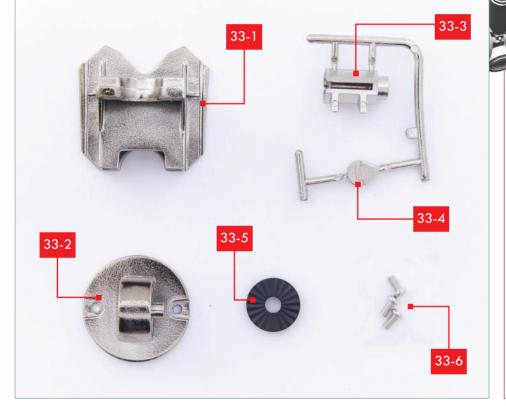
33

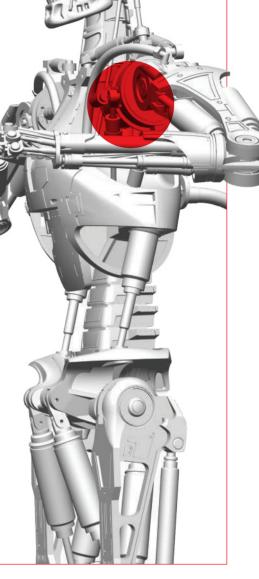
# STAGE 33: LEFT SHOULDER DETAILS

The end of the left shoulder is fitted, together with a shoulder accessory.



#### LIST OF PIECES

- 33-1 Thoracic vertebra end piece
- 33-2 Left shoulder end piece
- 33-3 Left shoulder accessory
- 33-4 Left shoulder accessory cap
- 33-5 Left shoulder insert
- 33-6 3x PM screw (3x6 mm) (1 spare)



#### YOU WILL ALSO NEED

A cross head screwdriver, superglue and a cocktail stick or toothpick with which to apply it, the Left shoulder assembly from stage 31.





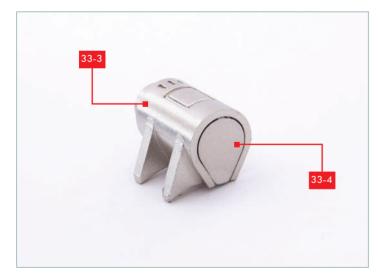
# **STEP 1**

Cut the shoulder accessory parts **33-3** and **33-4** from the frame. Use a fine file to remove any rough edges.



#### **STEP 2**

Apply a little superglue to the recesses in the cap **33-4**.



# **STEP 3**

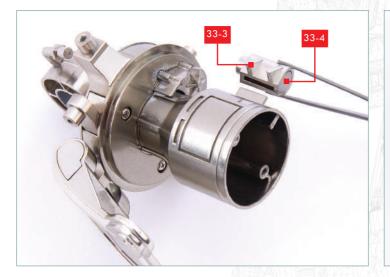
Fit the cap **33-4** into the end of the shoulder accessory **33-3**.



# **STEP 4**

After test-fitting to check the orientation (see step 5) apply a little superglue to the flange on the side of the left shoulder assembly from stage 31.





# **STEP 5**

Fit the assembled shoulder accessory 33-3/33-4 from step 3 over the flange on the shoulder assembly.



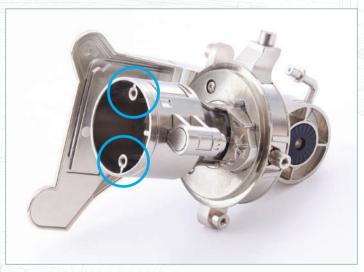
## **STEP 6**

Apply a little superglue to the four studs on the shoulder insert 33-5.



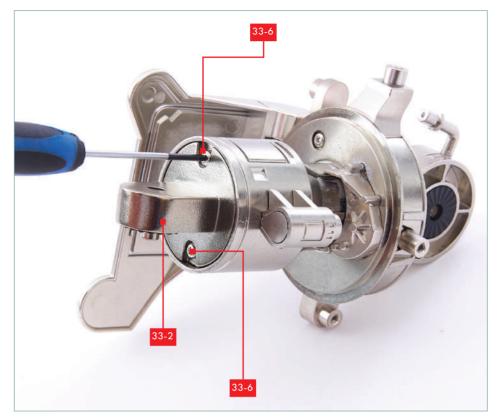
# **STEP 7**

Fit the shoulder insert **33-5** into the recess in the shoulder end piece **33-2**.



# STEP 8

Identify the fixing points in the end of the left shoulder assembly (circled).



# **STEP 9**

Fit the shoulder end part **33-2** into the end of the shoulder assembly and fix in place with two PM 3x6 mm screws (**33-6**).

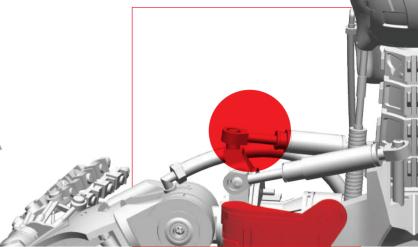


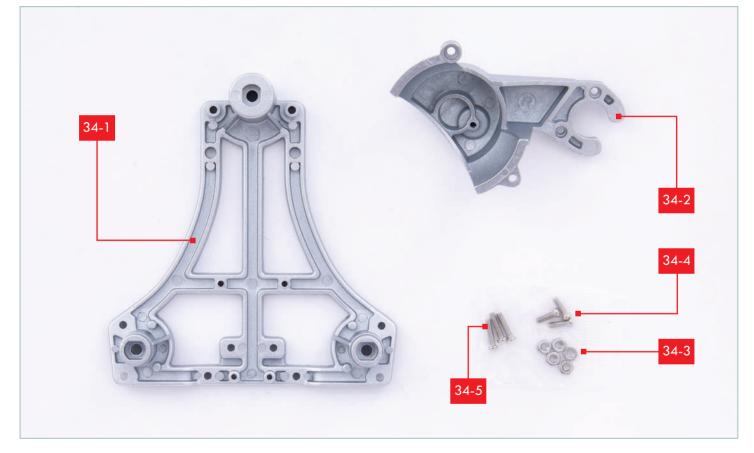
# **STAGE COMPLETE!**

An end piece and an accessory have been fitted to the left shoulder. Part **33-1** will be used in the next stage.

