

NeuroMaker Hand 2.0

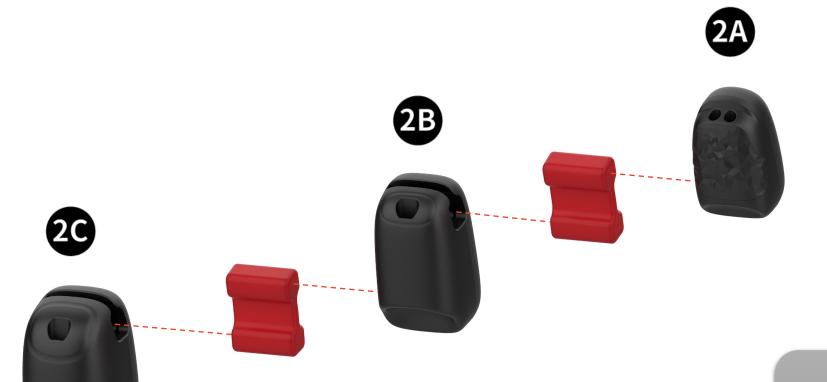
Assembly Instruction

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Quick Start Guide (Page 57)







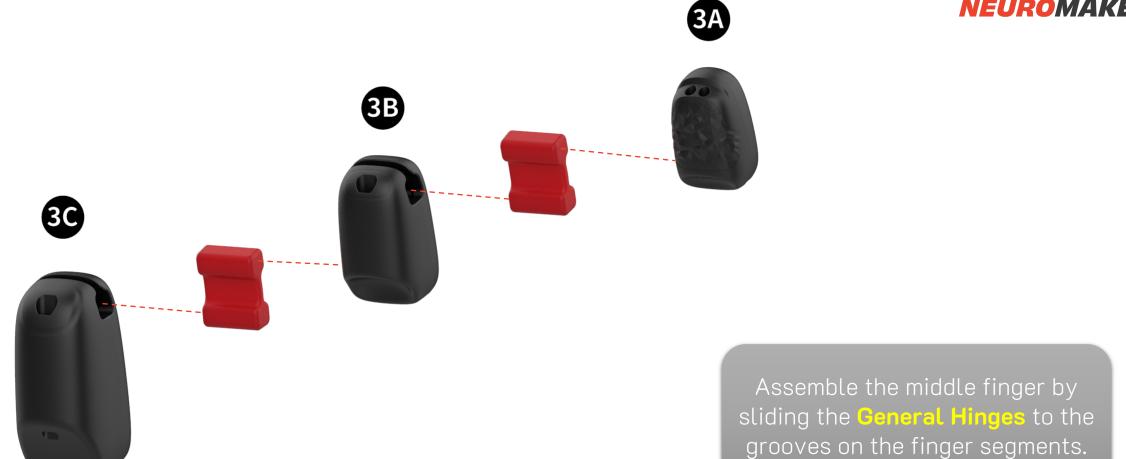
Assemble the index finger by sliding the General Hinges to the grooves on the finger segments.





Slide the index finger assembly to the left most slot on the wide hinge.



