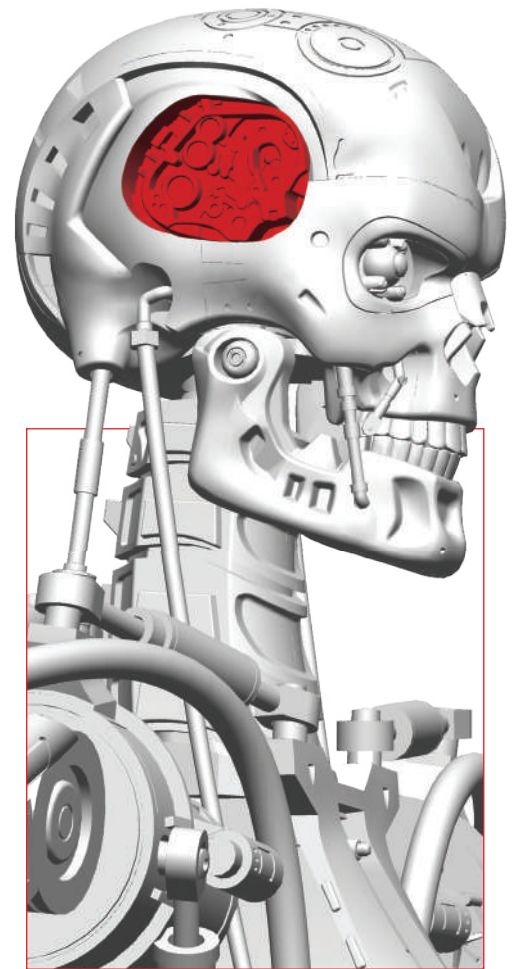


STAGE 09: COMPONENTS FOR THE RIGHT-HAND SIDE OF THE HEAD

In this stage, you'll combine two elements to make part of the right-hand side of the head.

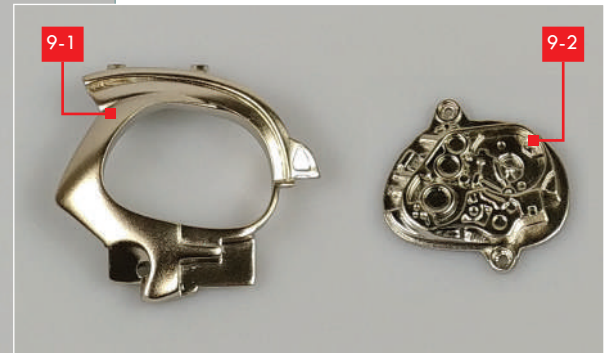
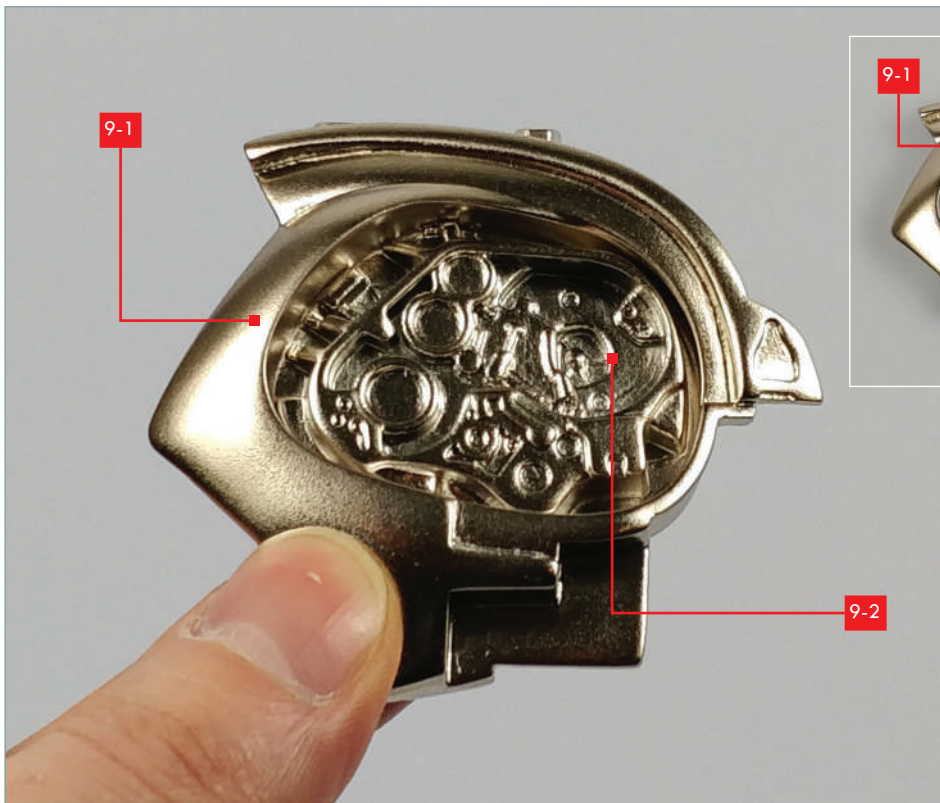


LIST OF PIECES

- | | |
|-----|--------------------------------|
| 9-1 | Right head A |
| 9-2 | Right head B |
| 9-3 | 3x PM screw (2x4 mm) (1 spare) |

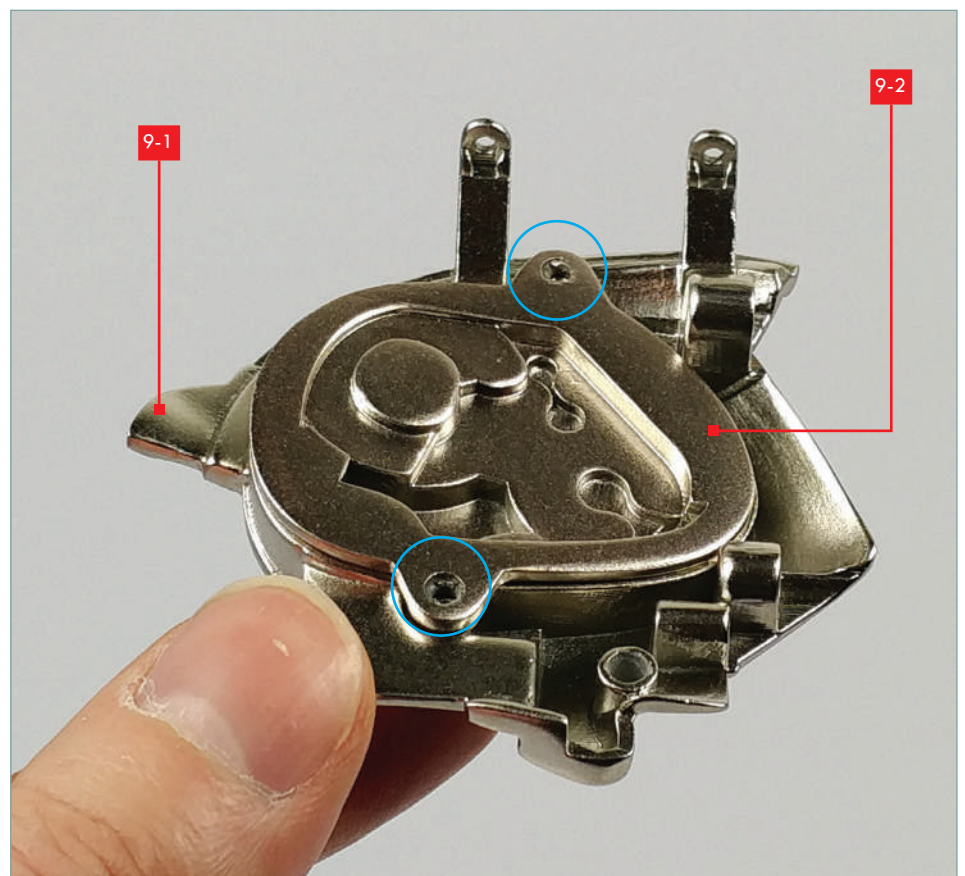
YOU WILL ALSO NEED

A suitable cross-point screwdriver.



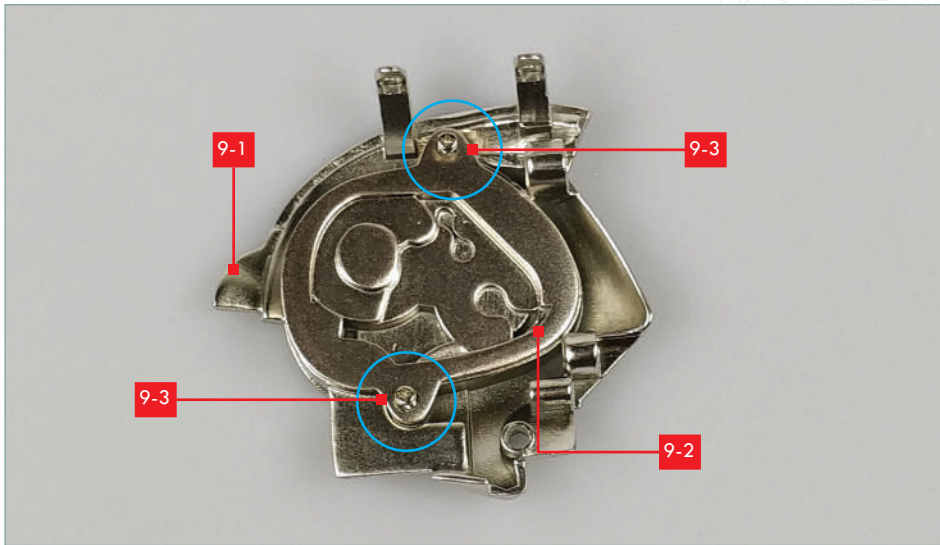
STEP 1

Take the right head part A (9-1) and right head part B (9-2), both supplied with this stage, and place them on the work surface (see inset). From behind, insert part 9-2 through the opening in part 9-1.



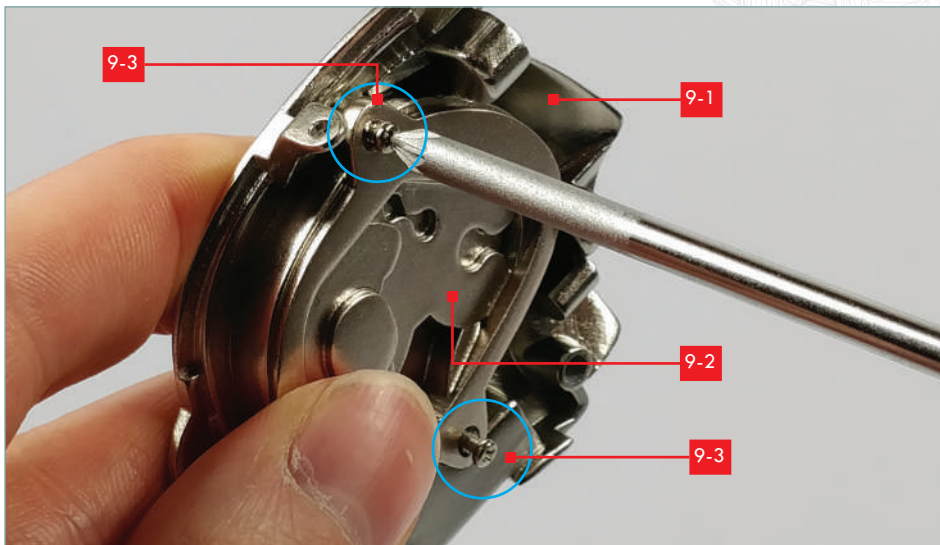
STEP 2

After turning the parts over, note how the screw holes in 9-2 align with those on the reverse of 9-1 (circled in blue).



STEP 3

Insert one PM 2x4 mm screw (9-3) into each of the screw holes, still circled above in blue.



STEP 4

Use your cross-point screwdriver to tighten the two screws.



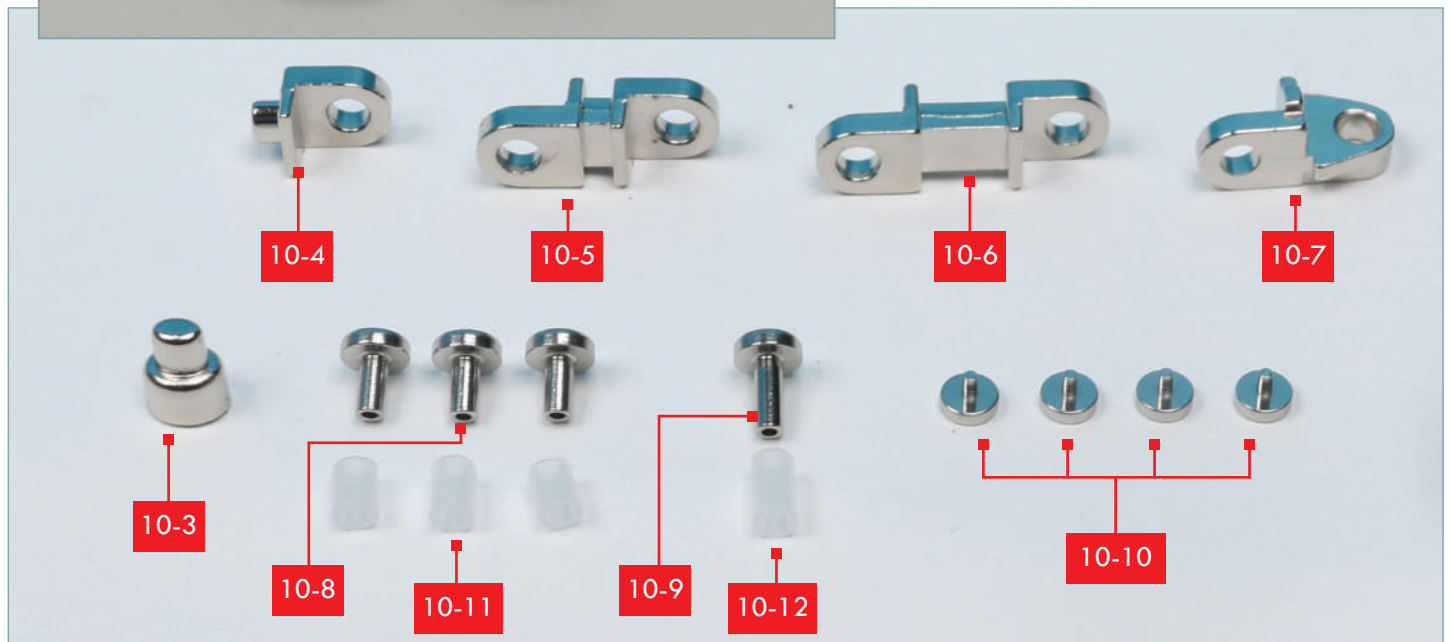
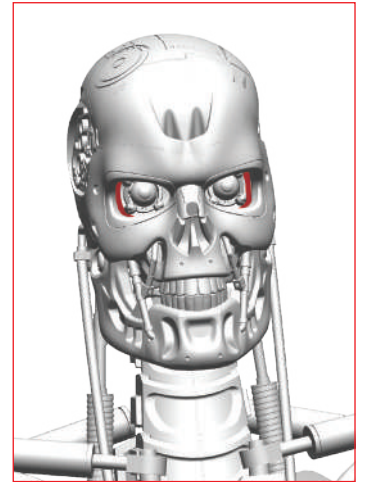
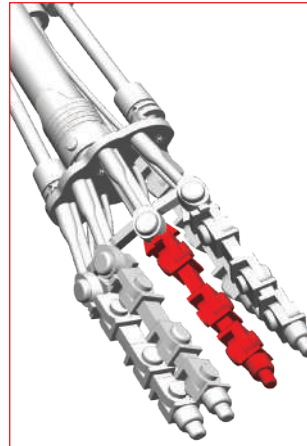
STAGE COMPLETE!

Once assembled, this is how your right side of the head should look.

Keep the assembled parts safely aside until they are needed.

STAGE 10: INNER EYE SOCKETS AND RIGHT MIDDLE FINGER

In this stage, you'll add to the interior of the skull, and construct another finger for the right hand.



LIST OF PIECES

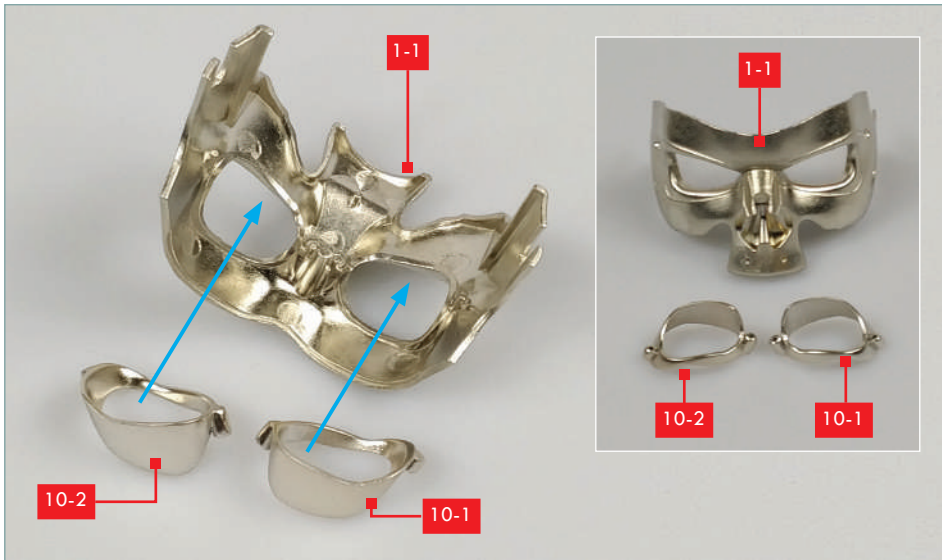
10-1	Inner eye socket left	10-7	Right middle finger E
10-2	Inner eye socket right	10-8	3x Finger connector A
10-3	Right middle finger A	10-9	Knuckle connector
10-4	Right middle finger B	10-10	4x Finger connector B
10-5	Right middle finger C	10-11	3x Plastic sleeves for parts 10-8
10-6	Right middle finger D	10-12	Plastic sleeve for part 10-9

YOU WILL ALSO NEED

Part 1-1 Skull faceplate, Part 8-1 The right wrist (with finger and thumb attached), superglue, and a cocktail stick or toothpick with which to apply it.

STEP 1

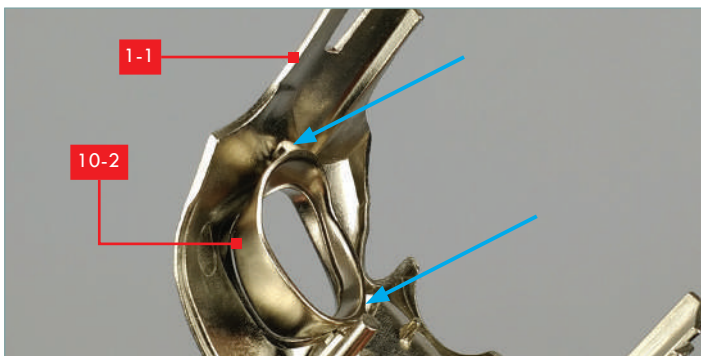
First, find your faceplate (1-1) which was last worked on in stage 06, and take the two inner eye sockets (10-1, 10-2). The left and right eye sockets will only fit into the skull one way, with the curve of the socket following the corresponding curve of the skull interior.



STEP 2

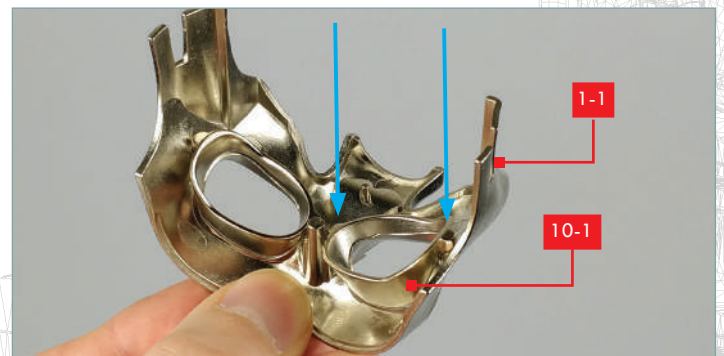
The inside of the faceplate (1-1) has a locating pin on either side of each eye (see left, circled blue).

The outer edges of the inner eye sockets (10-1, 10-2) have matching holes on either side of the socket (see inset circled blue).



STEP 3

After aligning the locating pins and holes, push-fit the right inner eye socket (10-2) in place. Note how the curve of the eye socket part matches the curve of the faceplate. The parts are push-fit but if necessary apply a small drop of superglue to secure the part in place.



STEP 4

Repeat step three, this time fitting the left inner eye socket 10-1.

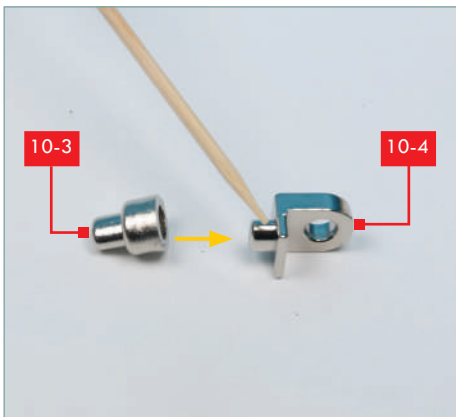


STEP 5

The inner eye sockets will look like this when fitted.

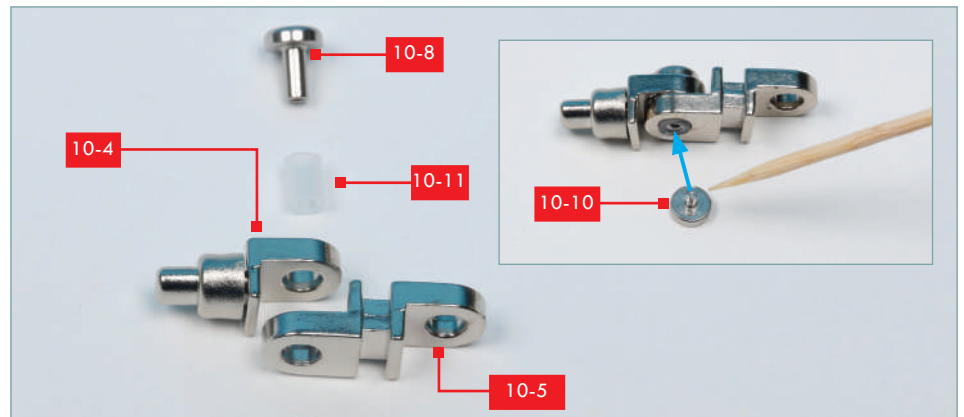
Use the photos above as guides to check the alignment of the eye socket pieces.

Keep the assembly safely aside until it is needed in a later stage.



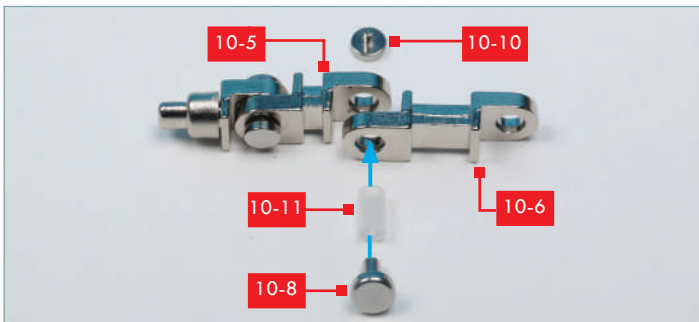
STEP 6

Apply a little superglue to the peg on part 10-4. Attach the fingertip part, 10-3, as indicated by the yellow arrow.



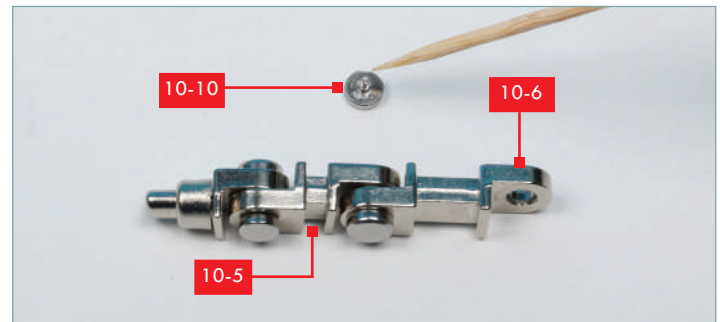
STEP 7

Arrange part 10-5 next to part 10-4 as shown. Take a connector 10-8 and a plastic sleeve 10-11. Hold the holes in parts 10-5 and 10-4 together and fit the sleeve 10-11 and connector 10-8 into the hole in the joint. Apply a little superglue to the pin on connector 10-10 and fit it into the joint as indicated by the blue arrow (inset) to hold the parts together.



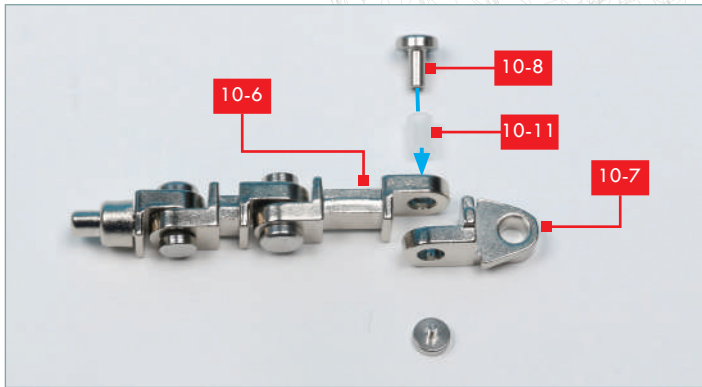
STEP 8

Take the right middle finger D, 10-6 along with a second set of connectors 10-8, 10-11 and 10-10. This time, 10-10 and 10-8 connect in the opposite direction to the previous joint. Fit the sleeve and connector 10-8 through the holes in parts 10-6 and 10-5.