34

# STAGE 34: THE FIRST VERTEBRA





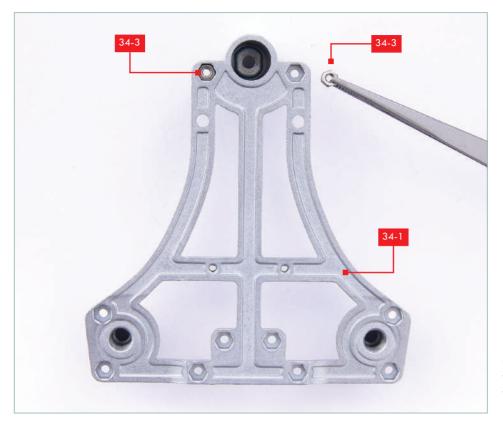
### LIST OF PIECES

vertebra

- 34-1 Thoracic vertebra frame
- 34-2 Thoracic vertebra part
- 34-3 5x M2 nuts (1 spare)
- 34-4 3x PM screw (2x6 mm) (1 spare)
- 34-5 3x PM screw (2x8 mm) (1 spare)

# YOU WILL ALSO NEED

A cross head screwdriver the Thoracic vertebra end piece from stage 33.



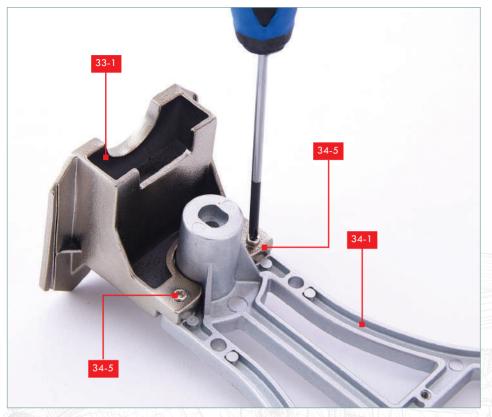
#### **STEP 1**

Fit two M2 nuts (**34-3**) into the recesses on either side of the narrow end of the thoracic vertebra frame **34-1**. Ensure that the nuts are sitting completely flat within the recesses.



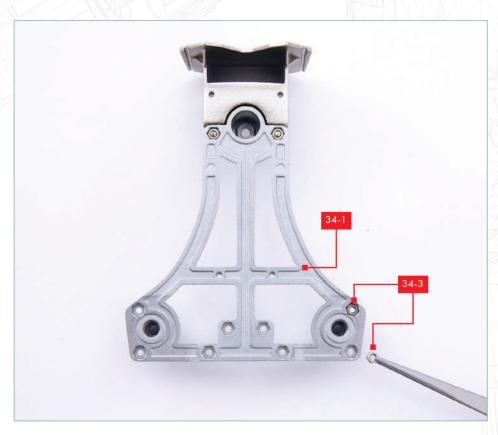
# STEP 2

Take part **33-1**, supplied with the previous stage, and fit its opening onto the large socket on the end of the frame **34-1**. Ensure that the screw sockets on part **33-1** (circled) sit beneath the recesses in part **34-1** with the M2 nuts.



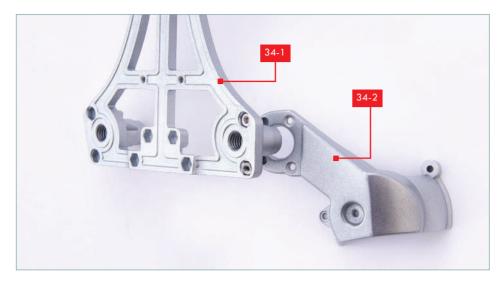
### **STEP 3**

Turn the assembly over, taking care that the M2 nuts (**34-3**) stay in place. Fix part **33-1** in place with two PM 2x8 mm screws (**33-5**).



#### **STEP 4**

Fit two M2 nuts (34-3) into the recesses at the bottom of the thoracic vertebra frame 34-1. Note that in this photo, the recesses are on the right. Ensure that the nuts are sitting completely flat within the recesses.



#### **STEP 5**

Fit the large socket on the thoracic vertebra frame **34-1** into the opening in the thoracic vertebra part **34-2**.



# **STEP 6**

Turn the assembly over, taking care that the M2 nuts (**34-3**) stay in place. Fix part **34-2** in place with two PM 2x6 mm screws (**34-4**). The arrow indicates the position of the second screw.



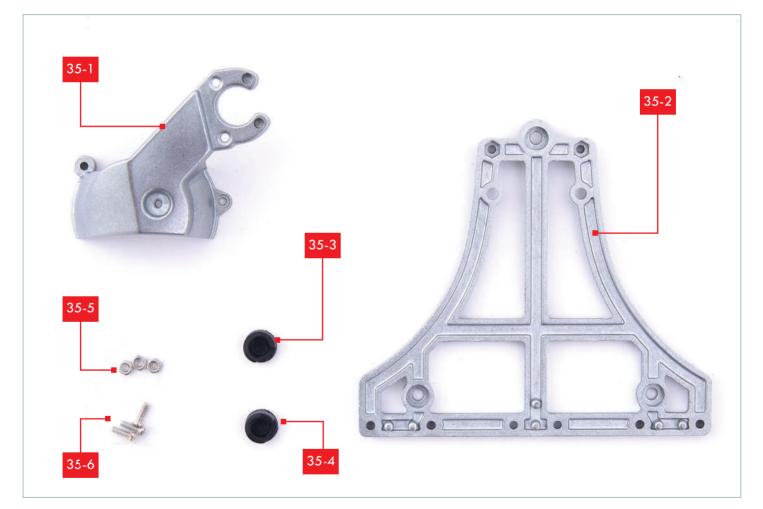
#### **STAGE COMPLETE!**

Two parts have been attached to the thoracic vertebra frame.

