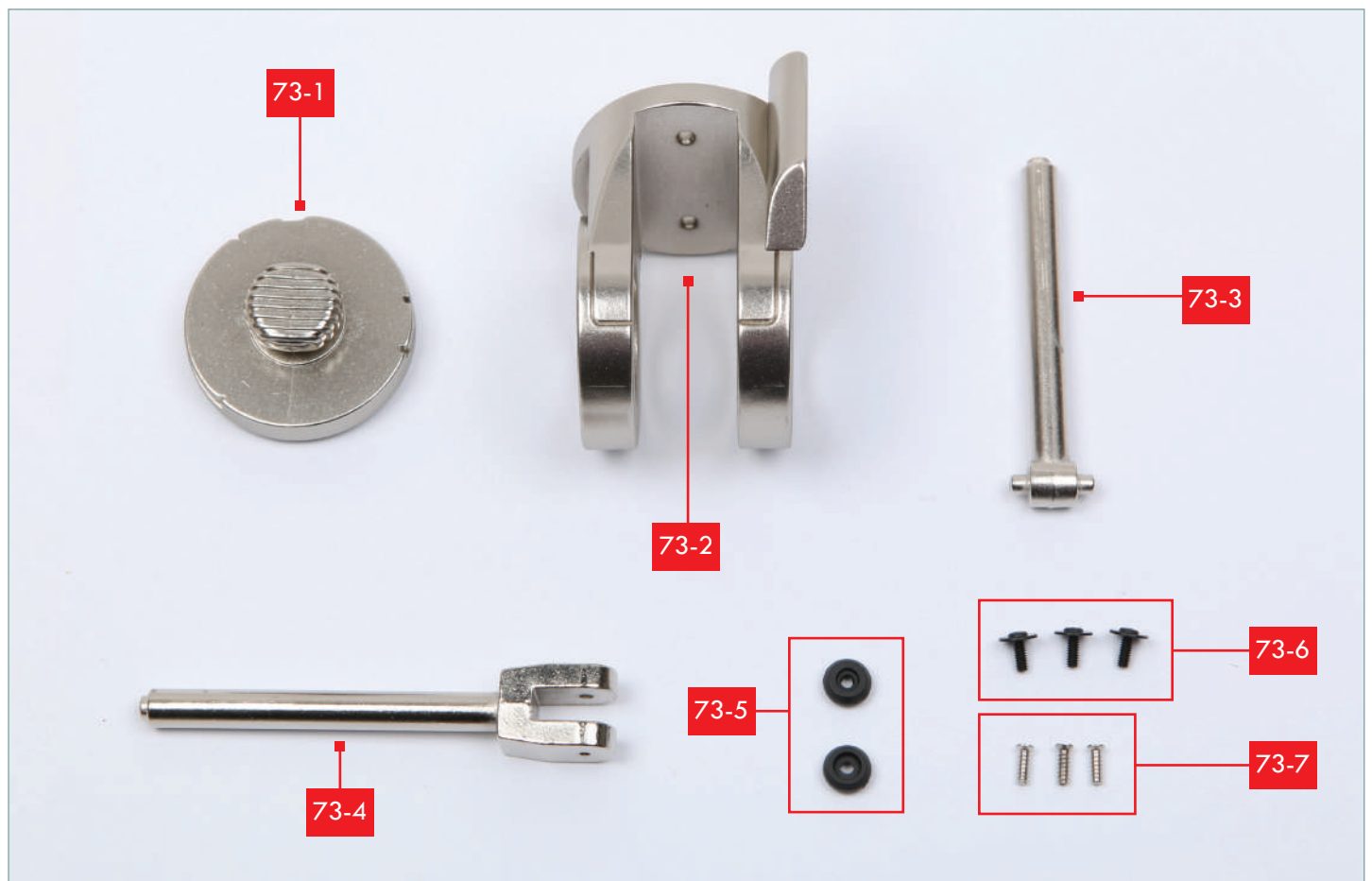
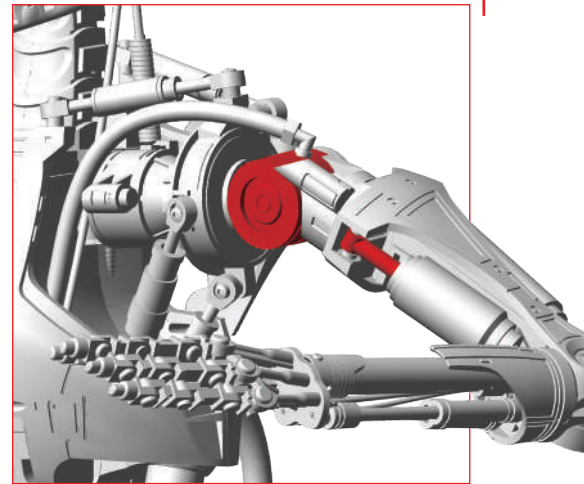


STAGE 73: FIT COMPONENTS FOR THE LEFT SHOULDER AND ARM

Assemble the main shoulder joint and prepare two connective shafts to join the shoulder to the left arm.



LIST OF PIECES

73-1	Shoulder part	73-5	Rubber washers x 2
73-2	Shoulder joint	73-6	3x PWM screws (2x5 mm) (1 spare)
73-3	Shaft for left arm	73-7	3x KB screws (2x6 mm) (1 spare)
73-4	Shaft for left arm		

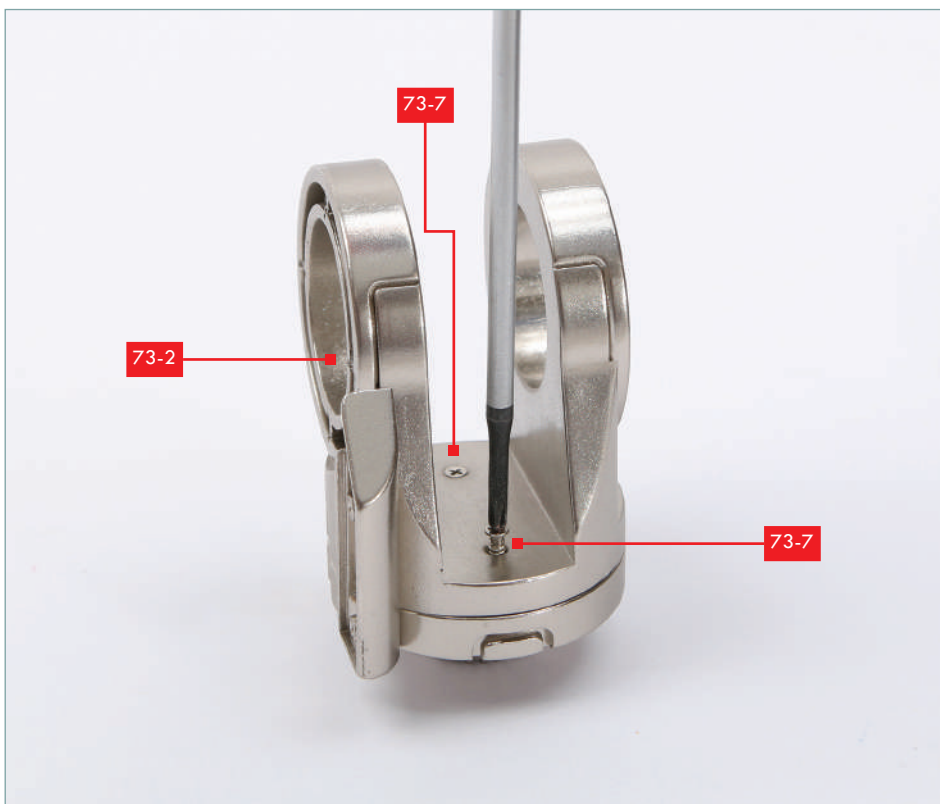
YOU WILL ALSO NEED

A fine cross-head screwdriver.



STEP 1

Take shoulder parts **73-1** and **73-2**. Note that each part has a recess on the side (red arrows). These recesses should be aligned. Fit the parts together, as indicated by the blue arrow.



STEP 2

Fix the parts together by fitting two KB 2x6 mm screws (**73-7**) through the screw holes in part **73-2** and into the sockets in part **73-1**.



STEP 3

Take shaft **73-3**, together with a rubber washer **73-5** and a PWM 2x5 mm screw (**73-6**).



STEP 4

Fit the rubber washer **73-5** over the end of the shaft **73-3**. Note that one side of the washer has a larger recess, which fits better over the end of the shaft (inset). Fix in place with a PWM 2x5 mm screw (**73-6**).



STEP 5

Take shaft **73-4**, together with the second rubber washer **73-5** and a PWM 2x5 mm screw (**73-6**).



STEP 6

Fit the rubber washer **73-5** over the end of the shaft. Note that one side of the washer has a larger recess, which fits better over the end of the shaft. Fix in place with a PWM 2x5 mm screw (**73-6**).

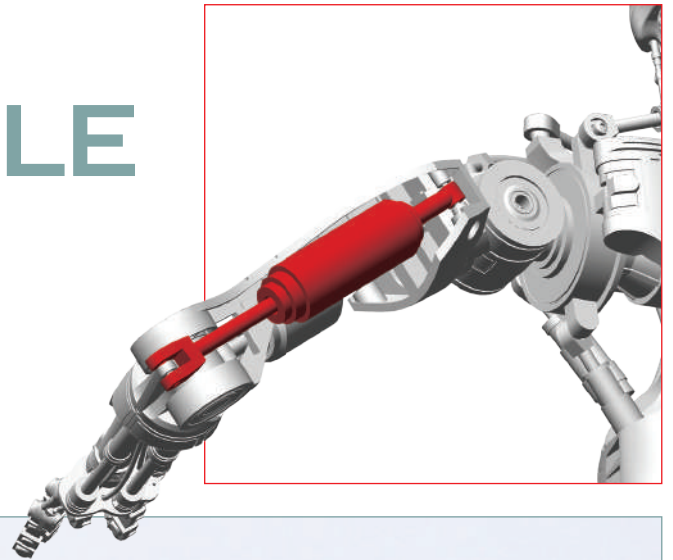


STAGE COMPLETE!

Part of the shoulder joint has been assembled. Two shafts have been prepared, ready to fit into left arm parts.

STAGE 74: TRICEP MUSCLE OF THE LEFT ARM

Assemble the tricep for the reverse of the left arm, and add the connecting rod from the previous stage.



LIST OF PIECES

- | | |
|------|---------------------------------|
| 74-1 | Left arm part |
| 74-2 | Shaft for arm part |
| 74-3 | Cap for arm part |
| 74-4 | 2x PM screws (3x8 mm) (1 spare) |

YOU WILL ALSO NEED

Connective shaft 73-4 from stage 73, a long cross-head screwdriver.



STEP 1

Fit the shaft **74-2** into the left arm part **74-1**.



STEP 2

Fit the cap **74-3** over the other end of the arm part **74-1**. Note that there is a screw socket in the centre of the cap which should align with the hole in the end of the shaft **74-2**.



STEP 3

Fit a PM 3x8 mm (74-4) screw down through the hole in the shaft 74-2 so that you can screw it in to the socket in the cap 74-3. Fix the parts together.



STEP 4

Take the shaft 73-4 assembled in stage 73. Fit the end with the rubber washer into the shaft 74-2, inside part 74-1.

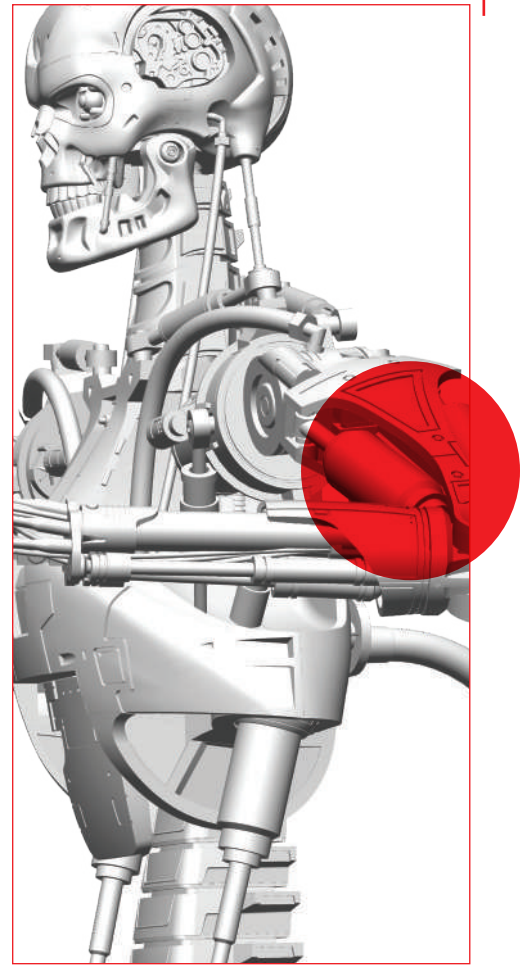
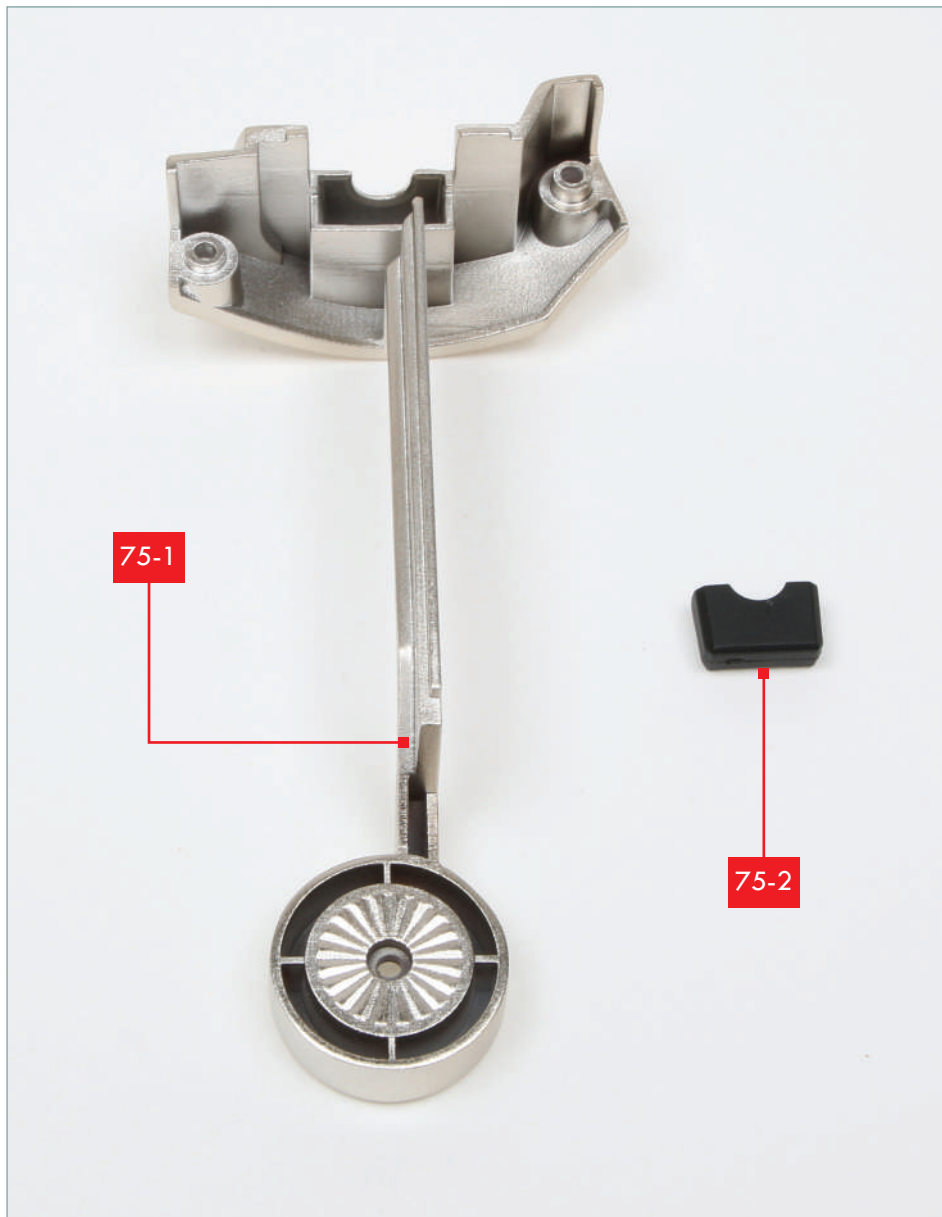


STAGE COMPLETE!

Another part of the left arm has been assembled.

STAGE 75: FURTHER PARTS FOR THE LEFT UPPER ARM

Affix the socket liner into the upper arm part, preparing it for the next connection.

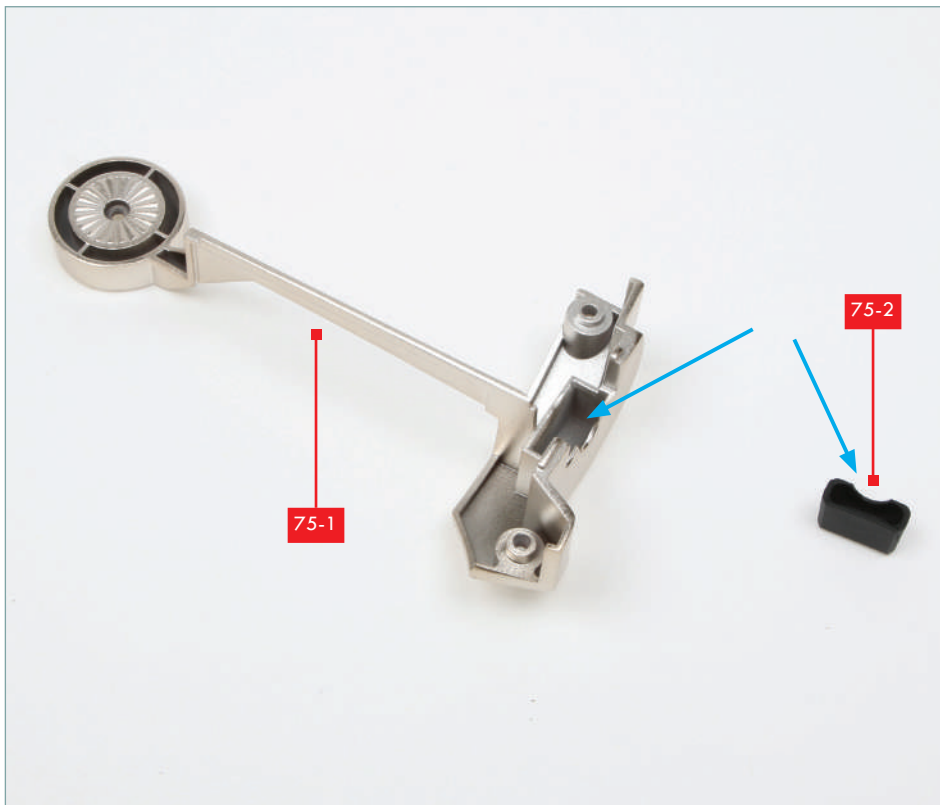


LIST OF PIECES

- | | |
|------|--------------------------------------|
| 75-1 | Left upper arm part |
| 75-2 | Socket liner for left upper arm part |

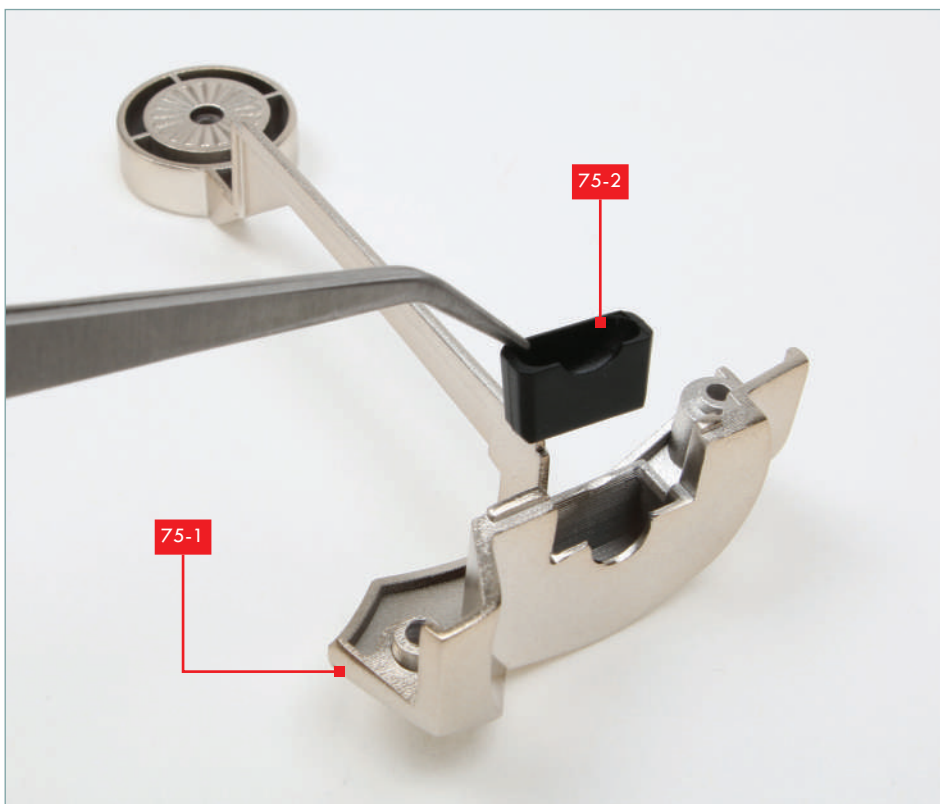
YOU WILL ALSO NEED

Tweezers (optional).



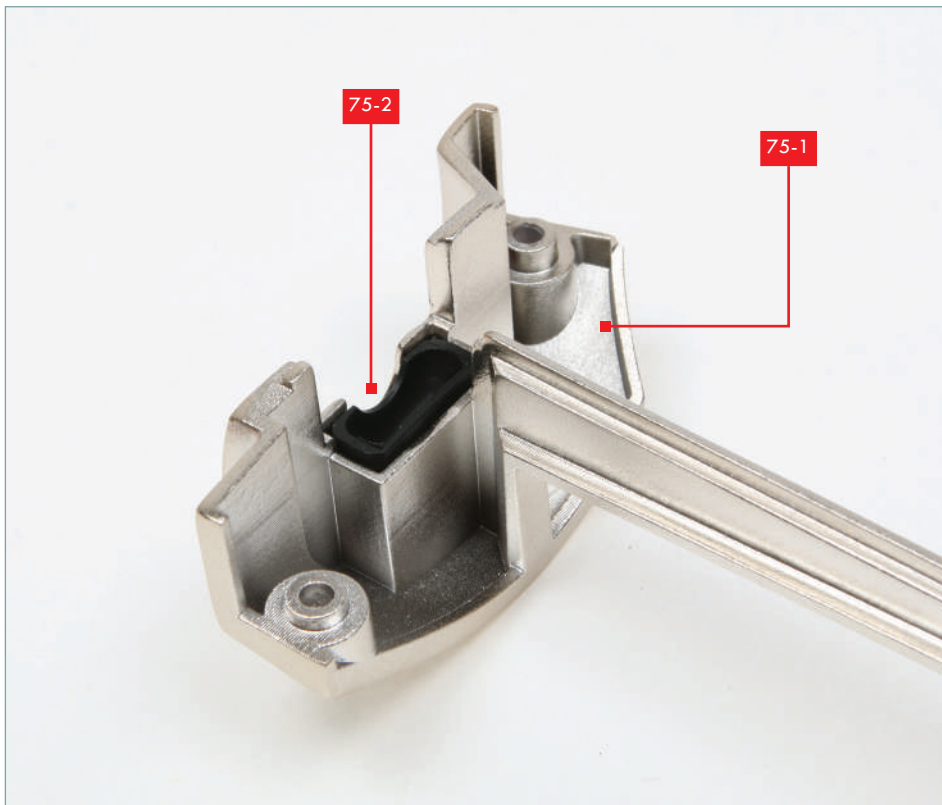
STEP 1

Take the upper arm part **75-1** and the socket liner **75-2**. Note the indent in the rim of the socket and the rim of the socket liner (arrows).