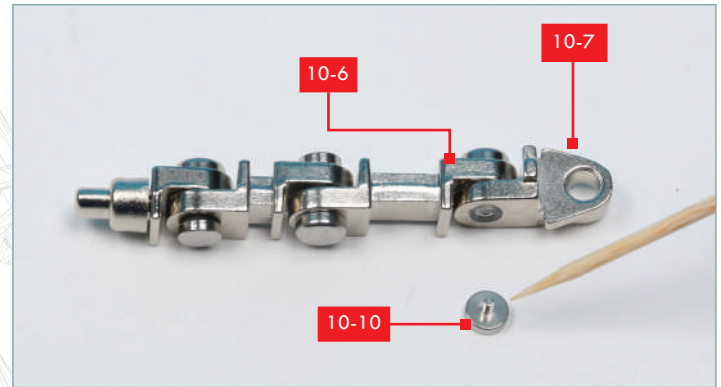
STEP 9

Apply a little superglue to the pin on part 10-10 and fix the joint together.



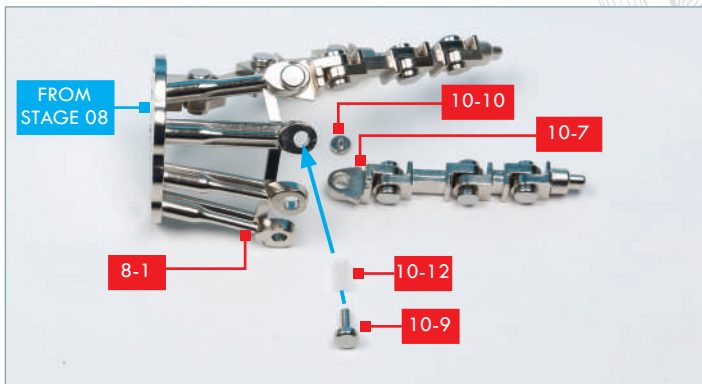
STEP 10

Position the next finger section **10-7** next to part **10-6**. Fit connector **10-8** and sleeve **10-11** into the holes in parts **10-6** and **10-7**. Note that the direction in which the connectors are inserted alternates.



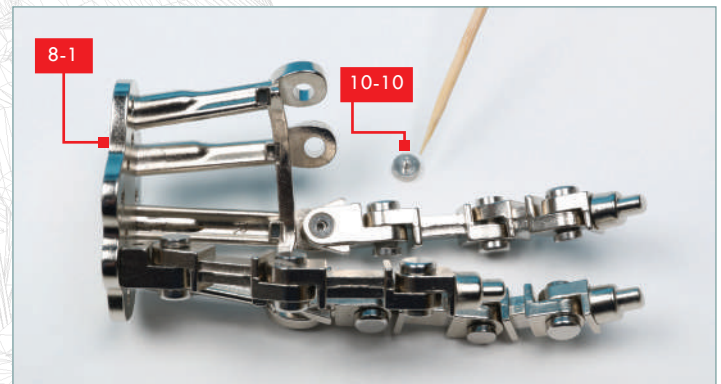
STEP 11

Apply a little superglue to the pin on the third connector **10-10** and fix the joint together.



STEP 12

Now, take the assembled hand from stage 08 and identify the fixing point for the end of the finger assembly, **10-7**. This time, you will need the larger connector, **10-9** and plastic sheath **10-12**. With the palm **8-1** positioned as shown, align the hole in part **10-7** under the hole in the knuckle. Fit the connector **10-9** and the sleeve **10-12** through the hole in the knuckle and the hole in part **10-7**, as indicated by the arrow.



STEP 13

Turn the hand over, so that you can see the inside of the knuckle joint. Apply a little superglue to the fourth connecting pin **10-10** and fit it into the assembled joint, as indicated by the blue arrow.



STEP 14

This is how your hand should look when the second finger has been connected.



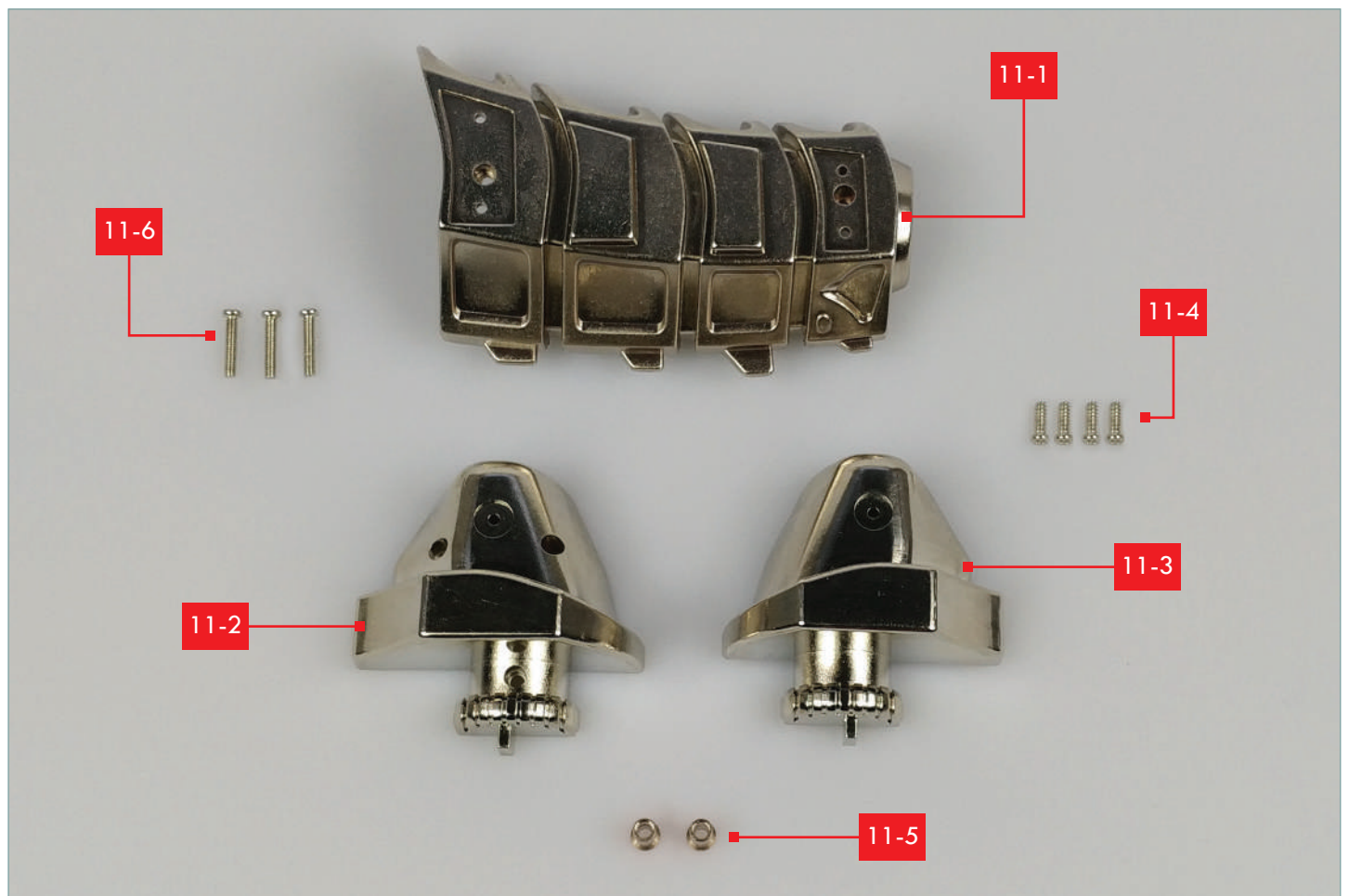
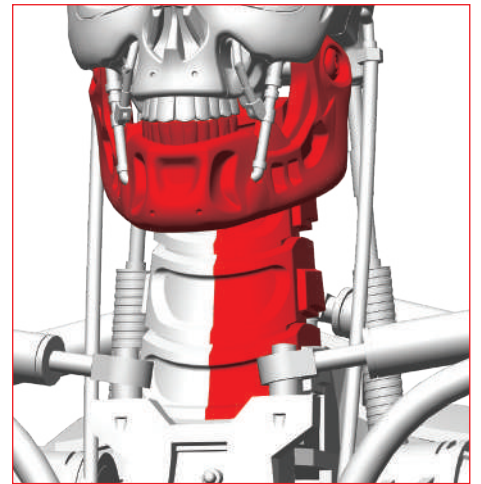
STAGE COMPLETE!

Your two new components should look like this. Store them safely — you'll be adding more elements to both very soon!



STAGE 11: ASSEMBLING NECK AND JAW JOINTS

In this stage you will construct a neck joint and assemble the lower jaw joint.



LIST OF PIECES

11-1	Neck	11-4	4x PB screw (2x6 mm) (1 spare)
11-2	Neck Joint - R	11-5	2x brass bushes
11-3	Neck Joint - L	11-6	3x PM screw (2x10 mm) (1 spare)

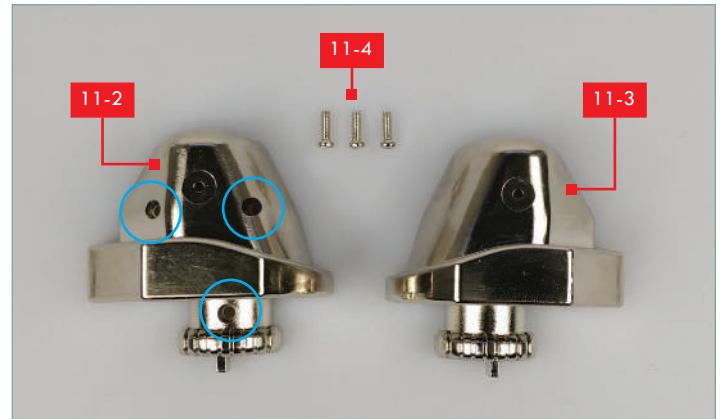
YOU WILL ALSO NEED

Part 5-1 and Part 6-1 Lower jaw, Part 7-5 Head motor joint and a suitable cross-head screwdriver.



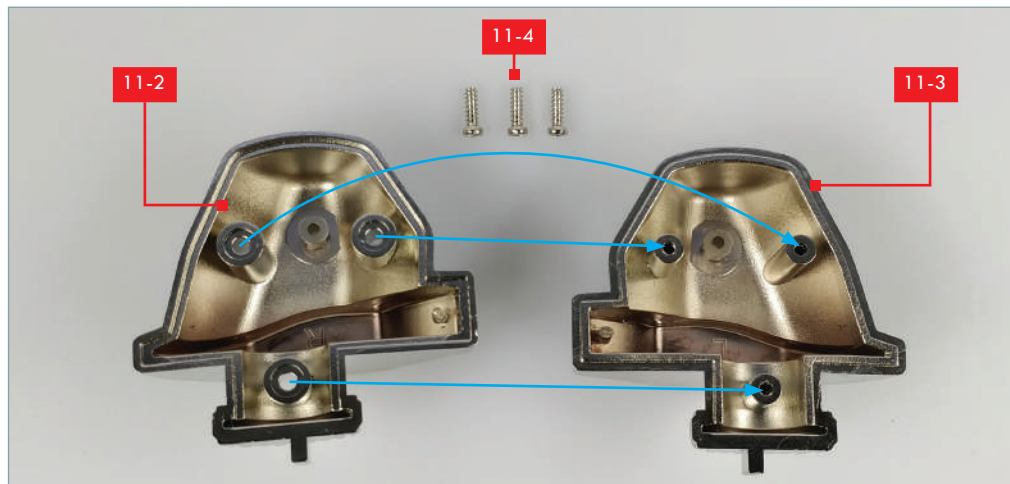
STEP 1

Firstly, find the neck section (11-1) and put it to one side. You'll next need it to assemble the neck in stage 13, so store it in a safe place for now.



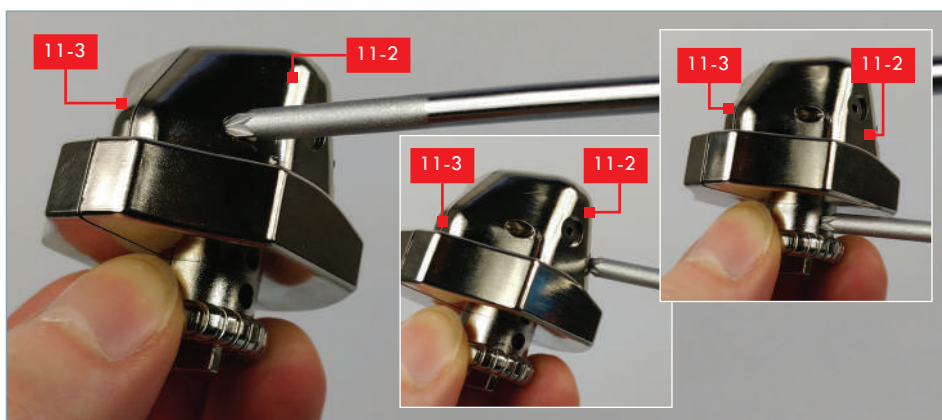
STEP 2

Take neck joint parts 11-2 and 11-3 along with three PB 2x6 mm screws (11-4).



STEP 3

The inside of the parts have raised screw sockets and matching recesses to locate the parts when joined together, as shown.

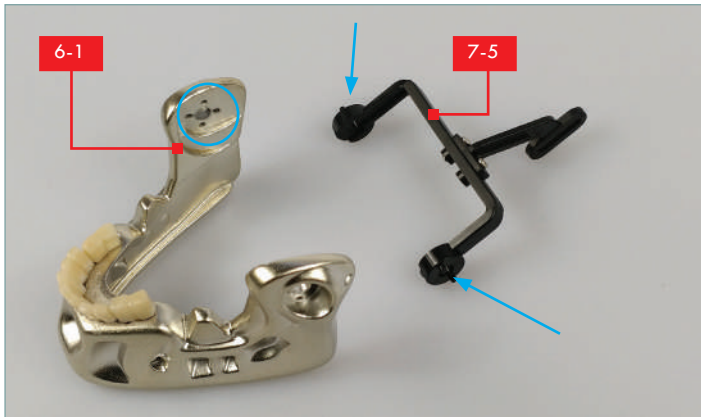


STEP 4

Secure the two parts together using the three PB 2x6 mm screws (11-4) as shown in the three photographs above.

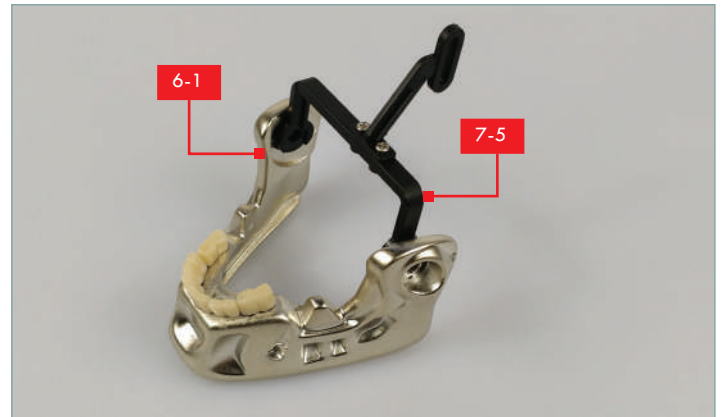
STEP 5

When completed, put the neck joint safely aside until it is needed in a later stage.



STEP 6

Now, take the lower jaw (6-1) from stage 06 and the head motor joint (7-5) from stage 07 and note the locating pins (marked with blue arrows) on part 7-5. Note also, the matching holes (circled in blue) in the jaw part (6-1).



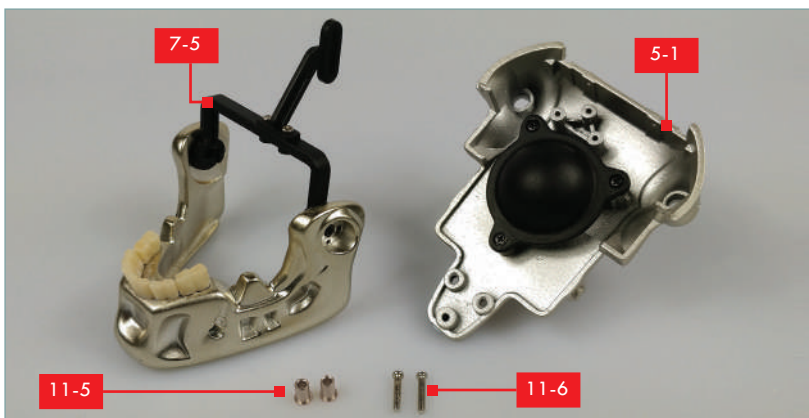
STEP 7

Attach 7-5 inside 6-1 as shown. 7-5 snaps into the locating holes on either side of the lower jaw.



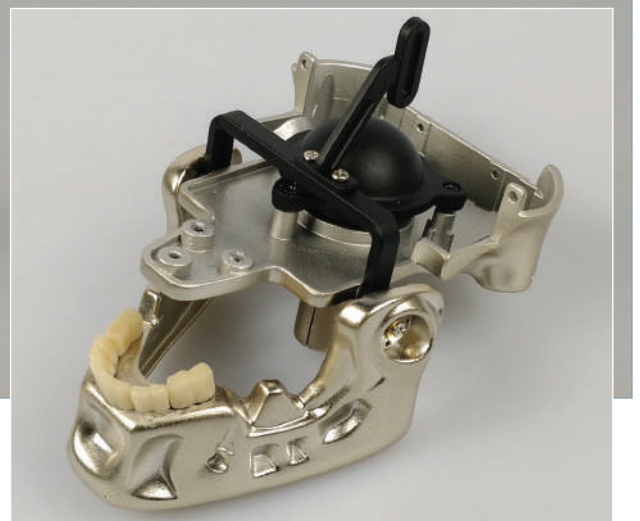
STEP 8

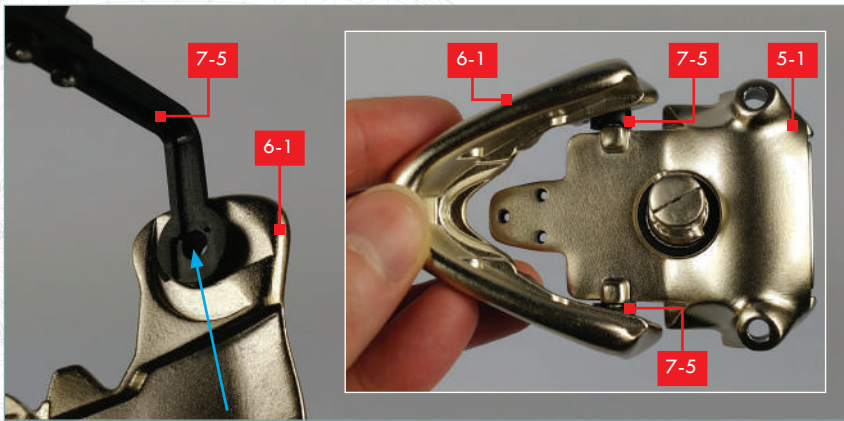
Now take the lower jaw parts 5-1 which was assembled in stage 05 and note the screw holes on either side, circled above in blue.



STEP 9

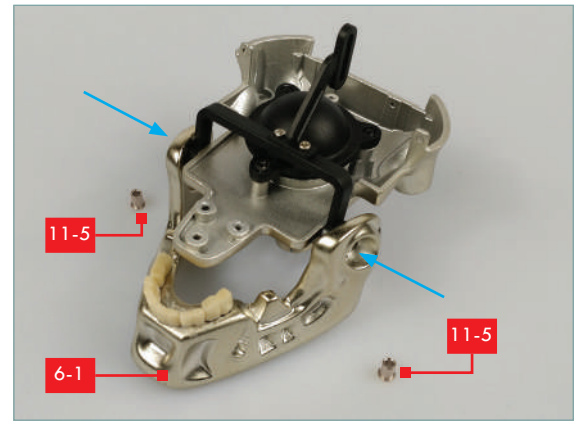
In the next steps the two jaw parts are connected as shown above, right. You will also need the two brass bushes (11-5) and two PM 2x10 mm screws (11-6).





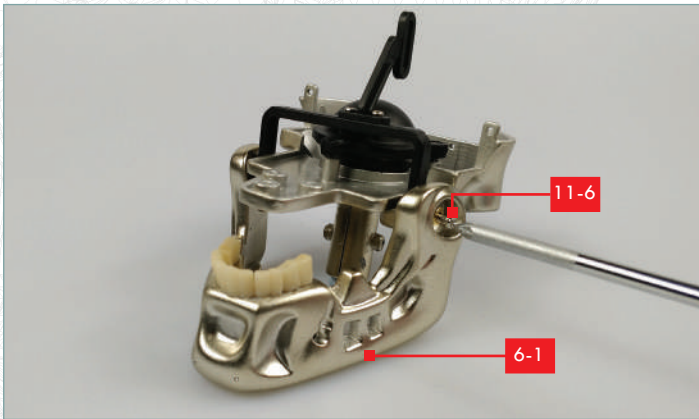
STEP 10

There are grooves on either inner side of part **7-5** (see above left) into which the screw sockets on part **5-1** slide. Part **5-1** is fitted from below as shown above, right.



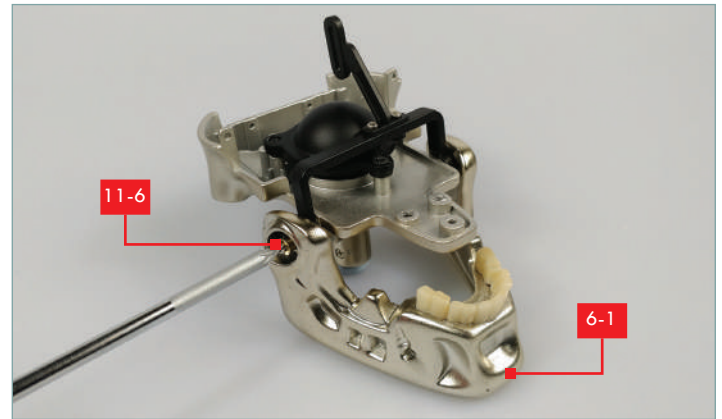
STEP 11

Once the two parts are together, take the two brass brass bushes **11-5** and insert them in the holes each side of jaw part **6-1**, as indicated by the blue arrows.



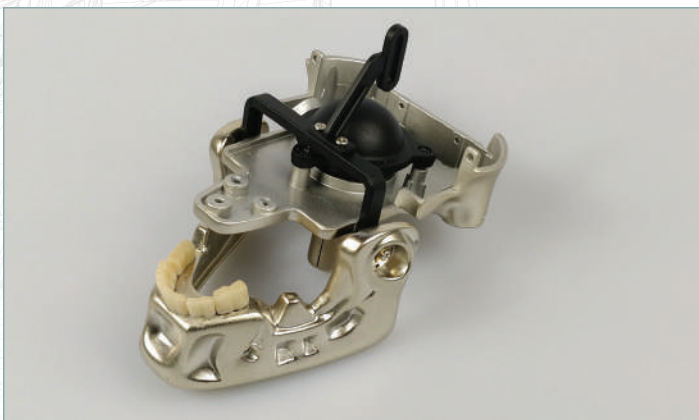
STEP 12

Insert a PM 2x10 mm screw (**11-6**) into the previously fitted brass bush and tighten fully to secure the left side of the joint.



STEP 13

Repeat the previous step, this time securing the joint from the right side with the second 2x10 mm screw (**11-6**).



STEP 14

Your completed lower jaw section will look like this.

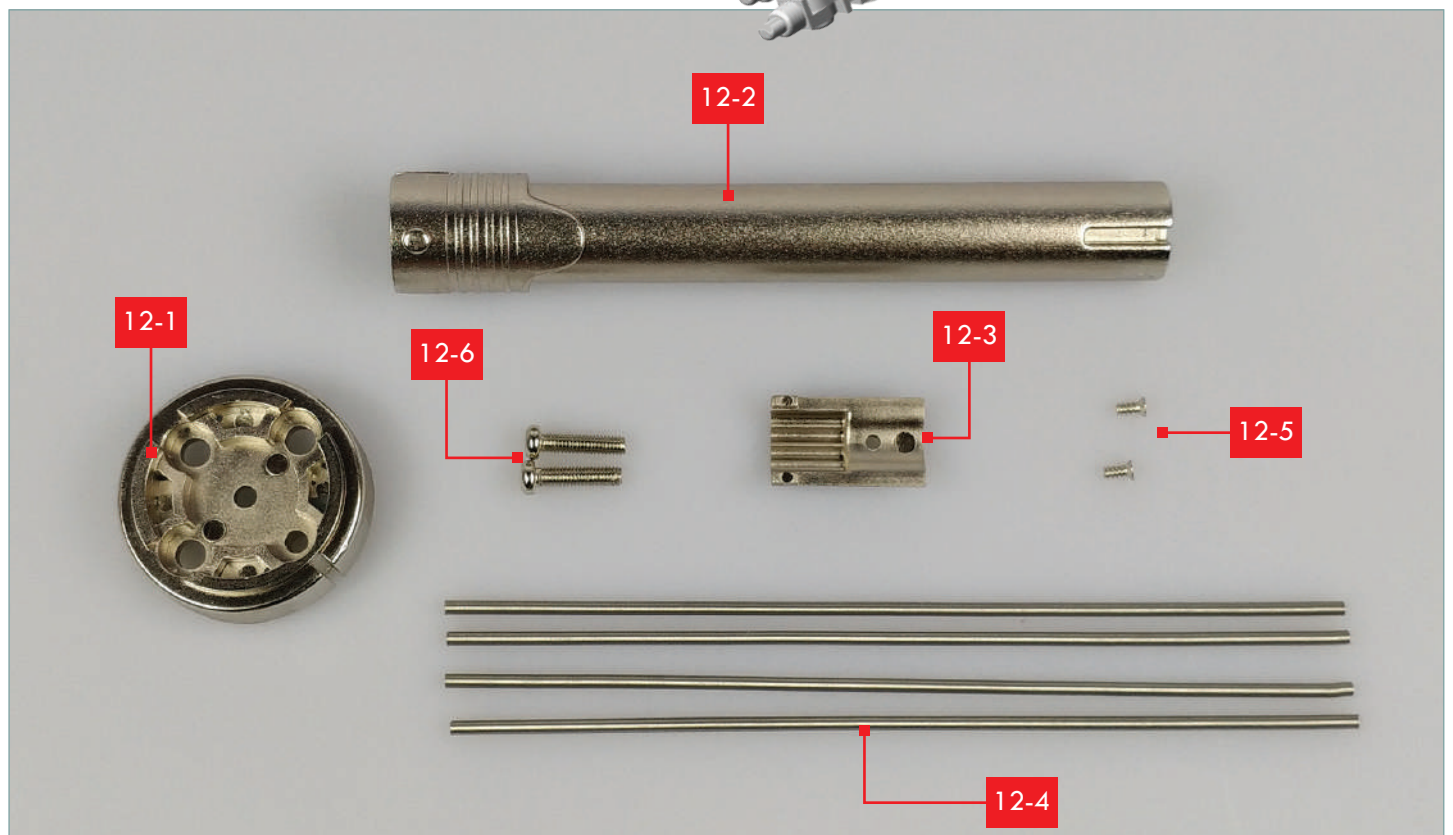
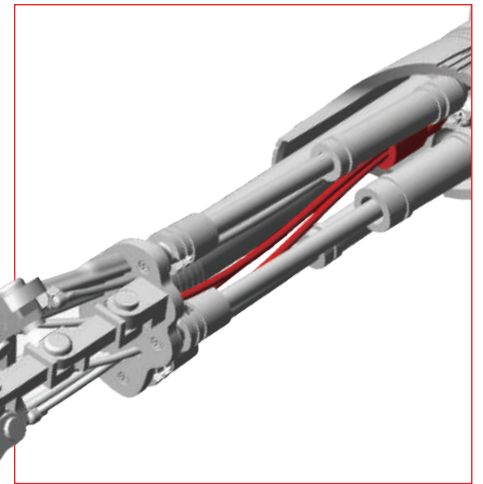


STAGE COMPLETE

This is how your three components should look at the end of this stage. Store them safely — you'll be needing all three for stage 13.