35

# STAGE 35: WORKING ON THE THORACIC VERTEBRA

Assemble the support frame for the thoracic vertebrae that will support the head and connect the shoulder joints.



#### LIST OF PIECES

35-1	Thoracic vertebra part
35-2	Thoracic vertebra frame
35-3	Cap (right)

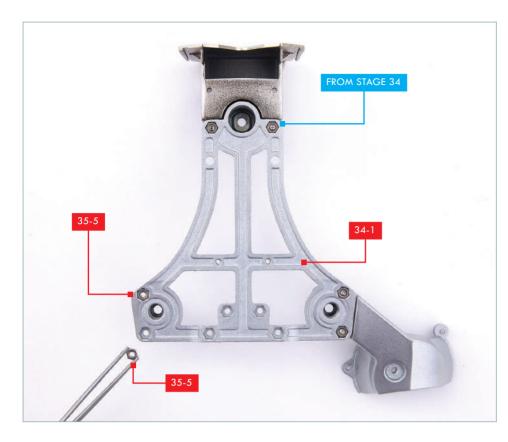
35-4	Cap (left)	
------	------------	--

- 35-5 3x M2 nuts (1 spare)
- 35-6 3x PM screw (2x6 mm) (1 spare)

#### YOU WILL ALSO NEED

A cross-head screwdriver, tweezers (optional), the first vertebra assembly from stage 34.



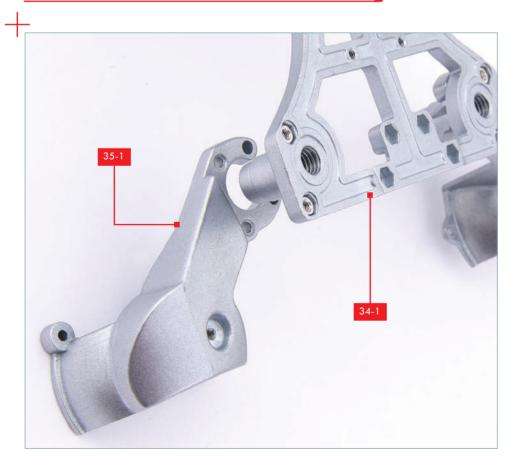




### **STEP 1**

Take the vertebra frame assembly from stage 34 and two M2 nuts **35-5**. Fit one nut into each of the shaped sockets in the vertebra frame **34-1** as shown.

Ensure that the nuts are sitting flat in the sockets (inset). You may find it easier to position them using fine tweezers.

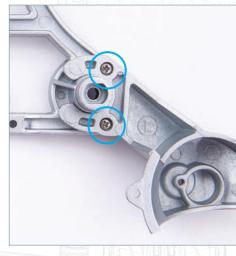


# **STEP 2**

Fit the opening in the thoracic vertebra part **35-1** around the large cylinder on the other side of the thoracic vertebra frame **34-1**.

35

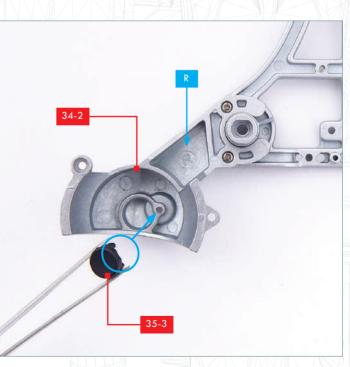




#### **STEP 3**

Holding the two M2 nuts in place, turn the assembly over so that you can fix part **35-1** in place with two PM 2x6 mm screws (circled in inset – the screws are held in place by the M2 nuts).





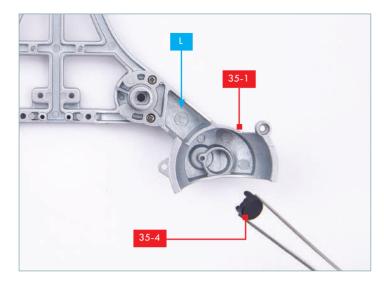
# **STEP 4**

Take the two caps **35-3** and **35-4** and identify the left and right ones (indicated by the letters L and R inside).

# **STEP 5**

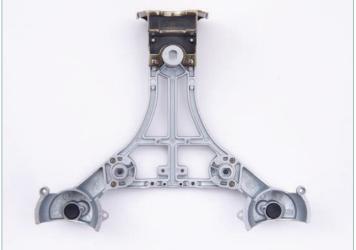
Fit the rim of the right cap **35-3** into the socket in part **34-2** (labelled R, as indicated). Note there is a recessed section in the rim of the cap that fits over the raised parts in the socket in part **34-2** (circled).

35



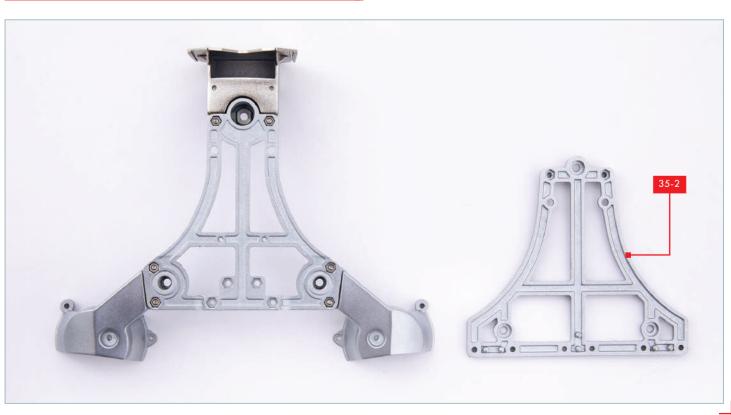
## **STEP 6**

Fit the rim of the left cap **35-4** into the socket in part **35-1** (labelled L, as indicated). Again, the recessed part of the rim fits over the raised parts in the socket in part **35-1**.



#### **STEP 7**

Check that both caps are in place, level with the edges of the sockets. You may want to hold them in place temporarily with some low-tac tape.



