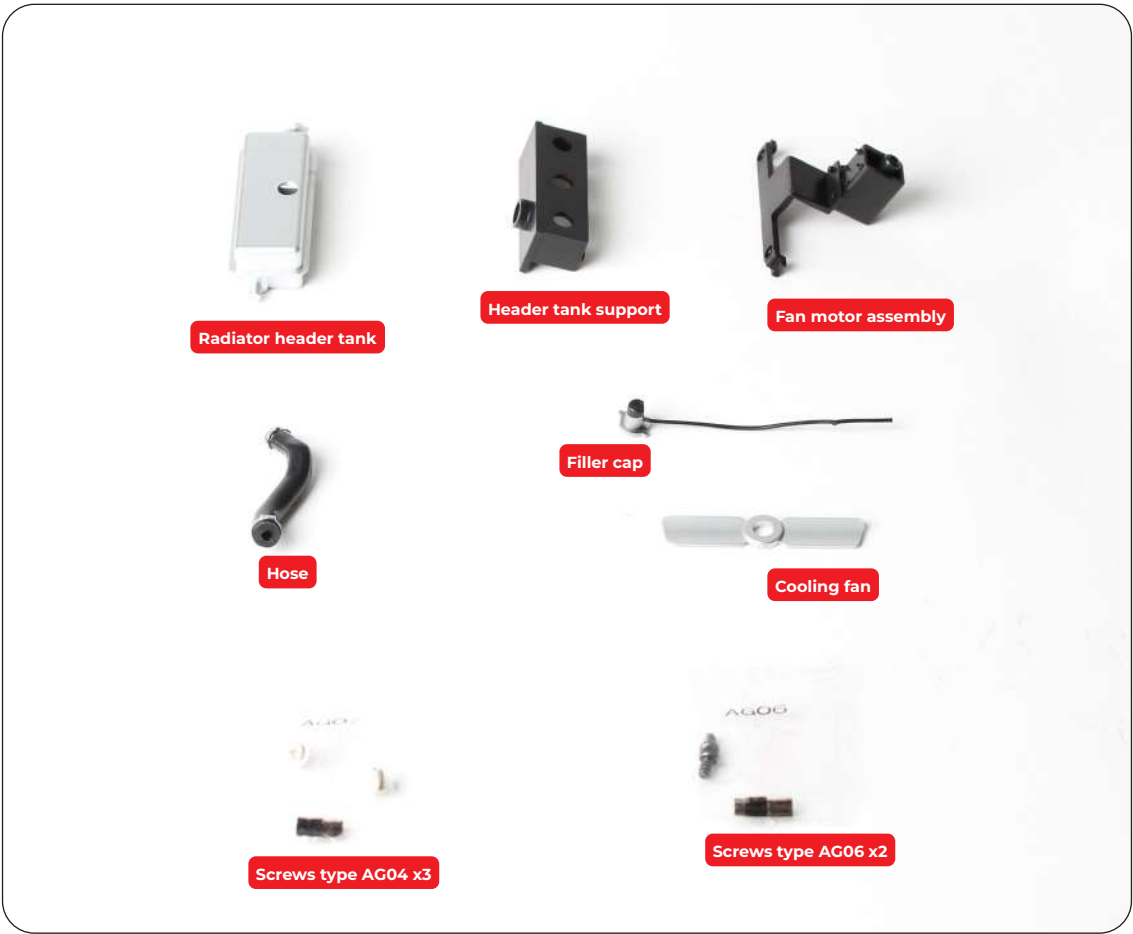
Stage 30: Components for the Cooling System

This stage includes the cooling fan, radiator header tank, hoses and filler cap which will eventually be installed at the front of the engine bay.