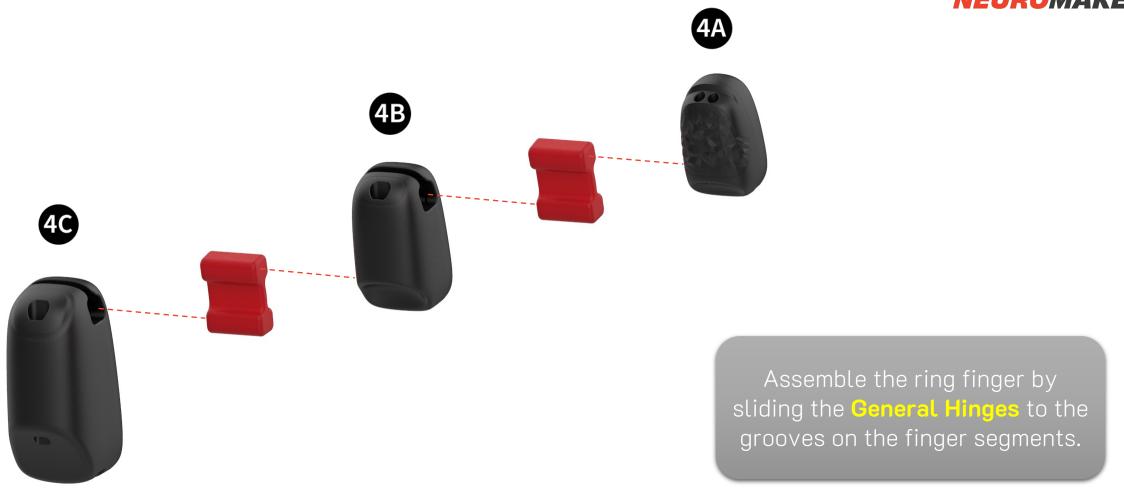






Slide the middle finger assembly to the slot on the wide hinge, next to the index finger.



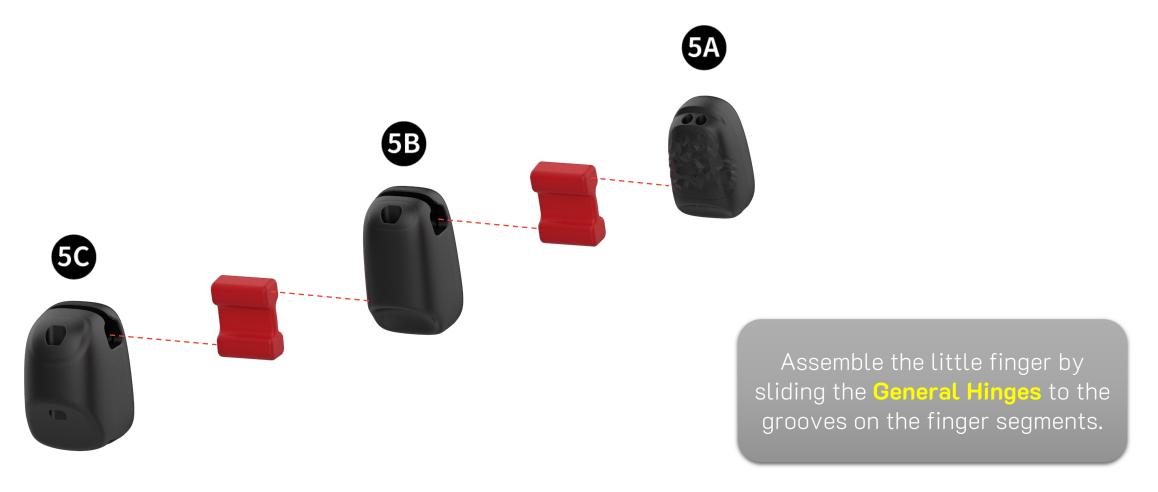






Slide the ring finger assembly to the slot on the wide hinge, next to the middle finger.