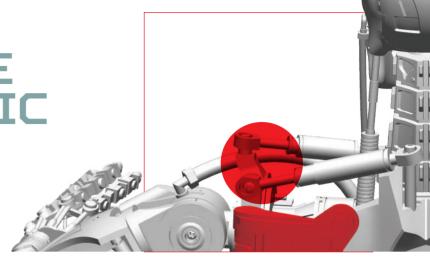
# **STAGE COMPLETE!**

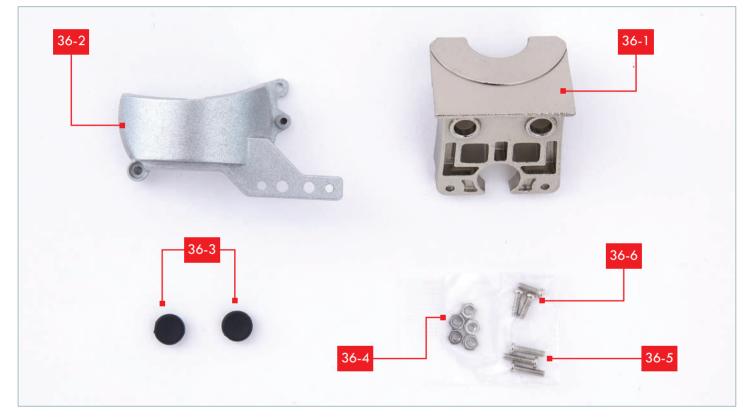
The thoracic vertebra parts have been fitted to the first frame. The second frame, **35-2**, will be used in a future stage. Store the parts carefully.

36

# STAGE 36: BUILDING THE NEXT THORACIC VERTEBRA

Connect a thoracic vertebra joint to the support frame you assembled in the last stage.



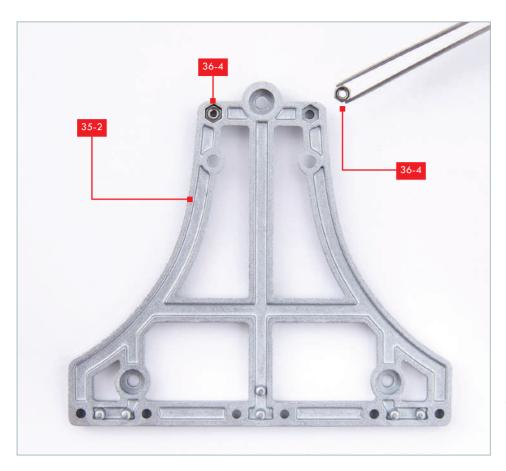


#### LIST OF PIECES

- 36-1 Thoracic vertebra part
- 36-2 Thoracic vertebra part
- 36-3 2x Cap
- 36-4 5x M2 nuts (1 spare)
- 36-5 3x PM screw (2x8 mm) (1 spare)
- 36-6 3x PM screw (2x6 mm) (1 spare)

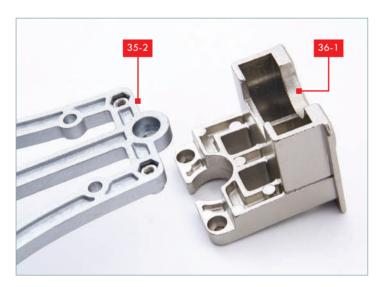
#### YOU WILL ALSO NEED

A cross-head screwdriver, tweezers (optional), Part 35-2 (supplied with stage 35).



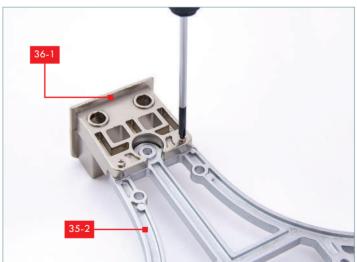
#### **STEP 1**

Fit two M2 nuts (**36-4**) into the hexagonal recesses in the top of the thoracic vertebra frame **35-2**, supplied with the previous stage. Ensure the nuts are sitting flat in the recesses. You may find this easier if you use a pair of fine tweezers.



#### **STEP 2**

Take the thoracic vertebra part **36-1** and fit the top of the frame **35-2** into the recesses in part **36-1** as shown.



# STEP 3

Holding the M2 nut in place, carefully turn the assembly over so that you can fix part **36-1** in place with two PM 2x8 mm screws. The M2 nuts hold the screws in place.

36

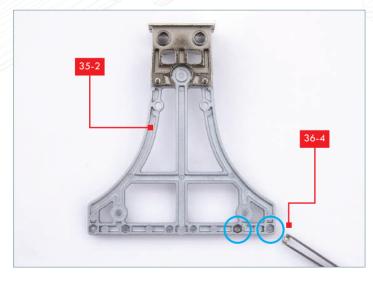




#### **STEP 4**

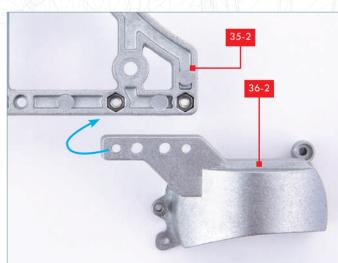
Take thoracic vertebra part **36-2** and fit one of the caps **36-3** so that the rim of the cap fits into the recess in part **36-2**.

The inset shows the cap fitted in place, so that the flat surface of the cap is level with the raised edge of the recess in part **36-2**.



#### **STEP 5**

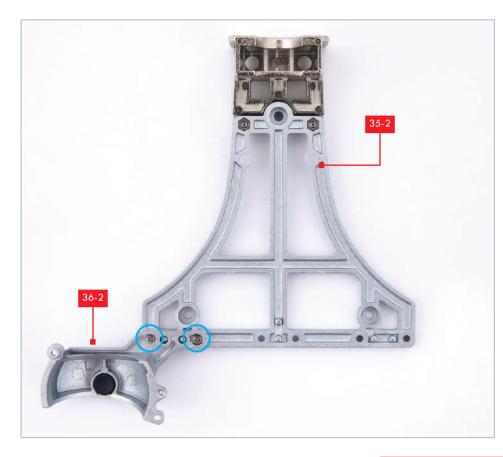
Fit an M2 nut (**36-4**) into the two hexagonal recesses (circled) in part **35-2**. Ensure that the nuts sit flat in the recesses.