STEP 2

Fit the socket liner **75-2** into the socket in the upper arm part **75-1** with the indents aligned.



STEP 3

Ensure that the socket liner **75-2** is pushed fully home so that the rims of parts **75-2** and **75-1** are aligned.

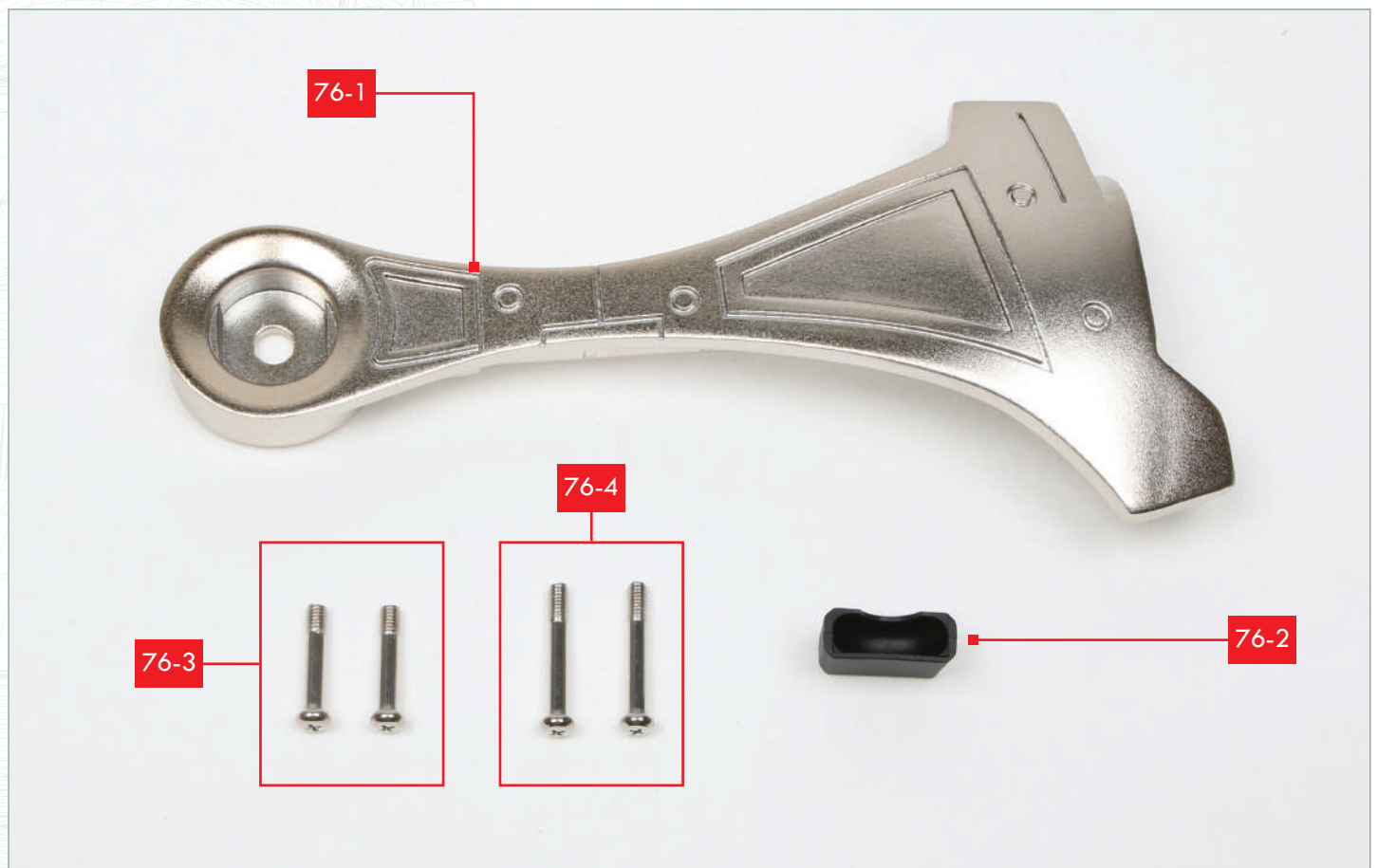
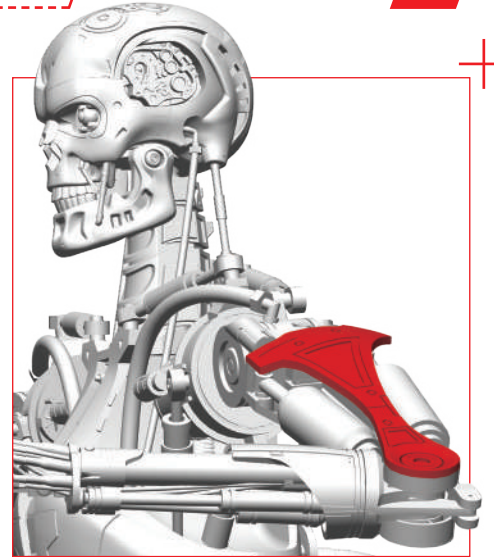


STAGE COMPLETE!

A liner has been fitted into a socket in part of the left upper arm.

STAGE 76: FURTHER COMPONENTS FOR THE LEFT UPPER ARM

Assemble four upper arm components to complete the left shoulder joint.

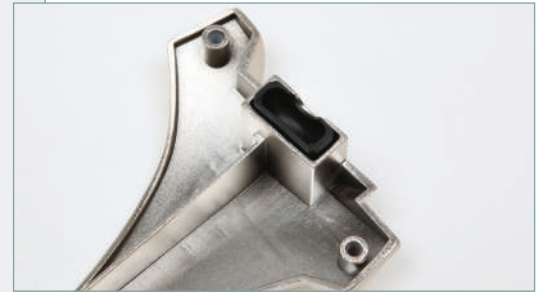
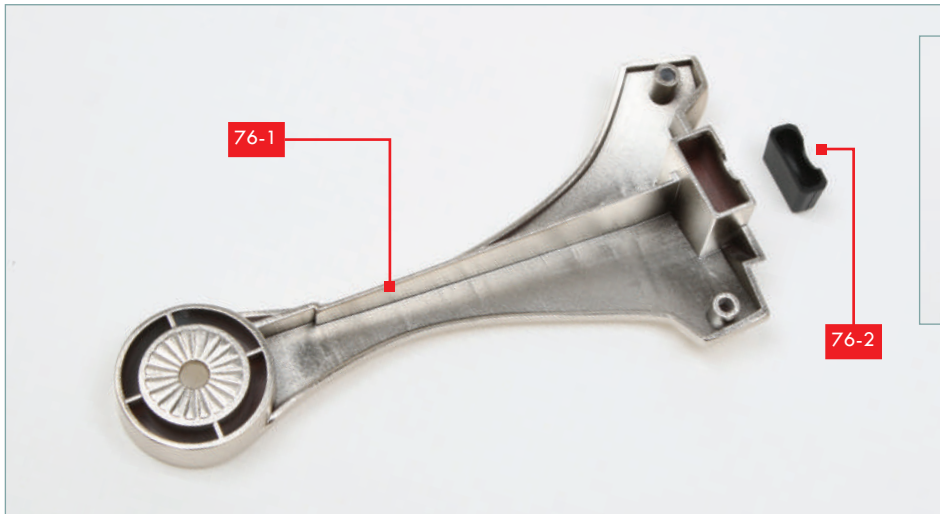


LIST OF PIECES

76-1	Outer side of left upper arm	76-4	2x PM screws (3x20 mm) (1 spare)
76-2	Socket liner for left upper arm part		
76-3	2x PM screws (3x16 mm) (1 spare)		

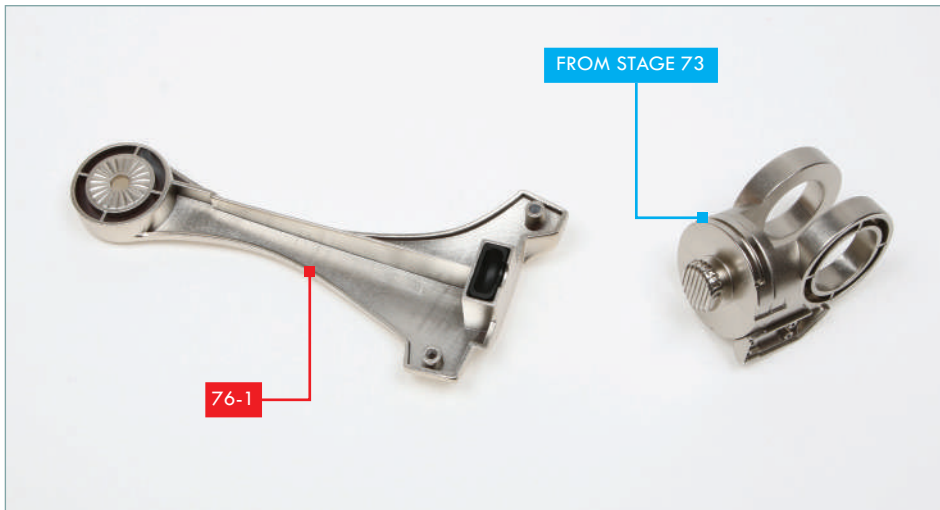
YOU WILL ALSO NEED

A cross-head screwdriver, parts from stage 73, 74 and 75.



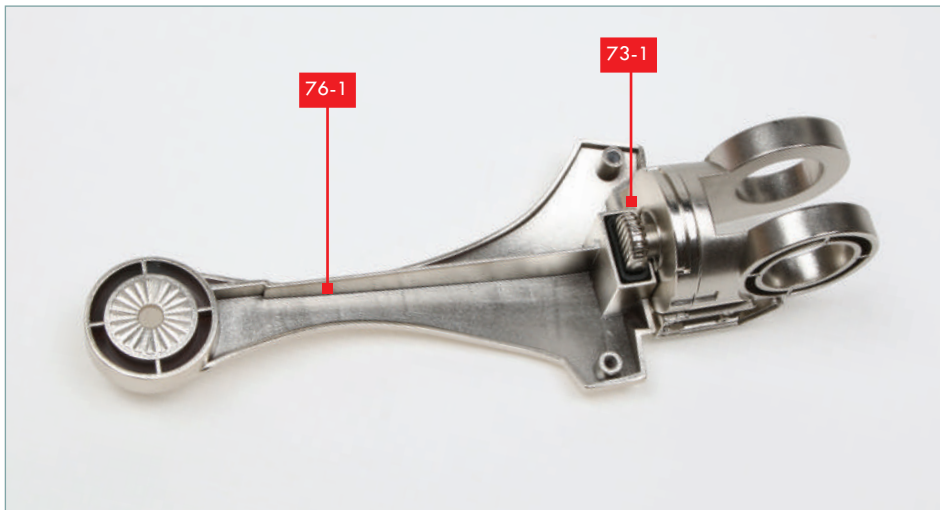
STEP 1

Take the socket liner **76-2** and fit it into the socket in upper arm part **76-1**. The rim of the socket and the rim of the socket liner should be aligned (inset).



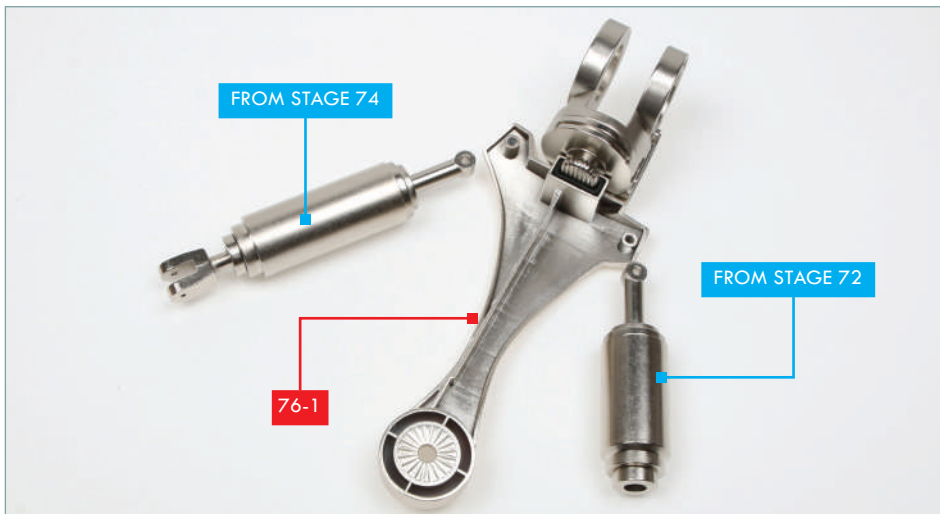
STEP 2

Take the shoulder joint assembly from stage 73 and the upper arm part **76-1**.



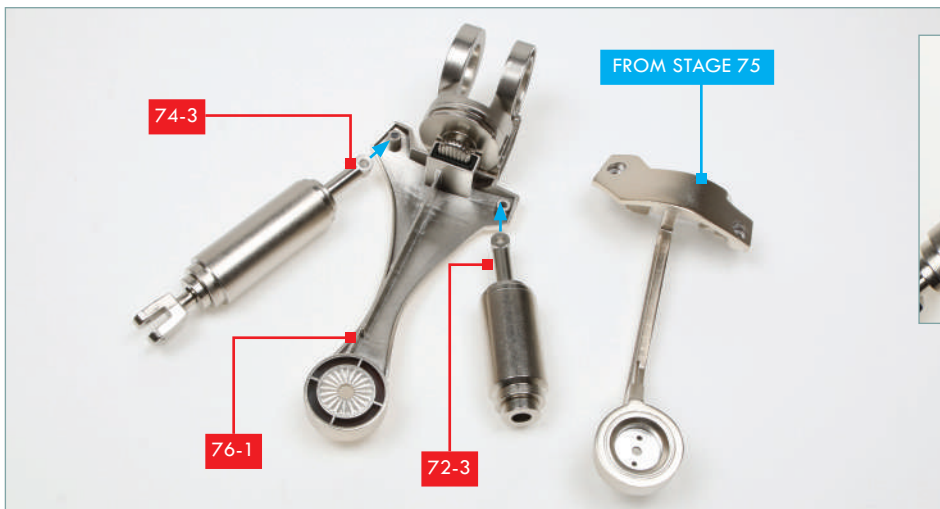
STEP 3

Fit the knob on shoulder joint part **73-1** into the lined socket in upper arm part **76-1**.



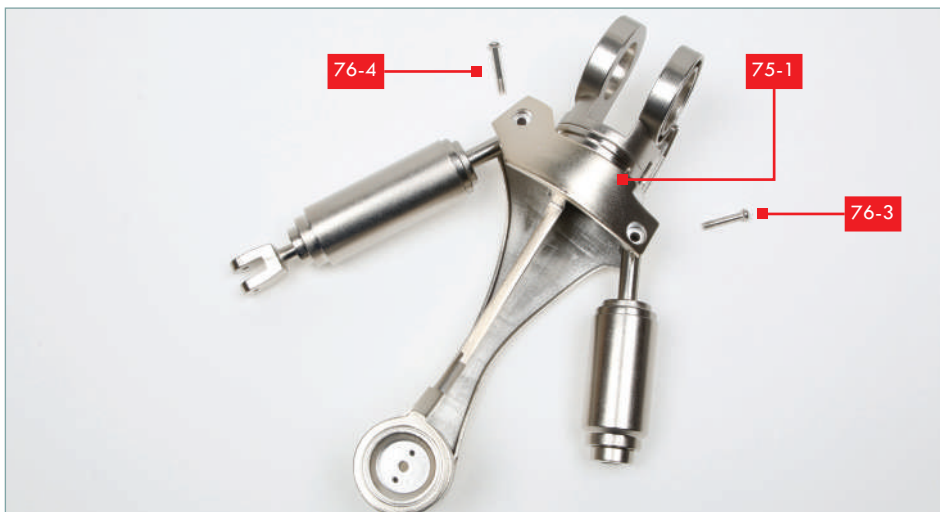
STEP 4

Take the arm part assemblies from stages 72 and 74 and position them as shown, on either side of part **76-1**. Note that the assembly from stage 74 is larger.



STEP 5

Position the eyelets in the arm shafts **74-3** and **72-3** over the corresponding holes in part **76-1** (see inset). Have the assembly from stage 75 ready.



STEP 6

Fit part **75-1** over part **76-1** so that the knob on part **73-1** is enclosed in the lined sockets in the main upper arm parts. Have two PM screws ready. Note that screw **76-4** is larger than screw **76-3** (**76-4** is 20mm long; **76-3** is 16mm long).



STEP 7

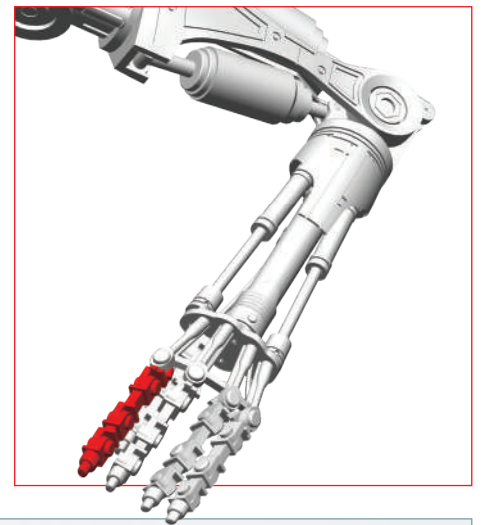
Fit the screws through the holes in part **75-1** and the eyelets in the shafts **74-3** and **72-3**, then screw them into the sockets in part **76-1**.



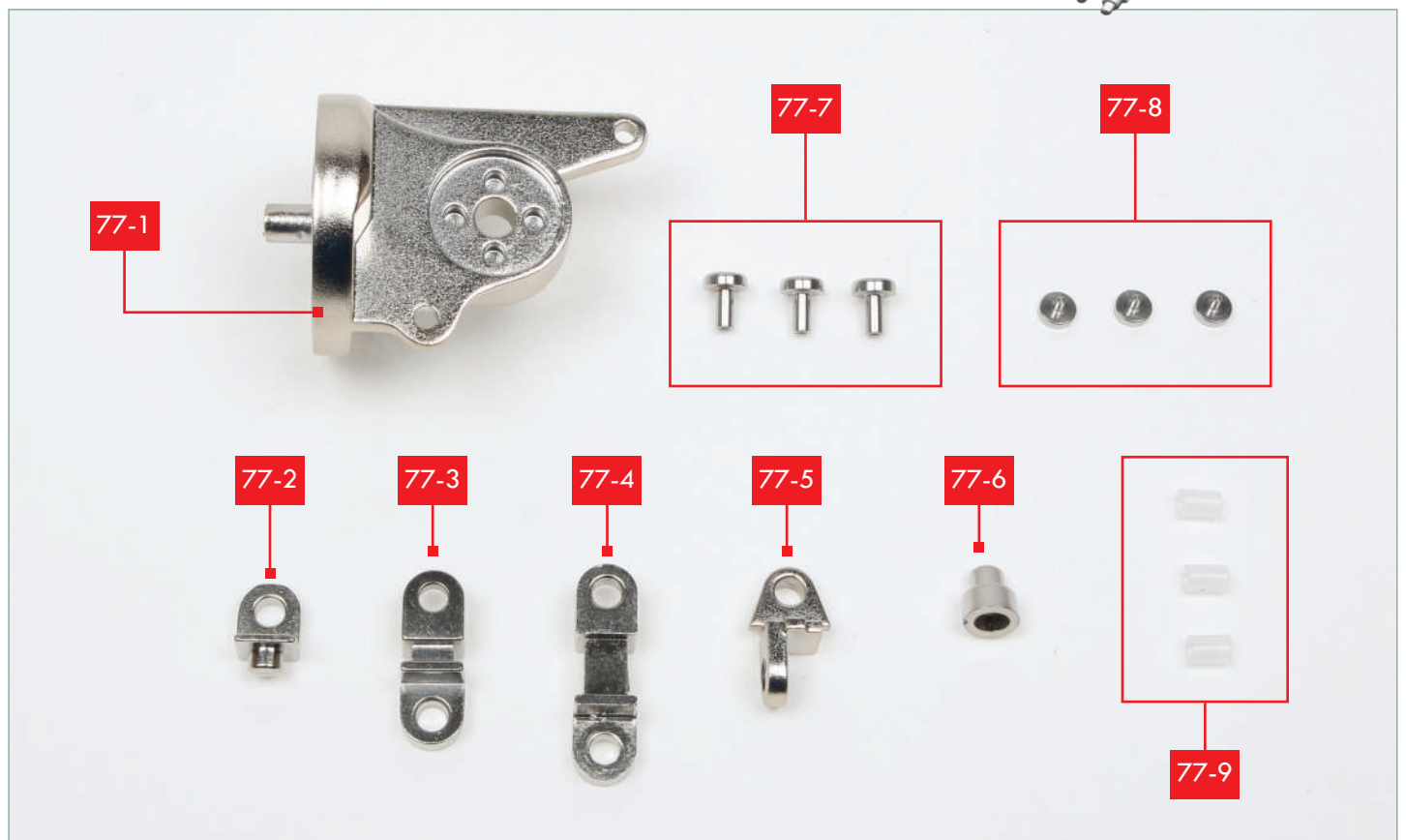
STAGE COMPLETE!

Further parts have been fitted to the upper arm assembly, including the shoulder joint.

STAGE 77: BUILD THE FIRST FINGER OF THE LEFT HAND



Add a further arm joint to your collection, and assemble the digits for left finger number one.