STAGE 12: ASSEMBLING THE RIGHT FOREARM

In this stage, you'll apply a metallic muscle to the right forearm.

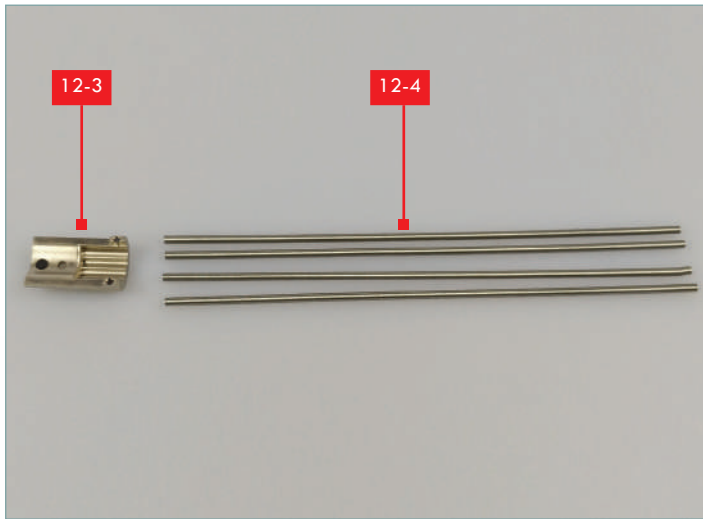


LIST OF PIECES

12-1	Forearm A
12-2	Forearm B
12-3	Forearm C
12-4	4x Forearm Muscle Springs
12-5	2x KB screw (2x4 mm) (1 spare)
12-6	2x PM screw (3x12 mm) (1 spare)

YOU WILL ALSO NEED

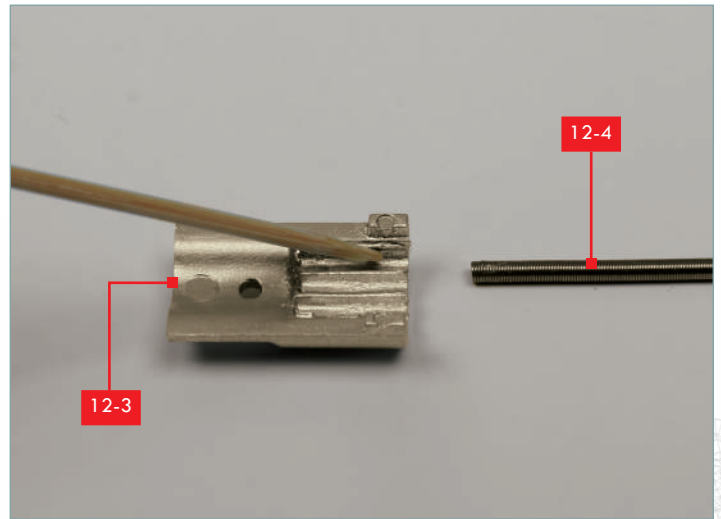
An appropriate cross-head screwdriver, superglue, and a cocktail stick or similar with which to apply it.



STEP 1

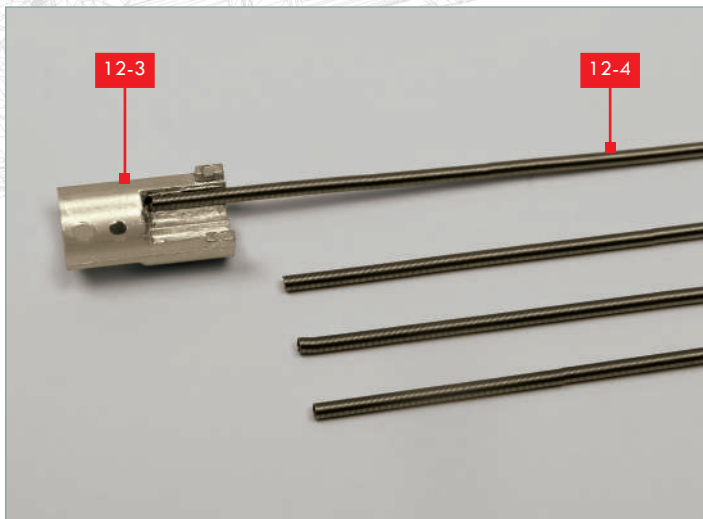
Take forearm C (**12-3**) and the four forearm muscle springs (**12-4**).

You'll be glueing all four of the springs into the four grooves in part **12-3**. The use of tweezers may be helpful in the following steps.



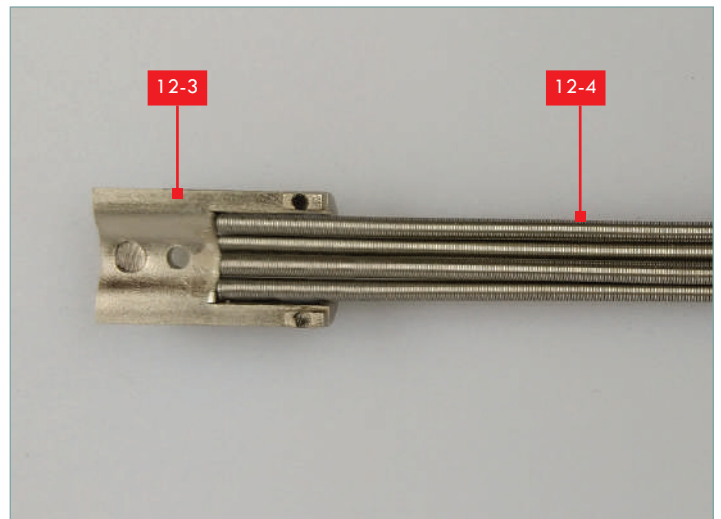
STEP 2

Using a cocktail stick or similar, apply a small amount of superglue to one of the four grooves in **12-3**.



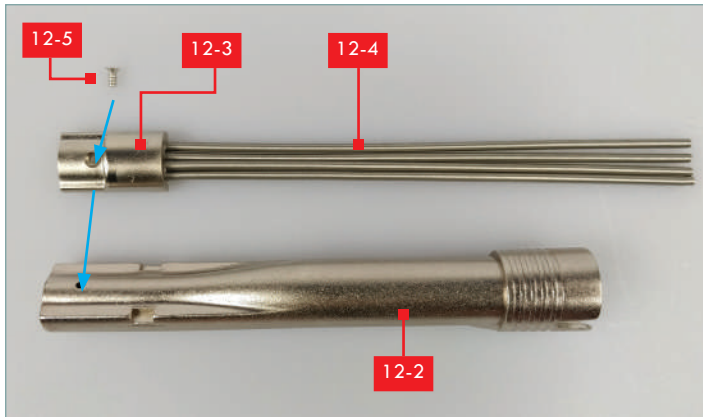
STEP 3

After applying the glue, place one of the springs **12-4** in the groove and hold it firmly in place with a cocktail stick or similar until the spring is securely held in place.



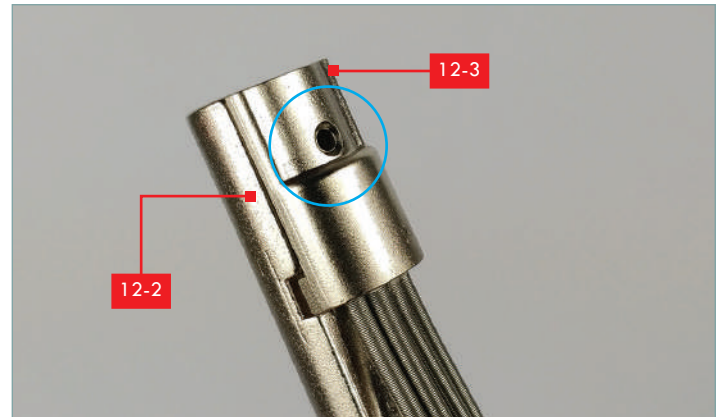
STEP 4

Repeat the previous step to secure all four springs in place, as shown above.



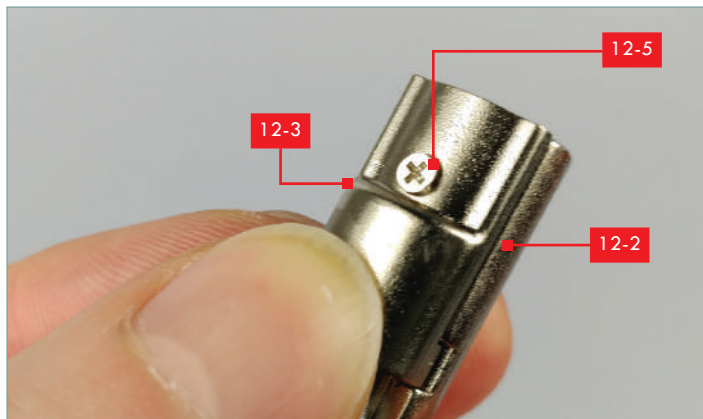
STEP 5

Now take forearm B (**12-2**) and one of the **KB** 2x4 mm screws (**12-5**). Attach **12-3** to **12-2**, using the screw to hold it in place, as marked by the blue connecting arrows in the photo.



STEP 6

Fit **12-3** into the grooves at the top of **12-2**, taking note of the screw hole circled in blue.



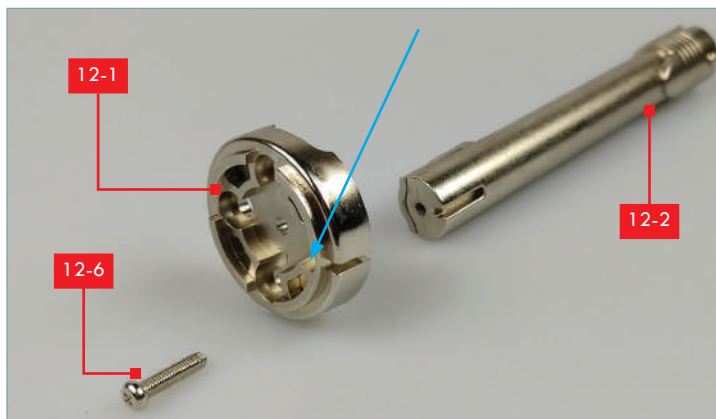
STEP 7

Insert the screw **12-5** and tighten fully to connect the two forearm elements.



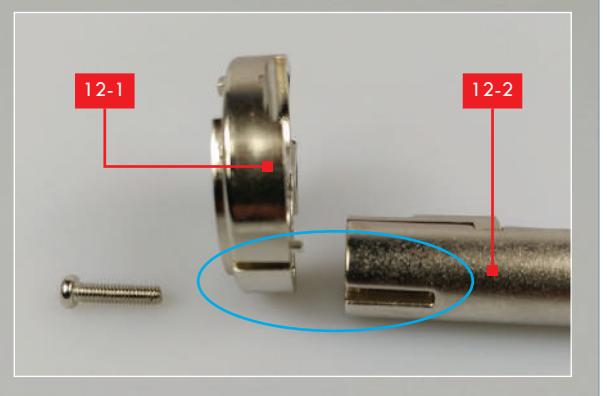
STEP 8

The forearm will look like this once screwed together.

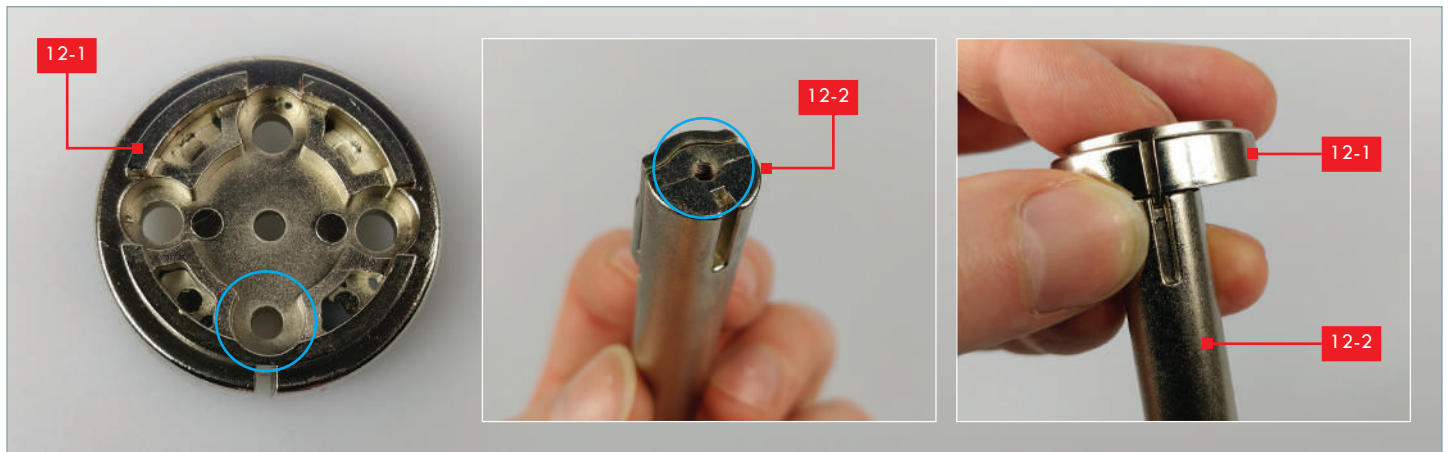


STEP 9

Now, take forearm A (**12-1**) and align it with the rest of the forearm as shown above. Note the hole indicated by the blue arrow in part **12-1** which receives a PM 3x12 mm screw (**12-6**).

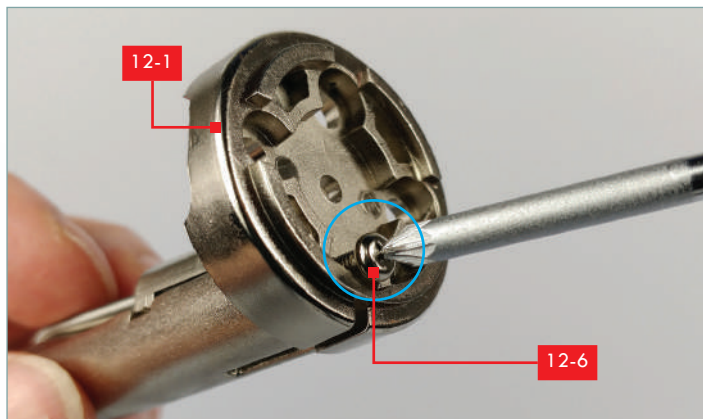


Note the grooves on the bottom of both **12-1** and **12-2** — their alignment ensures that the correct screw hole is used for this connection.



STEP 10

Again, taking note of the position of the screw holes and grooves in part **12-1** and **12-2**, place the parts together.



STEP 11

Tighten the screw (**12-6**) through the screw hole circled on part **12-1** and securely join the two parts together.



STEP 12

The screw should sit below the rim of the area around it, as shown.

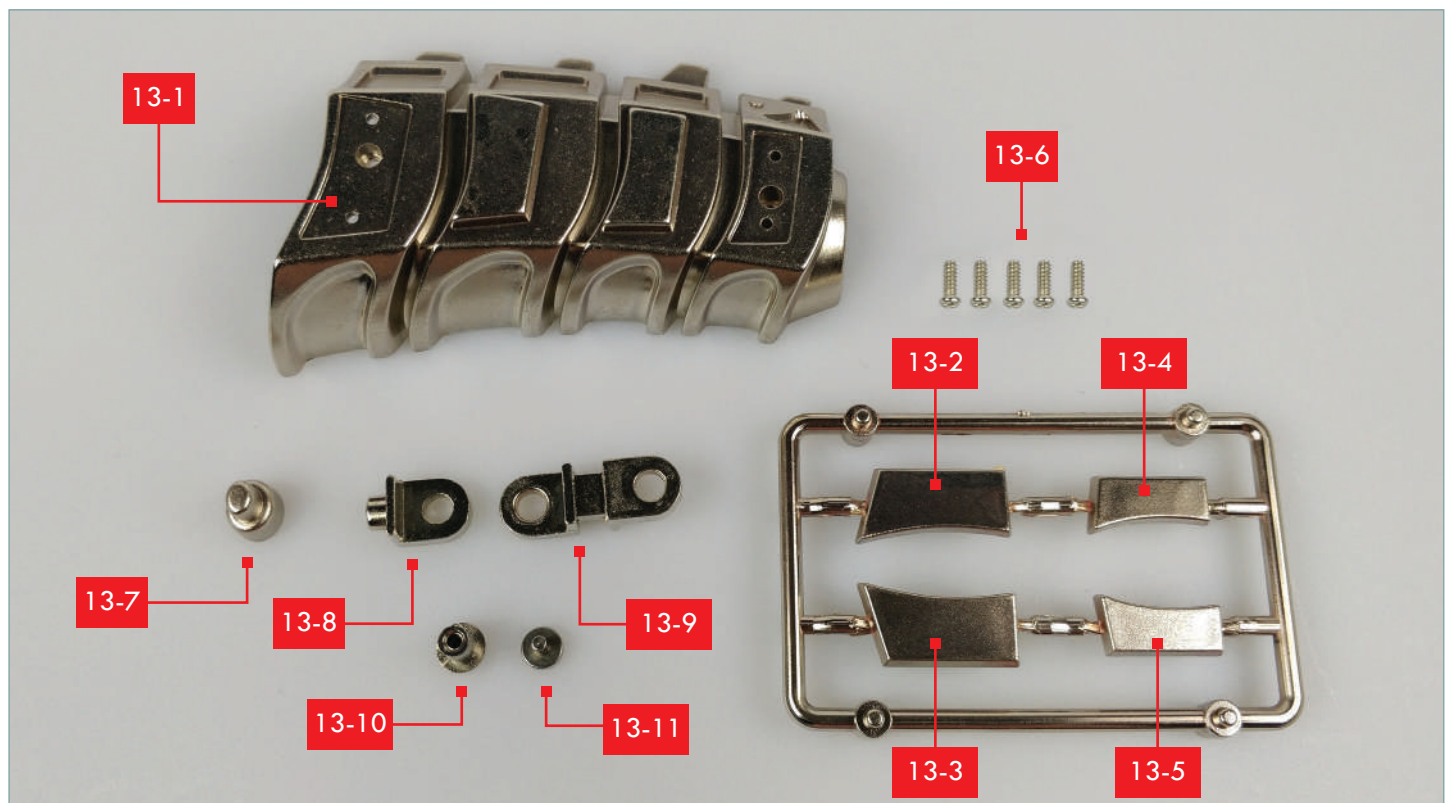
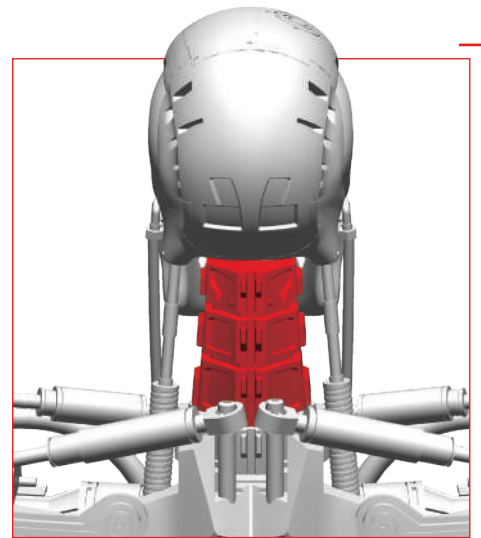


STAGE COMPLETE

This is how your completed forearm should look. Store it safely away, as you'll need to connect it to the rest of the arm in a future stage.

STAGE 13: ASSEMBLING THE NECK AND A RIGHT FINGER COMPONENT

In this stage, you'll assemble the neck and connect it to the lower jaw, and start the assembly of another right finger.

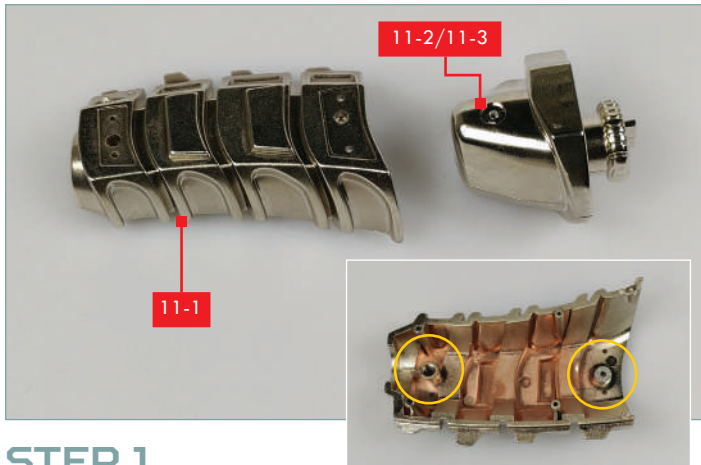


LIST OF PIECES

13-1	Neck Right	13-7	Right Fourth Finger A
13-2	Large Neck Plate L	13-8	Right Fourth Finger B
13-3	Large Neck Plate R	13-9	Right Fourth Finger C
13-4	Small Neck Plate L	13-10	Finger Connector A
13-5	Small Neck Plate R	13-11	Finger Connector B
13-6	5x PB screw (2x6 mm) (1 spare)		

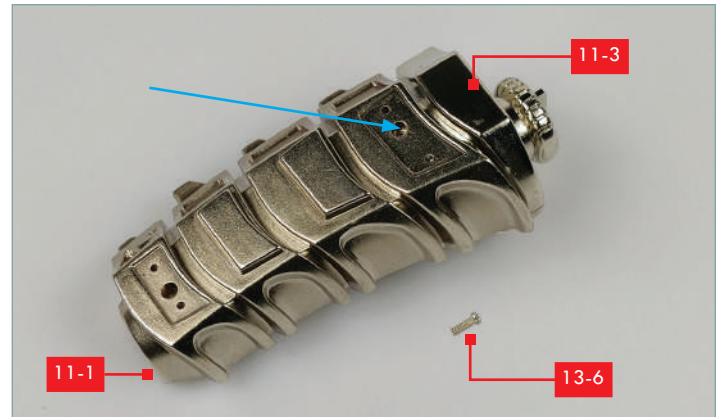
YOU WILL ALSO NEED

An cross-head screwdriver, superglue gel and a cocktail stick or similar, 6-1 Lower Jaw Assembly from stage 11, 11-1 Neck Left from stage 11, 11-2/11-3 Neck Joint from stage 11.



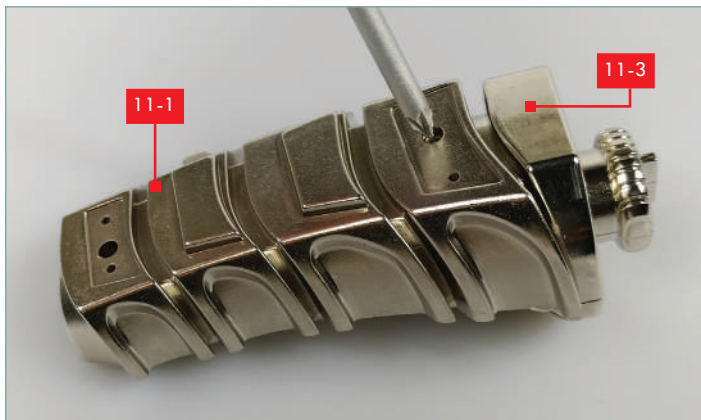
STEP 1

Place the neck part **11-1** and assembly **11-2/11-3** constructed in stage 11 on the work surface, as shown. Note the screw sockets circled in yellow on the underside (see inset).



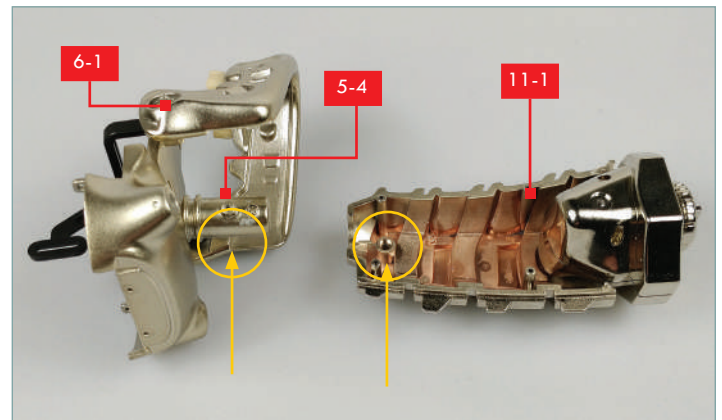
STEP 2

With the parts as shown above, slide part **11-3** under neck part **11-1**. Notice how the previously mentioned holes align and engage (marked with a blue arrow above). You will need a PB 2x6 mm (**13-6**) screw for the next step.