# STEP 6

Fit the 'arm' of part **36-2** under the edge of part **35-2**. The outer holes in the arm align with the screw holes where the nuts are. Metal pegs on the other side of part **35-2** fit through the two central holes in the arm. See step 7 for further information.

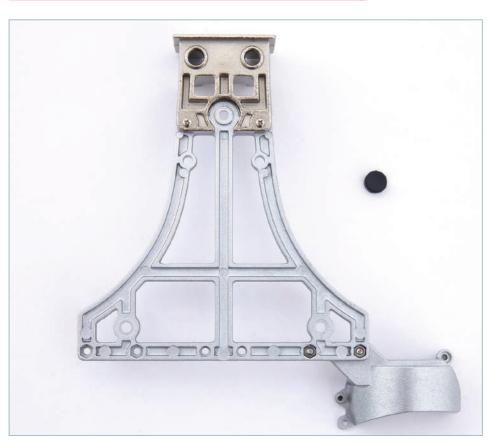
36





#### **STEP 7**

Carefully turn the assembly over, holding the nuts in place. Fix part **36-2** in place with two PB 2x6 mm screws (circled). The screws are held in place by the M2 nuts.



# **STAGE COMPLETE!**

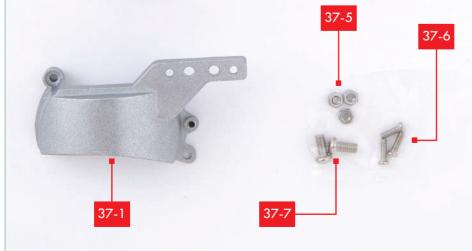
Thoracic vertebra parts have been fitted to the second frame. The second cap, **36-3**, will be used in a future stage. Store the parts carefully.

37

# STAGE 37: COMPONENTS FOR THE THORACIC CAGE JOINT AND VERTEBRA

You'll begin assembling the thoracic cage in this stage, build out the spinal frame, and add a vertebra to it.





#### LIST OF PIECES

37-1	Thoracic vertebra part
37-2	Thoracic cage joint (shaft)
37-3	Thoracic cage joint (top, with hole)
37-4	Thoracic cage joint (top)
37-5	3x M2 nuts (1 spare)
37-6	3x PM screw (2x6 mm) (1 spare)
37-7	2x PM screw (3x6 mm) (1 spare)

## YOU WILL ALSO NEED

A cross-head screwdriver, tweezers (optional), Part 36-3 Cap (supplied with stage 36), the second support frame completed in stage 36.



#### STEP 1

Fit the top of the thoracic cage part **37-4** to the shaft **37-2**, so that the cylindrical screw socket on part **37-4** fits through the hole in part **37-2**, as indicated by the arrow.



#### **STEP 2**

Fit the second top part **37-3** on the other side, again, fitting the cylindrical screw socket into the hole in the shaft **37-2** as indicated by the arrow.



# **STEP 3**

Use a PM 3x6 mm screw to fix the two top parts **37-3** and **37-4** together, so they are held in place on the top of the shaft **37-2**.

37

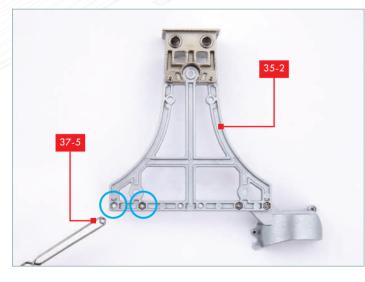




### STEP 4

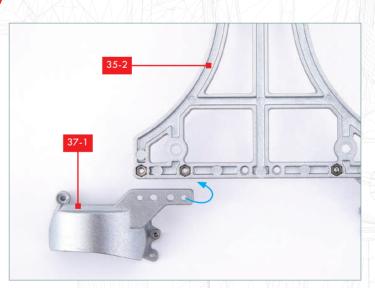
Take thoracic vertebra part **37-1** and fit one of the caps **36-3** so that the rim of the cap fits into the recess in part **37-1**.

The inset shows the cap fitted in place, so that the flat surface of the cap is level with the raised edge of the recess in part **37-1**.



#### **STEP 5**

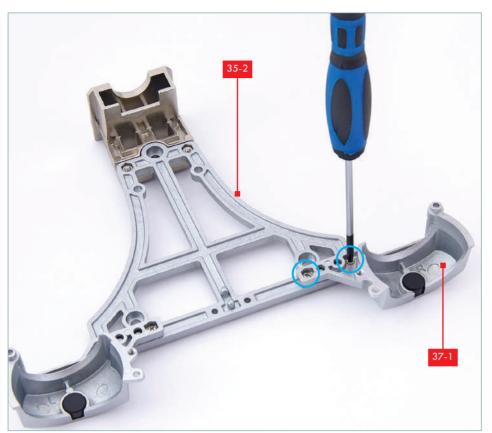
Fit a M2 nut (**37-5**) into both of the two hexagonal recesses (circled) on part **35-2**. Ensure that the nuts sit flat in the recesses.



#### STEP 6

Fit the 'arm' of part **37-1** under the edge of part **35-2**. The outer holes in the arm align with the screw holes where the nuts are. Metal pegs on the other side of part **35-2** fit through the two central holes in the arm.

37





#### **STEP 7**

Carefully turn the assembly over, holding the nuts in place. Fix part **37-1** in place with two PM 2x6 mm screws (circled). The screws are held in place by the M2 nuts.



# **STAGE COMPLETE!**

Part of the thoracic cage has been assembled. Another thoracic vertebra part has been fitted to the second frame.