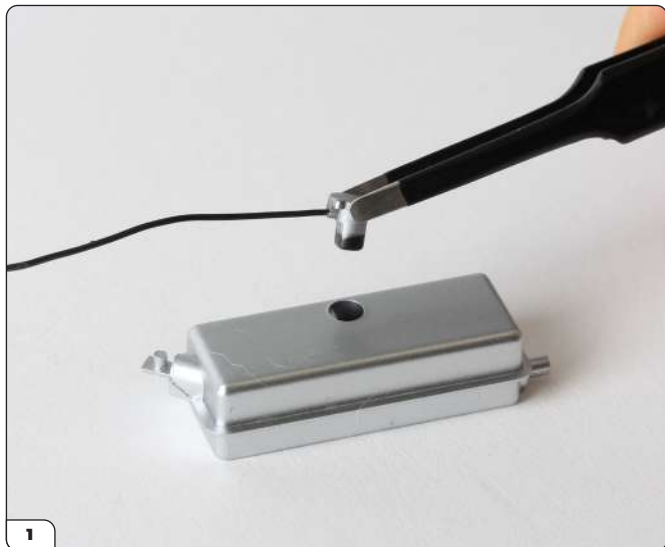
STAGE 30 PARTS LIST

Name
Radiator header tank
Header tank support
Fan motor assembly
Hose
Filler cap
Cooling fan
Screws type AG06 x2
Screws type AG04 x3



Stage 30: Components for the Cooling System

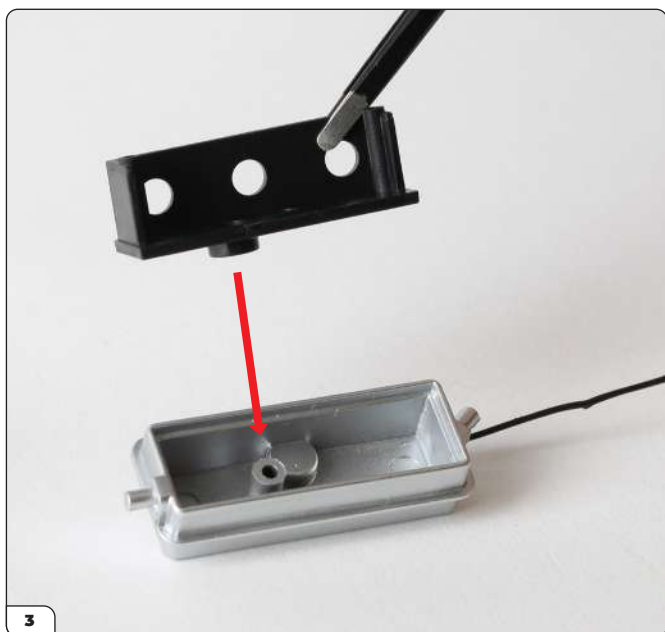
STEP 1



Align the filler cap with the header tank.



Push the cap firmly into place.



Fit the header tank support to the header tank, aligning the raised screw sockets.



Press the parts firmly together and secure with an AG06 screw.

Stage 30: Components for the Cooling System



Take the cooling fan and hold it with the blades curving upwards.



Fit the cooling fan onto the motor shaft.



Secure the fan in place with an AG07 screw.



Align the two screw holes on the motor shaft with the corresponding sockets on the header tank support.

Stage 30: Components for the Cooling System



Press the parts firmly together and secure them in place using 2 x AG04 screws.



The assembly will be fitted this way up in the next stage.

STAGE COMPLETE



Stage 31: Components for the Front Subframe

In this final stage of pack 4, you will add further components of the subframe, and mount the cooling system assembled in stage 30.



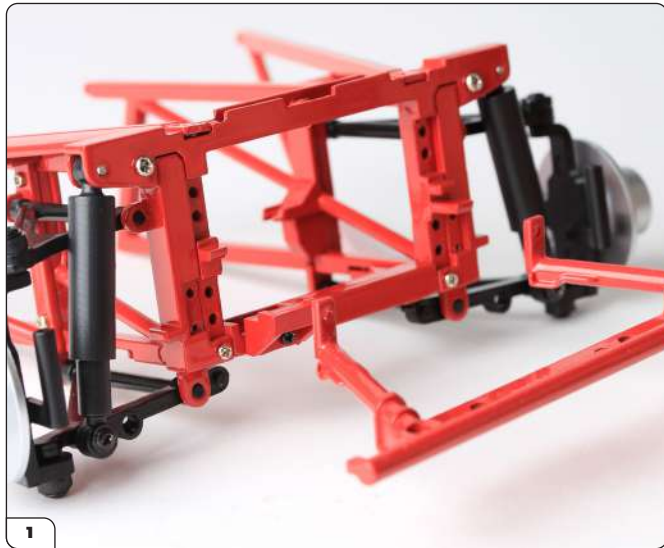
STAGE 31 PARTS LIST

Name
Front subframe base
Front subframe right stay
Front subframe left stay
Screws type AM15 x5
Screws type AM03 x7