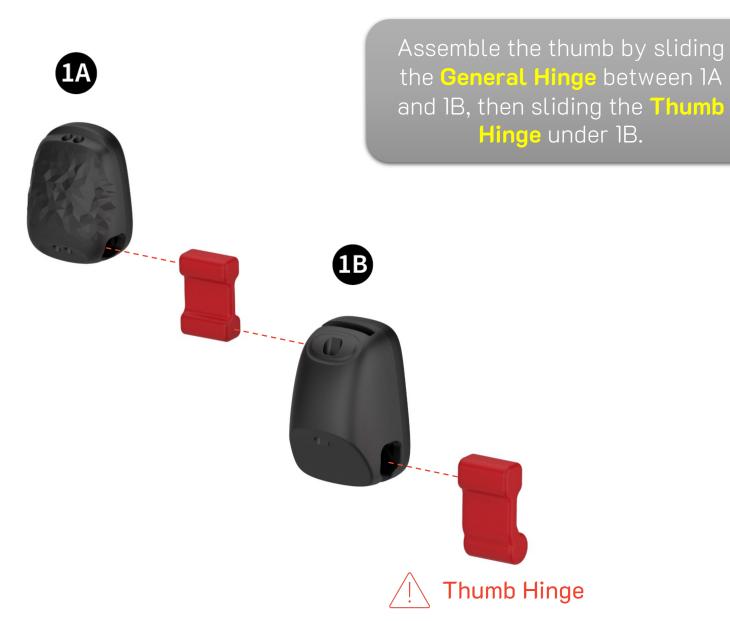


Slide the little finger assembly to the remaining slot on the wide hinge, next to the ring finger.

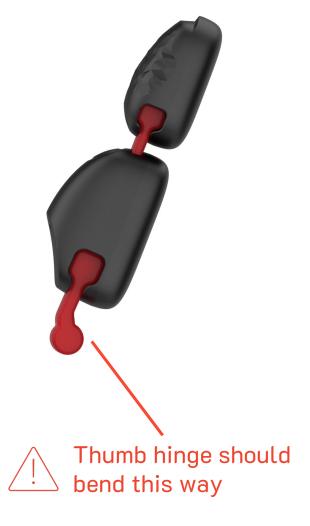




Check the markings on the back side of the fingers and make sure they match this illustration.











Slide the thumb assembly to the slot on the thumb base.





Assemble the front palm and another thumb base.

Manually hold the thumb base at the position indicated in the illustration on the right.













Install and adjust the screw, allowing the thumb to be repositioned as shown in the illustration. Ensure it's tight enough to prevent unintended rotation.











Attach the entire finger assembly to the front palm.



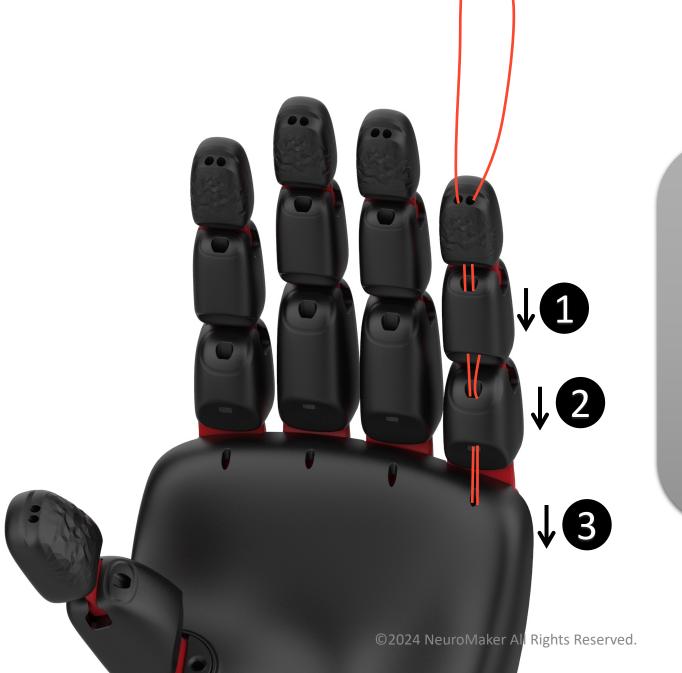


Step 1: Cut a piece of tendon wire with length equal to the span of your fully extended arms.

Step 2: Fold the wire in half to create two equal-length sections.

Step 3: Insert each end of the wire into the two slots at the top of the little finger assembly.





Step 1: Guide both ends of the tendon wire downwards through the top and middle sections of the finger.

Step 2: Continue threading both ends of the wire through the bottom section of the finger.