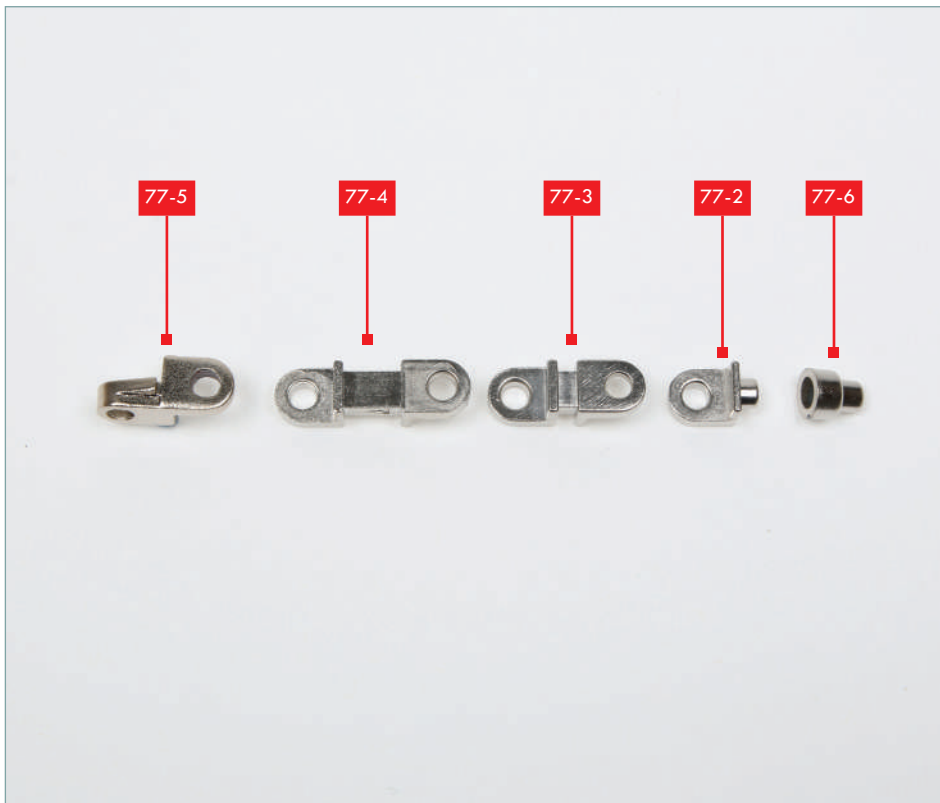


LIST OF PIECES

77-1	Left arm joint	77-6	Left hand first finger component
77-2	Left hand first finger component	77-7	3x Finger joint connector
77-3	Left hand first finger component	77-8	3x Finger joint connector pin
77-4	Left hand first finger component	77-9	3x Plastic sleeve for finger joint
77-5	Left hand first finger component		

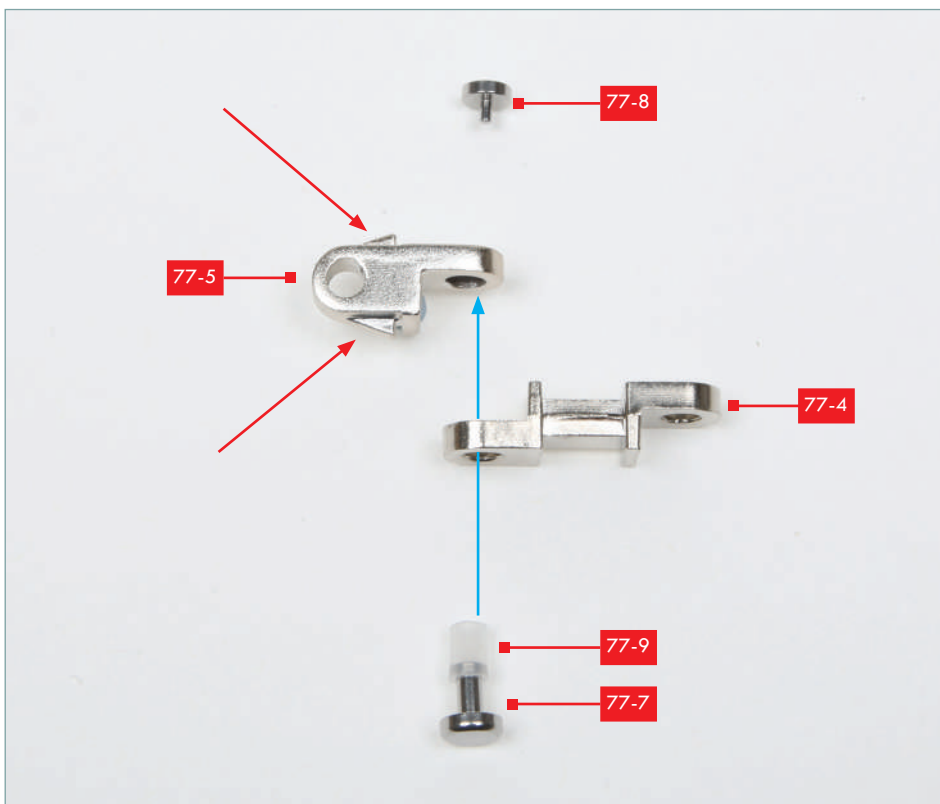
YOU WILL ALSO NEED

Gel-type superglue and a cocktail stick, tweezers (optional)



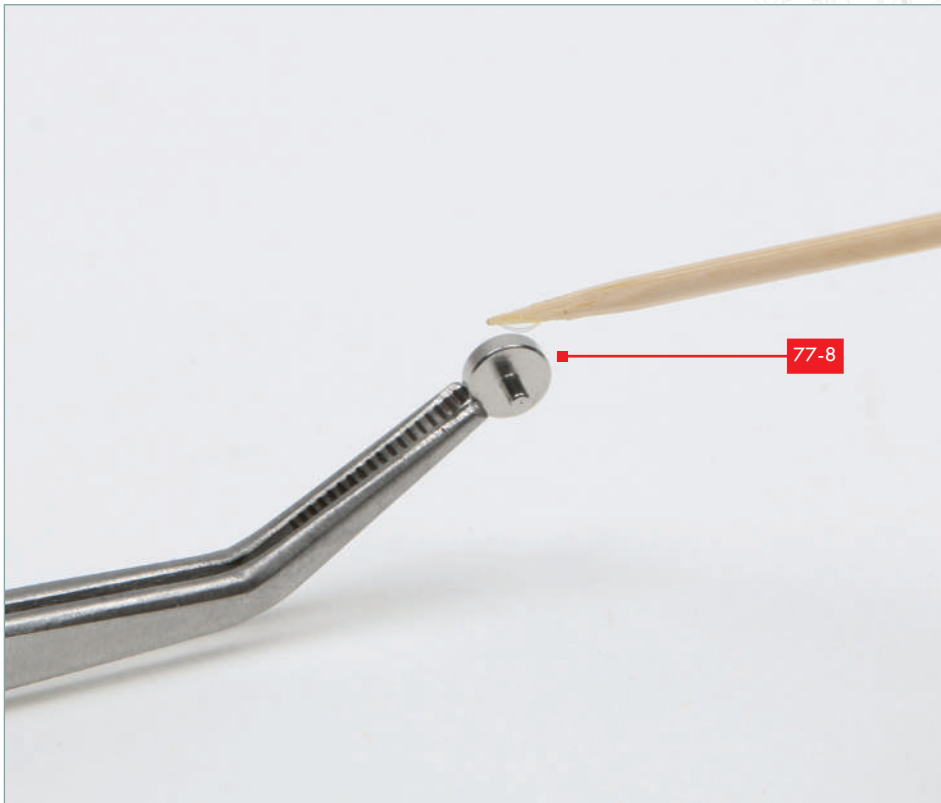
STEP 1

Lay out the finger components in the order they are to be used.



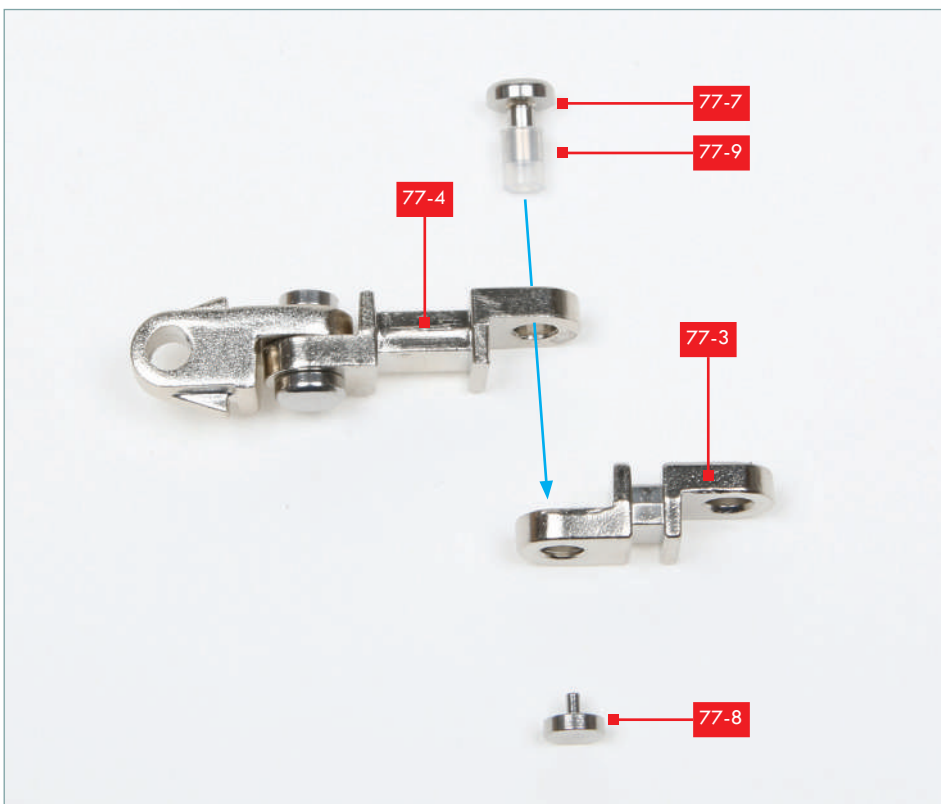
STEP 2

Take the first two finger components **77-5** and **77-4**. Arrange them in the orientation shown. Note the position of the 'fins' on part **77-5** (red arrows). Fit a plastic sleeve **77-9** over one of the joint connectors **77-7**. Fit parts **77-9/77-7** up through the holes in the finger components, as indicated. A finger joint pin **77-8** will be fitted downwards.



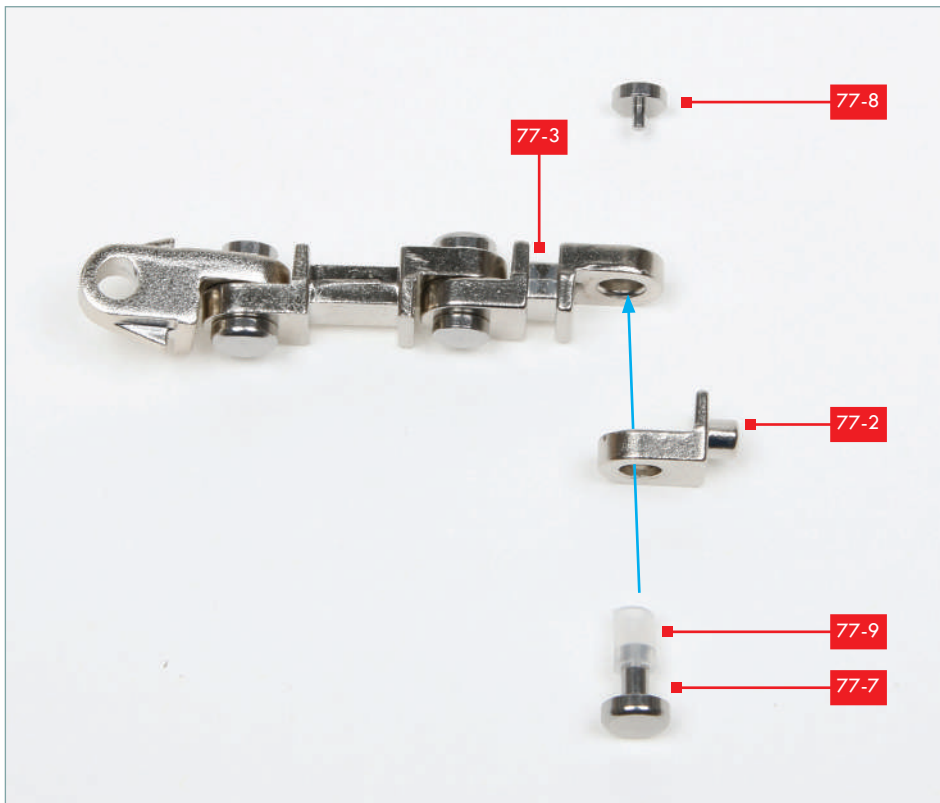
STEP 3

Apply a little superglue to one of the finger joint pins **77-8** and fit it into the assembly from step 2, so that it fits inside finger joint connector **77-7** to form a firm but flexible joint between the finger components.



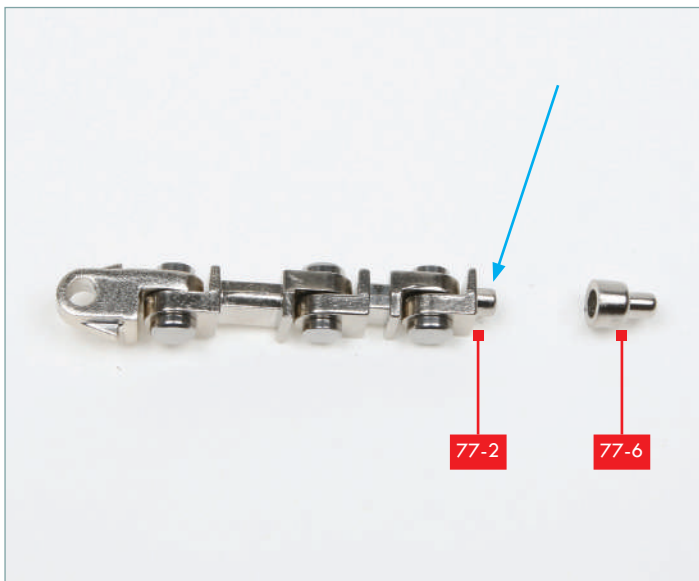
STEP 4

Next, fit the finger component **77-3**. Note that this time, the finger joint connector **77-7** with plastic sleeve **77-9** goes **down** through the joint. Apply a little superglue to the pin **77-8** and fix the joint together.



STEP 5

Assemble the fourth finger component **77-2** in a similar way. This time, the finger joint connector **77-7** (with sleeve **77-9**) goes **up** through the holes in the joints. Apply a little superglue to the pin **77-8** and fix the joint together.



STEP 6

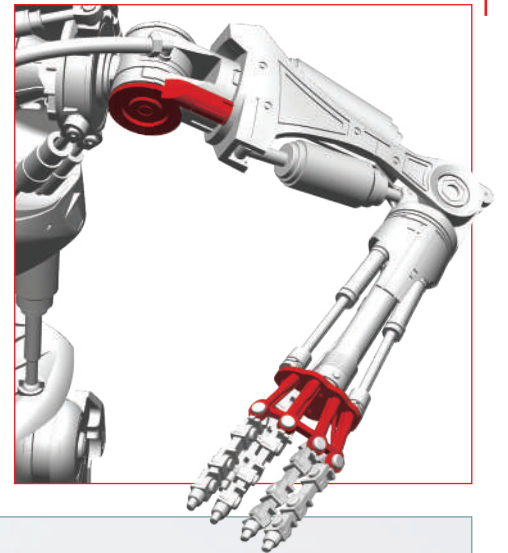
The finger tip **77-6** fits on the oval peg on the end of finger component **77-2**. Check the fit, then apply a little superglue to the peg on part **77-2** (arrow) and fix part **77-6** in place.



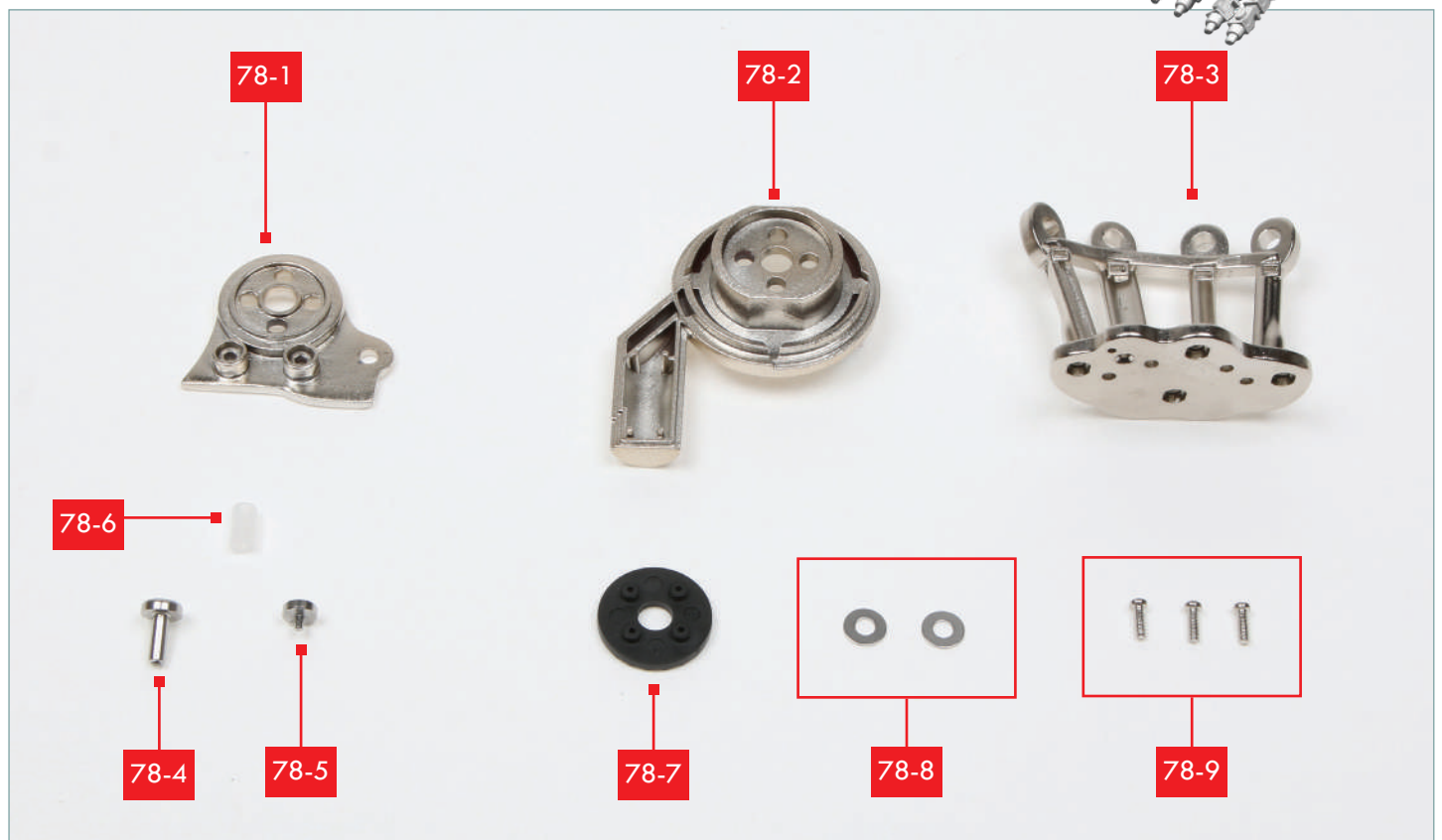
STAGE COMPLETE!

The first finger of the left hand has been assembled. Store it carefully until needed. The arm joint will be used in a future stage.

STAGE 78: COMPONENTS FOR LEFT HAND AND ARM JOINT



Attach the first finger to the back of the left hand, affix a part to the left shoulder, and assemble a new arm joint.

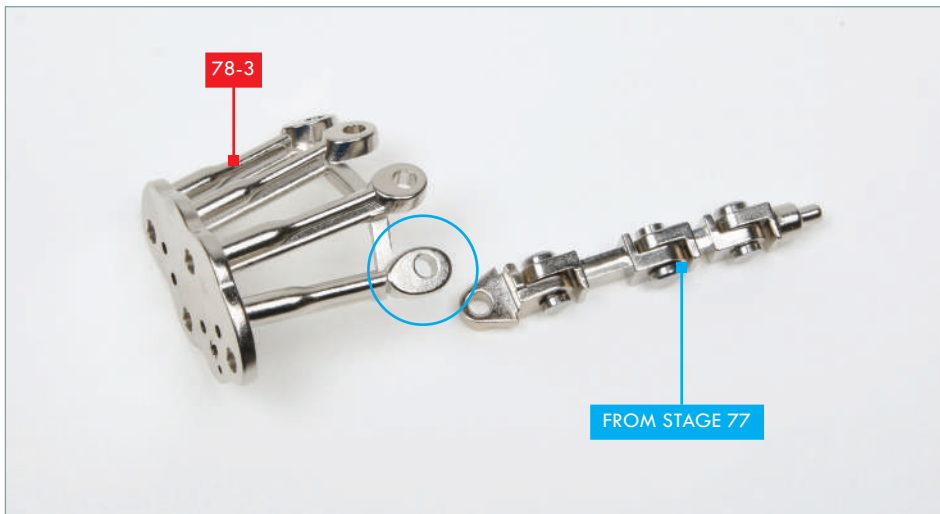


LIST OF PIECES

78-1	Left arm joint cover	78-6	Plastic sleeve for finger joint
78-2	Left shoulder joint	78-7	Rubber washer for shoulder joint
78-3	Left hand	78-8	2x Metal washer for arm joint
78-4	Finger joint connector	78-9	3x PB screws (2x6 mm) (1 spare)
78-5	Finger joint connector pin		

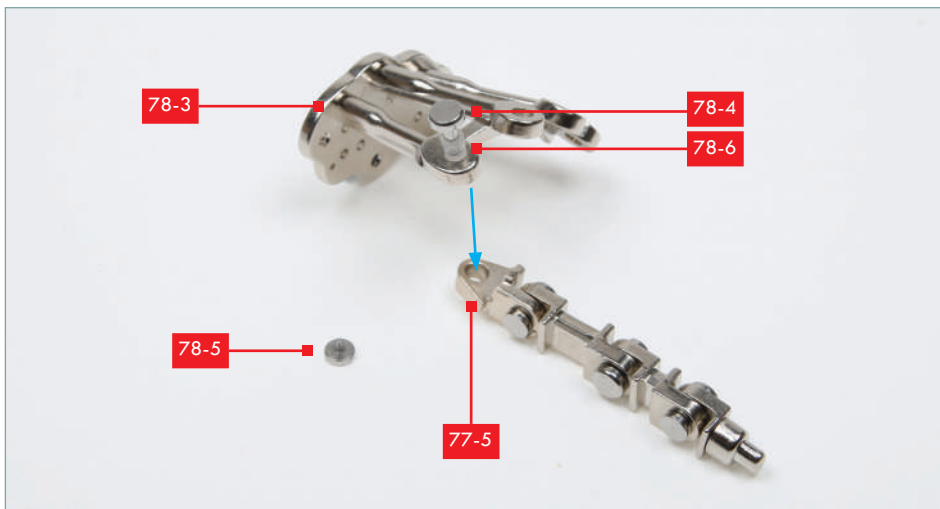
YOU WILL ALSO NEED

Gel-type superglue and a cocktail stick, a fine crosshead screwdriver, tweezers (optional).



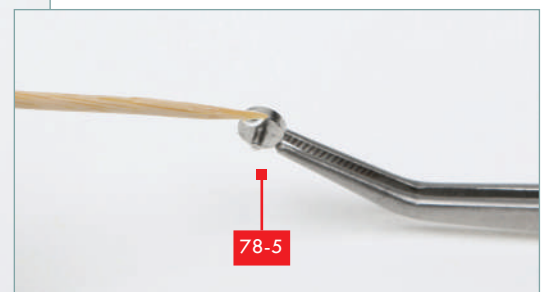
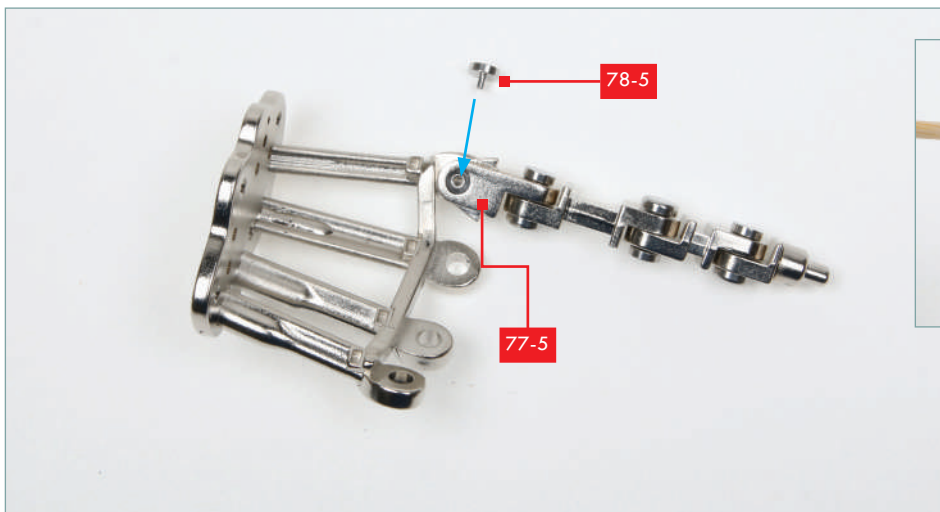
STEP 1

Take the finger assembled in stage 77 and the hand part **78-3**. The finger fits on the first hole in the hand (circled). Note the orientation of the finger.