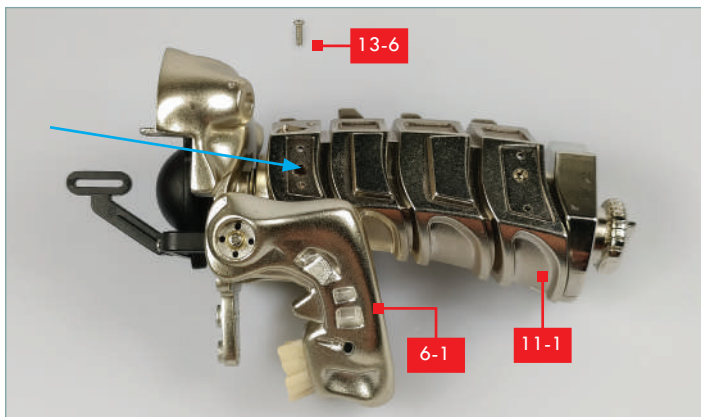
STEP 3

Insert the PB screw in the hole and fully tighten to secure the parts together.



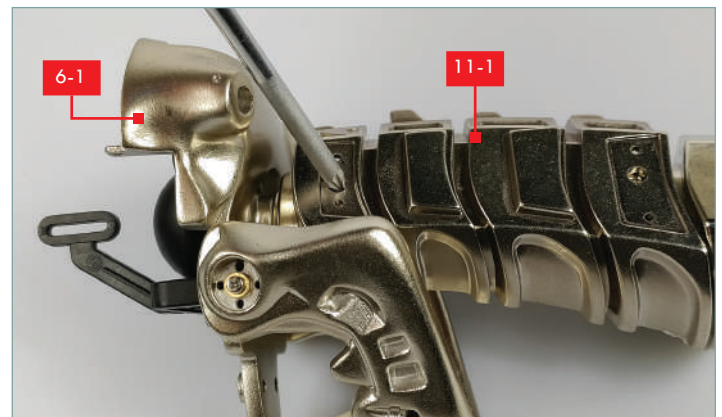
STEP 4

Next take the jaw assembly **6-1** which was last worked on in stage 11 and note the raised screw sockets, circled in yellow, on part **5-4** and on the underside of part **11-1**.



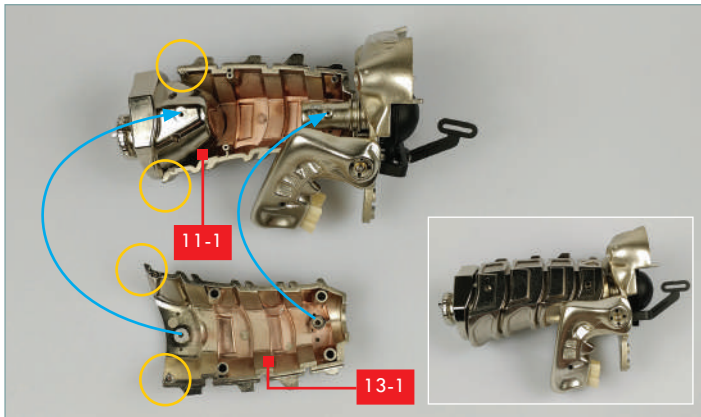
STEP 5

Turn the parts over, as shown above, and slide the jaw assembly (**6-1**) under neck part **11-1**. As before, notice how the previously mentioned screw sockets align and engage (blue arrow). You will need a PB 2x6 mm (**13-6**) screw for the next step.



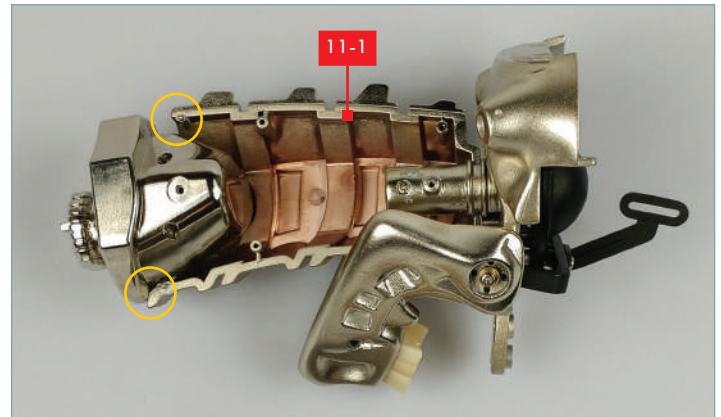
STEP 6

Insert the PB screw in the hole and fully tighten to secure the parts together.



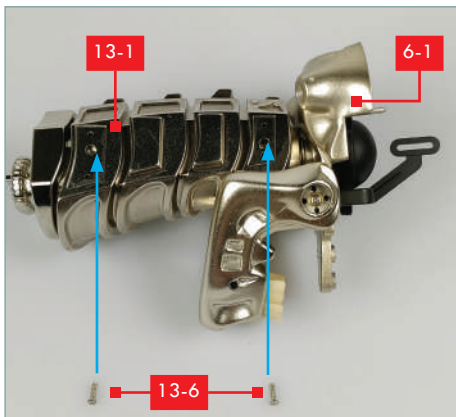
STEP 7

Turn the assembly over and take neck part **13-1**; note the small holes, circled in yellow. These holes receive small pins, also circled in yellow, on part **11-1**. Test-fit part **13-1** on top of part **11-1** as shown in the inset, aligning the holes marked by blue arrows.



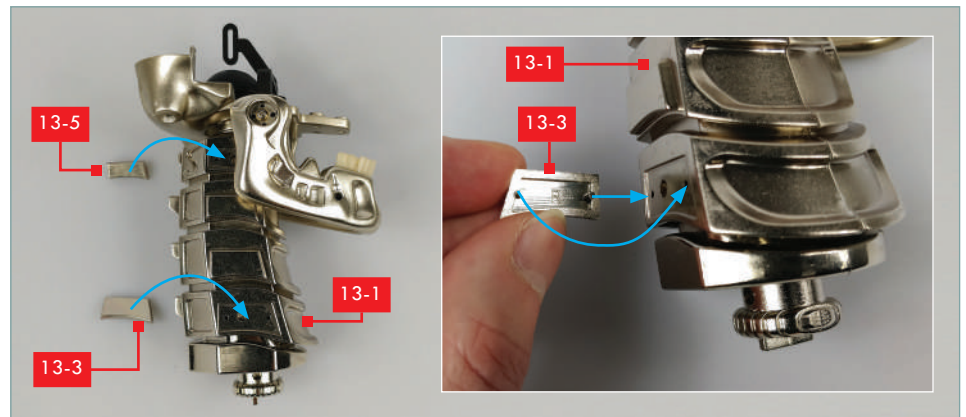
STEP 8

Separate the parts again and apply a small drop of superglue to each of the small pins on part **11-1** (circled in yellow).



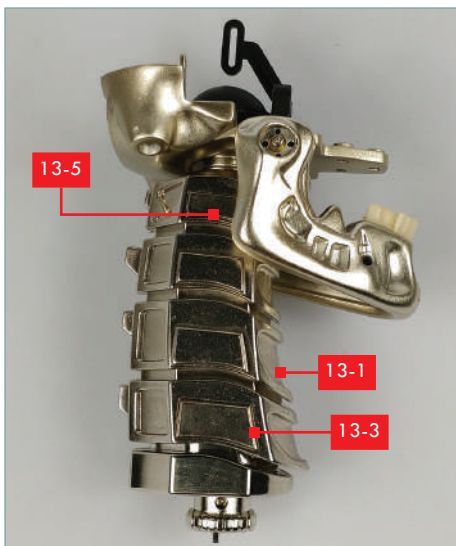
STEP 9

Re-fit part **13-1** on top of part **11-1**. Secure the two parts together by inserting two **13-6** screws, as shown by the blue arrows, and fully tighten.



STEP 10

Carefully remove neck plates **13-2**, **13-3**, **13-4**, and **13-5** from their framework and smooth any rough edges with fine sandpaper. Take the right neck plates **13-3** and **13-5** which push-fit into the right side of the neck (**13-1**). Each of the plates has two small pegs which connect with the corresponding holes in **13-1**, as shown in the inset.

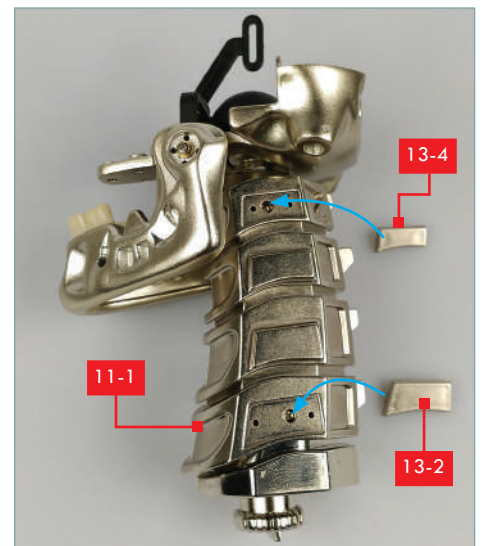


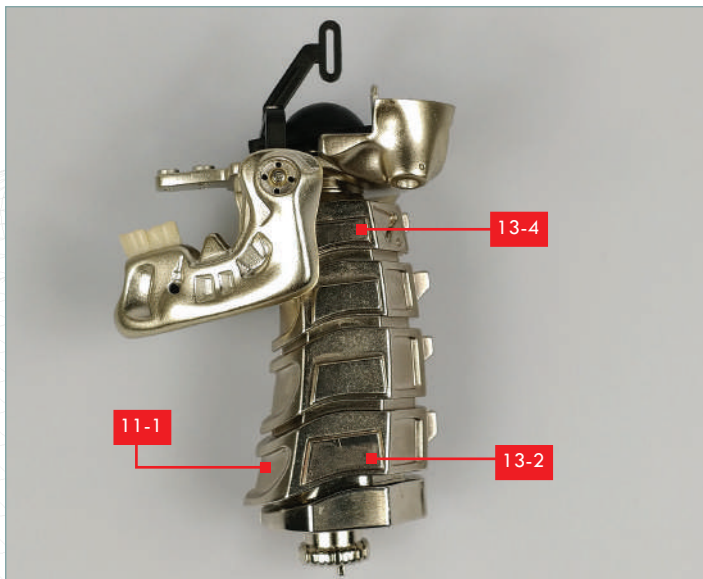
STEP 11

The plates look like this when fixed in position.

STEP 12

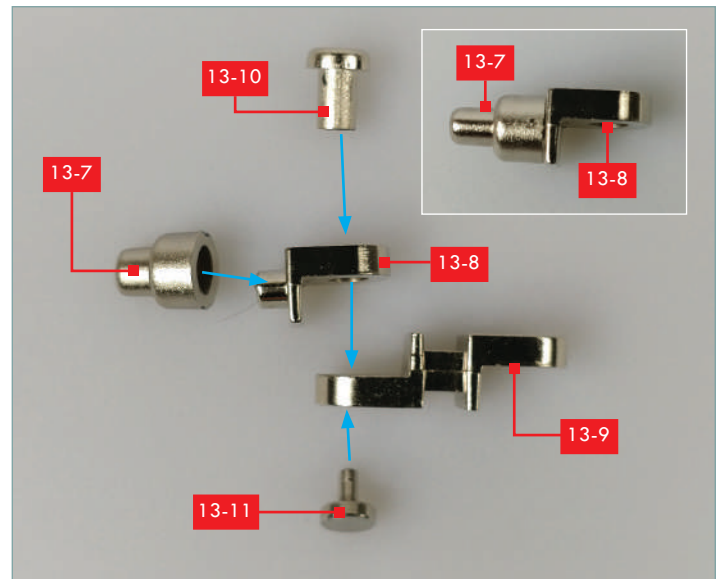
Repeat the step for the other side of the neck (**11-1**), push-fitting **13-2** and **13-4** into place as shown.





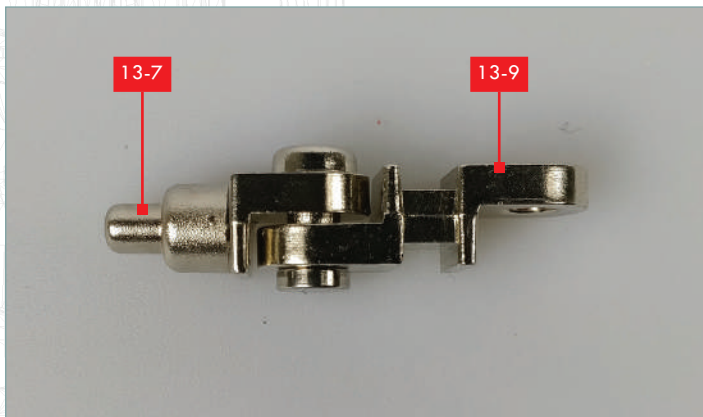
STEP 13

The plates look like this when fixed in position.



STEP 14

Move now to the finger components. In a similar way to the other fingers and thumb you have previously built, connect **13-7** to **13-8**, as shown in the insert. You may it helpful to apply a small drop of superglue to hold part **13-7** firmly in place. Then connect **13-8** to **13-9** using the two connectors, **13-10** and **13-11**, following the lines of assembly indicated in the main photo.



STEP 15

Your completed finger component will look like this.



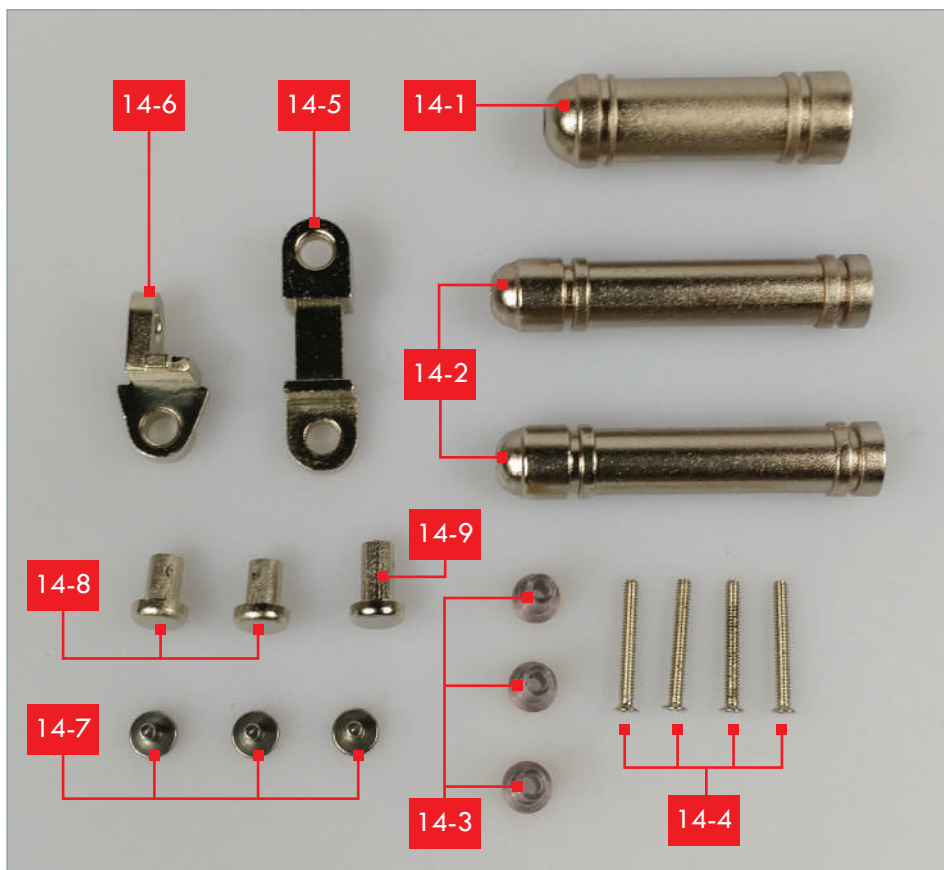
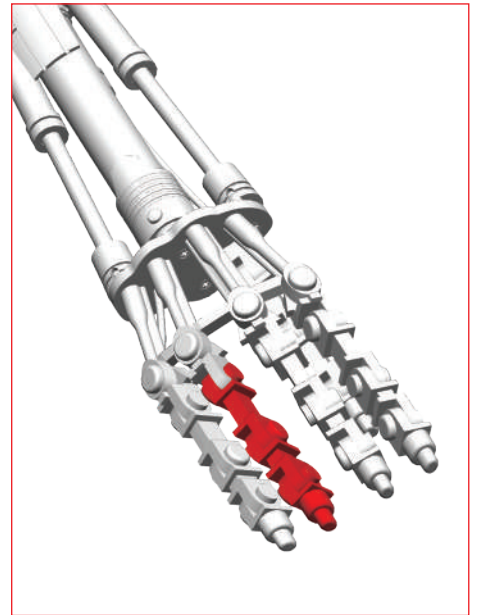
STAGE COMPLETE!

This is how your completed finger joint and the combined neck section should look. Store both pieces safely away — you'll need the finger joint in the next stage.



STAGE 14: ADDING TO THE RIGHT LOWER ARM, AND ASSEMBLING THE FOURTH RIGHT FINGER

In this stage, you'll add three more metallic muscles to the lower arm that you began to assemble in stage 12, and finish the right finger that you started in the last stage.

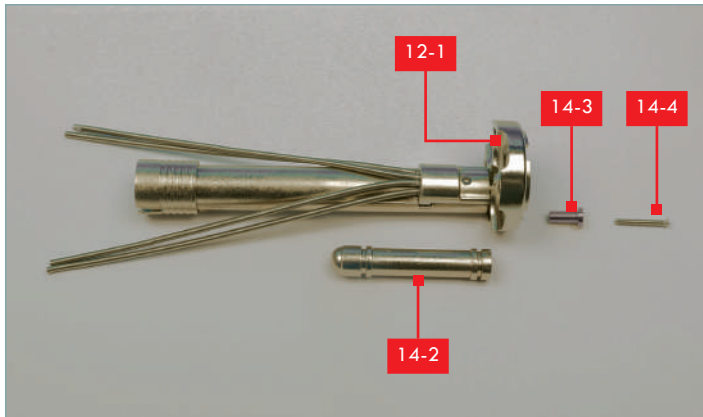


LIST OF PIECES

14-1	Lower Arm Tube A	14-6	Right Fourth Finger E
14-2	2x Lower Arm Tube B	14-7	3x Finger Connectors A
14-3	3x Bushes	14-8	2x Finger Connectors B
14-4	4x screw (2x16 mm) (1 spare)	14-9	Knuckle Connector
14-5	Right Fourth Finger D		

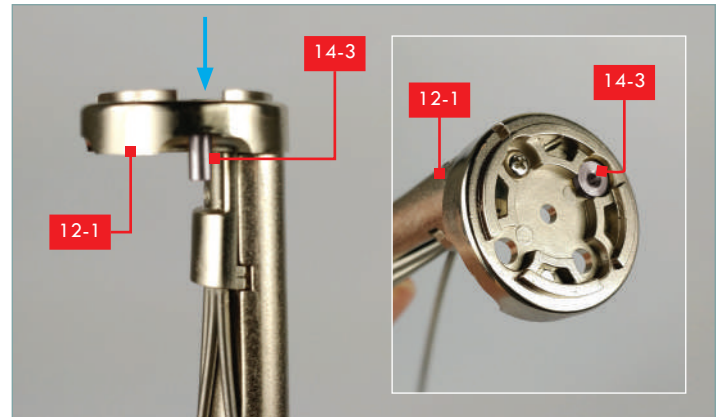
YOU WILL ALSO NEED

A suitable cross-head screwdriver, 13-8/13-9 Right Fourth Finger assembled in stage 13, 12-1/12-2 Lower Arm assembled in stage 12, 8-1 Right Hand from stage 10.



STEP 1

First, take the lower arm assembly **12-1** from stage 12 along with a lower arm tube B **14-2**, a bush **14-3** and a 2x16 mm screw **14-4**.



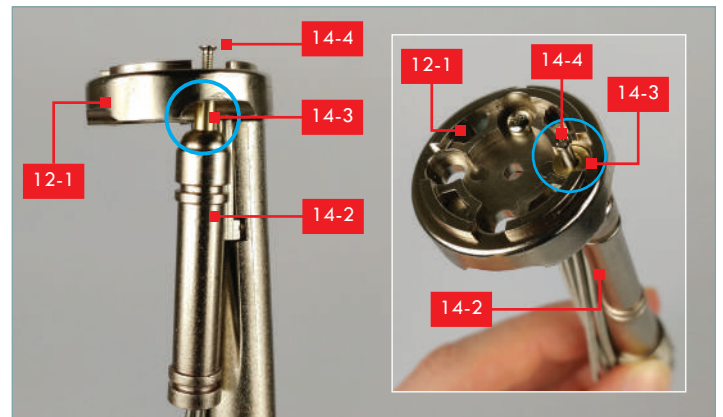
STEP 2

Insert the first bush **14-3** into **12-1**, using the inset photo as a guide.



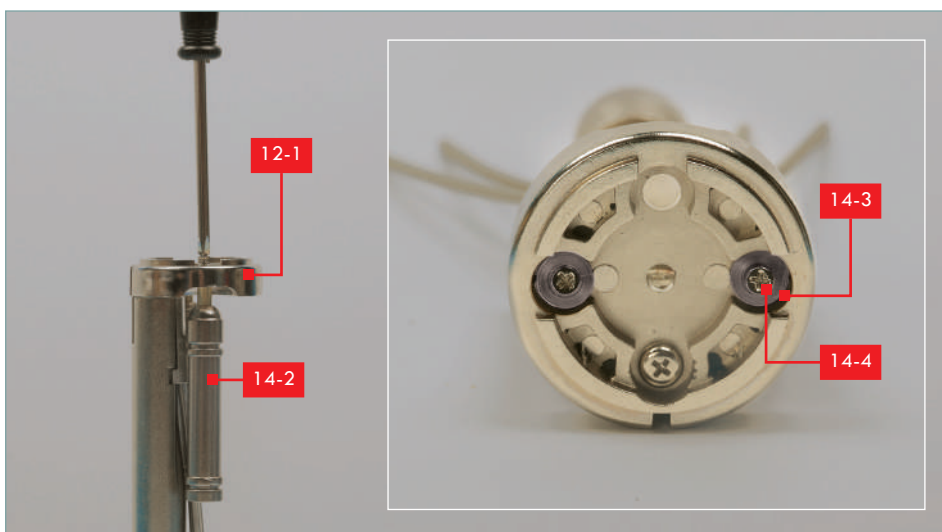
STEP 3

Next, fit in place a lower arm tube **14-2** onto **14-3**, as shown.



STEP 4

Insert a 2x16 mm screw **14-4** into bush **14-3** and tighten fully to secure the arm tube **14-2** in place. Note how the bush is still visible when the screw is fully tightened (circled in blue).



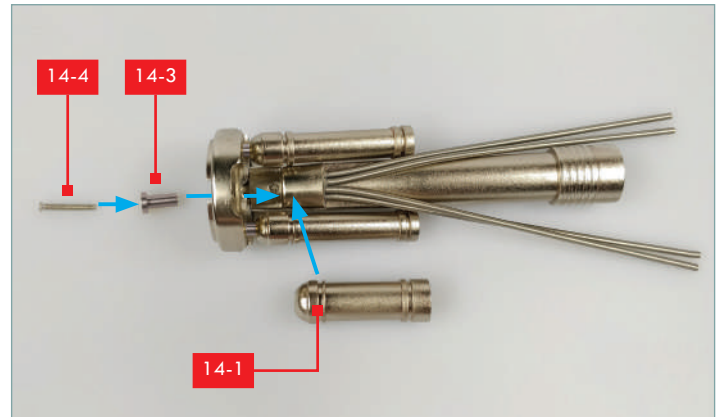
STEP 5

Repeat step 4 on the other side of arm part **12-1**. As before, after inserting the bush **14-3**, secure the second lower arm tube **14-2** in place using a 2x16 mm screw.



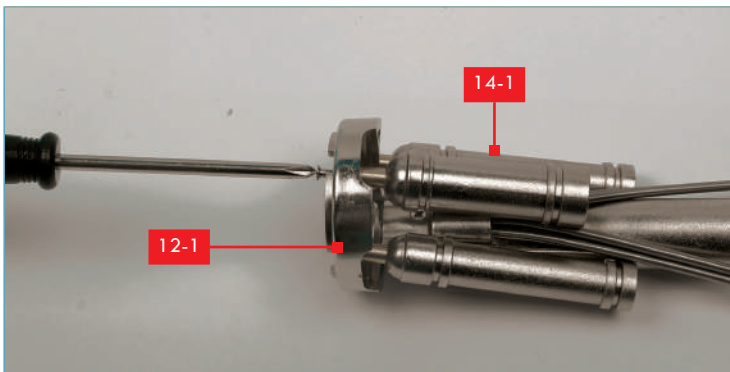
STEP 6

With the parts fitted so far, your lower arm now looks like this.



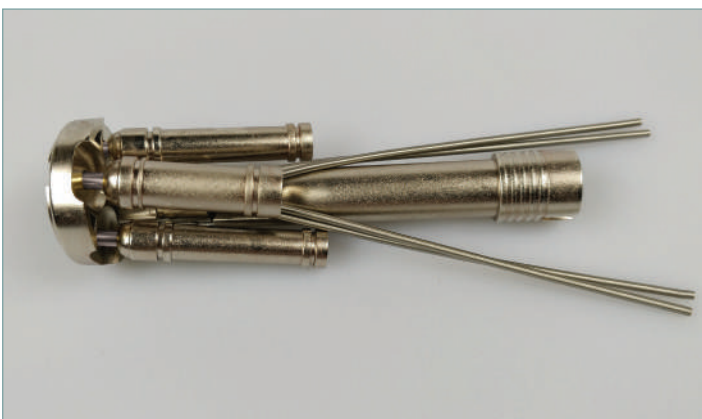
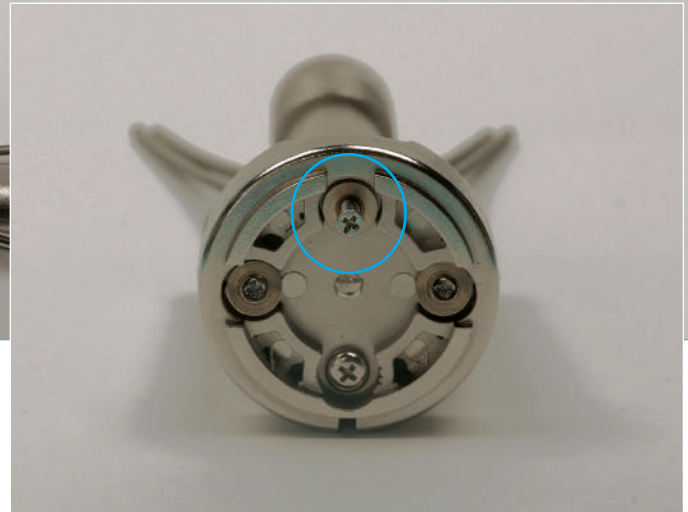
STEP 7

Now, take the lower arm tube A **14-1**, a bush **14-3** and a 2x16 mm screw **14-4**.