38

# STAGE 38: COMPONENTS FOR THORACIC CAGE JOINT AND VERTEBRA

Expand the spinal column with an additional vertebra, and set up the thoracic frame for future assembly.



#### LIST OF PIECES

38-1	Thoracic vertebra shaft
38-2	Thoracic cage joint (shaft)
38-3	Thoracic cage joint (top, with hole)
38-3	Thoracic cage joint (top)
00 F	

38-5 3x PM screw (3x6 mm) (1 spare)

# YOU WILL ALSO NEED

A cross-head screwdriver, tweezers (optional), the Thoracic vertebra assembly from stage 35.



# **STEP 1**

Fit the top of the thoracic cage part **38-4** to the shaft **38-2**, so that the cylindrical screw socket on part **38-4** fits through the hole in part **38-2**, as indicated by the arrow.



#### **STEP 2**

Fit the second top part **38-3** on the other side, again, fitting the cylindrical screw socket into the hole in the shaft **38-2** as indicated by the arrow.



#### **STEP 3**

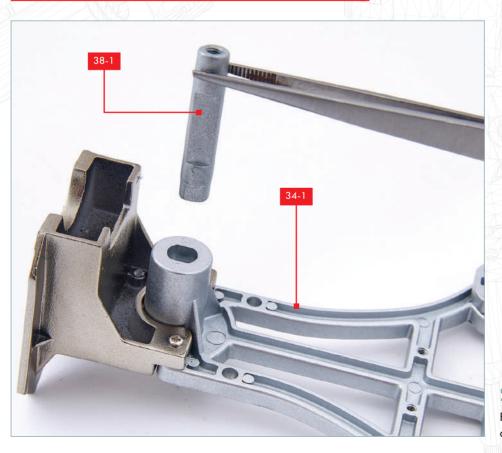
Use a PM 3x6 mm screw to fix the two top parts **38-3** and **38-4** together, so they are held in place on the top of the shaft **38-2**.

38



# **STEP 4**

Take thoracic vertebra assembly completed in stage 35 and arrange it on your worktop as shown.



# STEP 5

Fit the shaped end of the shaft **38-1** into the cylindrical socket on part **34-1**.



# **STEP 6**

Turn the assembly over and fix the shaft **38-1** in place with a PM 3x6 mm screw.



## **STAGE COMPLETE!**

Part of the thoracic cage has been assembled. A shaft has been fitted to the thoracic vertebra frame.

39

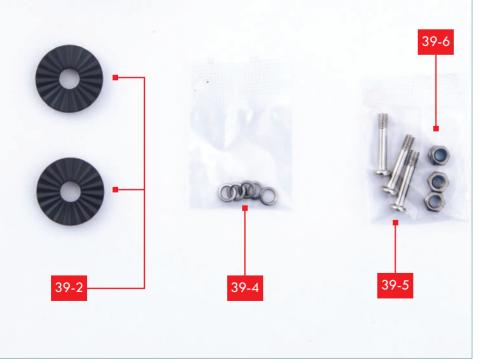
# STAGE 39: CONNECTING THE RIGHT AND LEFT SHOULDERS

39-3

Bring together the two shoulder elements by using the thoracic cage connector.



39-1



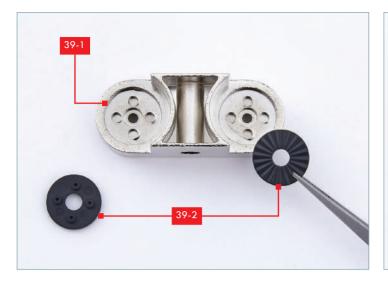
#### LIST OF PIECES

- 39-1 Thoracic cage shoulder connection
- 39-2 2x Thoracic cage joint insert
- 39-3 2x Thoracic cage brace
- 39-4 5x sprung washers (1 spare)
- 39-5 3x PM bolt (3x16 mm) (1 spare)
- 39-6 3x M3 nuts (1 spare)

#### YOU WILL ALSO NEED

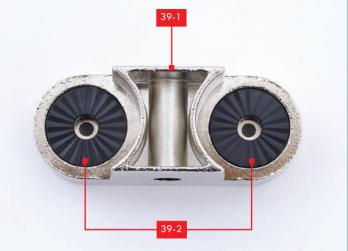
A cross-head screwdriver, tweezers (optional), Fine-nosed pliers (optional), the Assemblies from stages 32 and 33.





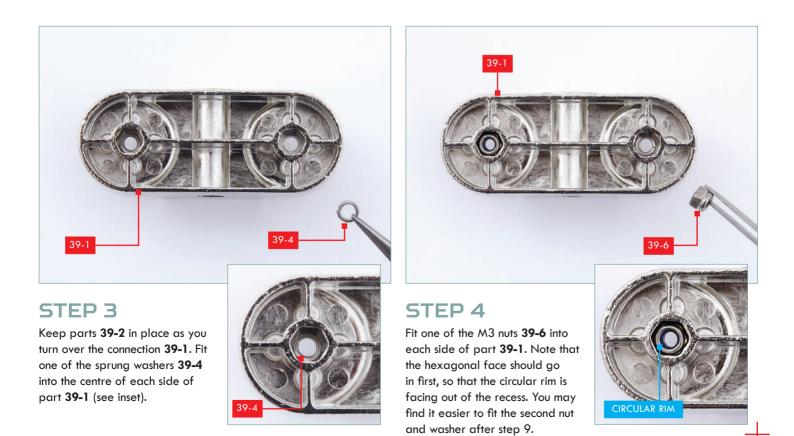
# **STEP 1**

Take the thoracic cage shoulder connection **39-1** and the two joint inserts **39-2**. Fit the first part **39-2** into the recess so that the four raised studs on part **39-2** fit into the recesses in part **39-1**.



#### **STEP 2**

Fit the second part **39-2** into the other side of the connection **39-1**.