STEP 2

Fit the sleeve **78-6** over the finger joint connector **78-4**. Then fit the connector down through the hole in part **78-3** and the hole in the finger component **77-5**.



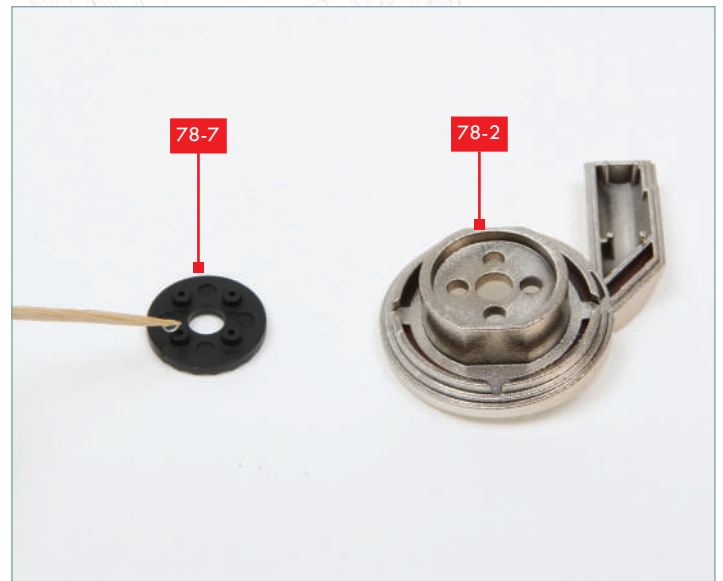
STEP 3

Turn the hand over and apply a little superglue to the finger joint pin **78-5** (inset) and fit it in place on the inside of the finger/hand joint as indicated.



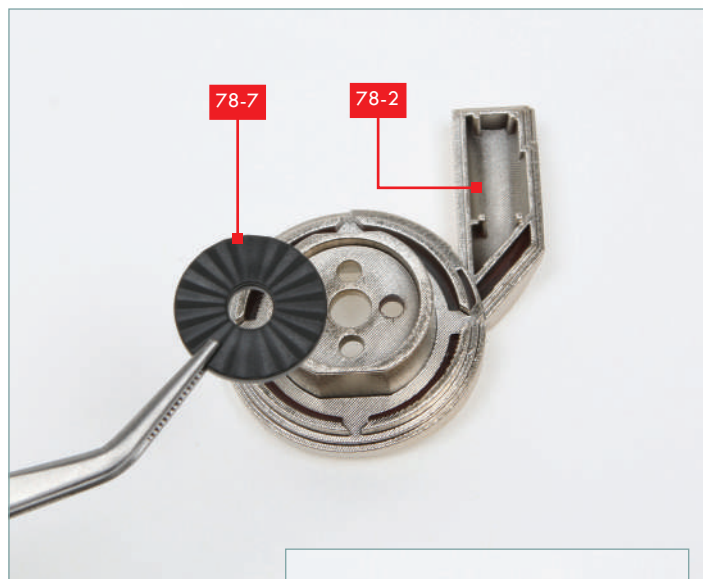
STEP 4

Take the shoulder joint part **78-2** and the rubber washer **78-7**. Note that there are four pegs on the washer that fit into the four holes in the joint.



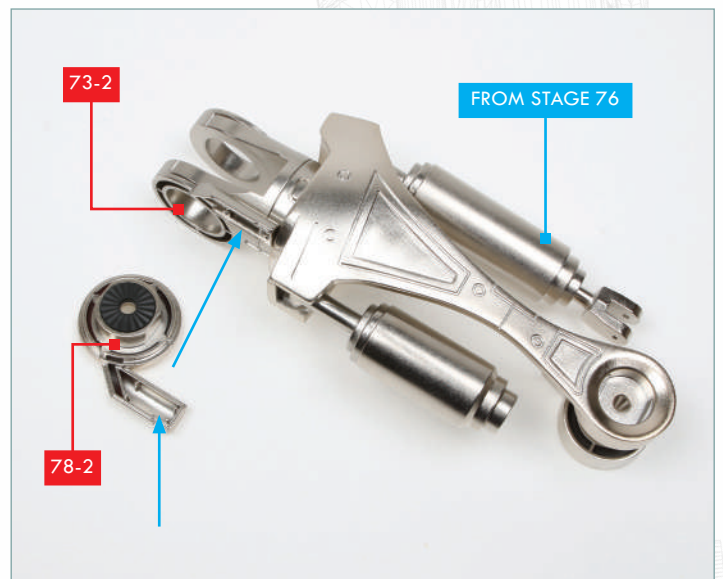
STEP 5

Use a cocktail stick to apply a little superglue around the sides of the four pegs on the washer **78-7**.



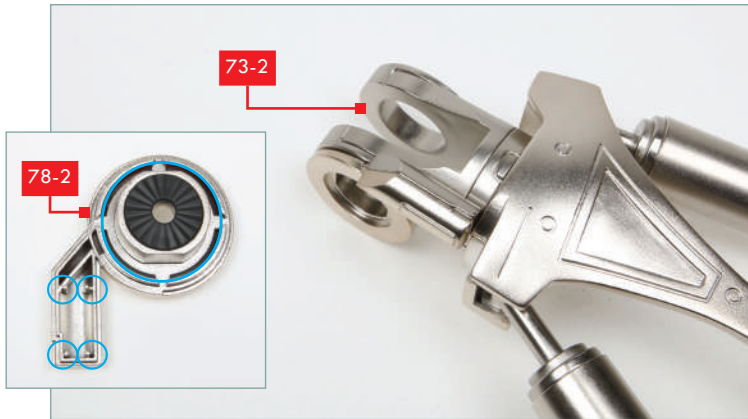
STEP 6

Fit the washer **78-7** into the joint part **78-2** as shown.



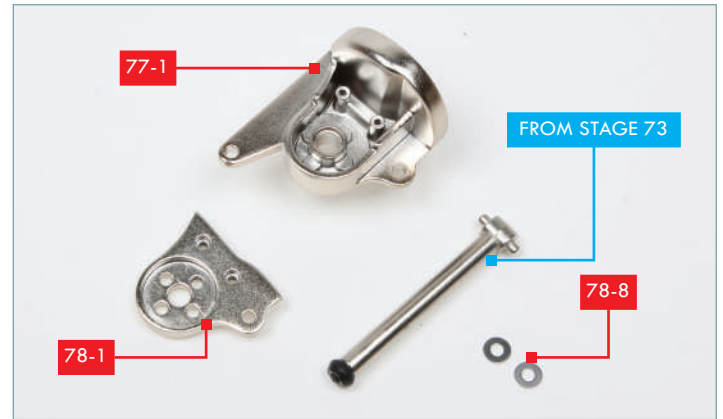
STEP 7

Take the upper arm assembly from stage 76. Identify part **73-2** (the joint at the top of the upper arm). Note that one side has an extension, which matches the extension on part **78-2** (blue arrows). Check the fit of the parts.



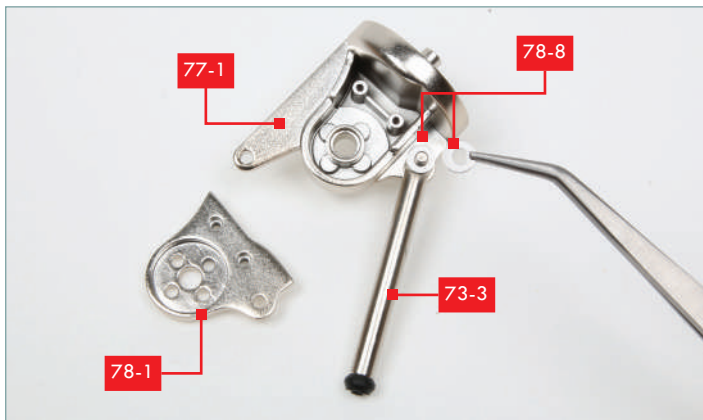
STEP 8

Apply a little glue around the rim of part **78-2** (inset, marked in blue) and to the four pegs on the extension (circled). Fix part **78-2** in place on part **73-2**.



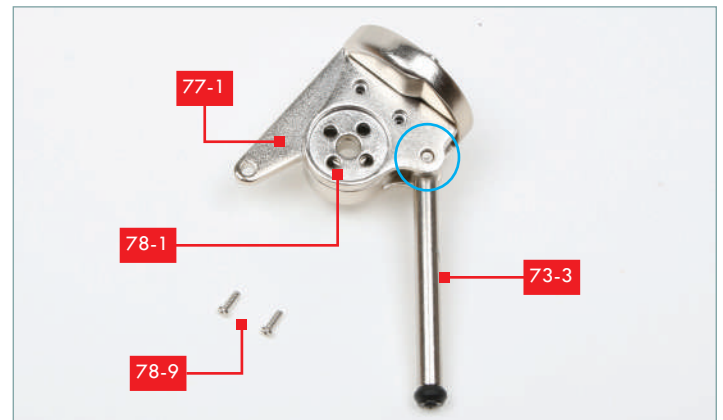
STEP 9

Take the upper arm joint **77-1** from the previous stage and the shaft from stage 73. You will also need two washers **78-8** and the joint cover **78-1**.



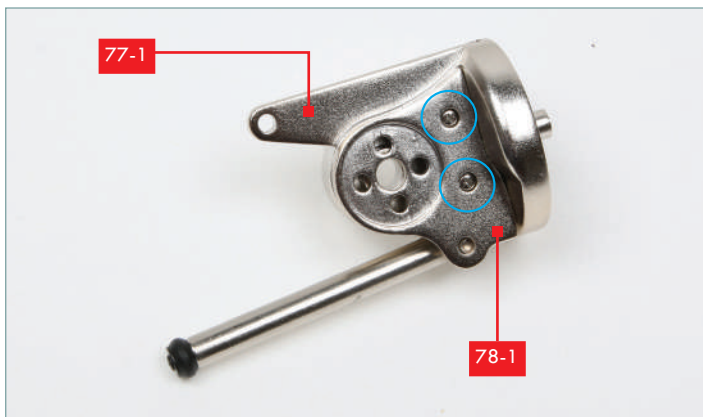
STEP 10

Fit one of the pegs on the end of shaft **73-3** into the hole in the side of the joint part **77-1**. Fit two washers **78-8** on to the other peg on part **73-3**.



STEP 11

Take two PB 2x6 mm screws (**78-9**). Fit the joint cover **78-1** over the joint part **77-1** so that the upper peg of part **73-3** is anchored in the hole at the side (circled).



STEP 12

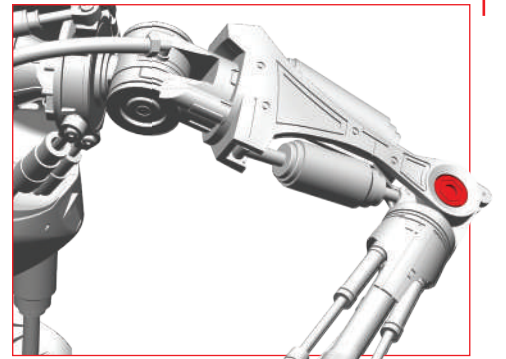
Use the PB screws to fix part **78-1** to part **77-1** (the screw heads are circled in this photo).



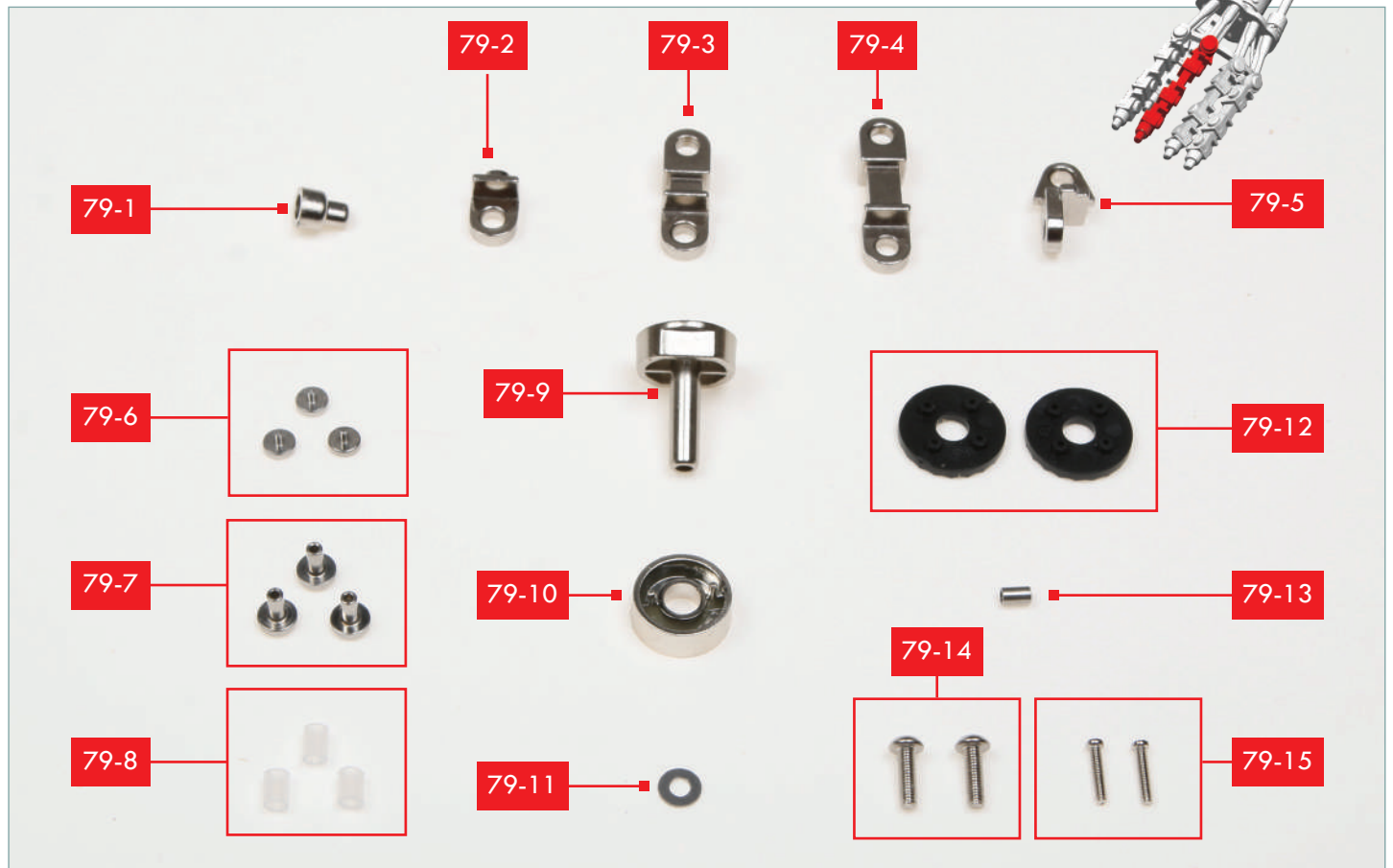
STAGE COMPLETE!

The first finger has been attached to the left hand; a part has been fixed to the shoulder joint at the top of the upper arm; and a joint has been assembled for the left arm.

STAGE 79: PARTS LEFT SECOND (MIDDLE) FINGER AND ARM



Assemble the second finger of the left hand, and construct the upper left arm around the elbow joint.

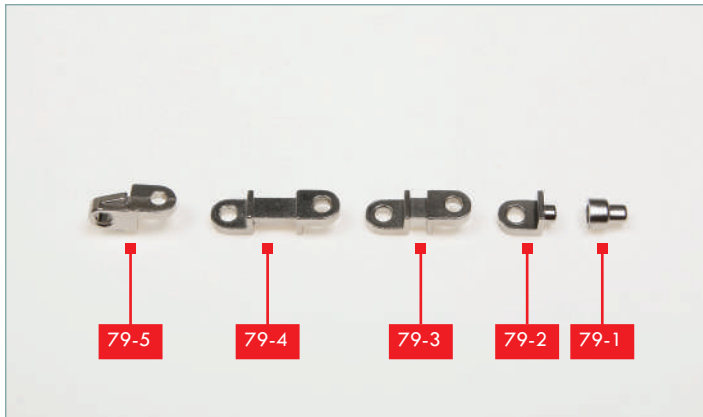


LIST OF PIECES

79-1	Second finger, tip	79-9	Left arm joint
79-2	Second finger part	79-10	Left arm joint
79-3	Second finger part	79-11	Metal washer for arm joint
79-4	Second finger part	79-12	2x Joint centre part
79-5	Second finger part	79-13	Socket liner
79-6	Finger joint connector pin	79-14	2x PM screws (3x10 mm) (1 spare)
79-7	Finger joint connector	79-15	2x PM screws (2x10 mm) (1 spare)
79-8	Plastic sleeve for finger joint		

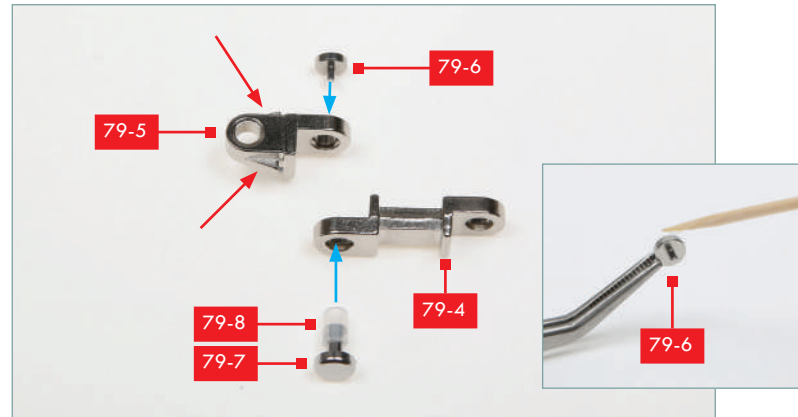
YOU WILL ALSO NEED

Finished parts for left hand from stage 78, Allen key (supplied with an earlier stage), fine crosshead screwdriver, gel-type superglue and a cocktail stick, tweezers (optional).



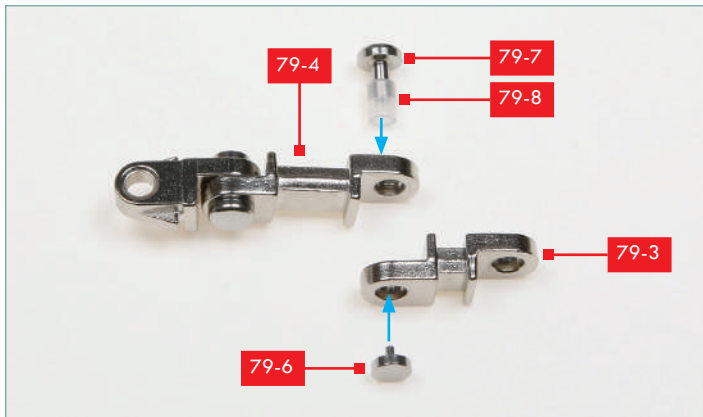
STEP 1

Lay out the finger parts **79-5**, **79-4**, **79-3**, **79-2** and **79-1** in the order they will be assembled, as shown.



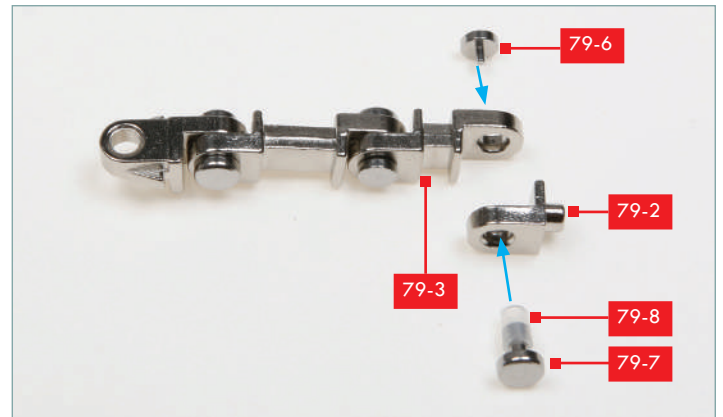
STEP 2

Fit a sleeve **79-8** over a finger joint connector **79-7**. Then fit the connector through the hole in one end of part **79-4** and the hole in the finger component **79-5**. Note the orientation of part **79-5** and ensure the fins (red arrows) are positioned as shown. Apply a little superglue to a connector pin **79-6** (inset) and fix in place, as indicated.



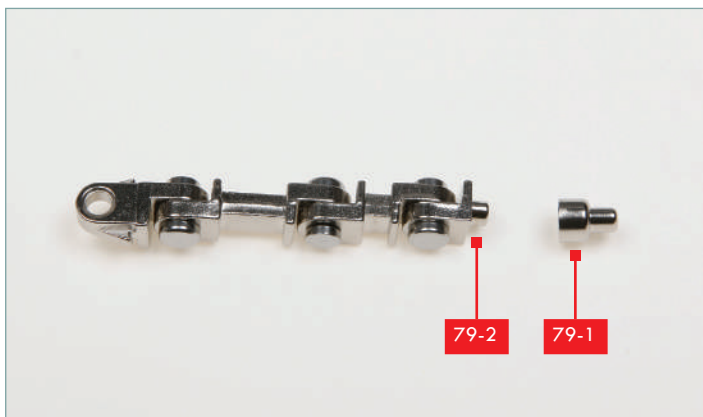
STEP 3

Take the next finger part **79-3** and position it as shown, with one hole aligned with the free hole in part **79-4**. Fit a plastic sleeve **79-8** over the end of a connector **79-7**. Fit the connector down through the free hole in part **79-4** and one of the holes in part **79-3**. Apply a little superglue to a connector pin **79-6** and fix the joint together.



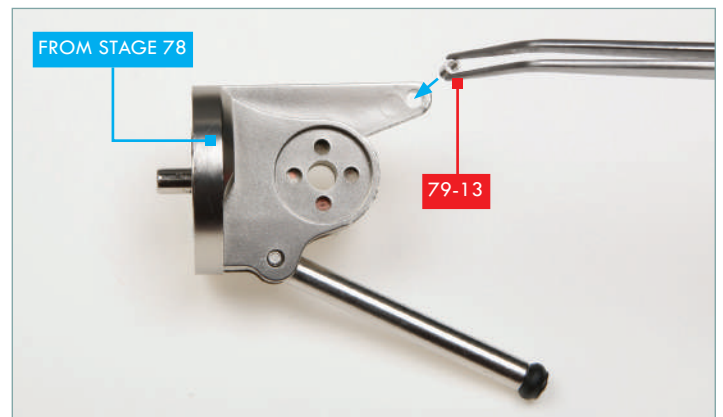
STEP 4

Take the next finger part **79-2** and position it as shown, with the hole aligned with the free hole in part **79-3**. Fit a plastic sleeve **79-8** over the end of a connector **79-7**. Fit the connector up through the hole in part **79-2** and the free hole in part **79-3**. Apply a little superglue to a connector pin **79-6** and fix the joint together.