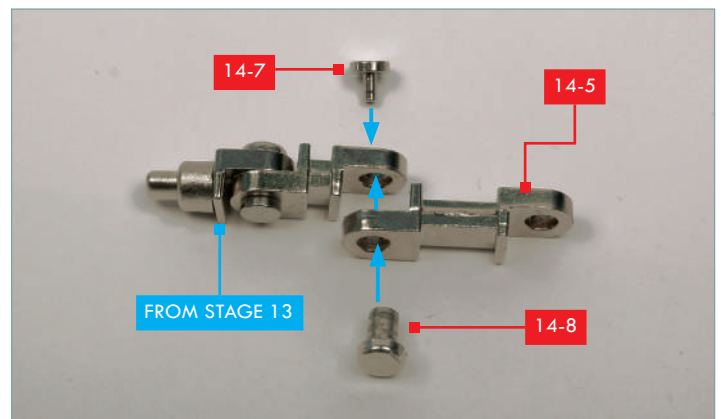
STEP 8

In a similar way to the previous steps, insert a bush **14-3** into the remaining hole in part **12-1** (inset circled in blue) and fit the arm tube **14-1** as shown above. Secure in place with a 2x16 mm screw **14-4**.



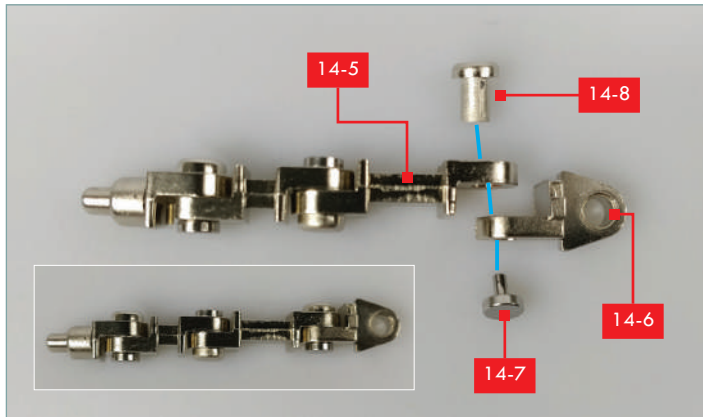
STEP 9

The lower arm section looks like this when completed.



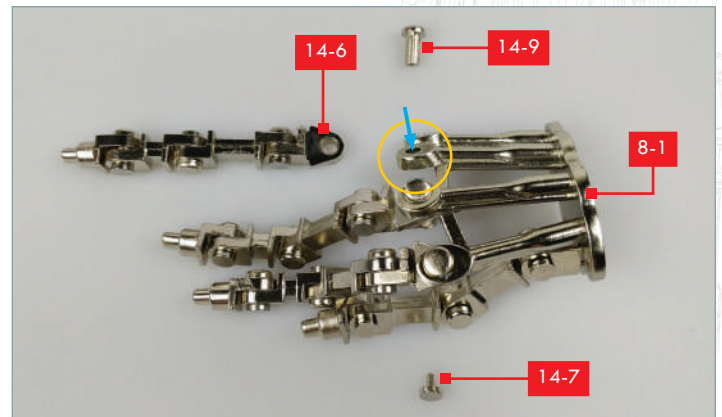
STEP 10

Along with the finger components constructed in stage 13, lay part **14-5**, as well as connectors **14-7** and **14-8**, on the work surface. As before, push the connectors together, as shown by the blue arrows, to join the parts.



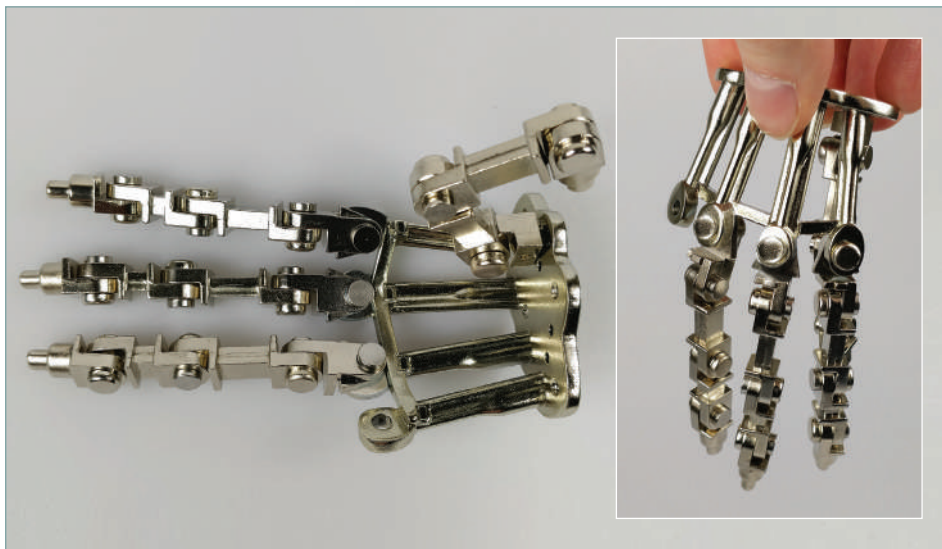
STEP 11

In the usual way, join part **14-6** to the finger assembly using connector parts **14-7** and **14-8**. The inset shows how the completed finger should look.



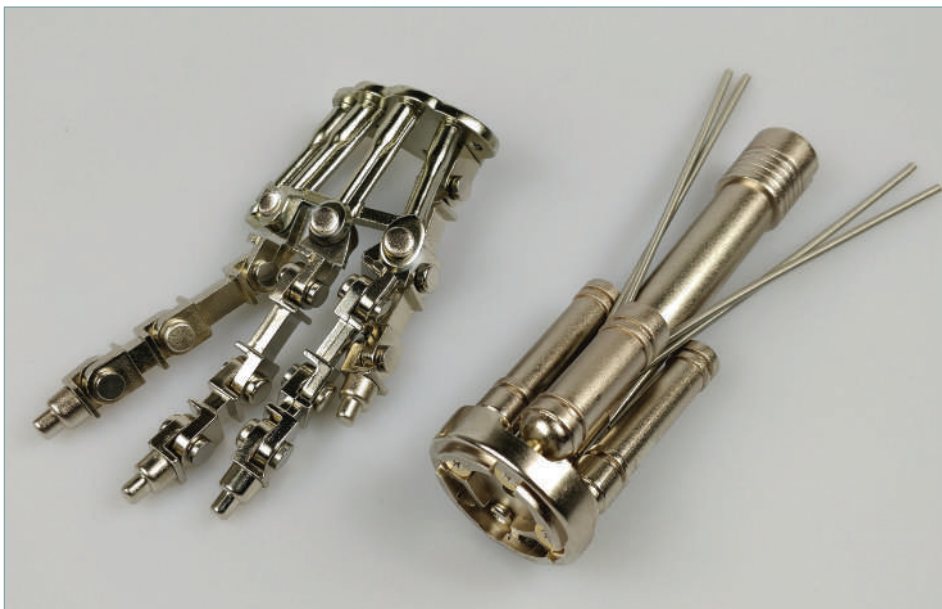
STEP 12

Finally, connect the finger to the knuckle assembly **8-1**. As before, part **14-6** fits under the knuckle **8-1** and is secured in place with connector **14-7** below and connector **14-9** above.



STEP 13

This is how the hand should now look after connecting the fourth finger.



STAGE COMPLETE!

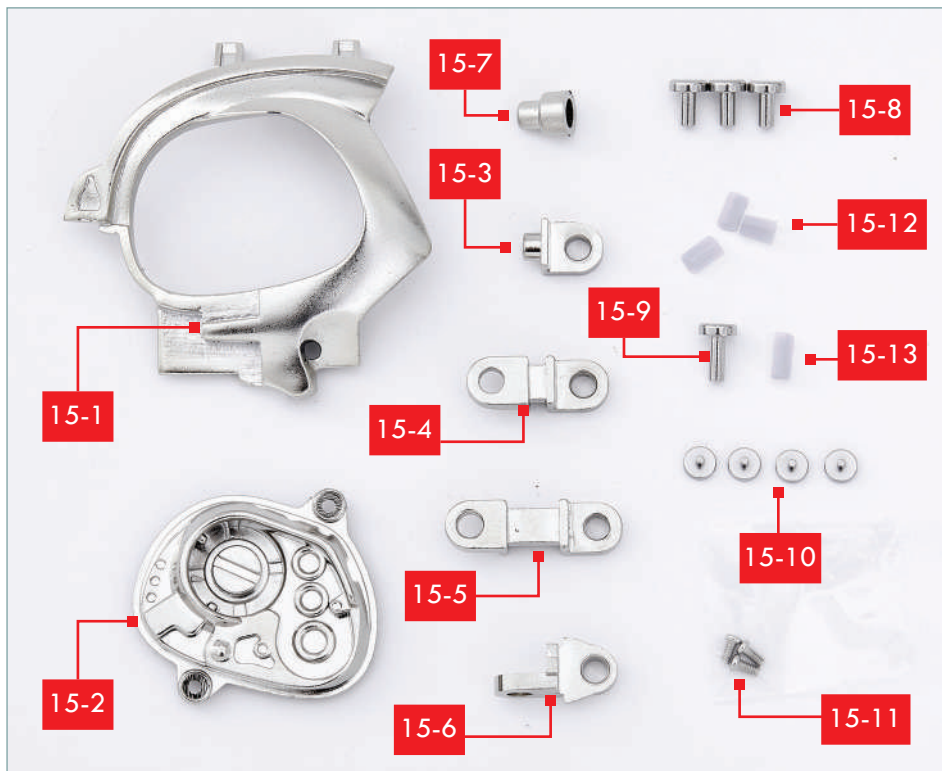
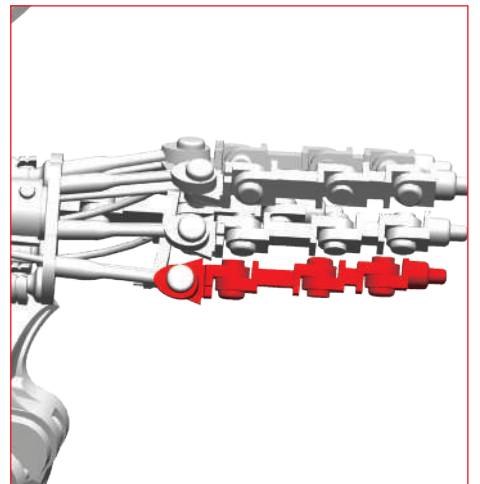
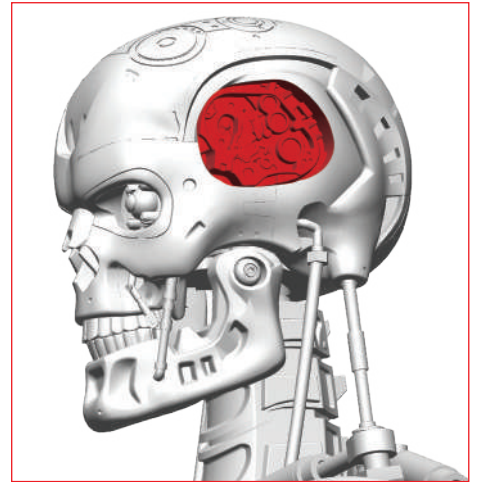
This is how your newly-added finger and right hand should look, alongside the assembled lower arm.

Check the pieces against the photos throughout this section, then store them carefully away.



STAGE 15: ASSEMBLING PART OF THE LEFT HEAD AND THE FIFTH FINGER OF THE RIGHT HAND

Two parts of the left head are assembled, and we put together the last finger of the right hand and attach it to the rest of the hand.



LIST OF PIECES

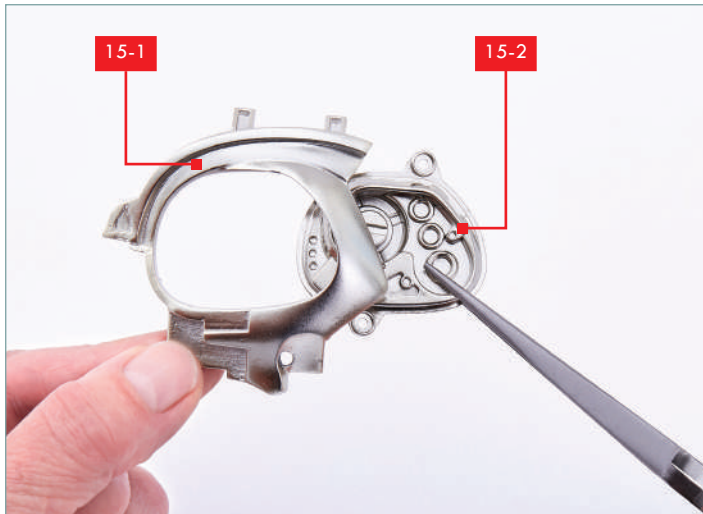
15-1	Left head A	15-8	3x Fifth finger connectors (bolts)
15-2	Left head B (inner)	15-9	Fifth finger knuckle connector (bolt)
15-3	Fifth finger A	15-10	4x Fifth finger connectors (pins)
15-4	Fifth finger component B	15-11	3x PM screw (2x4 mm) (1 spare)
15-5	Fifth finger component C	15-12	3x Fifth finger connectors (sheaths)
15-6	Fifth finger component D	15-13	Fifth finger knuckle connector (sheath)
15-7	Fifth finger component E		

YOU WILL ALSO NEED

A suitable cross-head screwdriver, tweezers, superglue and a cocktail stick or toothpick with which to apply it.

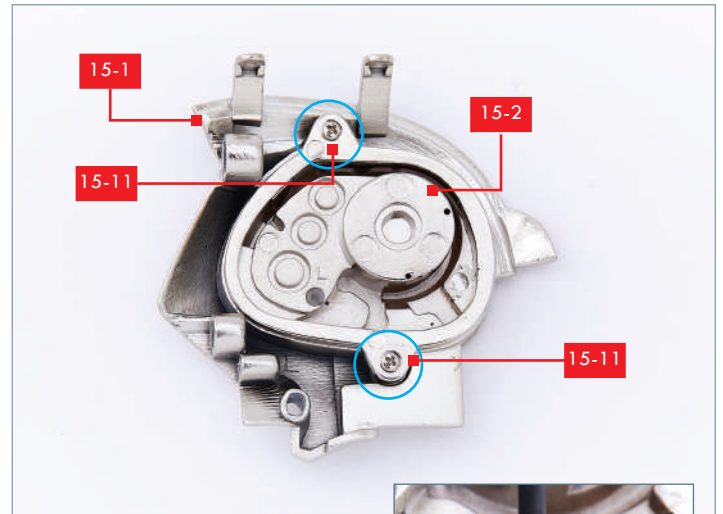
EXPERT TIP!

Reverse tweezers are easier to use than normal tweezers. When you squeeze the grips, the jaws open, and as you release the grips the jaws hold the part without having to apply pressure to the tweezer grips.



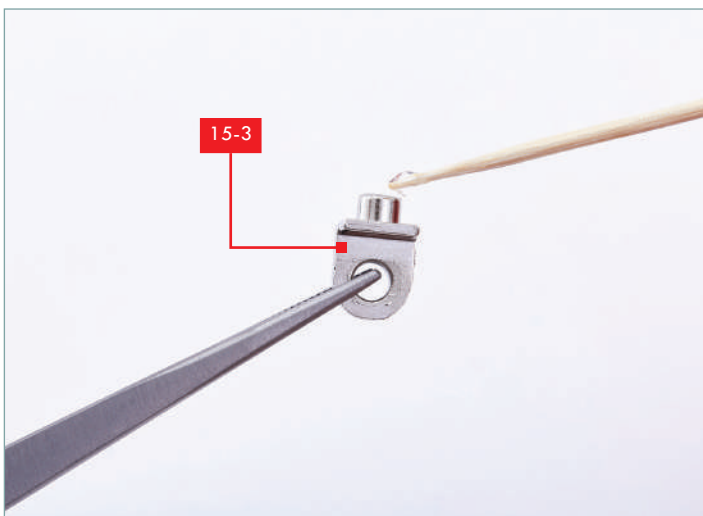
STEP 1

Take the two parts of the left head, **15-1** and **15-2**. Fit the inner part **15-2** into the opening in part **15-1**, as shown.



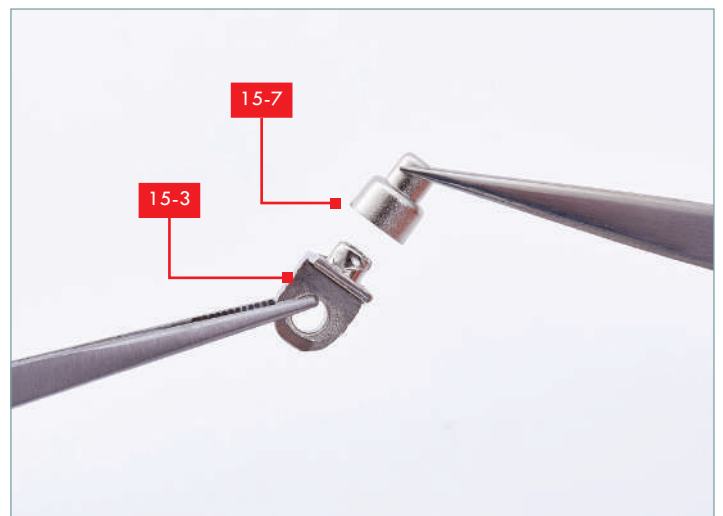
STEP 2

Turn the parts over and fix the two head parts together with two PM screws **15-11** (circled). Note that the screws are fixed from inside the inner section of the left head **15-2**.



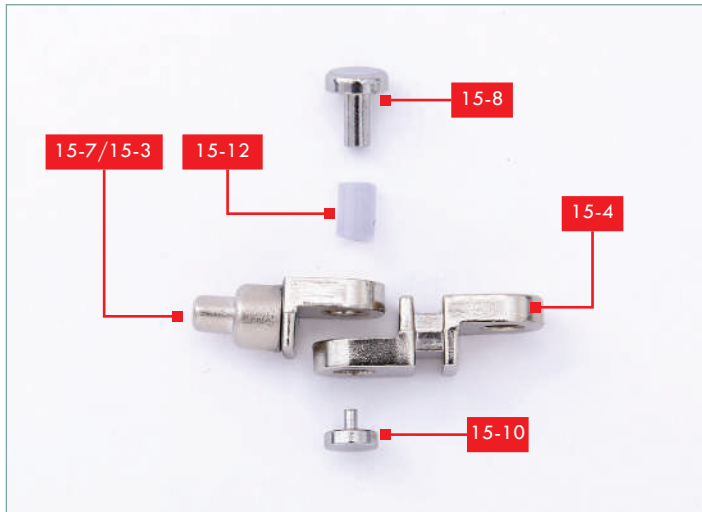
STEP 3

Take the first two parts of the finger: fifth finger E (the tip of the finger) **15-7** and fifth finger A **15-3**. Apply a little superglue to the peg on part **15-3**.



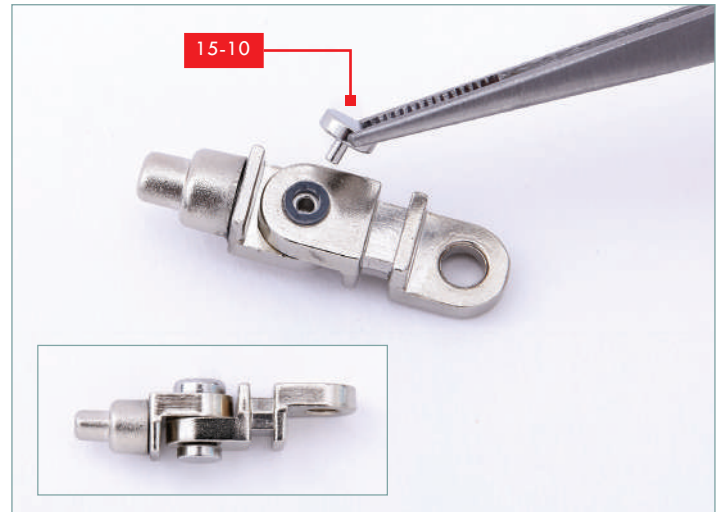
STEP 4

Fit tip of the finger **15-7** on to part **15-3**.



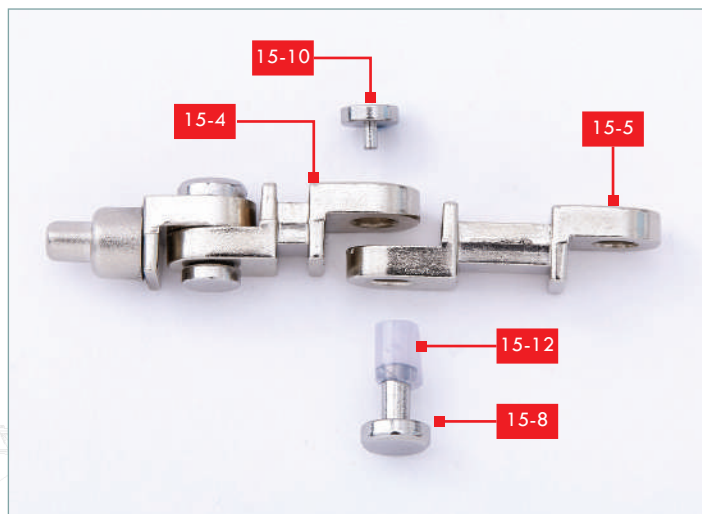
STEP 5

Take the next part of the fifth finger B **15-4**. You will also need one connection sheath **15-12** which passes through the join, a small connector bolt **15-8** and a connection pin **15-10**. Fit the sheath onto the bolt and then fit the bolt and sheath through the holes in parts **15-3** and **15-4**.



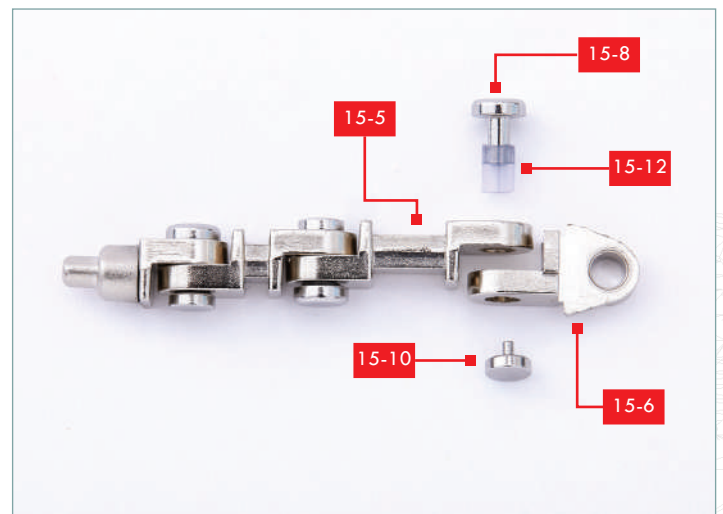
STEP 6

Apply a little glue to the end of pin **15-10**. Fix it into the hole in bolt **15-8**. Squeeze the bolt and pin firmly together so that they grip parts **15-3** and **15-4** together.



STEP 7

Take finger part **15-5**, which fits onto part **15-4**. You will also need a set of connectors **15-8**, **15-12** and **15-10**. This time, the bolt and sheath should be inserted from the opposite side. When in place, complete the join by applying a little glue to the end of the pin on part **15-10** and fix it into the socket on part **15-8**. Squeeze the bolt and pin firmly together so that they grip parts **15-4** and **15-5** together.



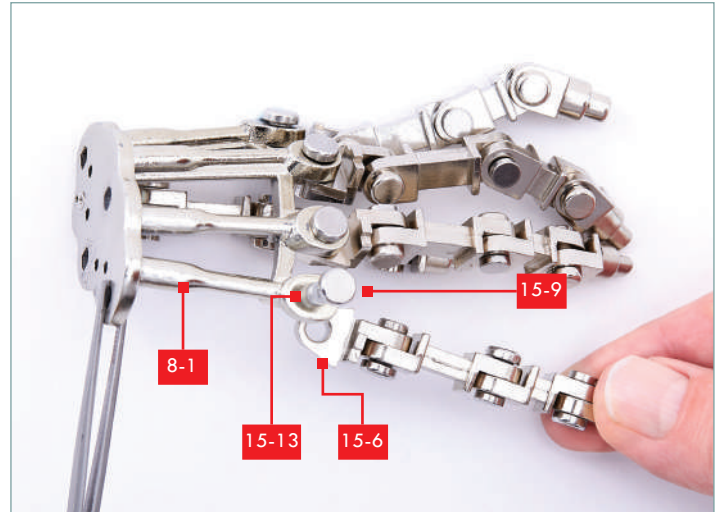
STEP 8

Take the next component **15-6** and a set of connectors **15-8**, **15-12** and **15-10**. Align the holes on parts **15-6** and **15-5** and fix together as before, this time inserting the bolt from the top.



STEP 9

The finished finger, with three joints that are moveable but firm, so that you can arrange them at different angles.



STEP 10

Take the hand assembly from stage 14 and identify the fixing point for the fifth finger on the palm of the hand **8-1**. Align the holes in parts **15-6** and part **8-1**. Fit the sheath **15-13** over bolt **15-9** and fit it through the holes. Apply a little glue to the end of the pin on the fourth part **15-10** and fix it into the socket of part **15-9**. Grip the pin and the bolt firmly together until the glue has dried.