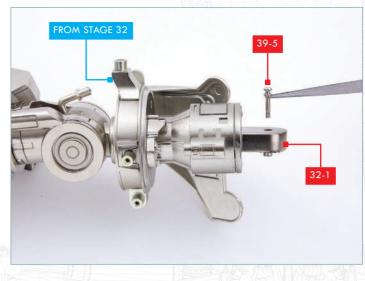


39



#### **STEP 5**

Take two of the PM 3x16 mm screws **39-5**, and fit a sprung washer **39-4** over each.



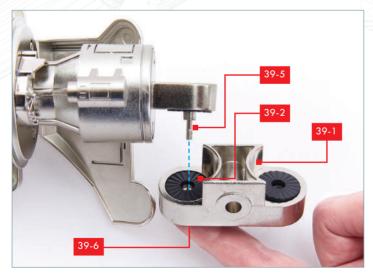
# **STEP 6**

Take the right arm assembly from stage 32. Fit a bolt and sprung washer assembly into the hole in part **32-1**. The head of the bolt **39-5** should drop down to the bottom of the recess in part **32-1**.

#### EXPERT TIP!

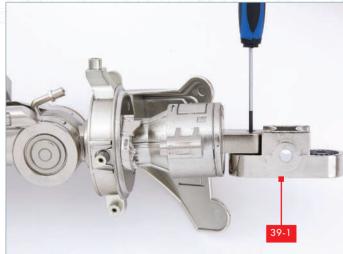
If you have difficulty fitting the bolt and washer assembly, use a pair of fine-nosed pliers to squeeze the sprung washer more tightly around the neck of the bolt.





# **STEP 7**

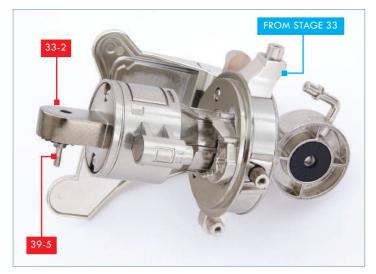
Holding the nut **39-6** in the recess of part **39-1** in place, guide the end of the bolt **39-5** down through part **39-2** and part **39-1** so that you can screw the bolt **39-5** into the nut **39-6**.



# STEP 8

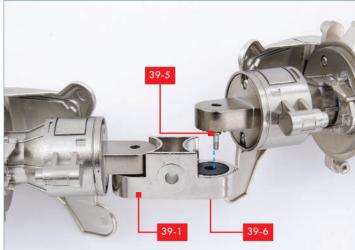
Use a cross-head screwdriver to tighten the bolt **39-5**, holding the thoracic cage connection **39-1** in place on the right shoulder assembly.

39



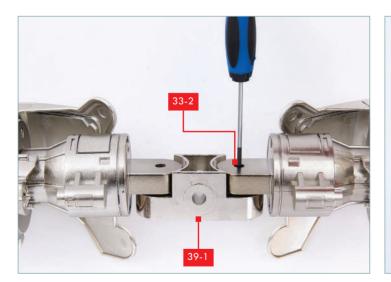
# **STEP 9**

Take the left shoulder assembly from stage 33 and fit a bolt **39-5** and washer **39-4** into part **33-2** as shown.



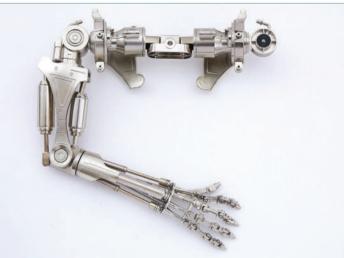
#### **STEP 10**

Guide the bolt **39-5** on the end of the left shoulder assembly through the other side of part **39-1**. Remember to ensure the nut **39-6** and washer **39-4** are in place in the recess on the underside of part **39-1**.



# **STEP 11**

Use a cross head screwdriver to tighten the bolt, so that parts **33-2** and **39-1** are held together.



# **STAGE COMPLETE!**

The connection at the top of the thoracic cage has been joined to the right and left shoulders.

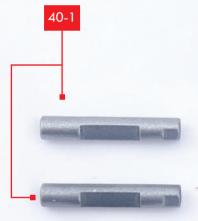
The two braces **39-3** will be used in a future stage, so store them carefully.



40

# STAGE 40: CREATING THE THORACIC CAGE

Using the thoracic cage, you'll start to link multiple components of the Terminator head and torso together.





40-3



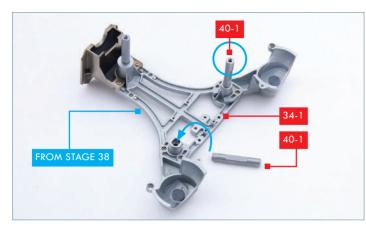
#### LIST OF PIECES

40-1	2x Thoracic cage strut
40-2	2x Socket liner
40-3	Thoracic cage base
40-4	5x M2 nuts (1 spare)
40-5	7x PM screw (2x6 mm) (1 spare)
40-6	6x PM screw (3x6 mm) (1 spare)

# YOU WILL ALSO NEED

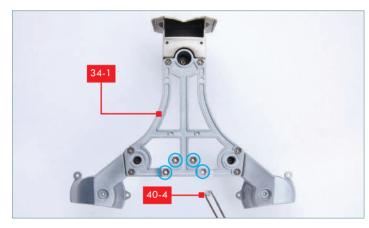
A cross-head screwdriver, tweezers (optional), all the parts that you have assembled, or partially assembled, so far, apart from the battery box.





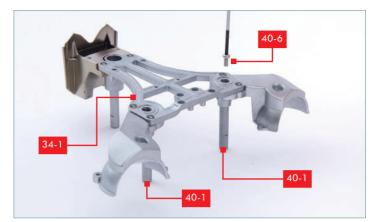
#### **STEP 1**

Take the assembly from stage 38 and the two struts **40-1**. Fit the flattened end of the struts into the two shaped recesses on part **34-1** as shown. Note that there is a screw hole on the free end of the struts **40-1** (circled).