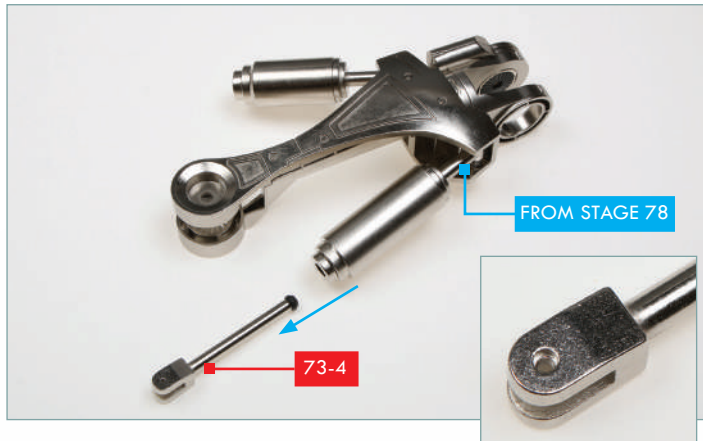
STEP 5

Use a cocktail stick to apply a little superglue to the peg on part **79-2**. Fit part **79-1** on to the peg and allow the glue to dry.



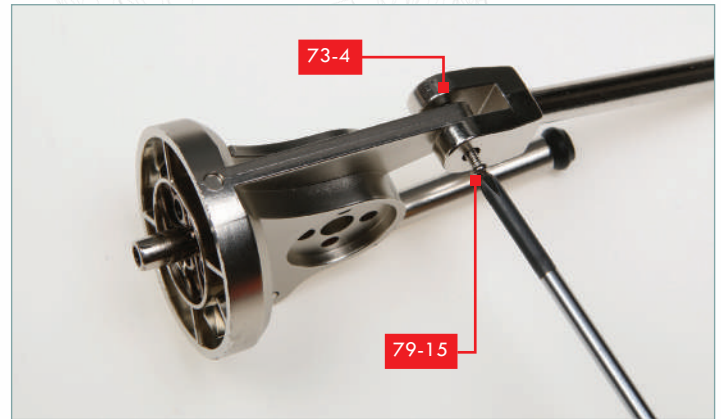
STEP 6

Take the elbow joint assembly from stage 78. Fit the metal sleeve **79-13** into the hole in the assembly, as indicated.



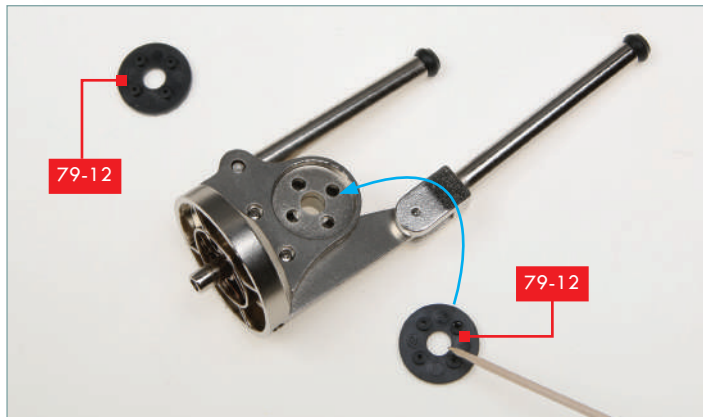
STEP 7

Remove the bar **73-4** from the upper arm assembly from stage 78. Note the difference in the size of the holes in the flanges at the end of part **73-4**. One is recessed, and the other is much smaller (inset x 2).



STEP 8

Fit the flanges of part **73-4** over the hole in the elbow joint assembly, ensuring that the metal sheath is still in place. Fix in place with a PM 2x10 mm screw (**79-15**). Note that the head of the screw fits into the recess in part **73-4**. Also note which way round the arm is attached.



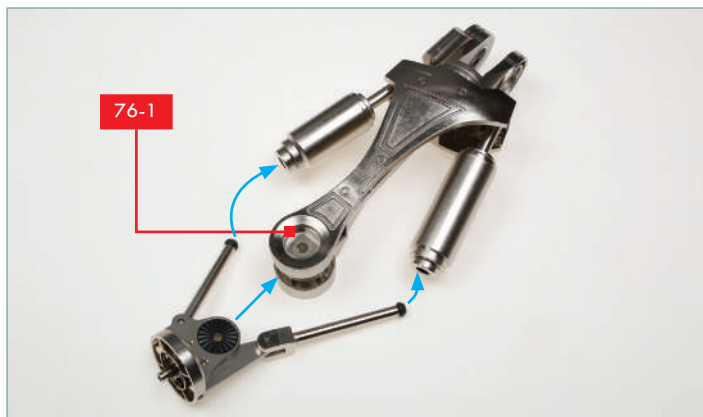
STEP 9

Take the two joint centre parts **79-12**. Apply a little superglue to the four pegs on one of the plastic washers and fit in place on the elbow joint, as indicated, so that the four pegs fit into the sockets.



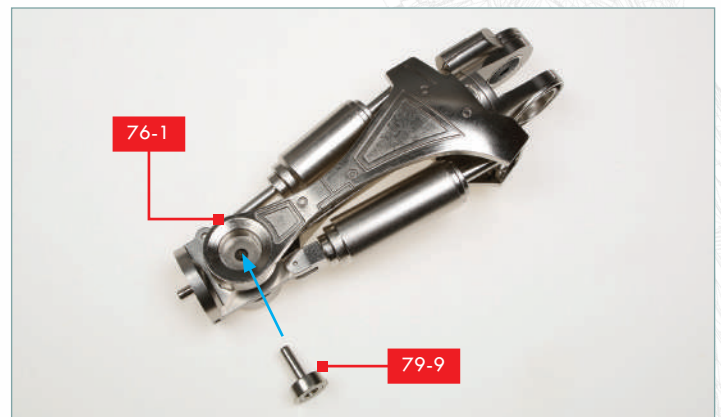
STEP 10

Apply a little glue to the pegs on the second joint centre part **79-12** and fix it into the other side of the elbow joint.



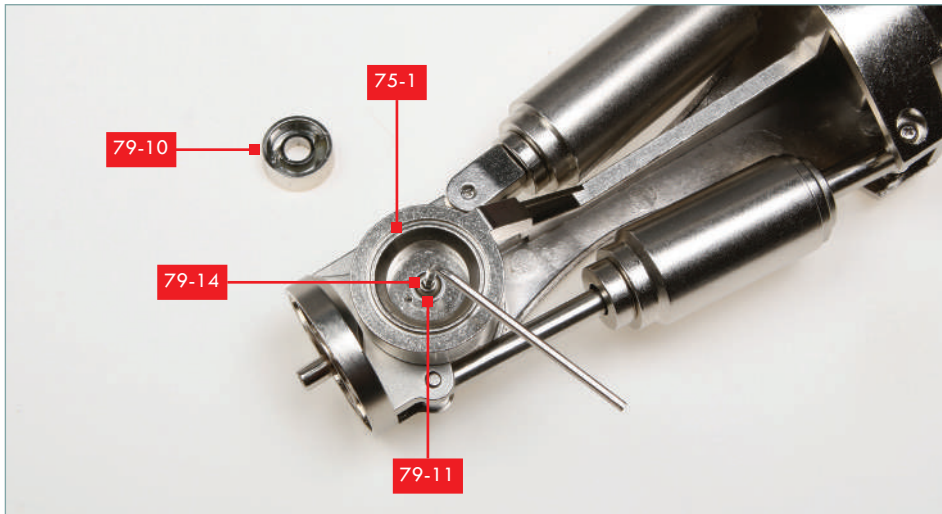
STEP 11

Take the upper arm assembly and fit the elbow joint between the circular joint parts **75-1** and **76-1** at the lower end of the upper arm. At the same time, fit the two shafts into the muscle cylinders on the upper arm. Note that the longer shaft fits into the larger muscle.



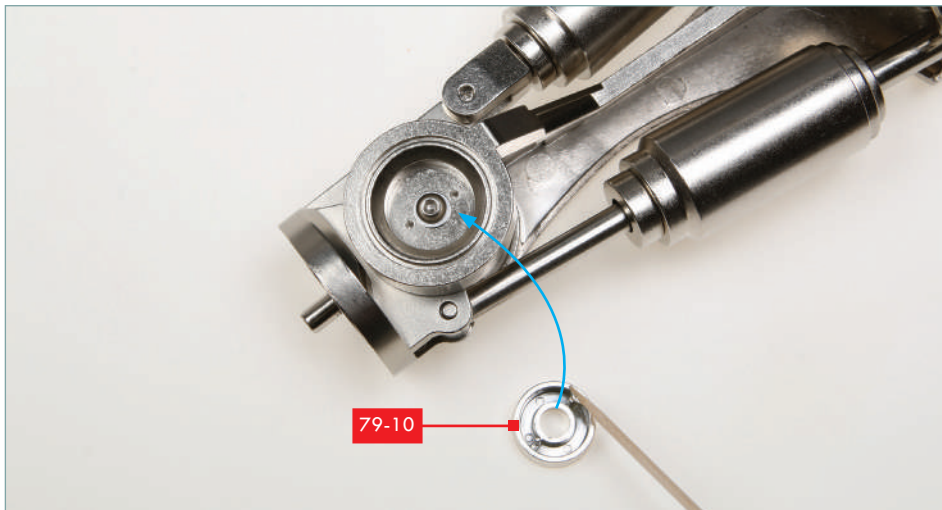
STEP 12

Take the arm joint **79-9** and fit it into the centre of the elbow joint, through all the parts. The flattened edges of part **79-9** should align with the corresponding shapes in the recess in part **76-1**.



STEP 13

Turn the upper arm assembly over, holding part **79-9** in place. Take the **PM 3x10 mm** hex screw (**79-14**) and fit the washer **79-11** on to it. Then fit it through the centre of the recess in part **75-1**. Screw it in place, using the Allen key. Do not overtighten: the lower part of the elbow joint should be able to turn.



STEP 14

Apply a little superglue to the pins on the inside of part **79-10**. Fit it in place on the elbow joint, so that the pins are located in the corresponding holes.



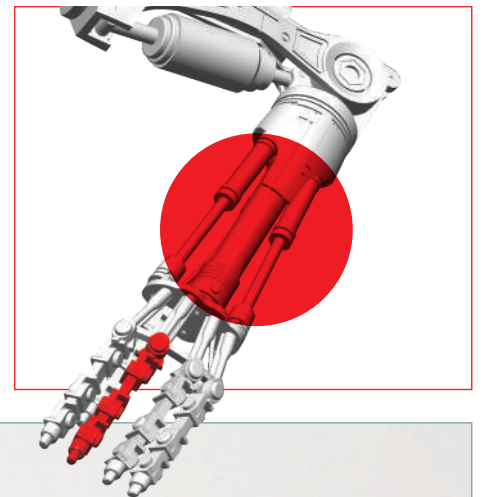
STAGE COMPLETE!

The left upper arm has been assembled, together with the middle finger of the left hand.



STAGE 80: COMPONENTS FOR THE FOREARM AND LEFT HAND

Attach the muscular springs to the left forearm and attach the second finger to the left hand.

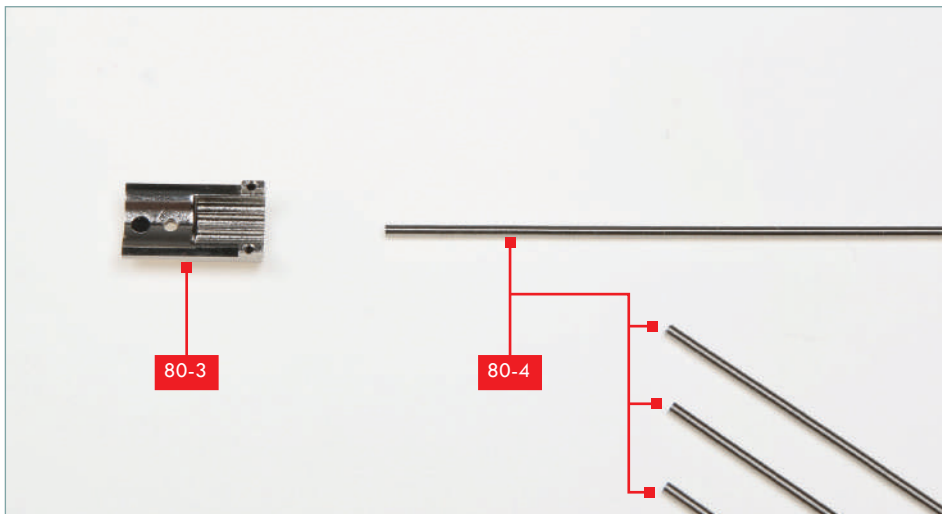


LIST OF PIECES

80-1	Left forearm shaft	80-7	Finger joint connector
80-2	Left forearm joint	80-8	Finger joint pin
80-3	Left forearm plate	80-9	Plastic sleeve for finger joint
80-4	Left forearm muscle springs		
80-5	2x KB screws (2x4 mm) (1 spare)		
80-6	2x PM screws (3x12 mm) (1 spare)		

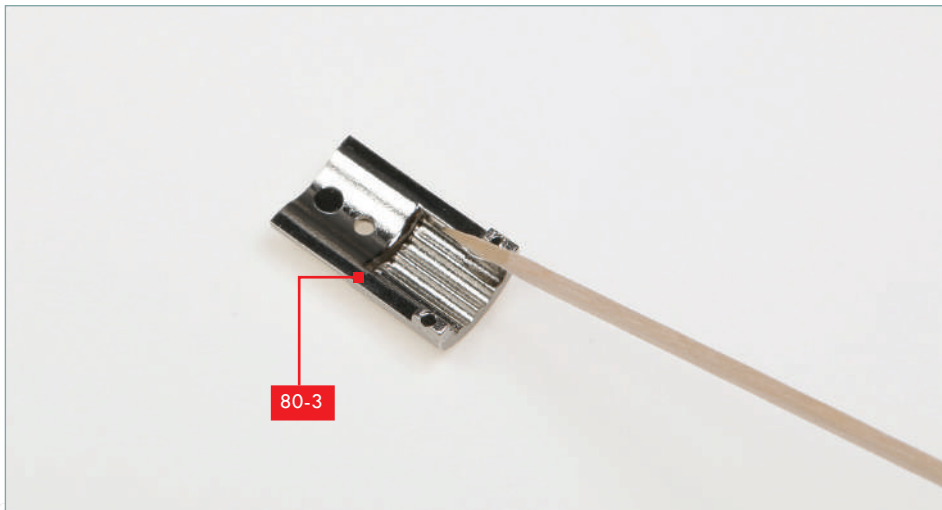
YOU WILL ALSO NEED

Finished parts for left hand from stage 78, second finger from stage 79, a fine crosshead screwdriver, gel-type superglue and a cocktail stick, tweezers (optional).



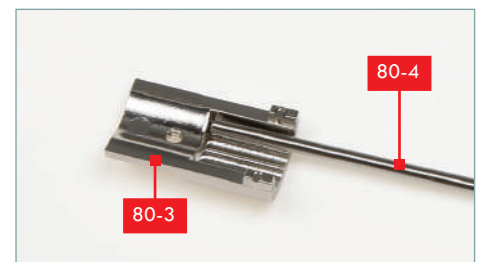
STEP 1

Take the forearm plate **80-3** and the four springs **80-4**. Identify the four grooves in the plate, where the springs will be fixed.



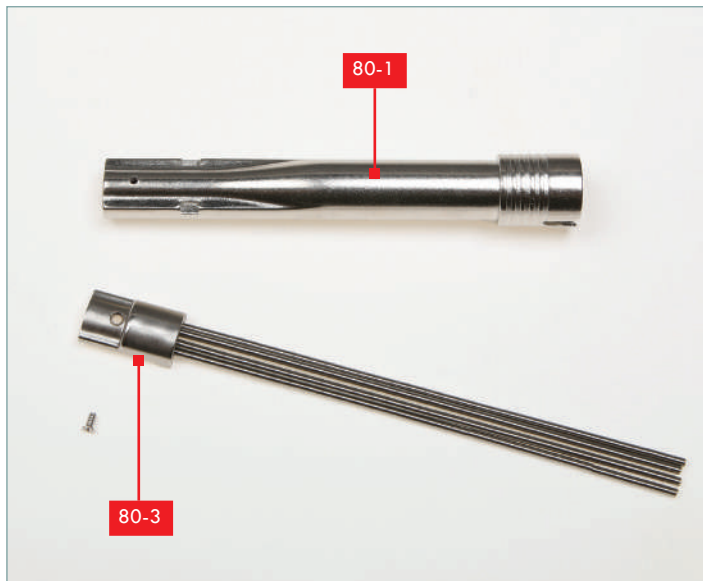
STEP 2

Apply a little superglue to the first groove in part **80-3** and stick the end of one of the springs in place (below). Hold in place until the glue has dried.



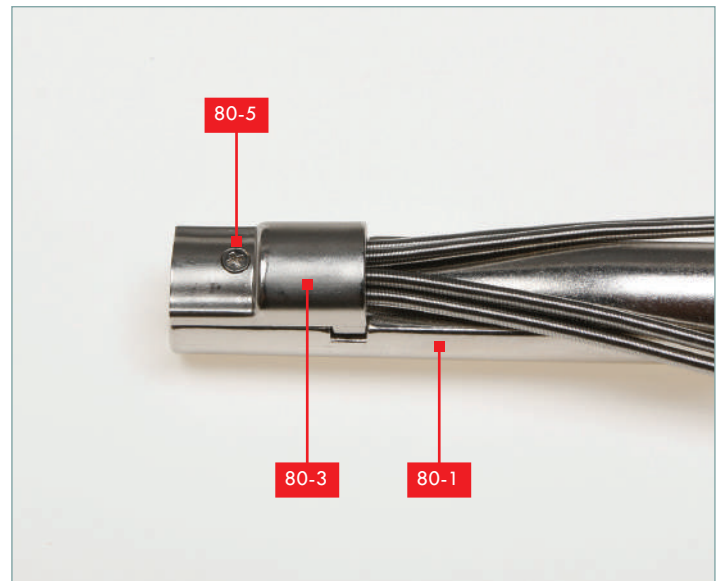
STEP 3

Continue applying superglue and fixing the springs in place until all four are fixed.



STEP 4

Take the forearm shaft **80-1**. Fit the plate **80-3** to the base of the shaft so that ends of the four springs are enclosed and the screw holes are aligned.



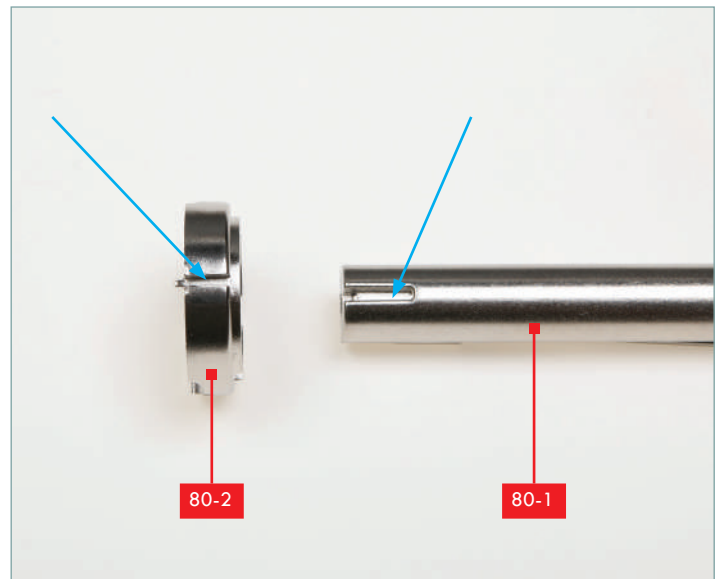
STEP 5

Fix the parts together using a **KB 2x4 mm screw (80-5)**.



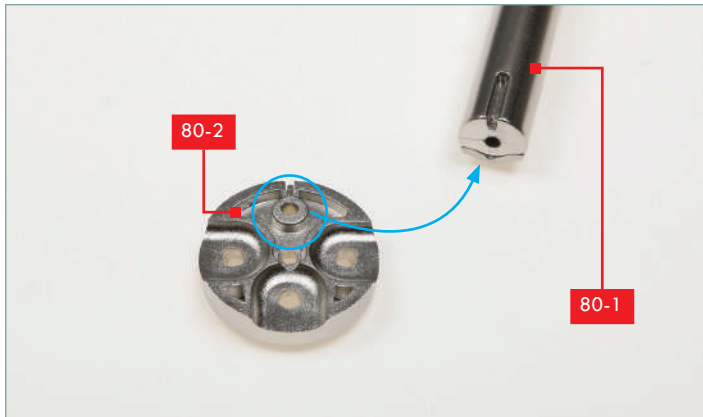
STEP 6

This shows the shaft and springs assembled.



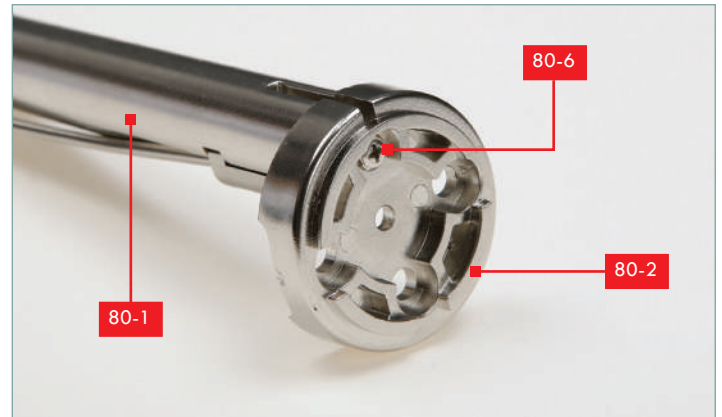
STEP 7

Take the base of the forearm **80-2**. Identify the notch on the rim, which should align with the notch on part **80-1** (arrows).



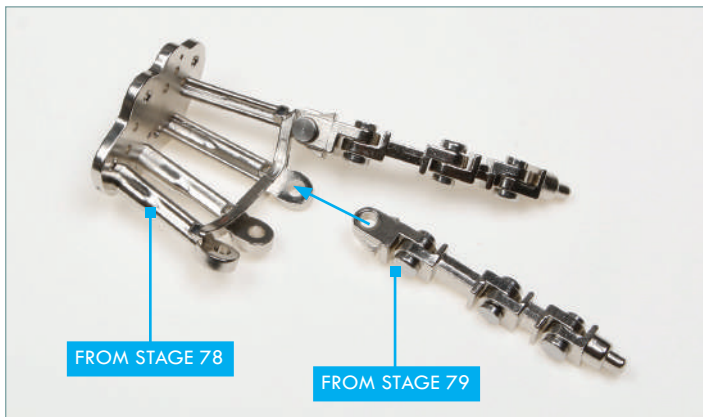
STEP 8

Identify the hole in the joint **80-2** which will align with the screw hole on the end of the shaft **80-1**. A small pin on part **80-2** locates in a recess at the end of the notch in part **80-1**.



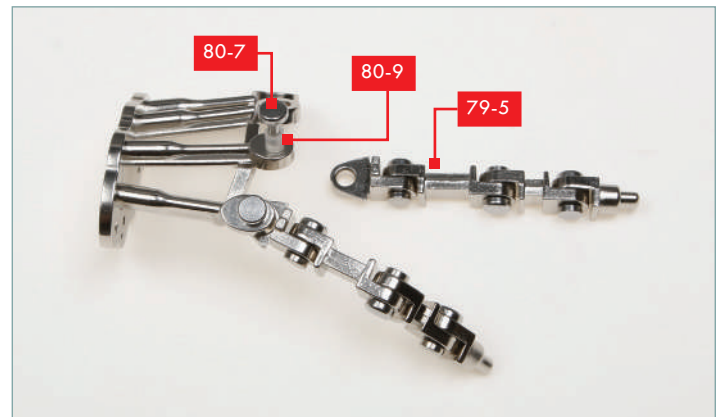
STEP 9

Use a PM 3x12 mm (**80-6**) screw to fix the parts together.