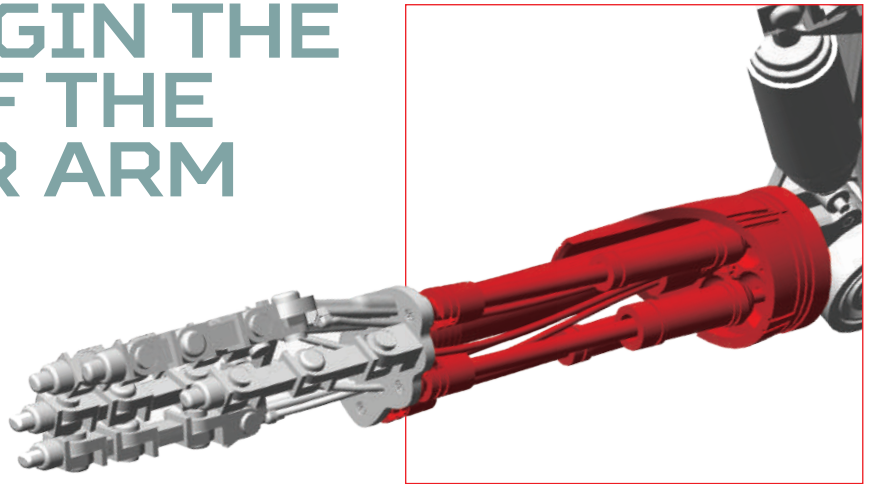


STAGE COMPLETE!

Two parts of the head have been fitted together and the fifth finger has been assembled and connected to the rest of the right hand.

STAGE 16: BEGIN THE ASSEMBLY OF THE FIRST LOWER ARM

In this stage, you'll put together the first section of the right forearm, and begin to connect up more components.

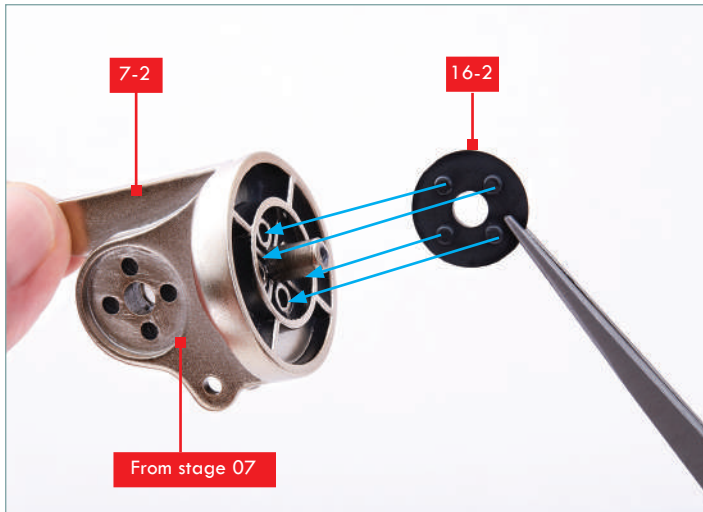


LIST OF PIECES

16-1	Lower arm A	16-5	2x PM screw (3x12 mm) (1 spare)
16-2	Lower arm notched ring	16-6	4x PB screw (2x6 mm) (1 spare)
16-3	3x Lower arm B	16-7	2x M3 metal spring washer (1 spare)
16-4	3x Lower arm rubber washers		

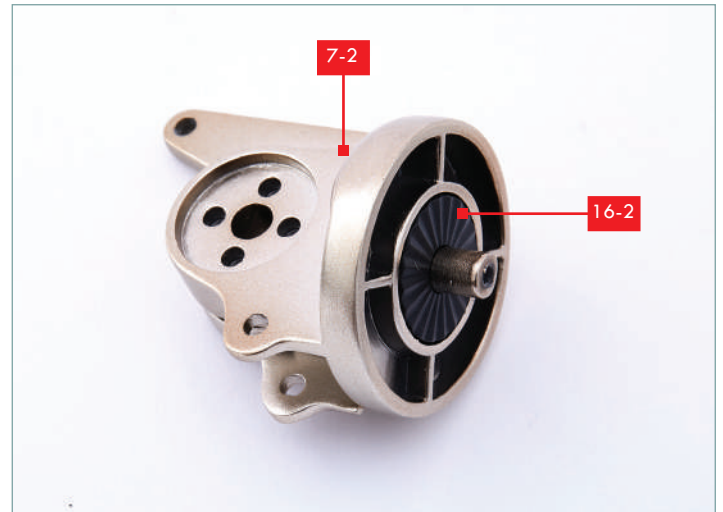
YOU WILL ALSO NEED

The upper arm joint from stage 07, the right forearm assembly (with muscles) from stage 12, a suitable cross-head screwdriver.



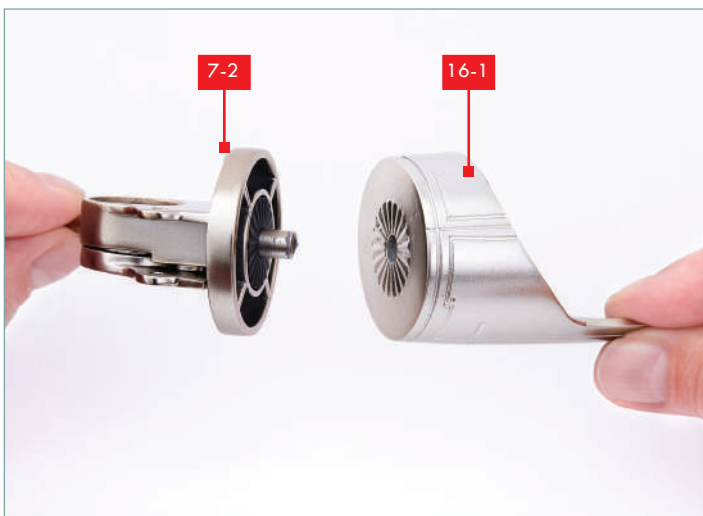
STEP 1

Fit the notched arm ring **16-2** on to the base of the arm joint from stage 07 (part **7-2**). Note that there are four pegs on part **16-2** that fit into sockets on the base of the joint, as indicated by the arrows.



STEP 2

When correctly fitted, the notched ring **16-2** fits snugly into the recess in part **7-2**.



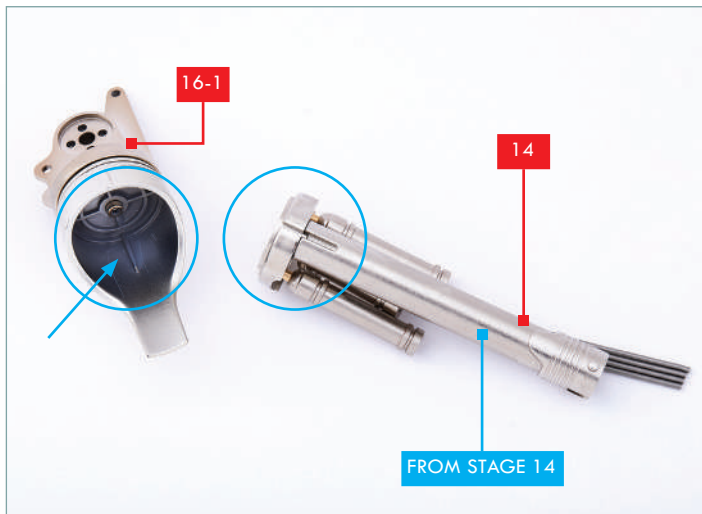
STEP 3

Fit lower arm A **16-1** on to the peg at the centre of the arm joint.



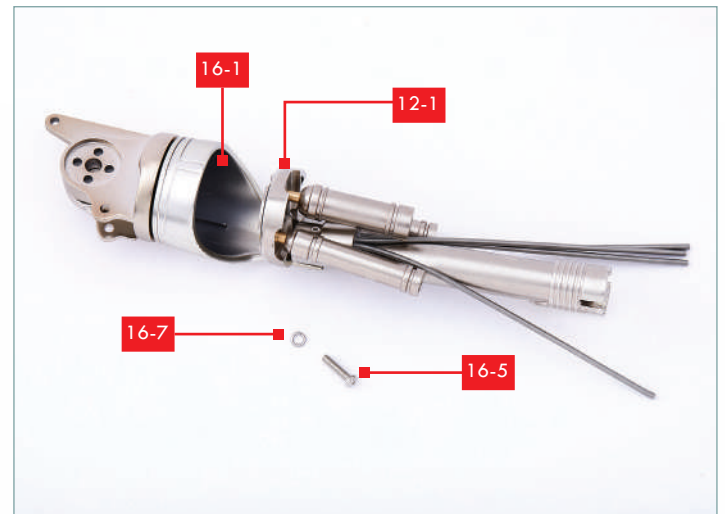
STEP 4

Ensure that the markings on part **16-1** are correctly aligned with part **7-2**, as shown.



STEP 5

You will now need the arm and muscle assembly from stage 14. Note that there is a recess in the parts from stage 14 and a raised tab on the inside of part **16-1** (circled).



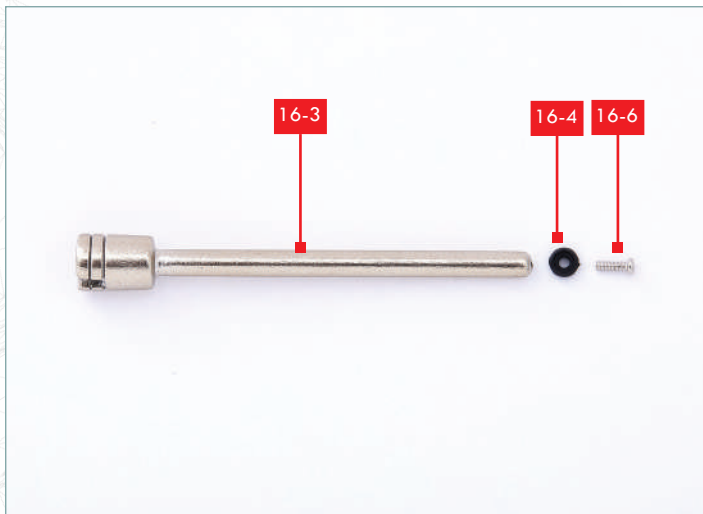
STEP 6

Fit the lower arm assembly into part **16-1**. Have a PM 3x12 mm screw (**16-5**) and M3 spring washer (**16-7**) ready.



STEP 7

Fit the washer **16-7** over the screw **16-5**. Use the screw to fix together the elements that you have assembled, inserting it through the centre of part **12-1** and into the screw socket on part **7-2**.



STEP 8

Take a lower arm B **16-3**, a rubber washer **16-4** and a screw PB 2x6 mm (**16-6**). Fit the washer over the screw and then fix the screw into the narrow end of part **16-3**.



STEP 9

Tighten the screw fully but do not over-tighten; the washers should still be able to rotate on the screw. Repeat step 05 to assemble the two additional lower arm B sections. Fit them into the three lower arm tubes as shown in the photo below.

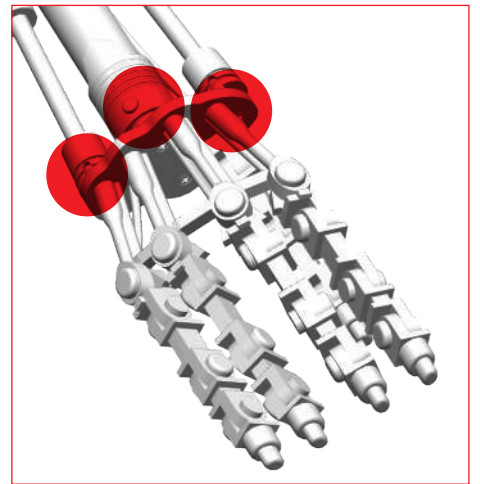
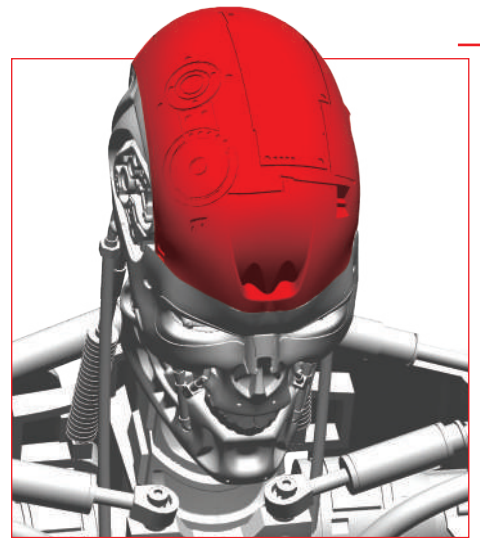


STAGE COMPLETE

The first lower arm is beginning to take shape.

STAGE 17: FITTING THE SIDES OF THE HEAD TO THE TOP OF THE HEAD

In this stage, you will attach the sides of the head assembled in stages 09 and 15 to the top of the head, supplied with this stage. You'll also add ball joints to the base of the hand.



LIST OF PIECES

- | | |
|------|--------------------------------|
| 17-1 | Top of head |
| 17-2 | 3x Ball joints for right wrist |
| 17-3 | 5x PM screw (2x4 mm) (1 spare) |
| 17-4 | 4x KB screw (2x6 mm) (1 spare) |

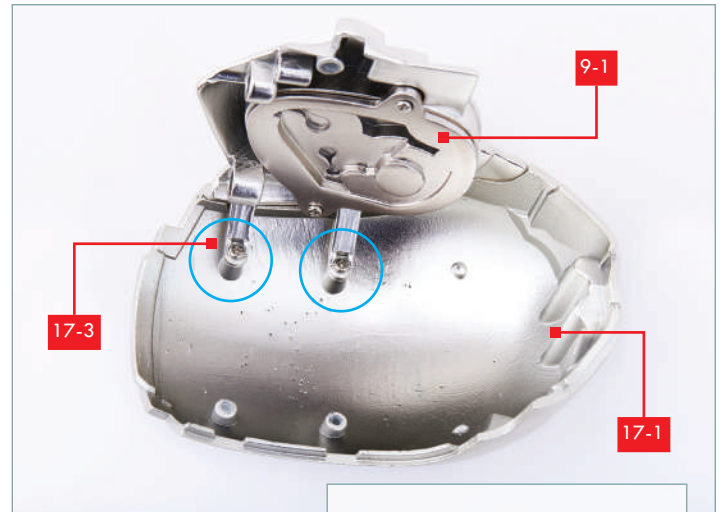
YOU WILL ALSO NEED

Right side head assembly from stage 09, left side head assembly from stage 15, the hand assembly from stage 15, a cross-head screwdriver.



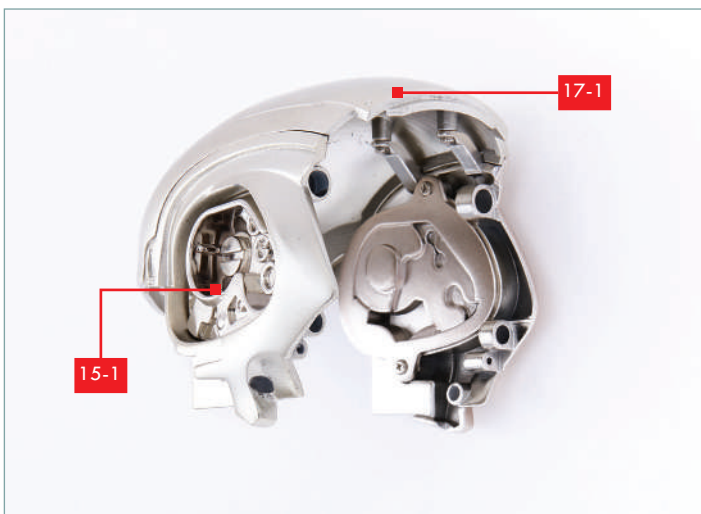
STEP 1

Take the right side head assembly from stage 09 and check how it fits into the top of the head **17-1**.



STEP 2

Fix the right side of the head to the right side of the top of the head **17-1** using two PM 2x4 mm screws (17-3) (circled).



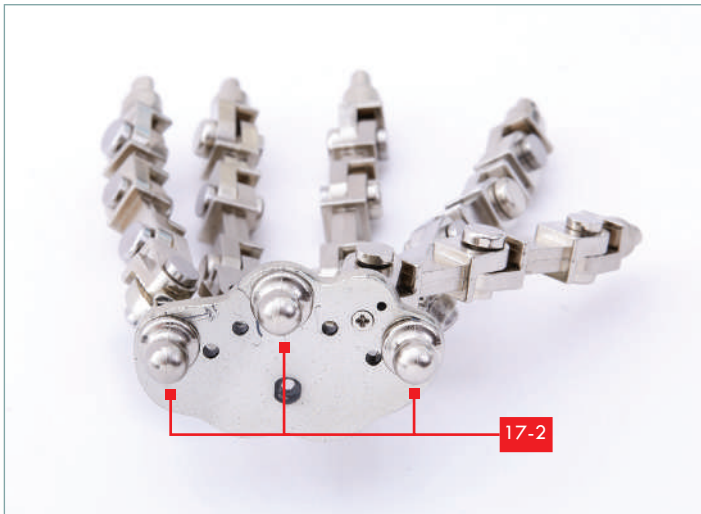
STEP 3

Fit the left side of the head assembled in stage 15 to the left side of the top of the head **17-1** and fix in place using two PM 2x4 mm screws.



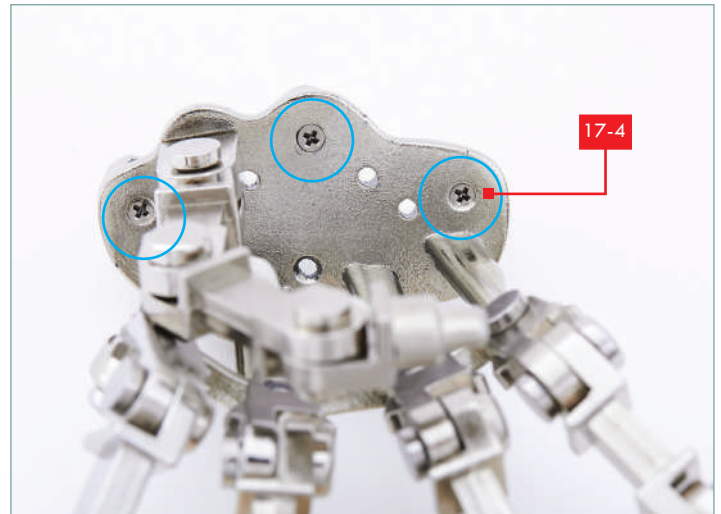
STEP 4

Take the three ball joints **17-2** and identify the fixing points on the base of the palm of the hand (circled in blue).



STEP 5

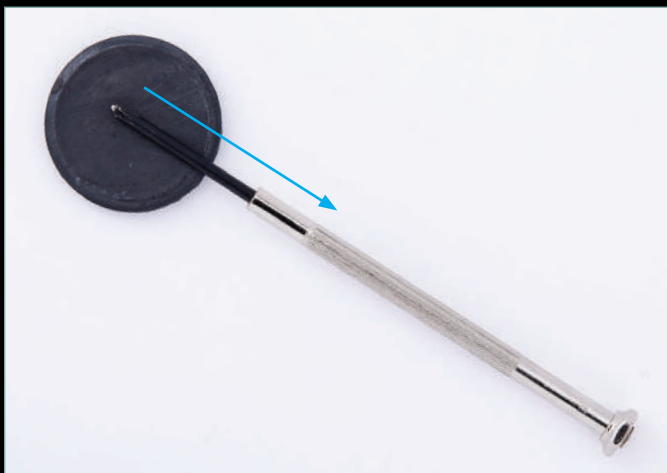
Fit the three ball joints **17-2** into the recesses in the palm of the hand.



STEP 6

Fix each of the three ball joints in place using a KB 2x6 mm screw (circled). You may find it helpful to carefully hold the ball joints in place with pliers whilst fitting the screws.

EXPERT TIP!



It is easier to position the screws if you have a magnetic screwdriver to pick up the screws. If your screwdriver is not magnetic, draw it across a magnet in one direction, as indicated by the arrow, to induce magnetism.

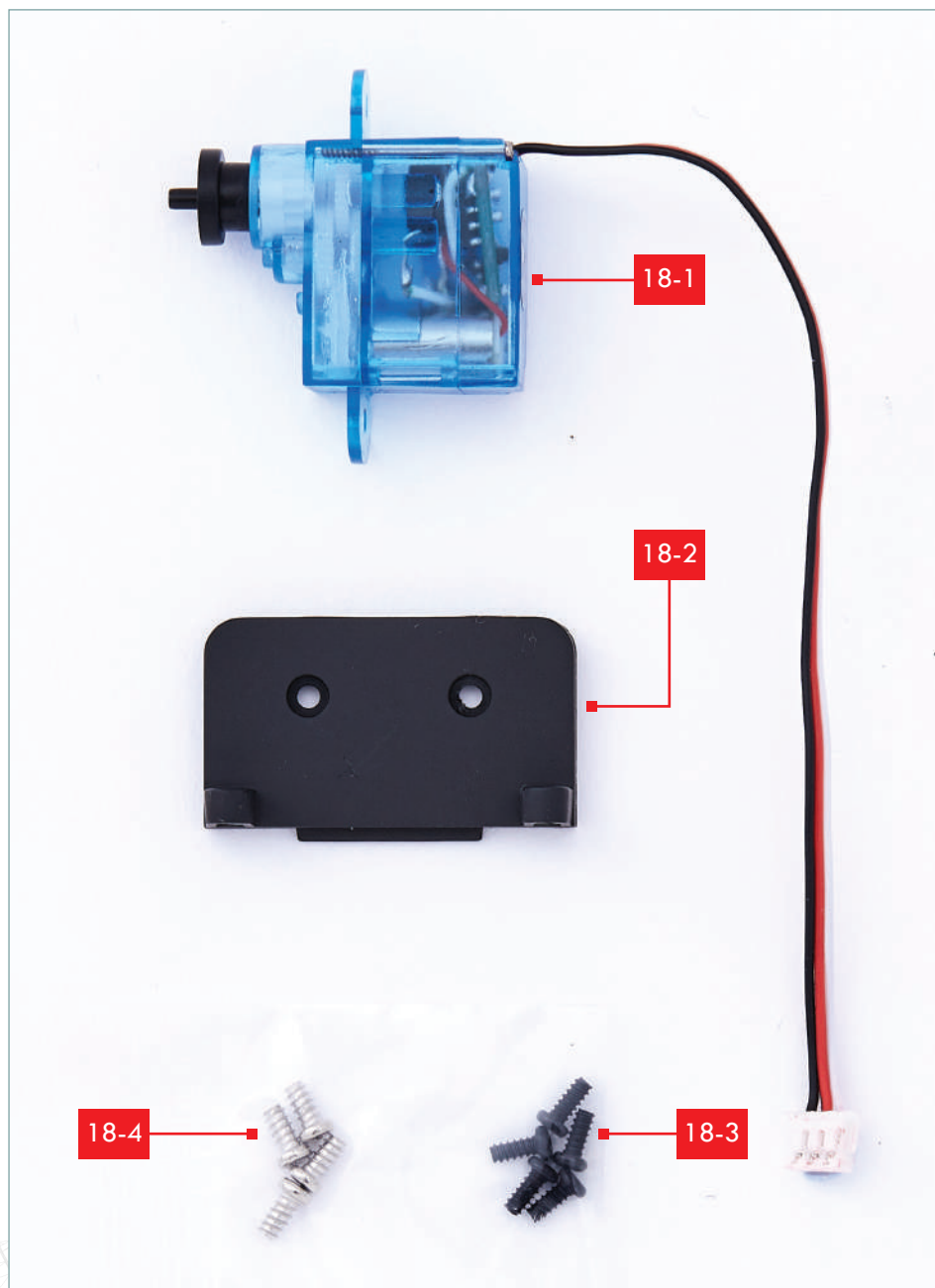
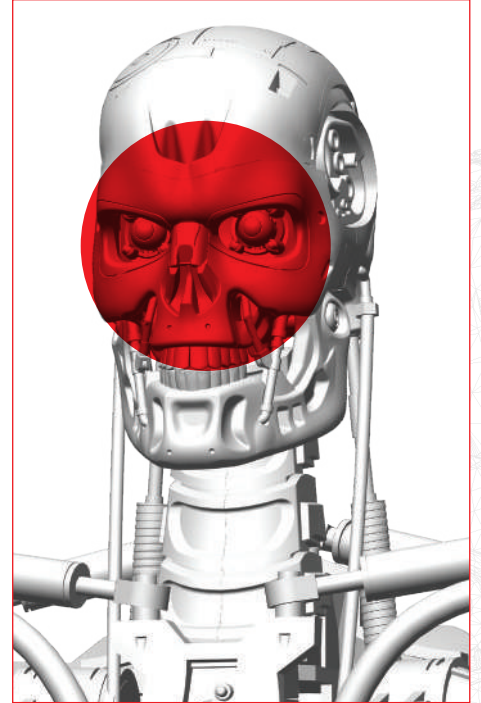


STAGE COMPLETE

The skull is taking shape, and ball joints have been added to the palm of the hand.

STAGE 18: ASSEMBLING THE EYE MOTOR SUPPORT

In this stage, you'll combine the existing head components with the eye motor, ultimately granting movement and control over the T-800's terrifying red eyes.

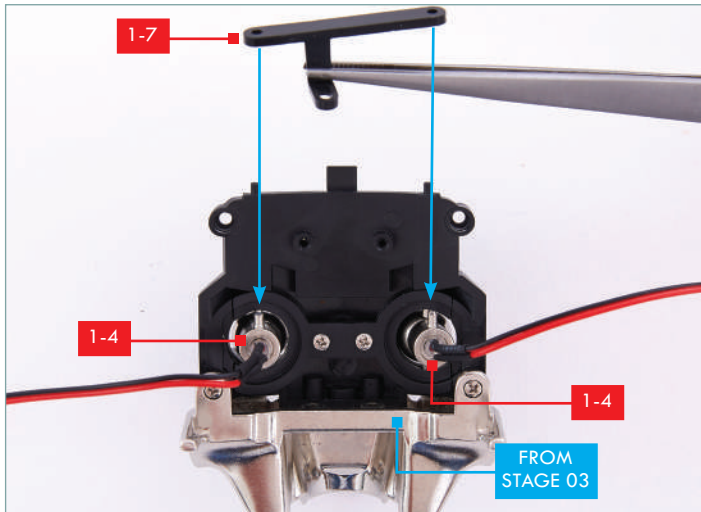


LIST OF PIECES

- | | |
|------|----------------------------------|
| 18-1 | Motor for eyes |
| 18-2 | Eye motor support |
| 18-3 | 5x PB screw (1.7x4 mm) (1 spare) |
| 18-4 | 4x PB screw (2x4 mm) (1 spare) |

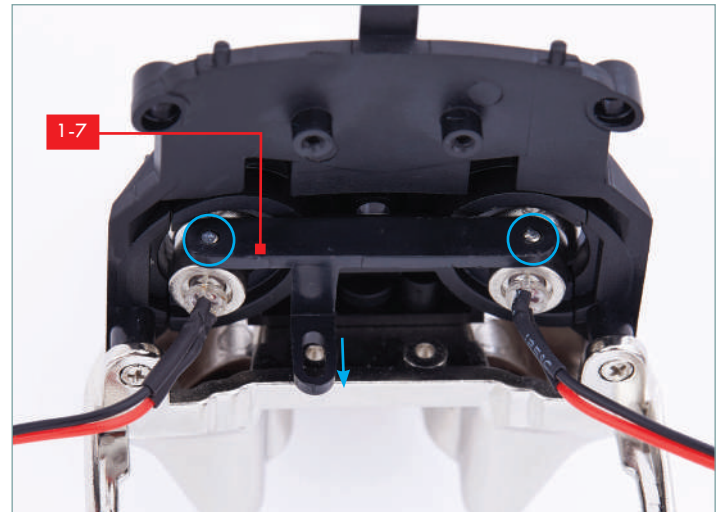
YOU WILL ALSO NEED

The head assembly from stage 02, the neck and lower jaw assembly from stage 13, a cross-head screwdriver.