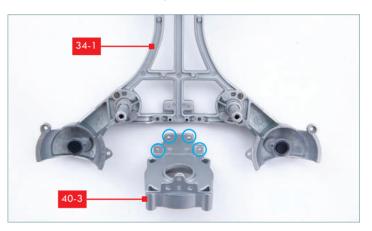
#### **STEP 3**

The next step is to fit M2 nuts **40-4** into the hexagonal recesses in part 34-1 (circled). You may find it easier if you position these one at a time, and fit each screw in place as described in steps 4 and 5 before fitting the next nut.



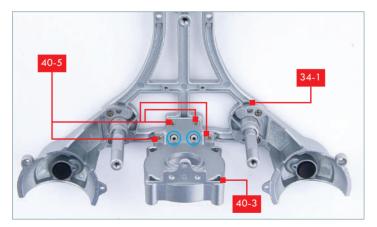
# STEP 2

Turn the assembly over, holding the two struts **40-1** in place. Fit two PM 3x6 mm screws (**40-6**) in place in the recesses on the other side of part **34-1** and through into the screw holes in parts **40-1**. Tighten the screws to hold the struts in place.



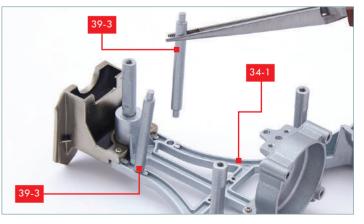
# STEP 4

Turn over the thoracic cage assembly, holding any nuts that you have positioned in place. Take part **40-3** and identify the four screw holes (circled) which match the holes in part **34-1**. These screw holes correspond with the positions of the nuts shown in step 3.



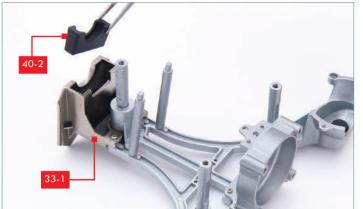
#### **STEP 5**

When correctly position, two cylindrical pegs on part **34-1** fit through the holes in part **40-3** (circled). Use four PM 2x6 mm screws (**40-5**) to fix part **40-3** in place; these are secured into the M2 nuts fitted in step 3.



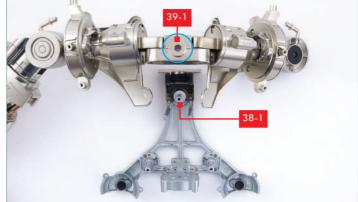
#### **STEP 6**

Take the two bars **39-3** (supplied with the previous stage) and fit them into the two sockets near the top of part **34-1**. They only fit loosely at this stage.



## **STEP 7**

Fit a socket liner **40-2** into the recess in the top of part **33-1**.



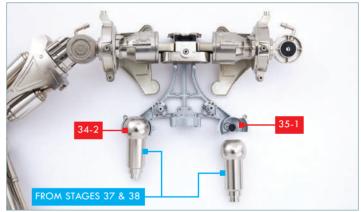
# **STEP 8**

Take the shoulder assembly from the previous stage and the assembly from step 7. Position the assembly from step 7 on the work surface. Lower the shoulder assembly from stage 39 over the thoracic cage assembly so that the strut **38-1** fits into the hole in the connecting part **39-1** (circled). See also the photograph in the next step.



# STEP 9

This shows the thoracic cage section and shoulders in place.



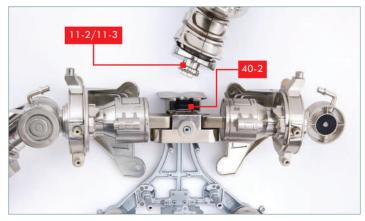
# STEP 10

Take the thoracic cage joints from stages 37 and 38 and position them in the large sockets (**34-2** and **35-1**) at the bottom of the thoracic cage.



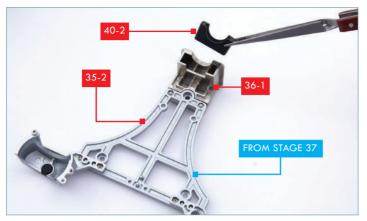
# STEP 11

Next, you will need the head and neck assembly from stage 22.



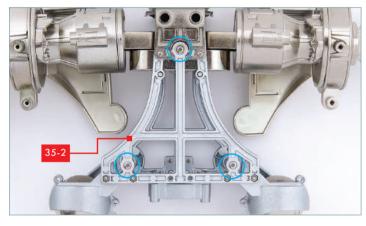
# STEP 12

Fit the base of the neck (11-2/11-3) into the lined socket at the top of the thoracic cage.



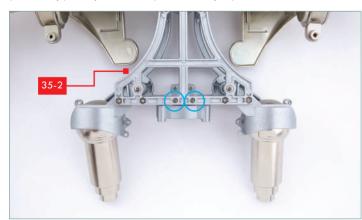
#### **STEP 13**

Take the thoracic cage assembly from stage 37. Fit the second socket liner **40-2** into the socket at the top of the thoracic cage in part **36-1**.



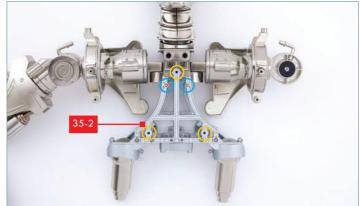
#### **STEP 15**

Fix part **35-2** in place with three PM 3x6 mm screws (**40-6**, circled). These go through part **35-2** into sockets in the ends of part **38-1** (at the top) and parts **40-1** (fitted in step 1).



#### **STEP 16**

Use two PM 2x6 mm screws (**40-5**, circled) to fix the bar at the bottom of part **35-2** to part **40-3**.



#### **STEP 14**

Carefully turn the assembly from step 13 over and fit it on top of the assembly from step 12 so that the base of the neck and the thoracic cage joints are enclosed. At the same time, ensure that the two struts **39-3** fitted in step 6 are located in the holes in the front of the thoracic cage, **35-2** (circled in blue). Ensure that the three screw sockets (circled in yellow) are aligned.



# **STAGE COMPLETE**

The head and the top of the thoracic cage have been attached to the shoulders.