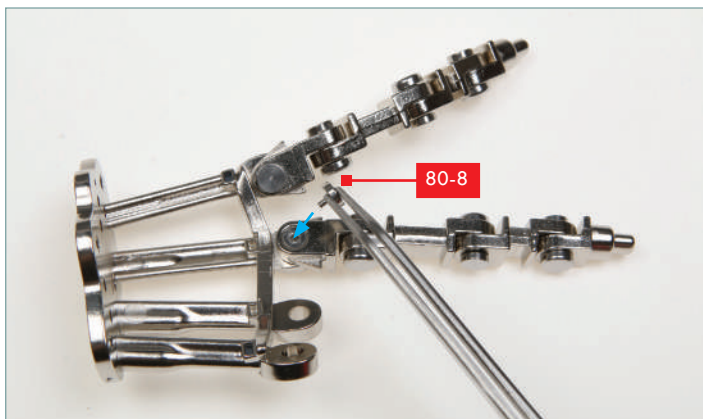
STEP 10

Take the hand assembly from stage 78 and identify the fixing point for the second (middle) finger from stage 79.



STEP 11

Check the fit of the second finger of the left hand. Fit the plastic sleeve **80-9** over the connector **80-7** and fit it through the hole in the frame of the left hand, and the hole in part **79-5** at the end of the finger.



STEP 12

Turn the hand assembly over. Apply a little superglue to the connector pin **80-8** and fix the joint together, as shown.

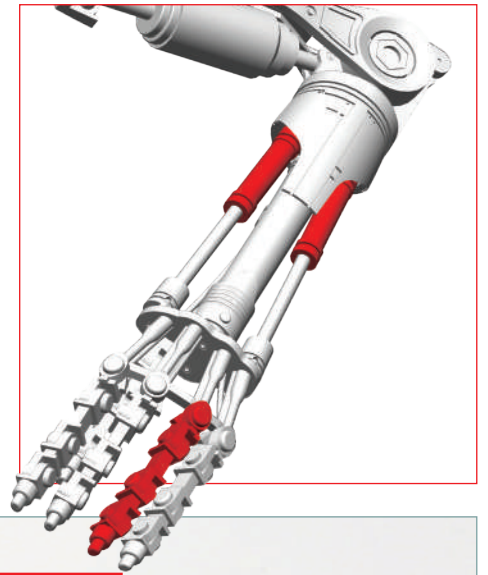


STAGE COMPLETE!

We have started work on the left forearm, and fitted another finger to the left hand.

STAGE 81: COMPONENTS FOR THE FOREARM AND THIRD FINGER OF THE LEFT HAND

Construct the third finger of the left hand and attach two shafts to the left forearm assembly.

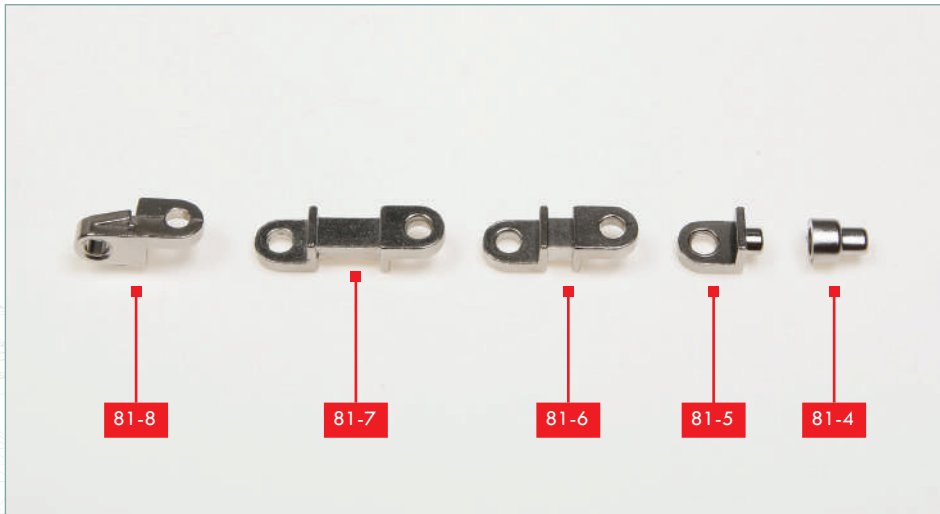


LIST OF PIECES

81-1	2x Left forearm shaft	81-7	Left hand finger part
81-2	2x Left forearm shaft connector	81-8	Left hand finger part
81-3	3x KM screws (2x16 mm) (1 spare)	81-9	Finger joint pin
81-4	Left hand finger tip	81-10	Finger joint connector
81-5	Left hand finger part	81-11	Plastic sleeve for finger joint
81-6	Left hand finger part		

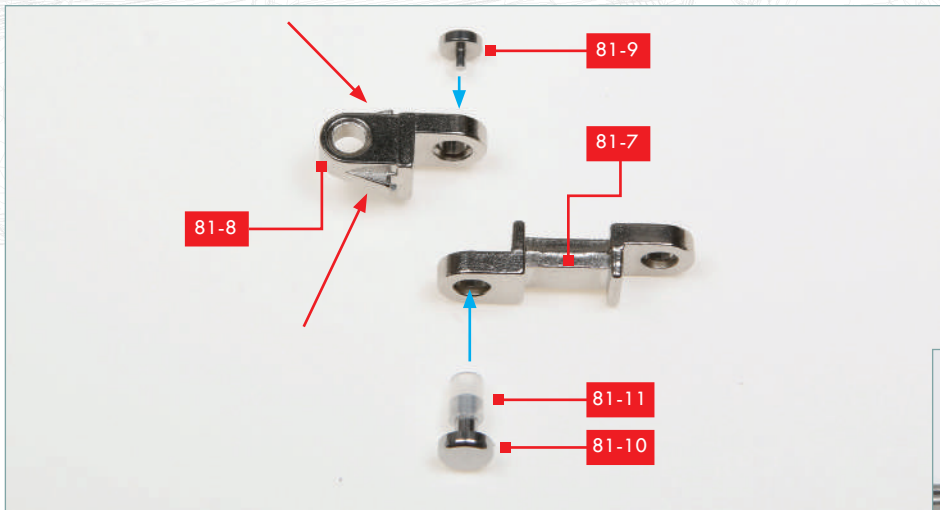
YOU WILL ALSO NEED

Finished parts for left forearm from stage 80, a fine crosshead screwdriver, gel-type superglue and a cocktail stick, tweezers (optional).



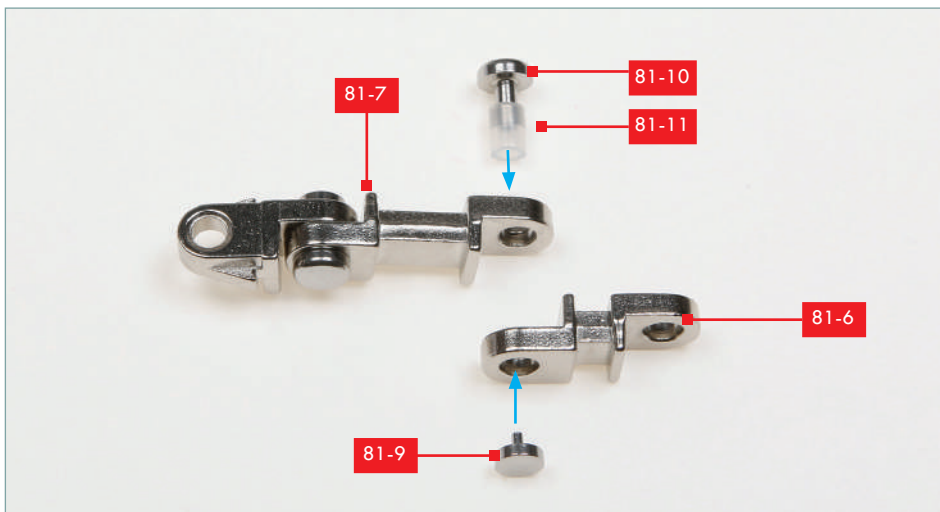
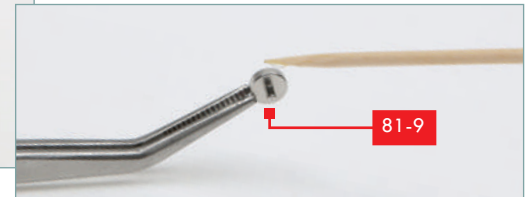
STEP 1

Lay out the finger parts **81-8**, **81-7**, **81-6**, **81-5** and **81-4** in the order they will be assembled, as shown.



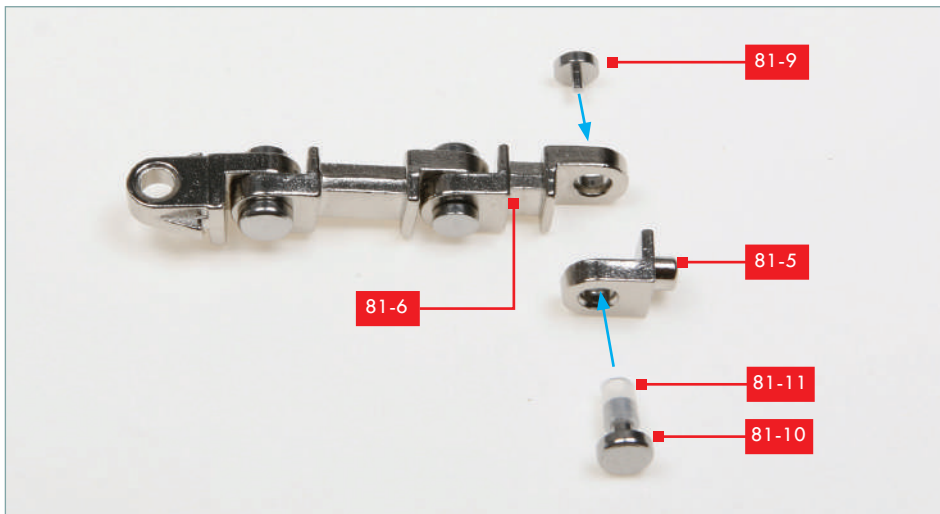
STEP 2

Fit a sleeve **81-11** over a finger joint connector **81-10**. Then fit the connector through the hole in one end of part **81-7** and the hole in the finger component **81-8**. Note the orientation of part **81-8** and ensure the fins (red arrows) are positioned as shown. Apply a little superglue to a connector pin **81-9** (inset) and fix in place, as indicated.



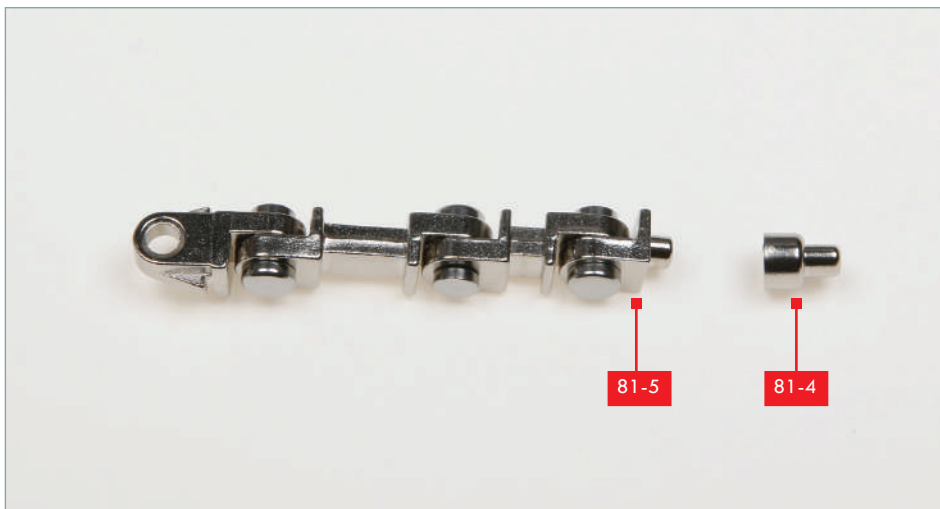
STEP 3

Take the next finger part **81-6** and position it as shown, with one hole aligned with the free hole in part **81-7**. Fit a plastic sleeve **81-11** over the end of a connector **81-10**. Fit the connector down through the free hole in part **81-7** and one of the holes in part **81-6**. Apply a little superglue to a connector pin **81-9** and fix the joint together.



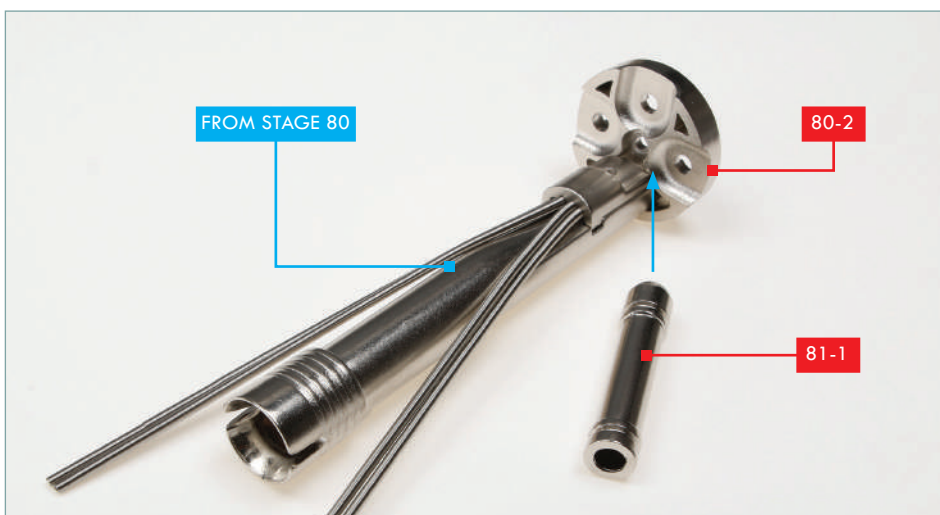
STEP 4

Take the next finger part **81-5** and position it as shown, with the hole aligned with the free hole in part **81-6**. Fit a plastic sleeve **81-11** over the end of a connector **81-10**. Fit the connector up through the hole in part **81-5** and the free hole in part **81-6**. Apply a little superglue to a connector pin **81-9** and fix the joint together.



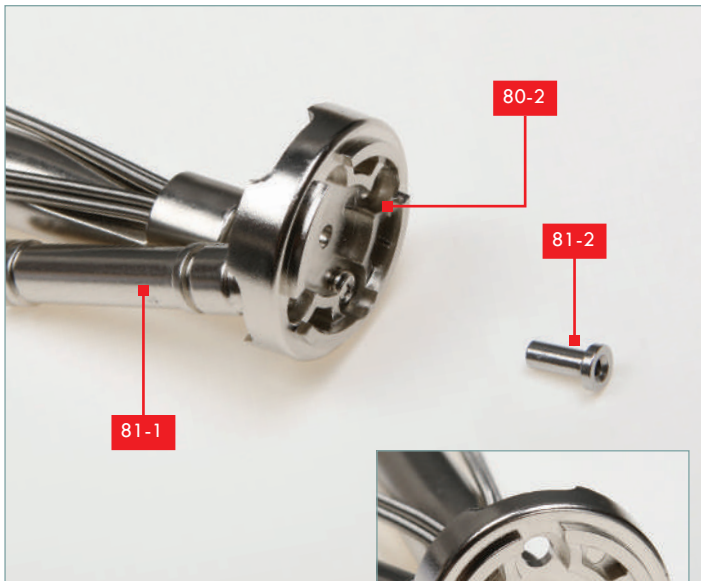
STEP 5

Use a cocktail stick to apply a little superglue to the peg on part **81-5**. Fit part **81-4** on to the peg and allow the glue to dry.



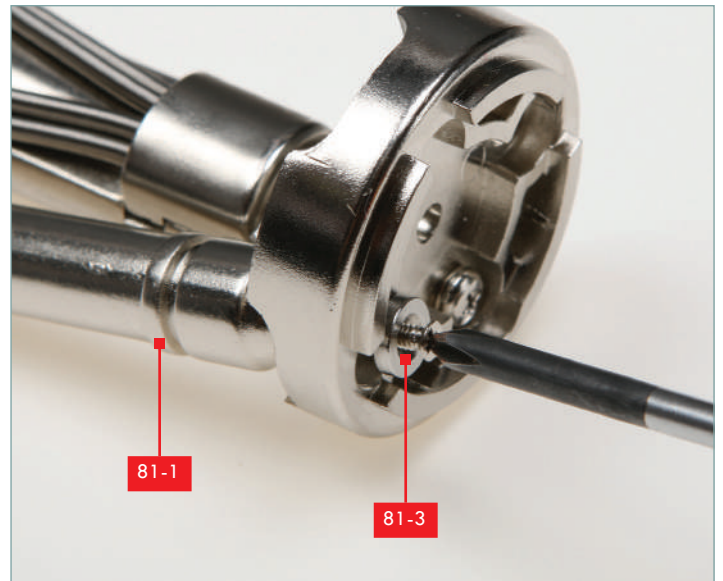
STEP 6

Take the forearm assembly from stage 80, and one of the shafts **81-1**. Identify the hole in the joint **80-2** where the shaft will fit, next to the shaft fitted in the previous stage.



STEP 7

From the other side of the joint **80-2**, fit a shaft connector **81-1** through the hole and into the hole in the end of the shaft **81-1**.



STEP 8

Fit a KM 2x16 mm screw (**81-3**) into the connector **81-2** and through the hole in the end of the shaft **81-1**. Tighten the screw fully.



STEP 9

Repeat steps 6, 7 and 8 to fit the second shaft **81-1** on the other side of the joint **80-2**, as shown. The shaft connectors fit loosely at this stage, and can move back and forth through the holes in the joint **80-2**.



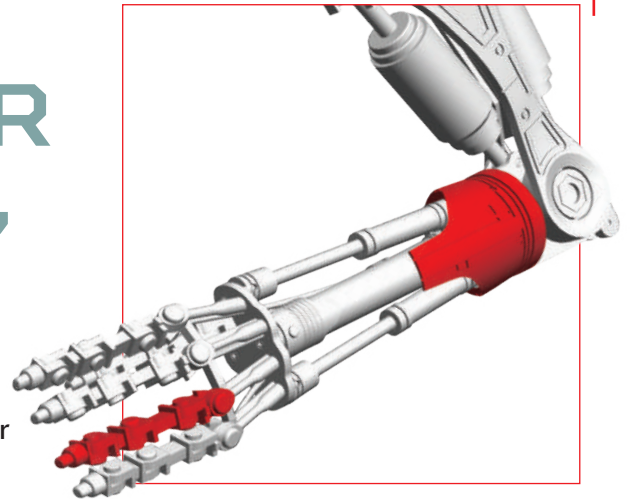
STAGE COMPLETE!

Two more shafts have been added to the forearm and another finger has been assembled.



STAGE 82: COMPONENTS FOR UPPER LEFT ARM, FOREARM AND LEFT HAND

Attach the third finger to the hand, and, after assembling further connective elements, join the upper left arm with the forearm.



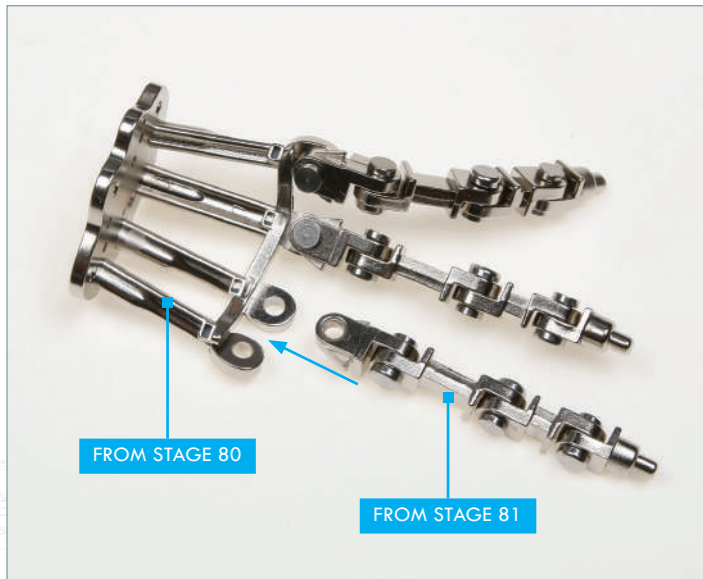
LIST OF PIECES

82-1	Left forearm cover
82-2	Left forearm shaft
82-3	Joint center part
82-4	Left forearm shaft connector
82-5	2x KM screws (2x16 mm) (1 spare)
82-6	2x PM screws (3x12 mm) (1 spare)
82-7	M3 washer (1 spare)
82-8	Finger joint connector
82-9	Finger joint pin
82-10	Plastic sleeve for finger joint

YOU WILL ALSO NEED

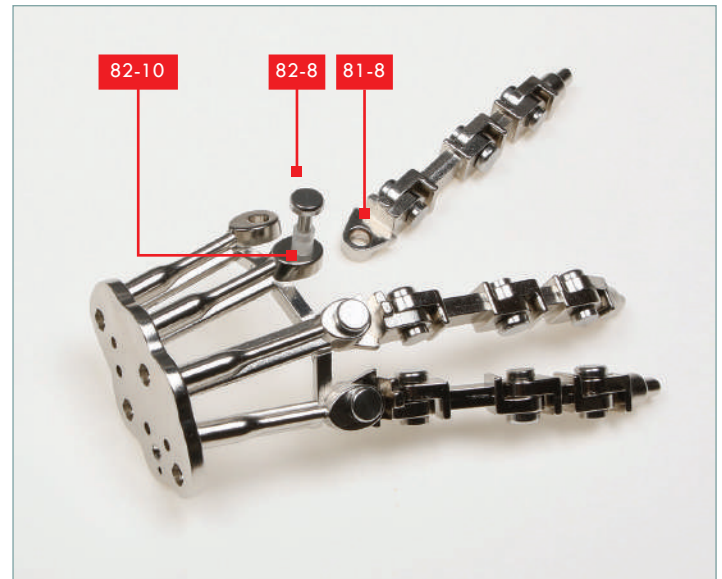
Finished third finger from stage 81, left forearm assembly from stage 81, left upper arm assembly from stage 79, hand assembly from stage 80, fine crosshead screwdriver, gel-type superglue and a cocktail stick, tweezers (optional).





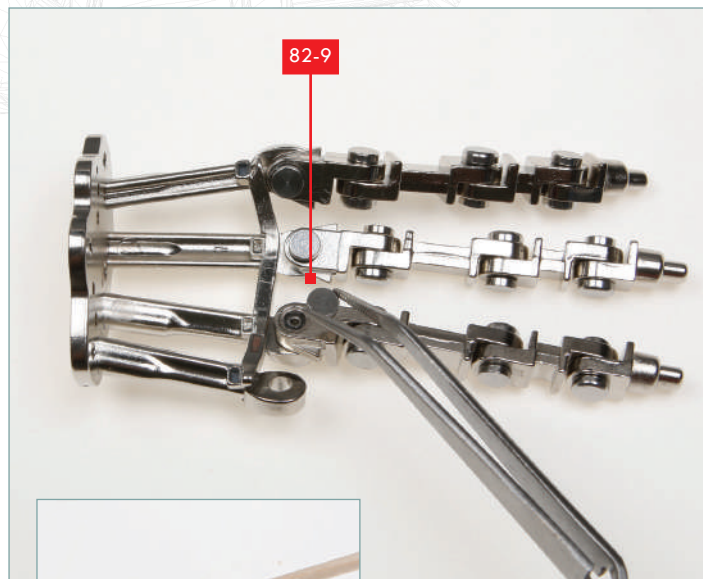
STEP 1

Take the hand assembly from stage 80 and the third finger from stage 81. Identify the fixing point for the finger.