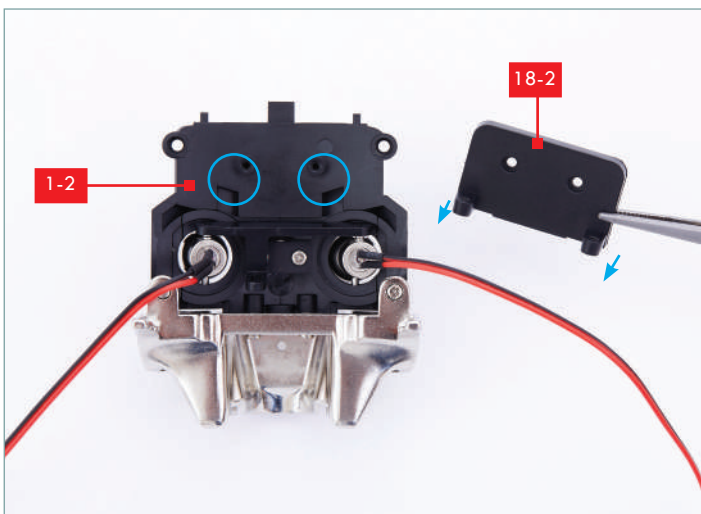
STEP 1

Take part **1-7**, supplied with stage 01 and the head assembly from stage 03. Hold part **1-7** with the 'L' shape at the bottom, with the base of the 'L' pointing towards you. Fit the two holes in the top crossbar of part **1-7** over the two pins on parts **1-4**, as indicated by the arrows.



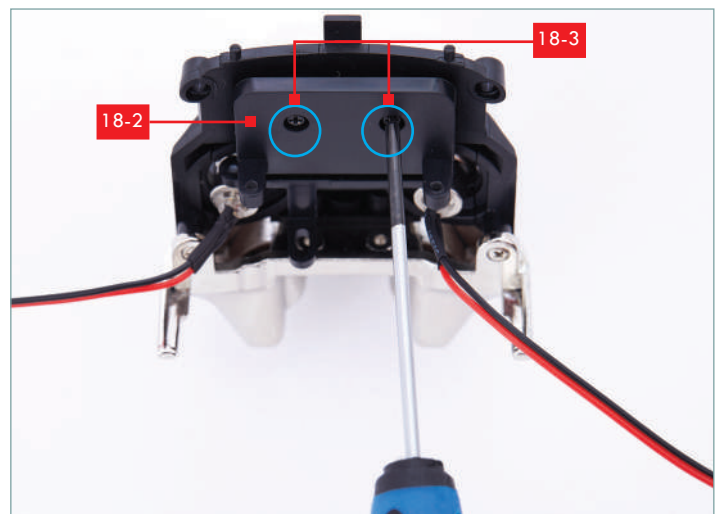
STEP 2

Viewed from above, you can see the two pins on parts **1-4** (circled) sitting in the holes in part **1-7**, with the base of the L pointing outwards (arrow).



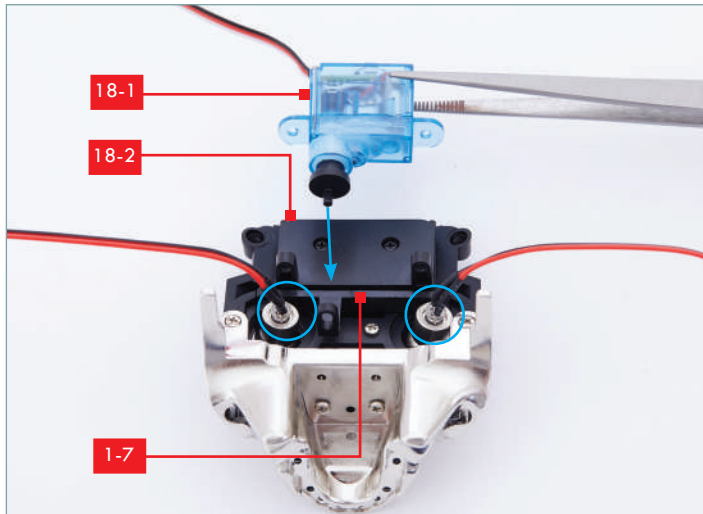
STEP 3

Fit the eye motor support **18-2** to the inside of the head so that the holes in part **18-2** are aligned with the raised screw sockets in part **1-2** (circled) and the brackets at the base of part **18-2** point towards you (arrows).



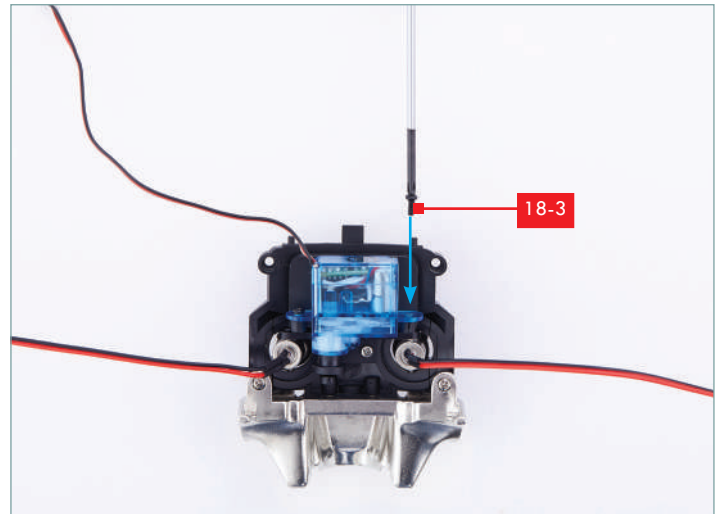
STEP 4

Fix the support **18-2** in place with two PB 1.7x4 mm screws (**18-3**, circled).



STEP 5

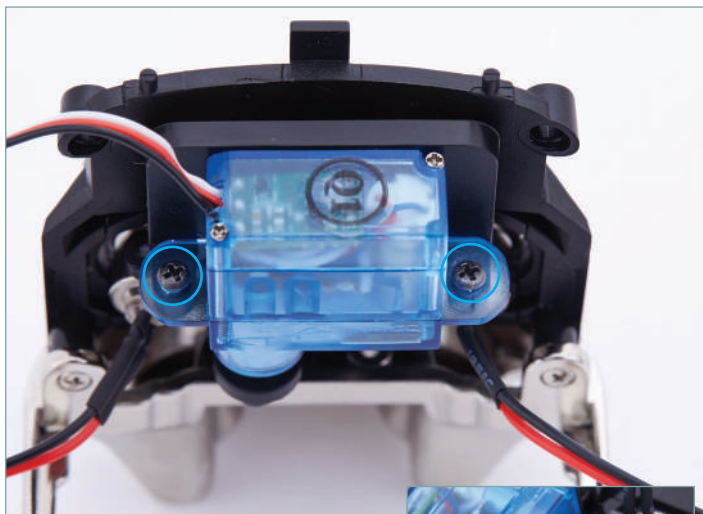
Fit the motor **18-1** on its support **18-2**. The screw holes in the flanges on the sides of the motor align with the sockets in the two brackets on the support (circled). The pin on the end of the motor shaft fits into the loop in the base of the L of part **1-7** (arrow).



STEP 6

Fix the motor in place with two PB 1.7x4 mm screws (**18-3**).

You may need to support the screw sockets on part **18-2** as you fix the screws in place.



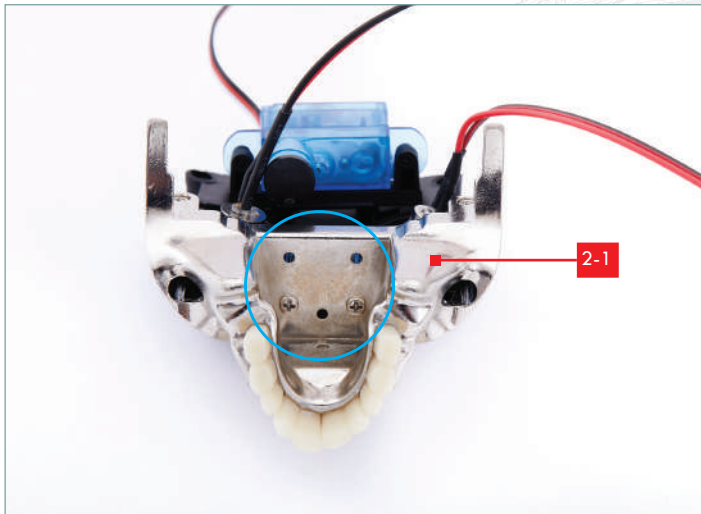
STEP 7

This shows the motor fixed in place with the two PB 1.7x4 mm screws (circled). The shaft on the motor is fitted into part **1-7** (inset).



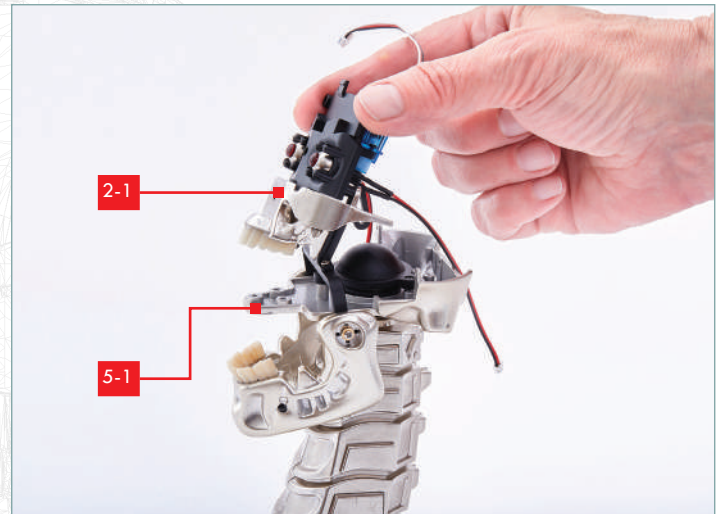
STEP 8

Take the lower jaw and neck assembly from stage 13. Identify the three screw sockets on the triangular tab at the front of the head (circled).



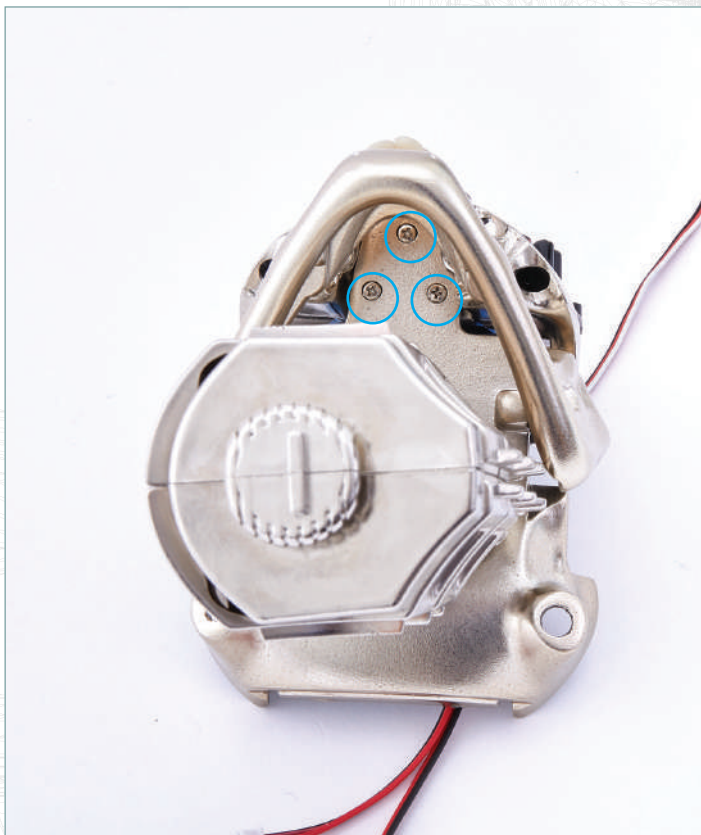
STEP 9

Identify the three screw sockets on the roof of the mouth in the assembly from step 05 (circled).



STEP 10

Position the upper jaw (2-1) on the triangular tab (5-1) so that the screw holes in 5-1 are aligned with the screw sockets in the roof of the mouth on the upper jaw.



STEP 11

Fix in place with three PB 2x4 mm screws (18-4) screwing in from the lower side of the triangular tab.

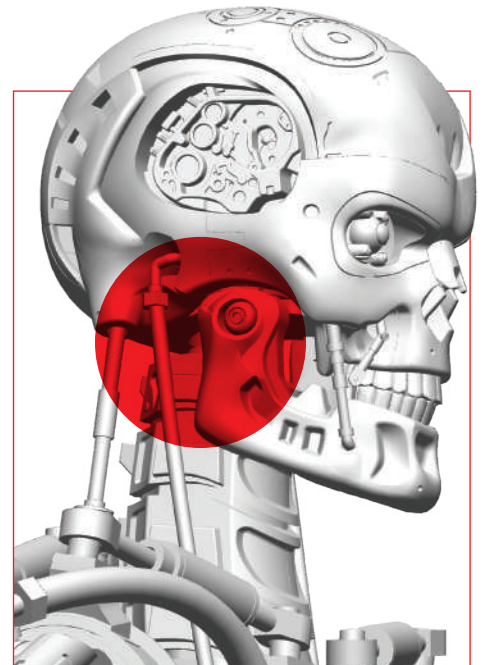
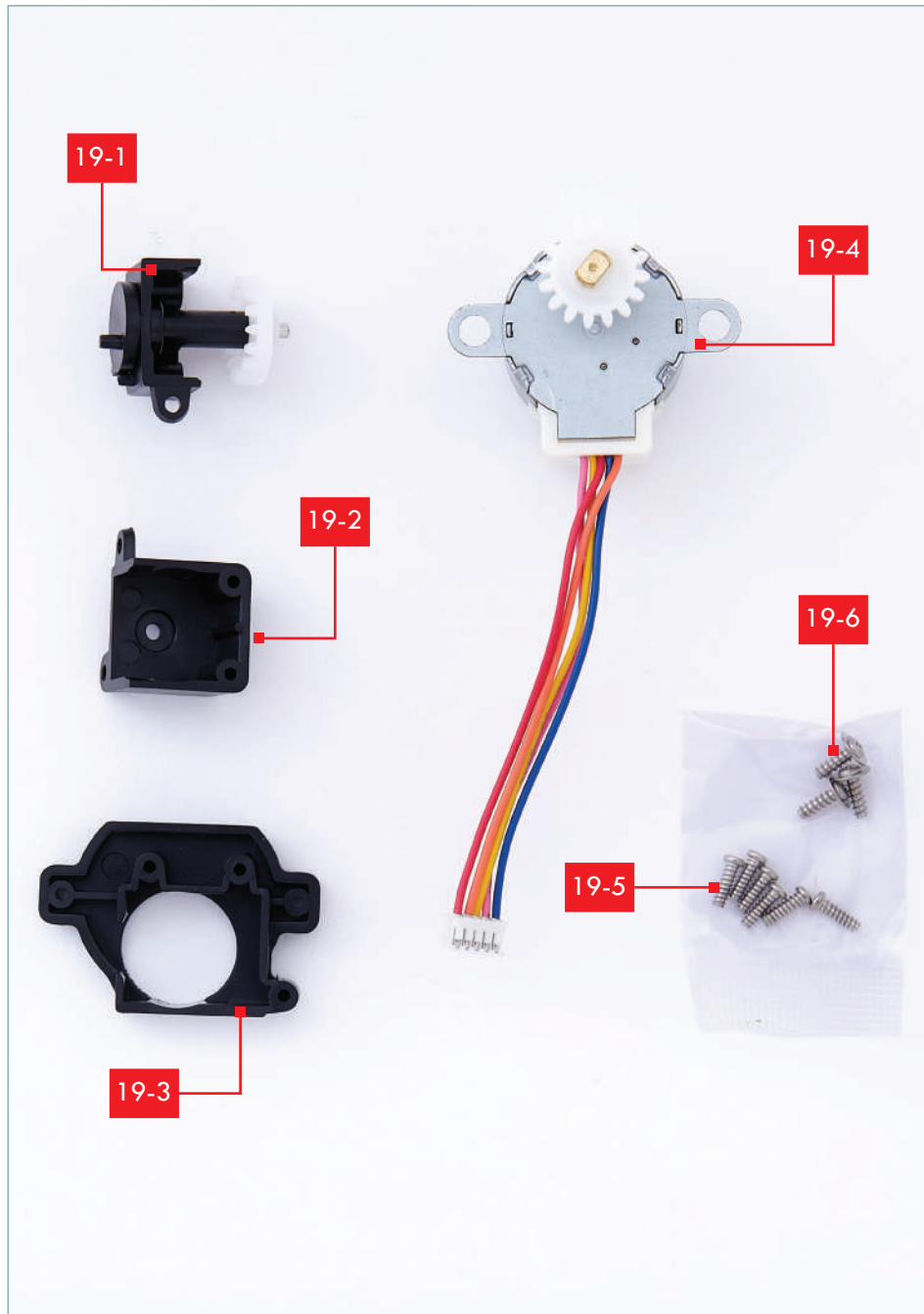


STAGE COMPLETE

The motor for the eyes has been fitted inside the head, and the upper and lower jaws have been attached to each other.

STAGE 19: ASSEMBLE THE HEAD MOTOR

Sync up the cogs and motor casing that will bring your T-800 Terminator™ Endoskeleton to life.



LIST OF PIECES

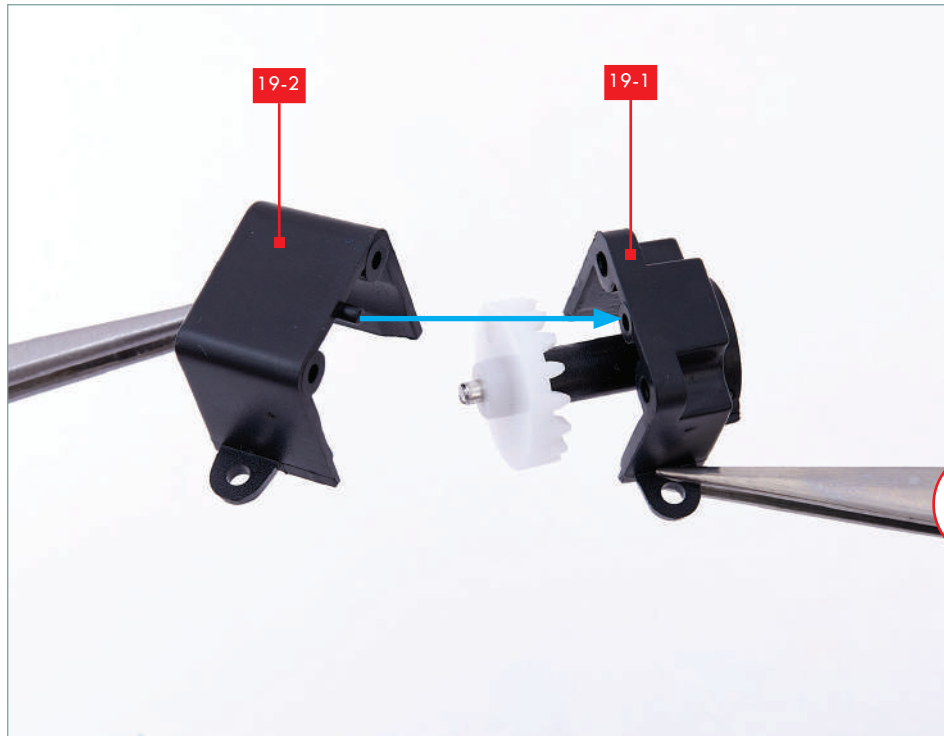
- | | |
|------|-----------------------------------|
| 19-1 | Connecting cog assembly |
| 19-2 | Cog assembly housing |
| 19-3 | Motor housing |
| 19-4 | Motor |
| 19-5 | 6x PB screw (2x6 mm) (1 spare) |
| 19-6 | 3x PWB screw (2x6x5 mm) (1 spare) |

YOU WILL ALSO NEED

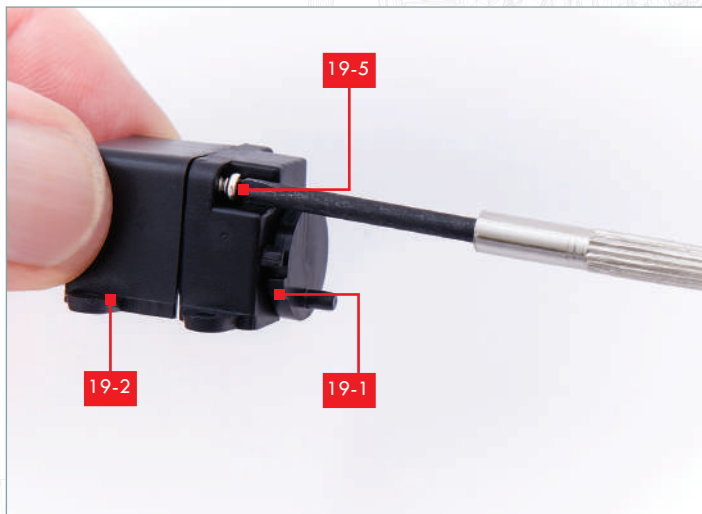
A cross-head screwdriver.

STEP 1

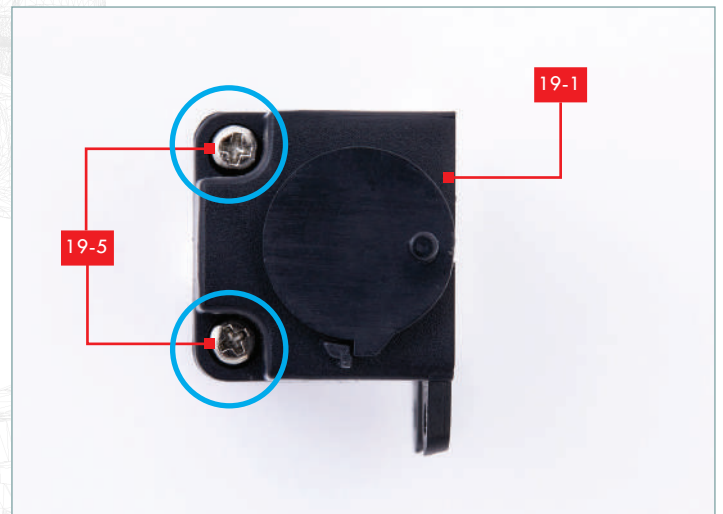
Take the cog assembly **19-1** and the housing **19-2**. Check the fit of the assembly in the housing. The pin on one edge of the housing should be located in the socket on the cog assembly, as indicated by the arrow.

**! NOTE**

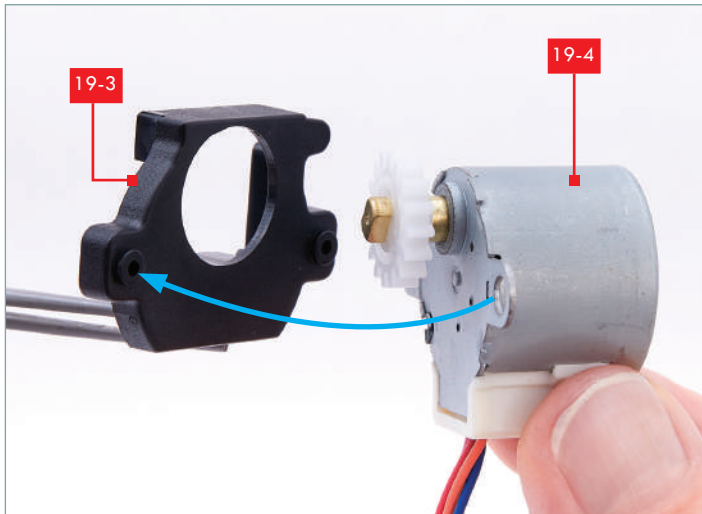
In some of the steps we have used tweezers to grip the parts. This is done for clarity in the photographs – it may not be necessary to use tweezers.

**STEP 2**

With parts **19-1** and **19-2** assembled, fix in place with two PWB 2x6x5 mm screws (**19-5**).

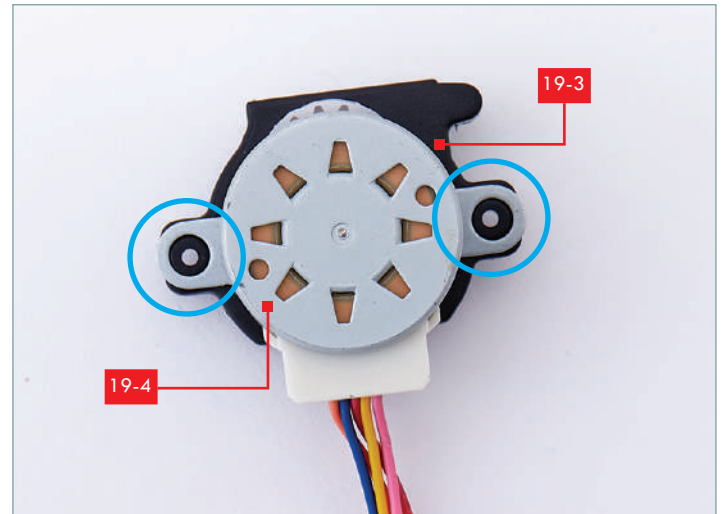
**STEP 3**

The screws are positioned in the corners of the cog assembly as shown.