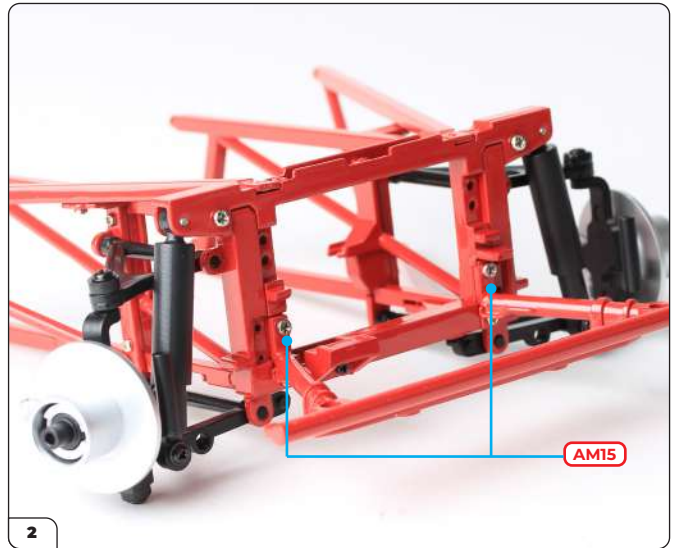


Stage 31: Components for the Front Subframe

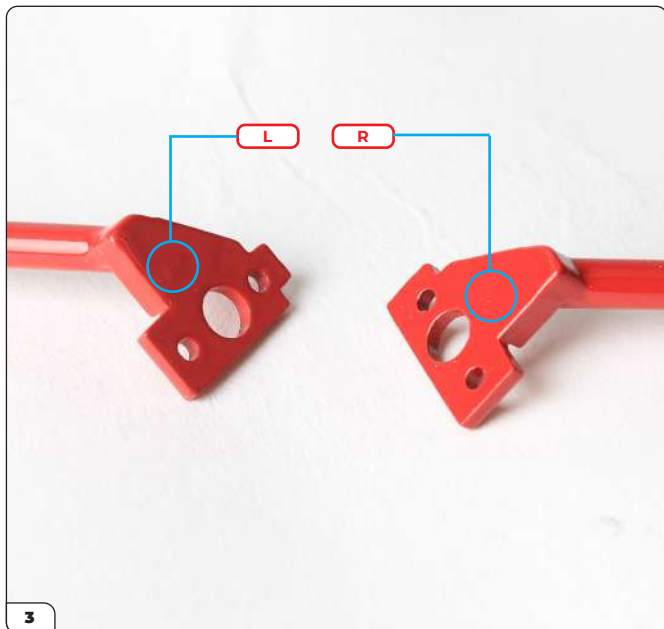
STEP 1



1
Align the front subframe base with the bottom of the assembly from stage 28.



2
Fit the screw mounts on the subframe base into the corresponding recesses on the assembly and secure in place using 2 x AM15 screws.

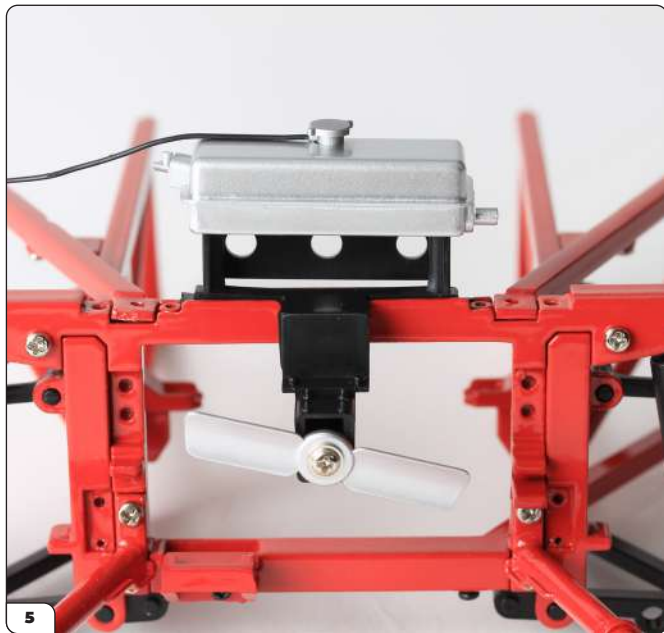


3
Before preparing to fit the cooling fan, take the front subframe stays and note that they are marked left (L) and right (R).