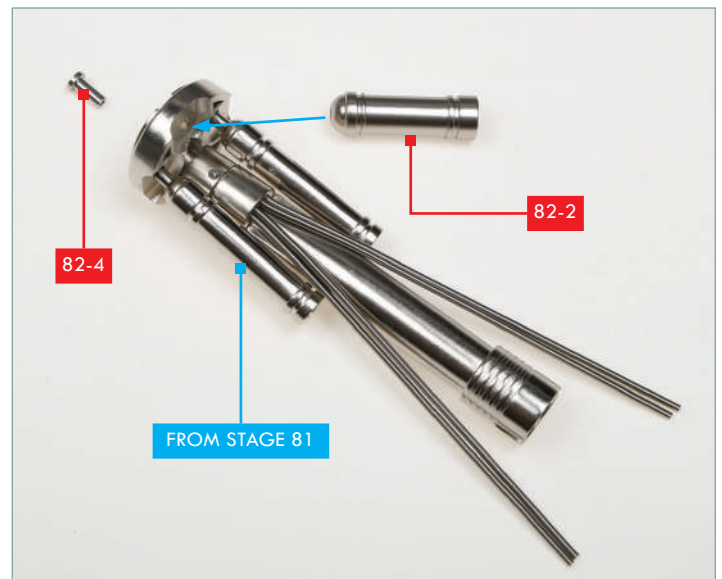
STEP 2

Check the fit of the second finger of the left hand. Fit the plastic sleeve **82-10** over a connector **82-8** and, starting from the outside of the knuckle, fit it through the hole in the frame of the left hand, and the hole in part **81-8** at the end of the finger.



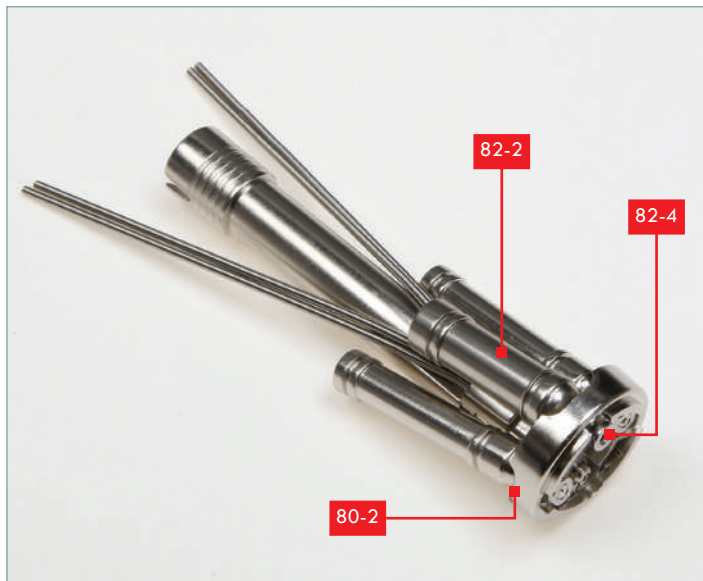
STEP 3

Turn the hand over and apply a little superglue to a connector pin **82-9** (inset) and fix in place, as indicated.



STEP 4

Take the lower arm assembly from stage 81. Identify the fixing point for the left forearm shaft **82-2**, as indicated. Have the shaft connector **82-4** ready.



STEP 5

Fit the shaft connector **82-4** through the arm joint **80-2** and into the hole in the end of the shaft **82-2**.



STEP 6

Take a KM 2x16 mm screw (**82-5**) and fit it into the connector **82-4** and through into the shaft **82-2**. Tighten fully. As with the other shafts, the connector can move around.



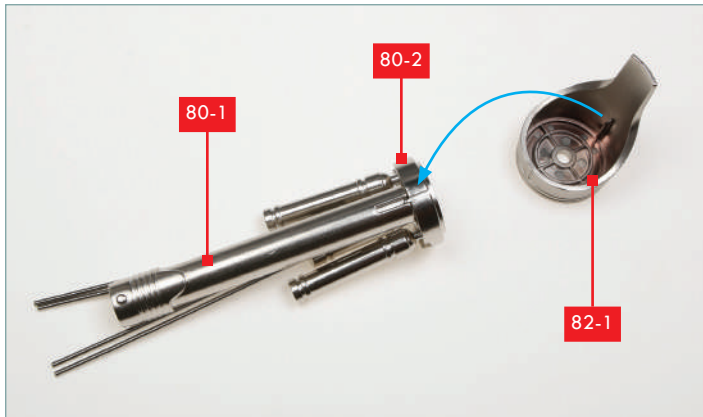
STEP 7

Take the upper arm assembly from stage 79. Check the fit of the joint center part **82-3** in the elbow joint (arrow). Apply a little superglue to the four studs on the back of the washer (inset).



STEP 8

Fit the joint centre part into the joint, as shown.



STEP 9

Take the lower arm assembly and the lower arm cover **82-1**. Note the rib on the inside of part **82-1**, which needs to be aligned with the notches on parts **80-1** and **80-2** (arrow).



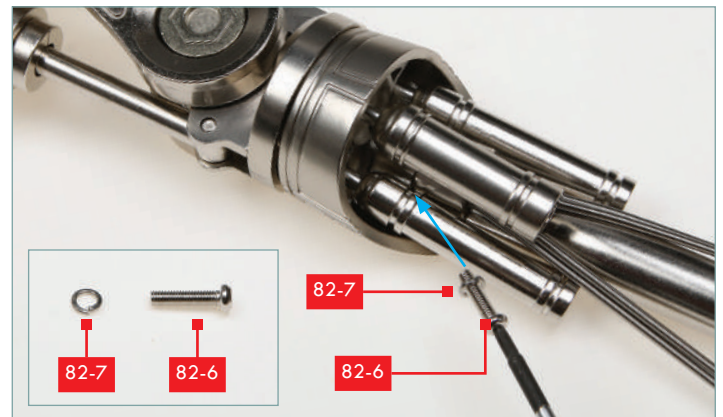
STEP 10

Fit part **82-1** over the joint **80-2** so that the rib fits into the notches.



STEP 11

The next step is to attach the lower arm to the upper arm. Note the orientation of the two arm assemblies. Fit the peg on the base of the upper arm into the hole in part **82-1**.



STEP 12

Fit an M3 washer **82-7** onto a PM 3x12 mm screw **82-6** (inset). Turn the arm assembly over, holding the parts together, so that you can fit the PM 3x12 mm screw into the screw hole in the center of the joint part **80-1**.



STEP 13

Tighten the screw so that the parts of the arm are held together.

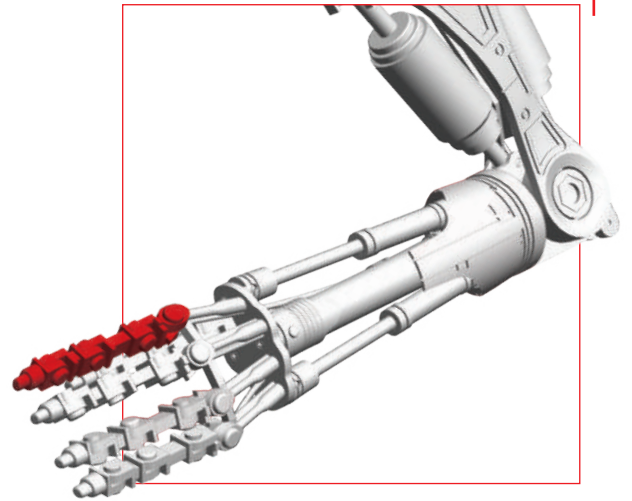


STAGE COMPLETE!

Another finger has been fitted to the left hand and the upper and lower left arm have been joined at the elbow.

STAGE 83: ASSEMBLE THE LEFT FOREFINGER

Build an additional finger, connect it to the left hand, and attach three ball joints to the wrist.

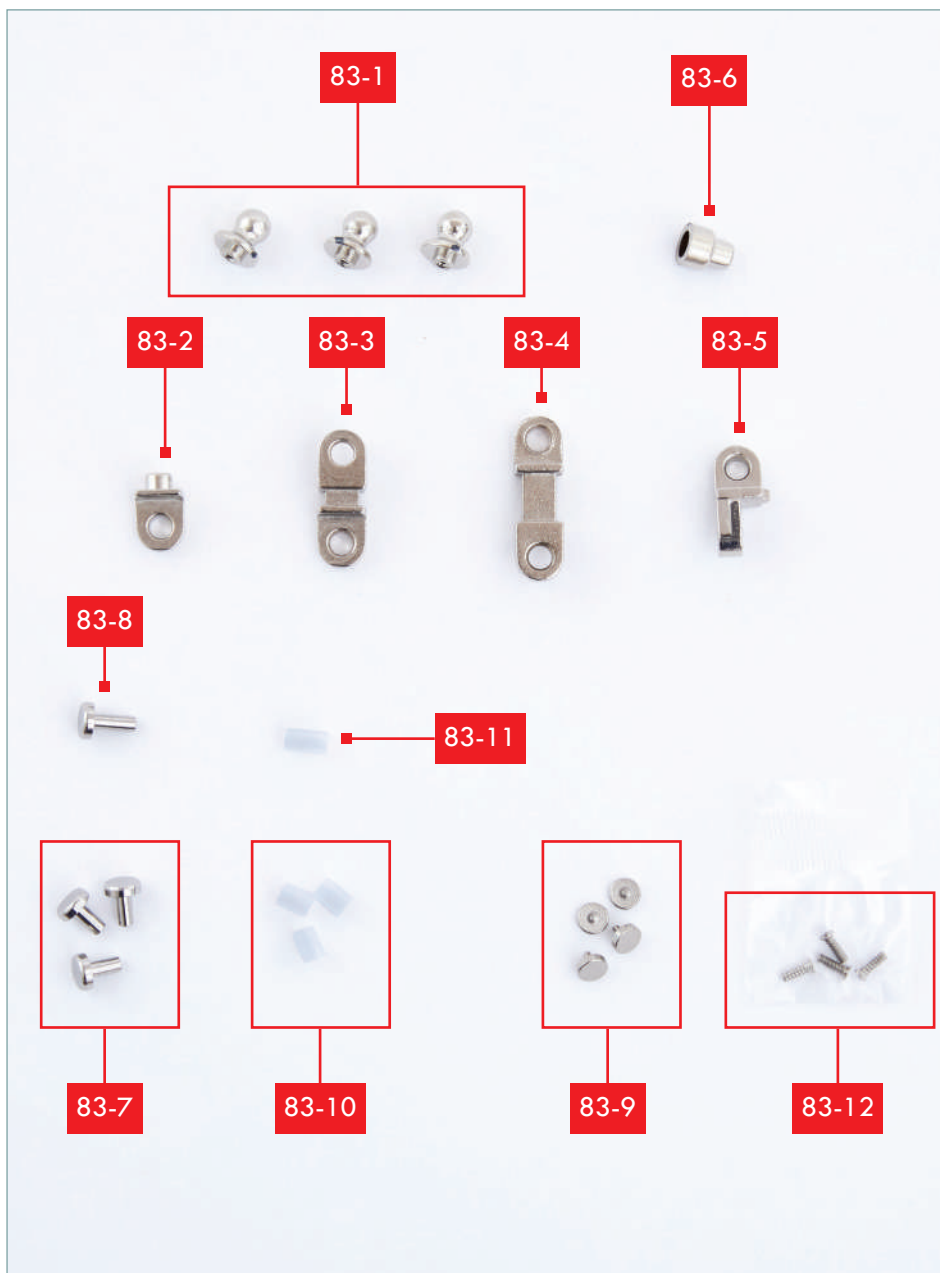


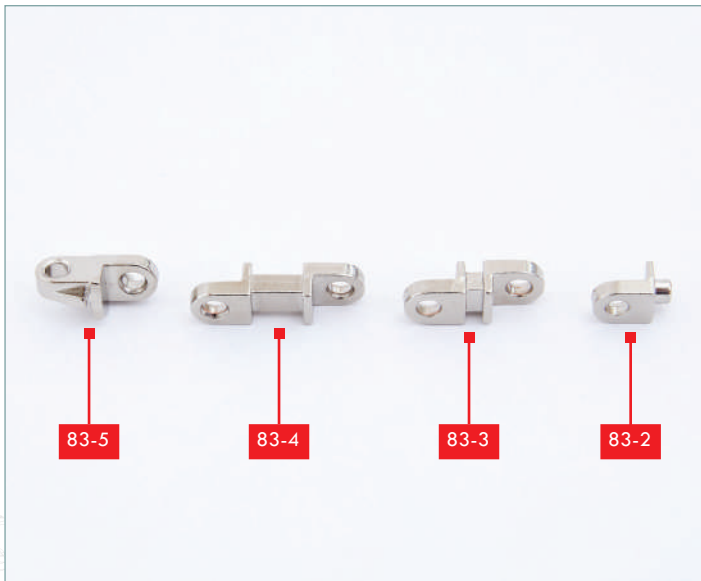
LIST OF PIECES

83-1	3x Left wrist ball joint
83-2	Forefinger part
83-3	Forefinger part
83-4	Forefinger part
83-5	Forefinger part
83-6	Forefinger tip
83-7	3x Finger joint connector
83-8	Finger joint connector (large)
83-9	3x Finger joint connector pin
83-10	3x Plastic sleeve for finger joint
83-11	Plastic sleeve for finger joint (large)
83-12	4x KB screws (2x6 mm) (1 spare)

YOU WILL ALSO NEED

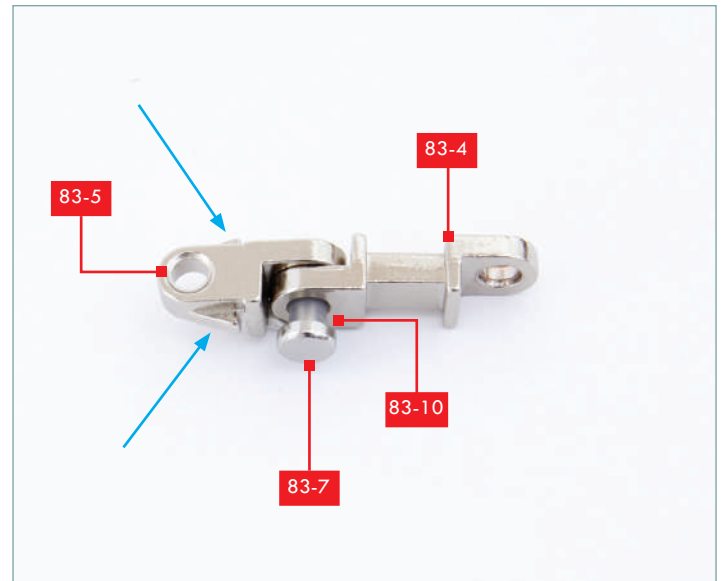
Finished parts for left hand from stage 82, fine crosshead screwdriver, gel-type superglue and a cocktail stick, tweezers (optional).





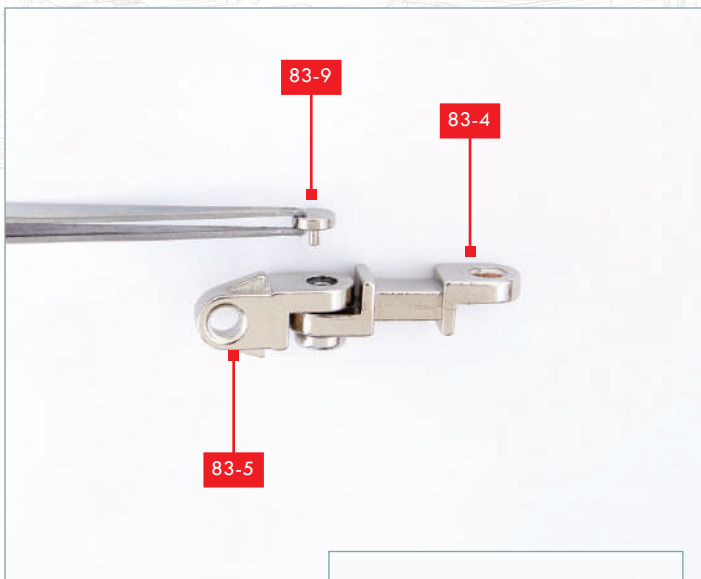
STEP 1

Lay out the finger parts **83-5**, **83-4**, **83-3** and **83-2** in the order they will be assembled, as shown.



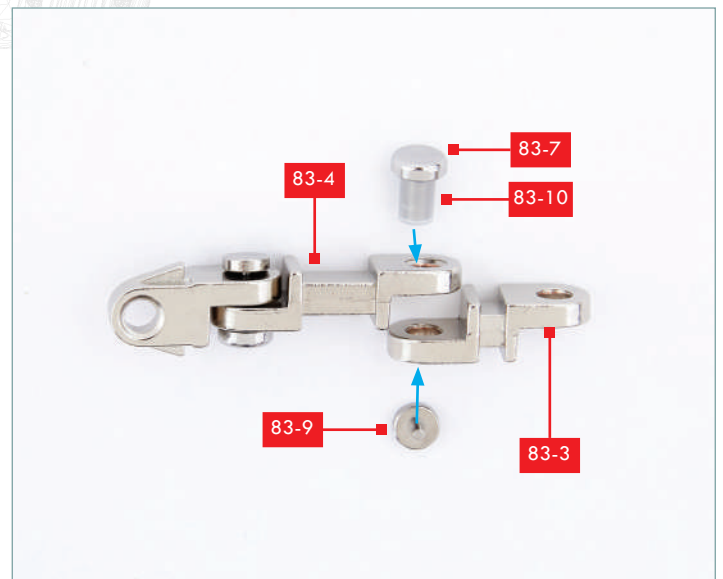
STEP 2

Fit a sleeve **83-10** over a finger joint connector **83-7**. Then fit the connector through the hole in one end of part **83-4** and the hole in the finger component **83-5**. Note the orientation of part **83-5** and ensure the 'fins' (blue arrows) are positioned as shown.



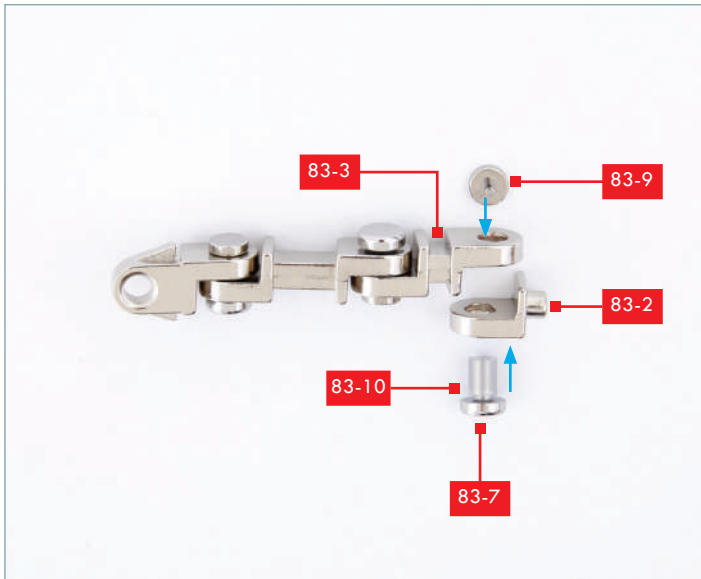
STEP 3

Apply a little superglue to a connector pin **83-9** (inset) and fix in place, to hold the joint connector in place.



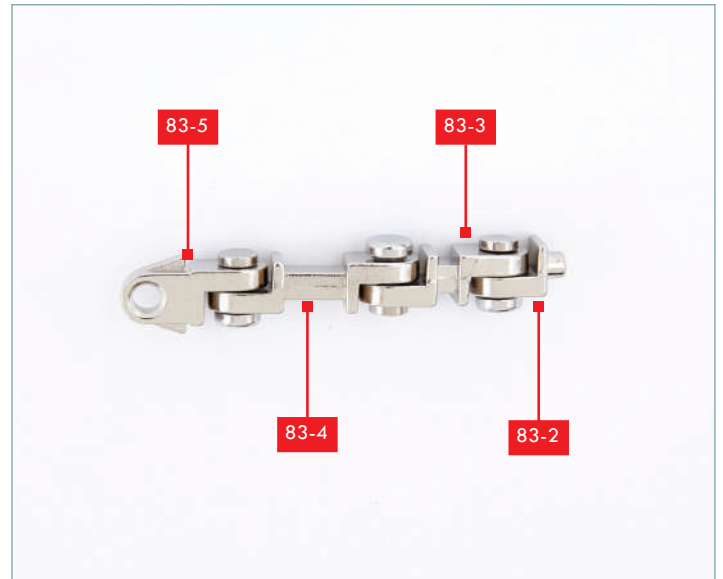
STEP 4

Take the next finger part **83-3** and position it as shown, with one hole aligned with the free hole in part **83-4**. Fit a plastic sleeve **83-10** over the end of a connector **83-7**. Fit the connector down through the free hole in part **83-4** and one of the holes in part **83-3**. Apply a little superglue to a connector pin **83-9** and fix the joint together.



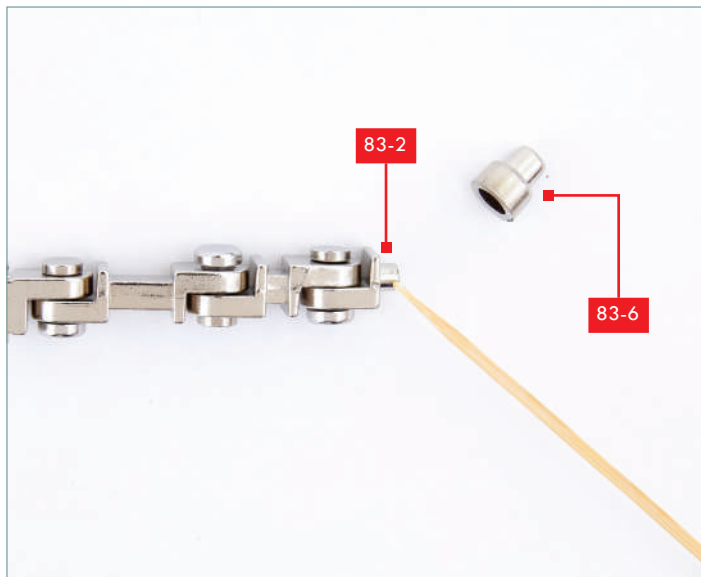
STEP 5

Take the next finger part **83-2** and position it as shown, with the hole aligned with the free hole in part **83-3**. Fit a plastic sleeve **83-10** over the end of a connector **83-7**. Fit the connector up through the hole in part **83-2** and the free hole in part **83-3**. Apply a little superglue to a connector pin **83-9** and fix the joint together.



STEP 6

This shows the finger parts connected.



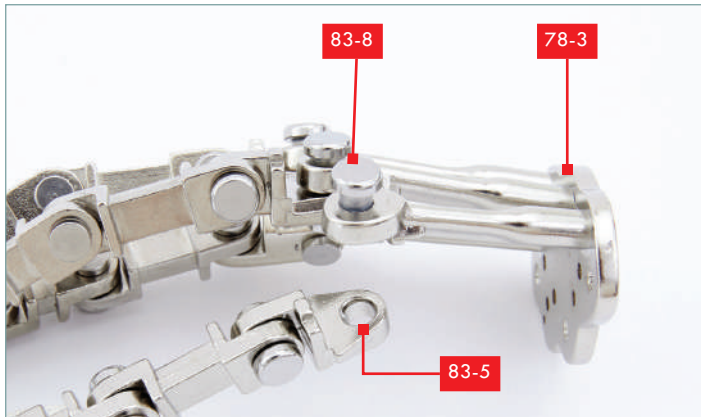
STEP 7

Apply a little superglue to the peg on the end of part **83-2**. Fix the finger tip **83-6** in place on the peg.