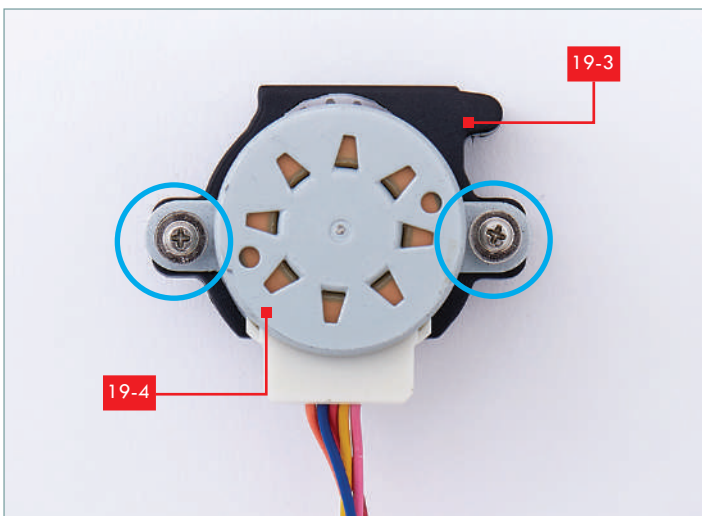
STEP 4

Take the motor **19-4** and the motor housing **19-3**. Align the tabs on the side of the motor with the screw sockets on the housing, as indicated by the arrow.



STEP 5

The raised sockets on the motor housing **19-3** fit through the larger holes on the tabs on the motor **19-4** (circled).



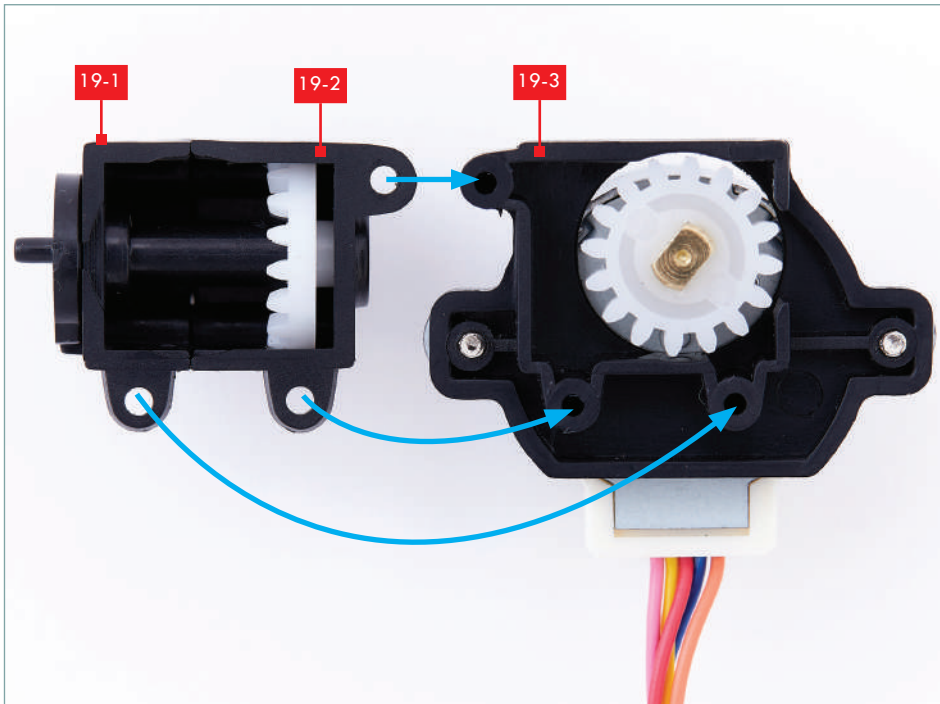
STEP 6

Fix the two parts together using two PWB 2x6 mm screws (**19-6**, circled).



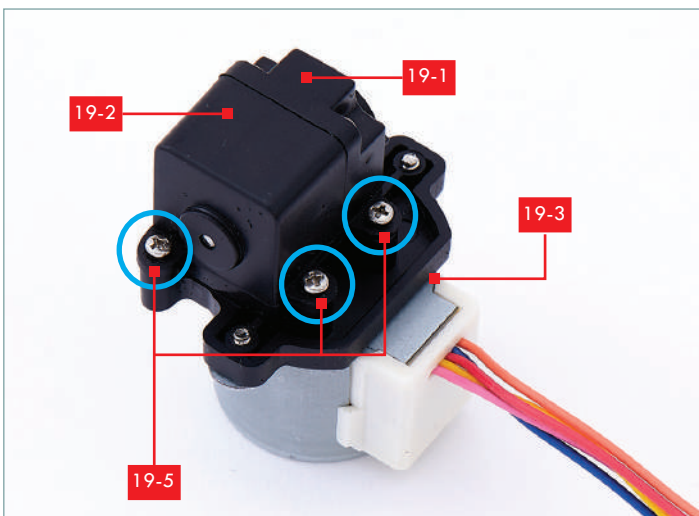
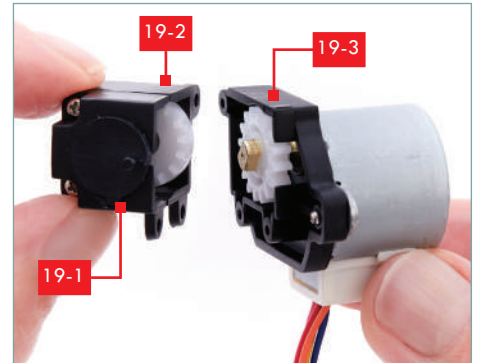
STEP 7

Before proceeding, check the alignment of the peg on the cog assembly **19-1**: it should be positioned as shown, so that the wedge on the rotating disc butts up to the wedge on the housing.



STEP 8

Check the fixing points on the cog assembly and housing **19-1** and **19-2** and the motor housing **19-3**, as indicated by the arrows. The teeth on the two cogs will mesh together.



STEP 9

Fix the cog assembly and housing to the motor housing with three PB 2x6 mm screws, **19-5** (circled).



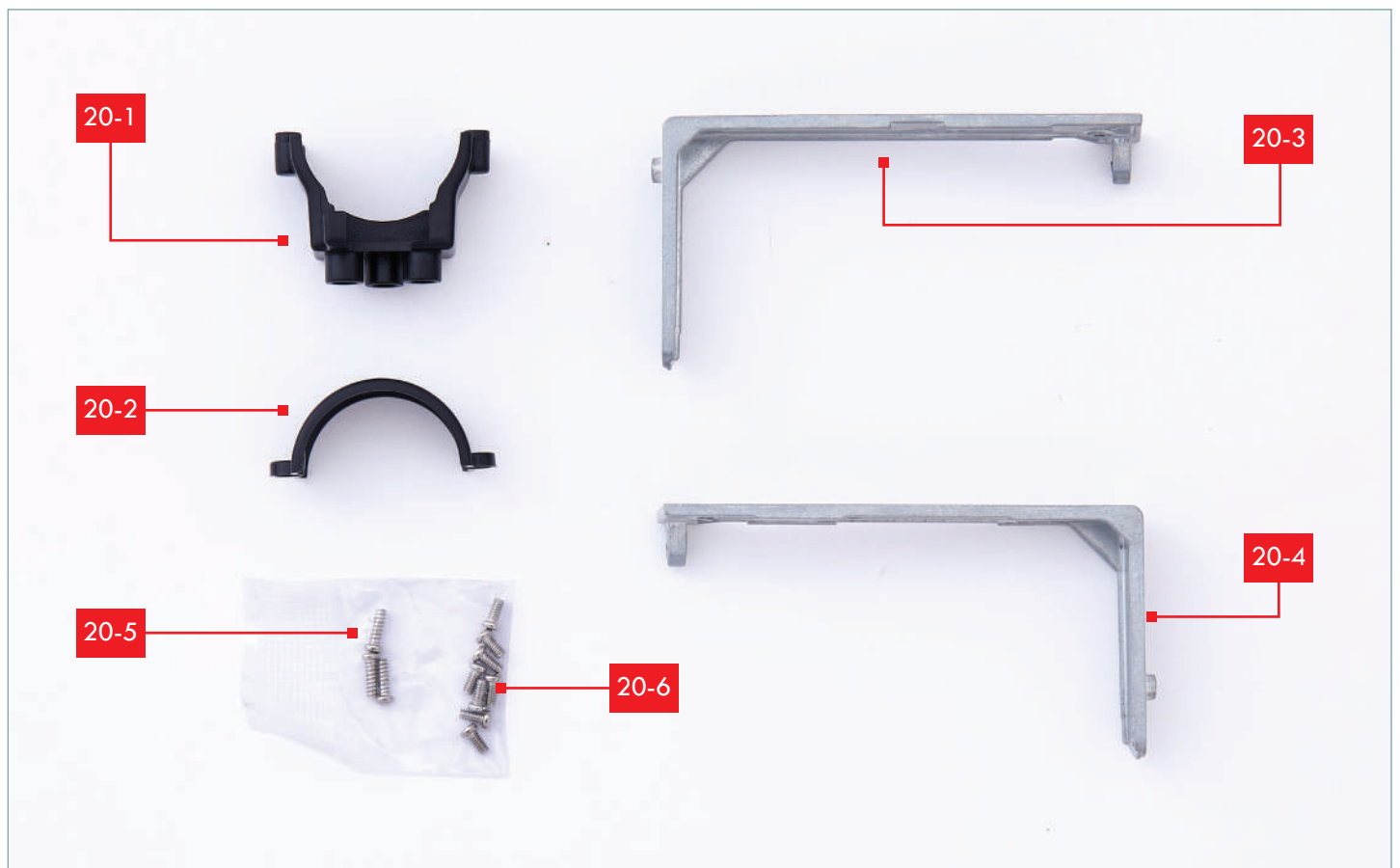
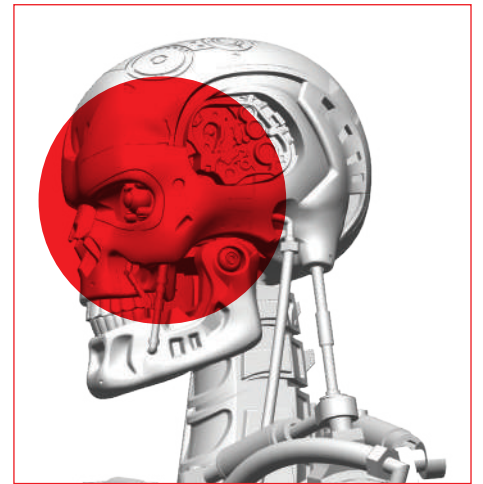
STAGE COMPLETE

The motor that will be positioned inside the head has been fitted into its housing and connected to the cog assembly.



STAGE 20: ASSEMBLE AND MOUNT THE HEAD MOTOR SUPPORT

The Terminator™ Endoskeleton head takes shape, as you mount the motor unit inside it.

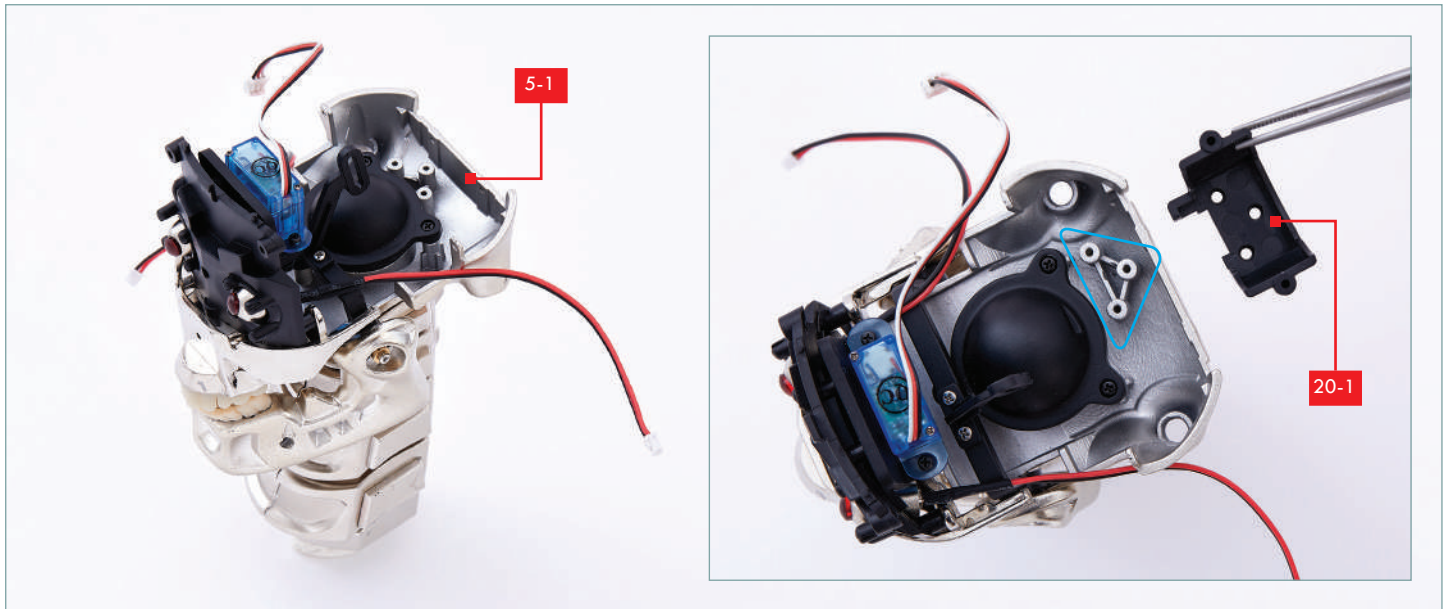


LIST OF PIECES

20-1	Motor support	20-4	Right-hand bracket
20-2	Motor casing	20-5	3x PB screw (2x6 mm) (1 spare)
20-3	Left-hand bracket	20-6	8x PM screw (2x4 mm) (1 spare)

YOU WILL ALSO NEED

A cross-head screwdriver, tweezers, the head assembly from stage 18 and the motor assembly from stage 19.

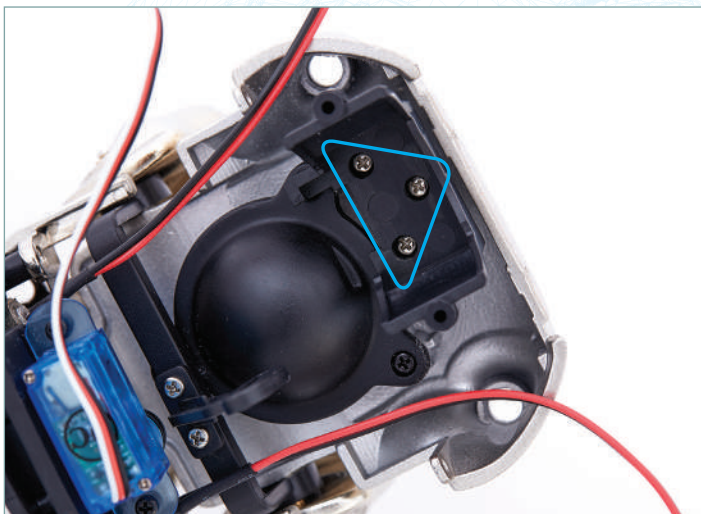


STEP 1

Take the head assembly from stage 18. Identify the three screw sockets (outlined) at the back of the head on part **5-1** (see inset). Align the screw sockets in the base of the motor support **20-1** with the screw sockets on part **5-1**.

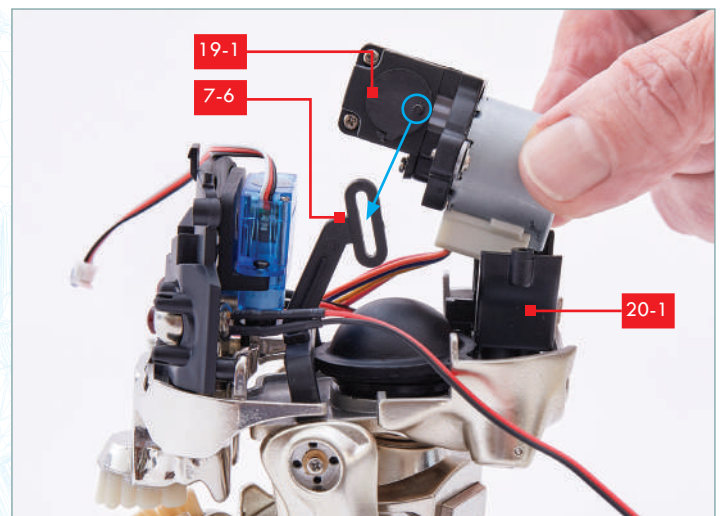
EXPERT TIP!

If the self-tapping screws are tight fit, it sometimes helps to repeatedly screw forwards a half turn followed by a quarter turn backwards until secure.



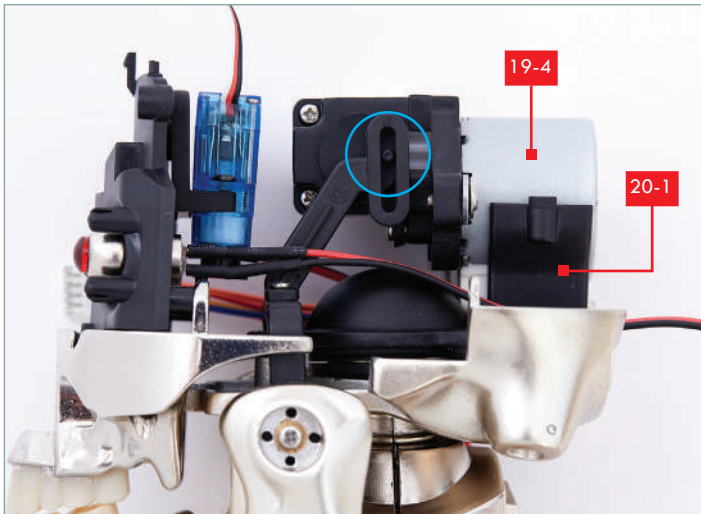
STEP 2

Fix the motor support **20-1** in place with three PM 2x4 mm screws (outlined).



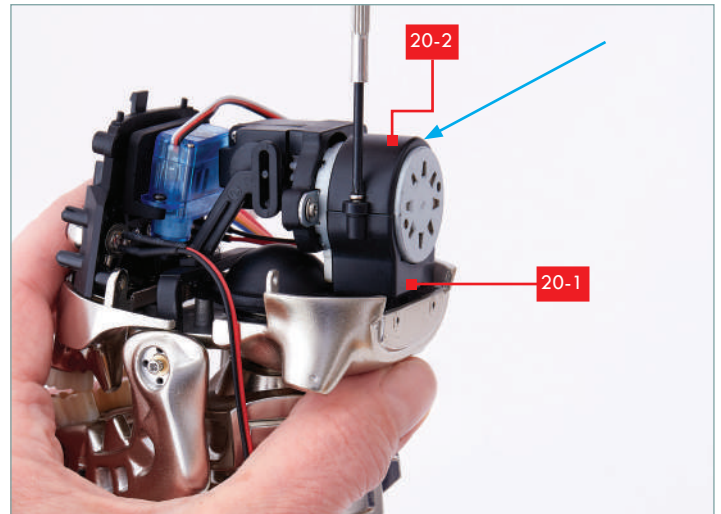
STEP 3

The next step is to fit the motor assembly from stage 19 into the motor support **20-1**. As you do this, the peg on the side of the motor housing (**19-1**, circled) must slot into the loop on the motor head joint **7-6**.



STEP 4

Fit the barrel of the motor **19-4** into the motor support, with the peg on the motor housing **19-1** through the loop.



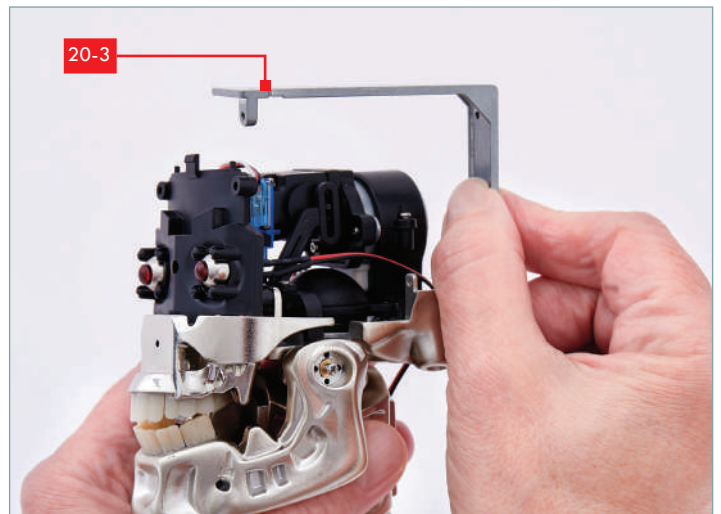
STEP 5

Fit the motor casing **20-2** over the barrel of the motor. Note that one curved edge of the casing has a slight rib (arrow), which should go to the back of the motor. Fix in place with two PB 2x6 mm screws **20-5**.



STEP 6

Take the left-hand bracket **20-3**. Note that the left-hand bracket has a screw socket on the upright arm close to the angle of the bracket (circled).



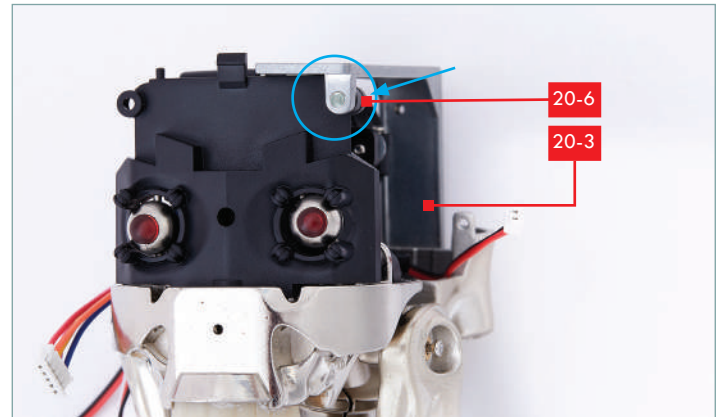
STEP 7

Align the bracket **20-3** with the top of the head.



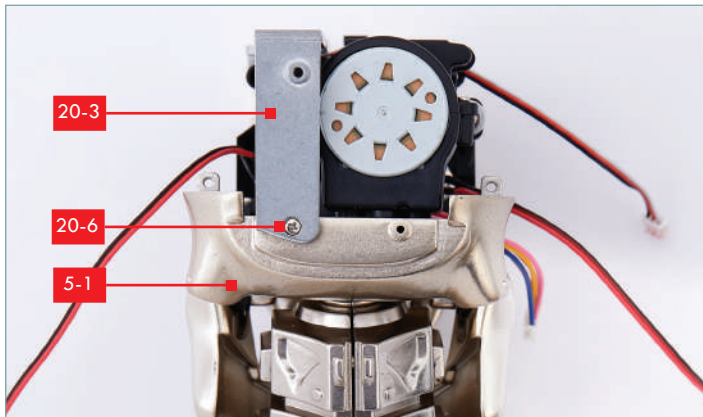
STEP 8

The tab with a screw socket at the front of the bracket **20-3** will fit in front of the screw socket at the top of the head (circled). There is a locating hole in part **20-3** which matches a locating peg on part **1-2**, shown above by the blue arrow.



STEP 9

Fix the front of the bracket **20-3** in place with a PM 2x4 mm screw **20-6** from behind, so that the flat end of the screw is flush with the front of the bracket.



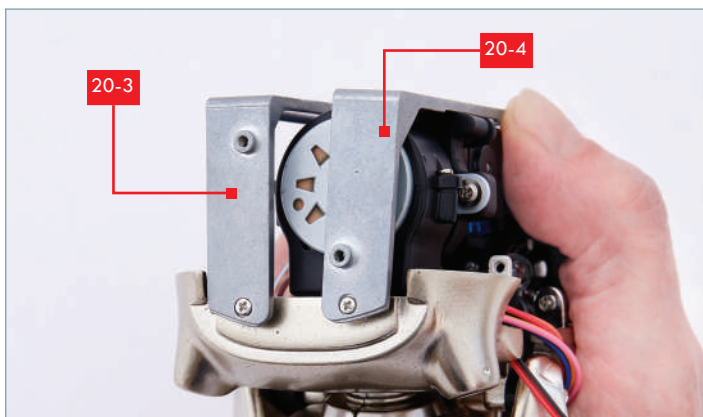
STEP 10

At the back of the head, the screw socket on the short arm of the bracket **20-3** should align with the screw socket in the back of the head on part **5-1**. Fix in place with a PM 2x4 mm screw **20-6**.



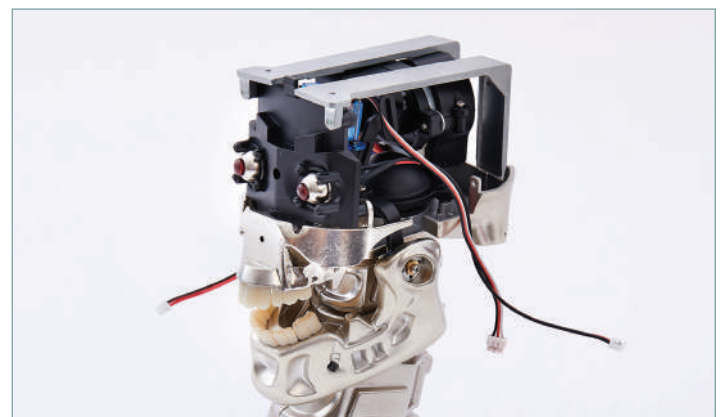
STEP 11

Take the right-hand bracket **20-4**. Again, it is easily identified because of the screw socket near the bottom of the shorter arm (circled).



STEP 12

Repeat steps 9 and 10 to fix the right-hand bracket **20-4** in place.



STAGE COMPLETE

The motor has been fitted inside the head and two brackets hold the parts of the head firmly in place.