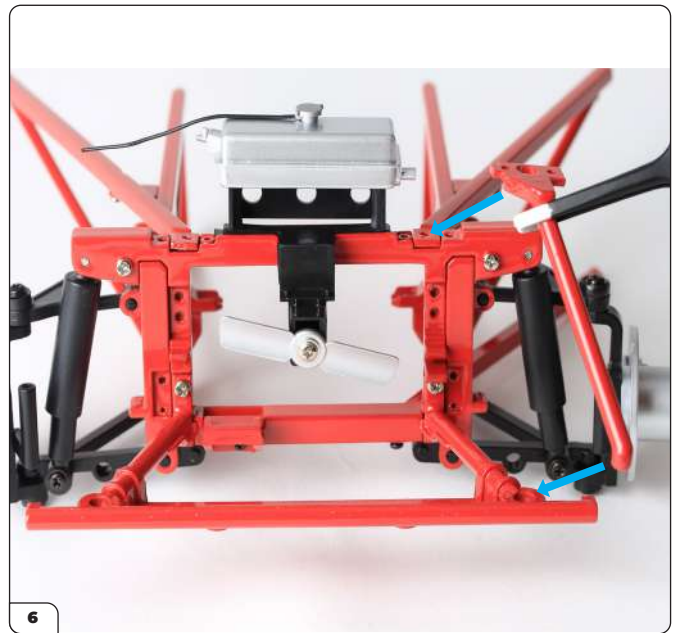


4
Lower the cooling fan assembly from stage 30 onto the subframe (see step 5).

Stage 31: Components for the Front Subframe



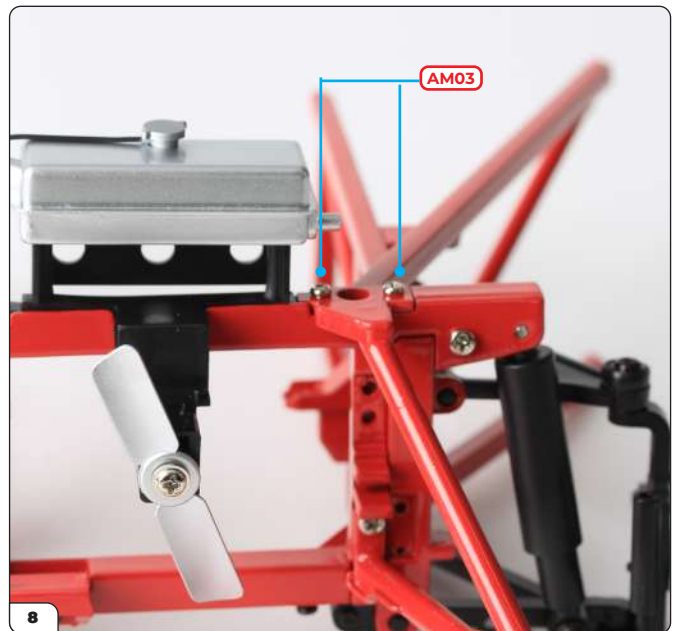
Press the header tank firmly into place.



Take the front subframe left stay and align it with the subframe as shown. The three holes at the wider end fit next to the header tank support; the opposite end angles downwards and fits into the hole on the front subframe base.



Secure the left stay in place from underneath the subframe using an AM15 screw.