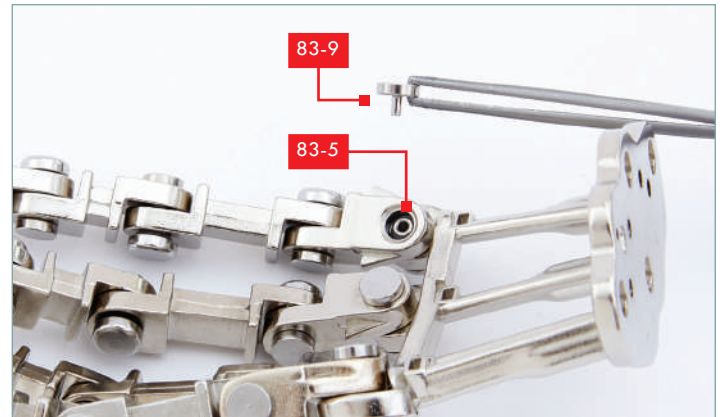
STEP 8

Take the hand assembly from the previous stage. Identify the fixing point on the hand **78-3** for the end of the finger **83-5**, assembled in the previous steps.



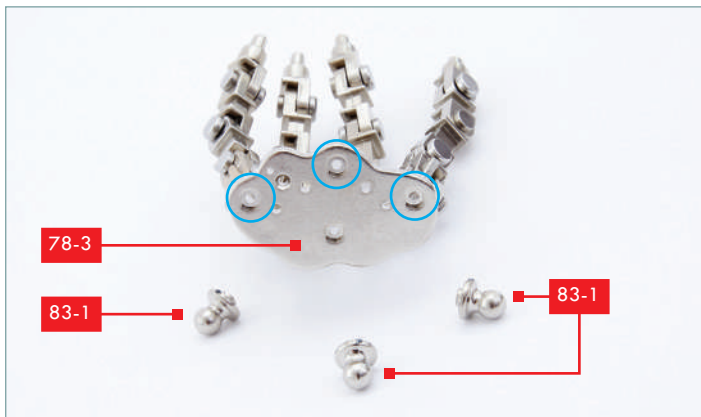
STEP 9

Fit the longer plastic sleeve **83-11** over the longer connector **83-8**. Fit it through the hole in part **78-3** and into the hole in part **83-5**, as indicated.



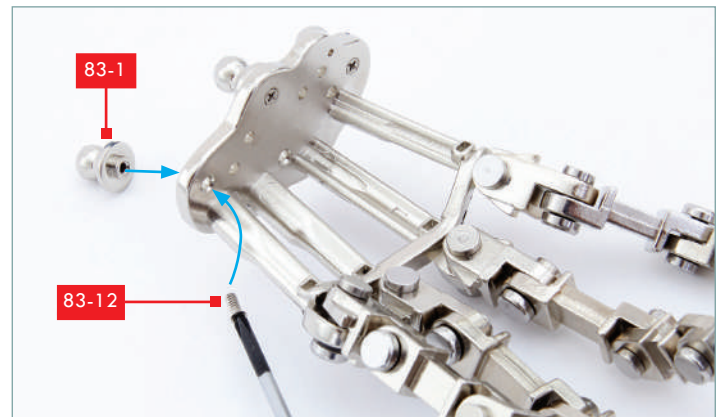
STEP 10

Turn the hand assembly over. Apply a little superglue to the peg on the last connector pin **83-9** and fix in place on the inside of the hand.



STEP 11

Identify three holes in the base of the hand **78-3** where the three ball joints **83-1** will fit.



STEP 12

Fit the pegs on the ball joints **83-1** into the holes in the hand and fix in place from the top of the hand using three KB 2x6 mm screws (**83-12**).



STAGE COMPLETE!

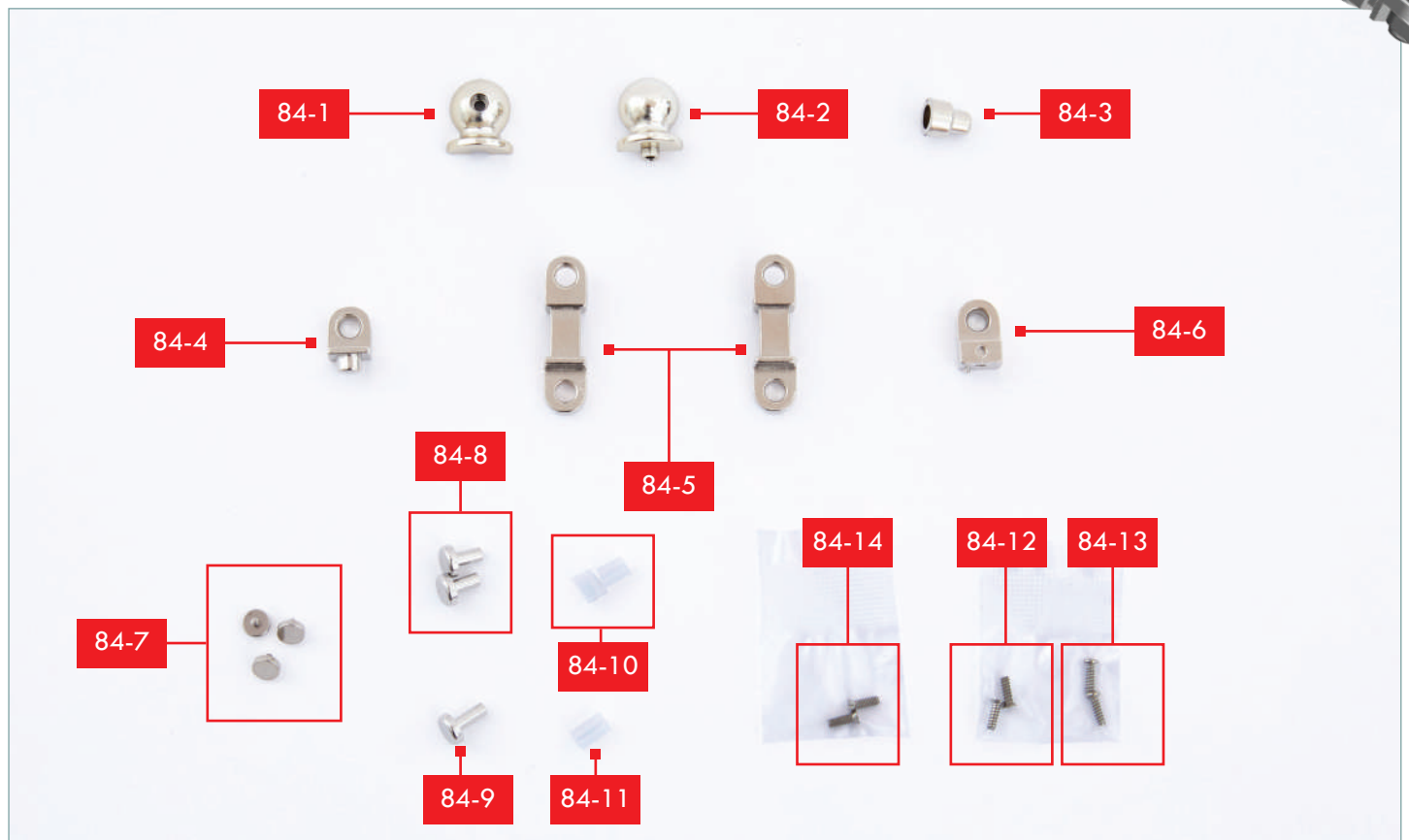
Another finger has been attached to the left hand. Three ball joints have been fitted to the base of the hand.



STAGE 84: CONSTRUCT THE LEFT THUMB



Assemble the thumb and connect it to the hand, and attach a large ball joint to the wrist.

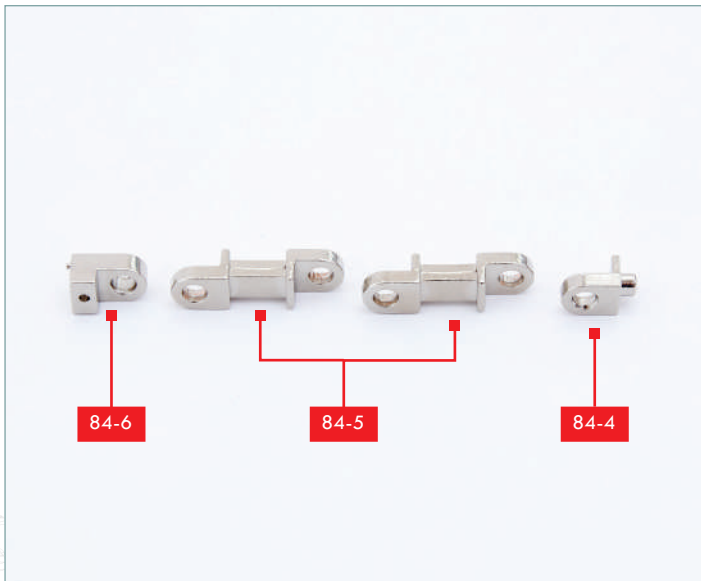


LIST OF PIECES

84-1	Left wrist ball joint	84-9	Finger joint connector (longer)
84-2	Left wrist ball joint	84-10	2x Plastic sleeve for finger joint
84-3	Left thumb tip	84-11	Plastic sleeve for finger joint (longer)
84-4	Left thumb part	84-12	2x KB screws (2x6 mm)
84-5	2x Left thumb part	84-13	2x PB screws (2x6 mm)
84-6	Left thumb part	84-14	2x KM screws (2x6 mm)
84-7	3x Finger joint pin		
84-8	2x Finger joint connector		

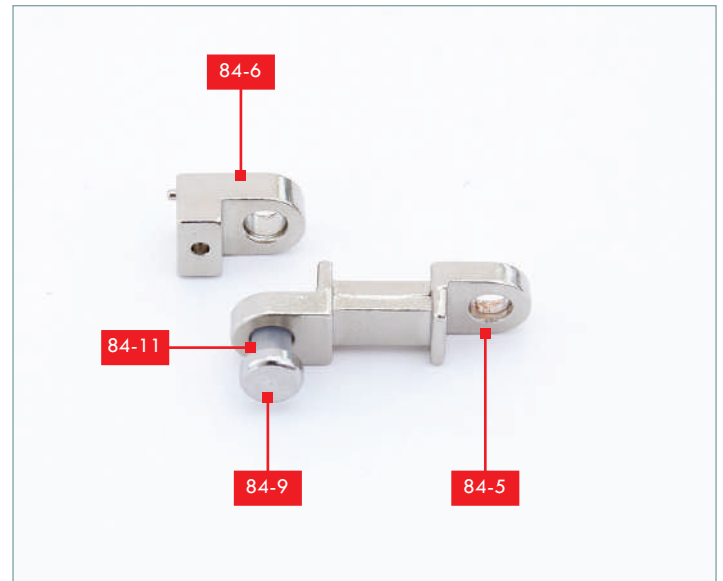
YOU WILL ALSO NEED

Finished parts for left hand from stage 83, fine crosshead screwdriver, gel-type superglue and a cocktail stick, tweezers (optional).



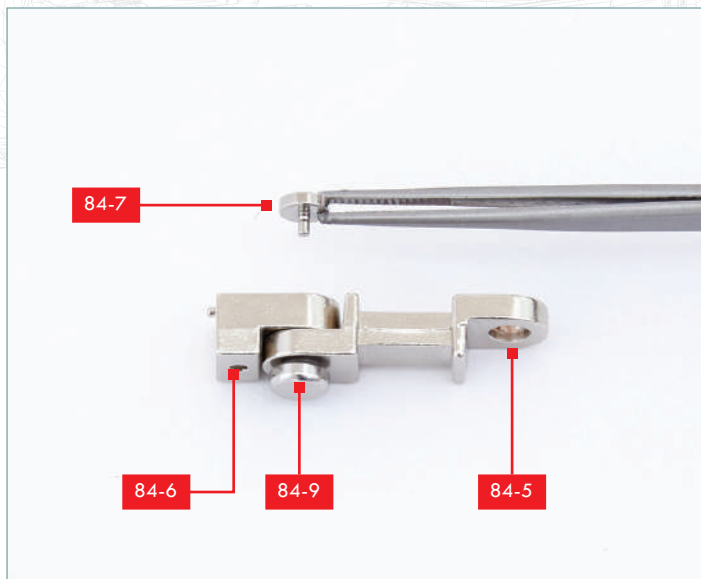
STEP 1

Place the finger parts **84-6**, **84-5** and **84-4** in the order they are assembled, as shown.



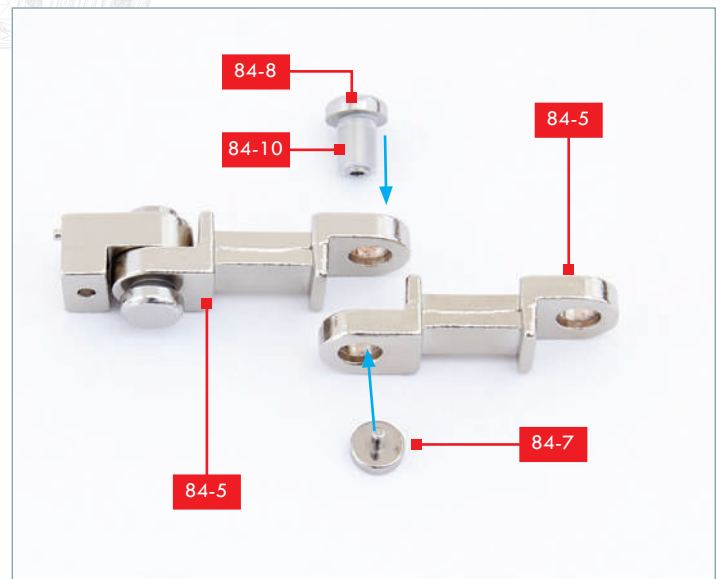
STEP 2

Fit a sleeve **84-11** (the longer one) over a longer finger joint connector **84-9**. Fit the connector up through a hole in one of the finger parts **84-5** and into the hole in part **84-6**.



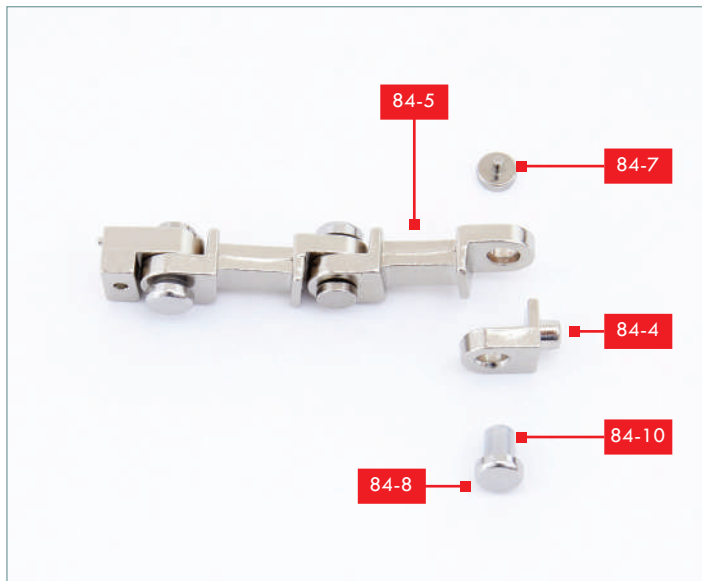
STEP 3

Apply a little superglue to the pin **84-7**. Fix it into the end of the finger connector **84-9** to hold it in place.



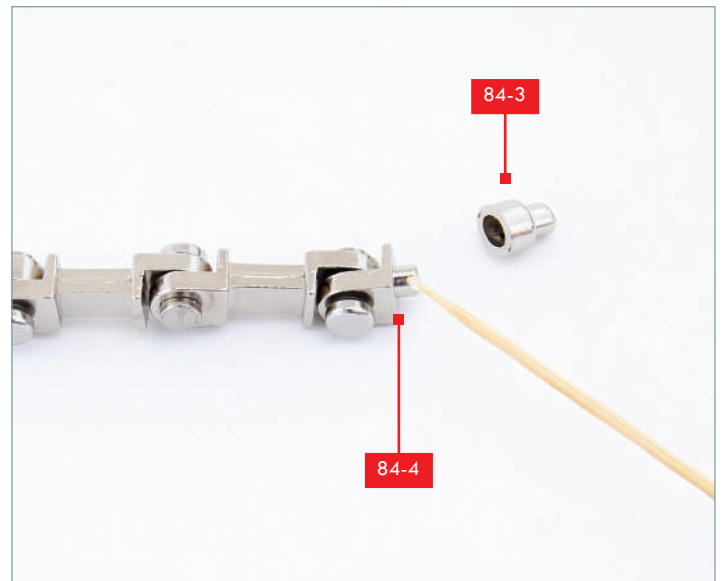
STEP 4

Fit a sleeve **84-10** on to a finger joint connector **84-8**. Fit the connector down through the free hole in part **84-5** (from step 3) and through one of the holes in the second part **84-5**, as shown. Apply a little superglue to a connector pin **84-7** and fix in place.



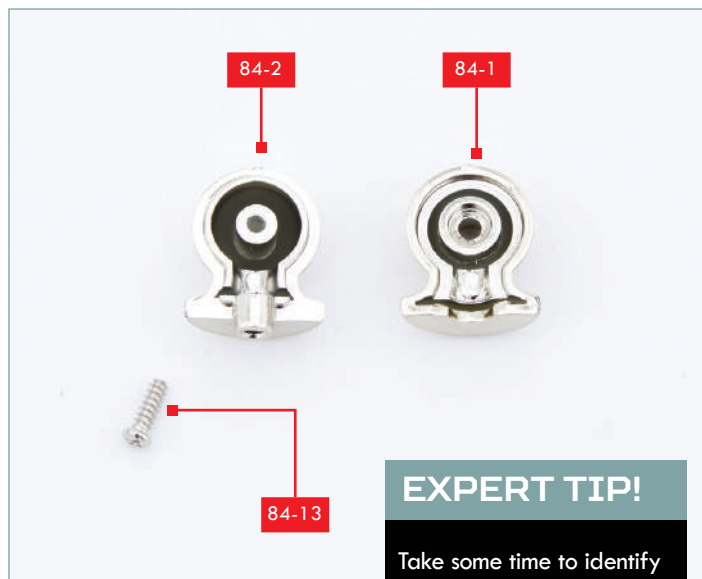
STEP 5

Fit a sleeve **84-10** on to a finger joint connector **84-8**. Fit the connector up through the hole in part **84-4** and through the free hole in the second part **84-5**, as shown. Apply a little superglue to a connector pin **84-7** and fix in place.



STEP 6

Apply a little superglue to the peg on the end of part **84-4**. Fix the tip of the thumb **84-3** in place on the peg.



STEP 7

Take the two halves of the ball joint **84-2** and **84-1** and a PB 2x6 mm screw (**84-13** pan head). Check how the parts fit together.

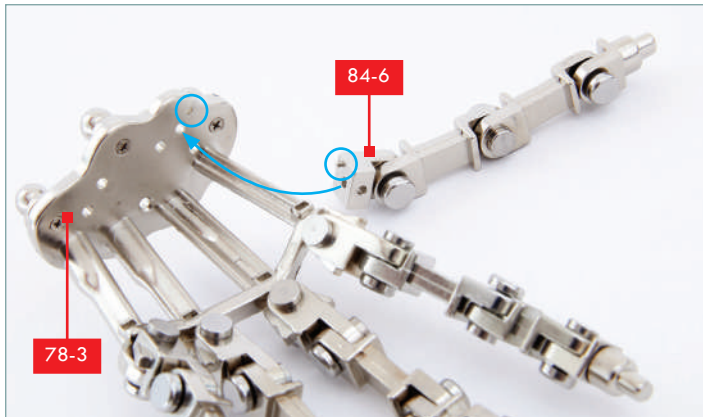
EXPERT TIP!

Take some time to identify the screws correctly. The KM screws have a finer thread than the KB screws (which have a similar thread to the PB screws). The PB screws are pan head screws; the KB and KM screws have countersunk heads.



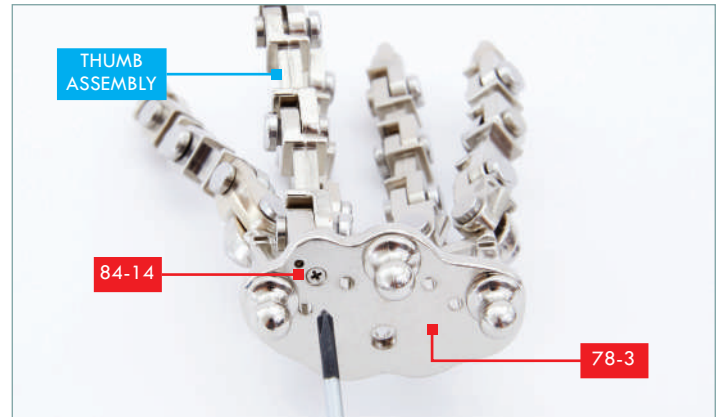
STEP 8

Fix parts **84-2** and **84-1** together with the PB 2x6 mm screw. Ensure it is fully tightened so that a 'ball' is formed.



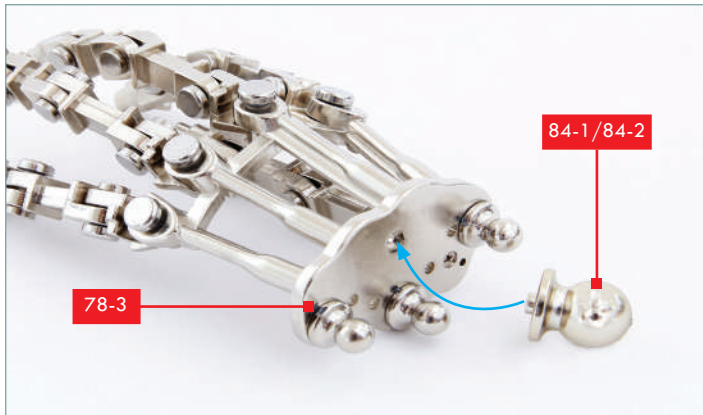
STEP 9

Take the hand assembly from stage 83 and the thumb assembly from steps 1 – 6. Identify the screw holes in the hand and the base of the thumb, which should be aligned (blue arrow). At the same time, a locating peg on the base of the thumb **84-6** fits into a small hole in the hand (blue circles).



STEP 10

With the thumb positioned correctly, fix it in place with a KM 2x6 mm screw (**84-14** countersunk head, fine thread for metal).



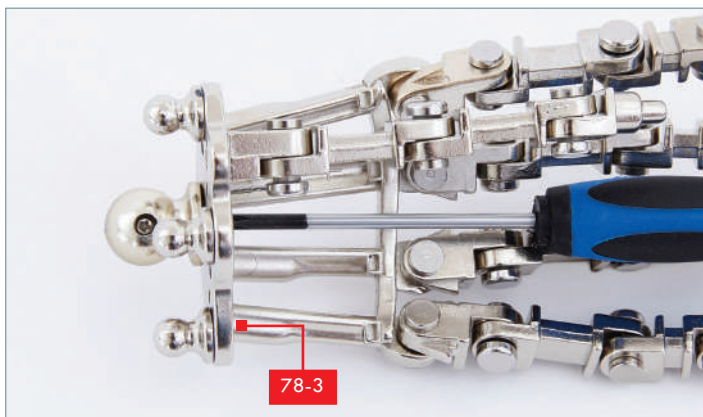
STEP 11

Check the fit of the ball joint **84-1/84-2** in the base of the hand **78-3**.



STEP 12

Apply a little superglue to the flat base of the ball assembly **84-1/84-2**.



STEP 13

Fit the ball joint into the base of the hand **78-3**, ensuring that the face with the screw is facing inwards. Use a KB 2x6 mm screw (**84-12** countersunk, for plastic, with wider thread) to firmly fix the ball in place. Ensure that this is a secure joint.



STAGE COMPLETE!

The thumb has been attached to the left hand and a ball joint has been fixed in place.