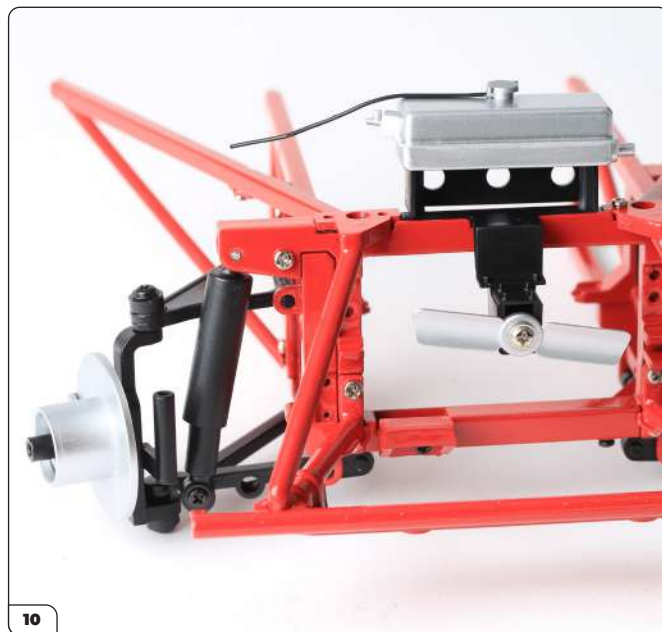


Use another 2 x AM03 screws to fix the stay to the top of the subframe.

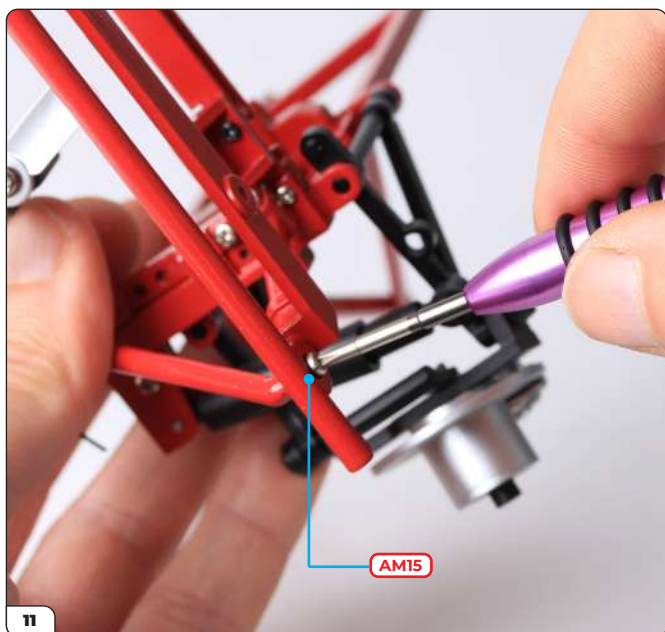
Stage 31: Components for the Front Subframe



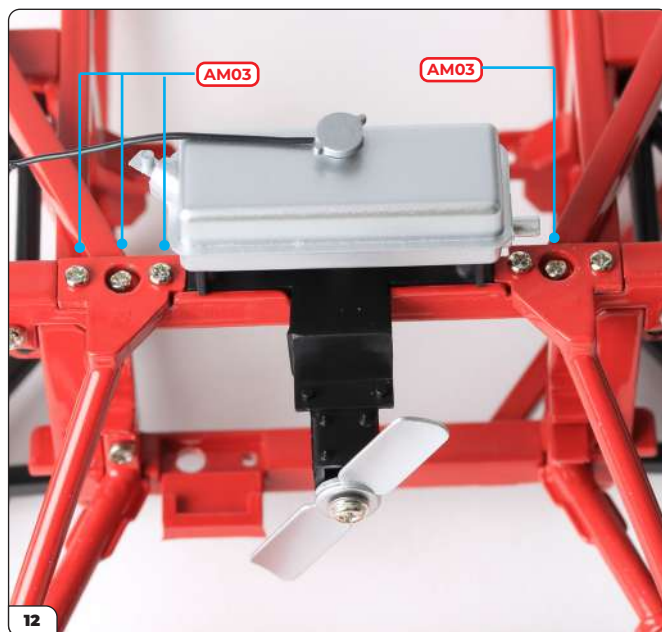
Repeat steps 6, 7 and 8 to fix the front subframe right stay in place on the opposite side: start by aligning the stay...



... position the wider flat end on the top of the subframe and the tubular end in the hole on the front subframe base.



Fix the stay to the front subframe base from the underside using an AM15 screw.



Use 3 x AM03 screws to fix the right stay to the top of the subframe. Finally, screw another AM03 screw into the left stay so that 3 x AM03 screws now secure the left stay in place on the subframe.

Stage 31: Components for the Front Subframe

STAGE COMPLETE