Step 3: Finally, insert both ends of the wire into the slot located on the palm.





Pull the tendon wire downwards to tighten it, as shown in the illustration.





Repeat the previous steps to install a tendon wire for the ring finger.





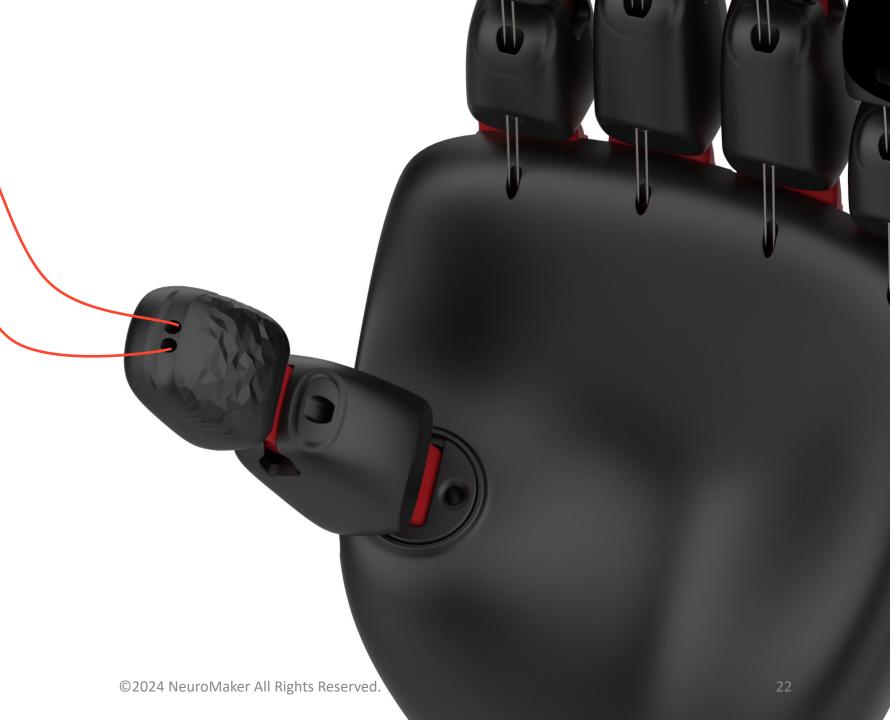
Repeat the previous steps to install tendon wires for the middle and index finger.



Step 1: Cut a piece of tendon wire with length equal to the span of your fully extended arms.

Step 2: Fold the wire in half to create two equallength sections.

Step 3: Insert each end of the wire into the two slots at the top of the thumb assembly.





Step 1: Guide both ends of the tendon wire downwards through the top and middle sections of the thumb.

Step 2: Insert both ends of the wire into the slot located on the thumb base.



Pull the tendon wire downwards to tighten it, as shown in the illustration.





Guide the tendon wires through the holes marked 1-5 on the bottom side of the front palm.



Ensure exact holes depicted



Install the back palm.



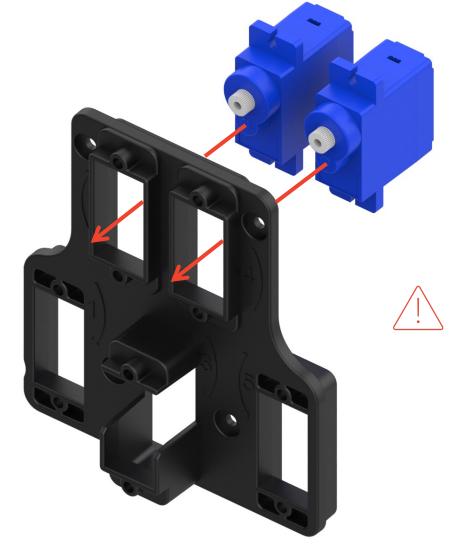


Finished finger and palm assembly.





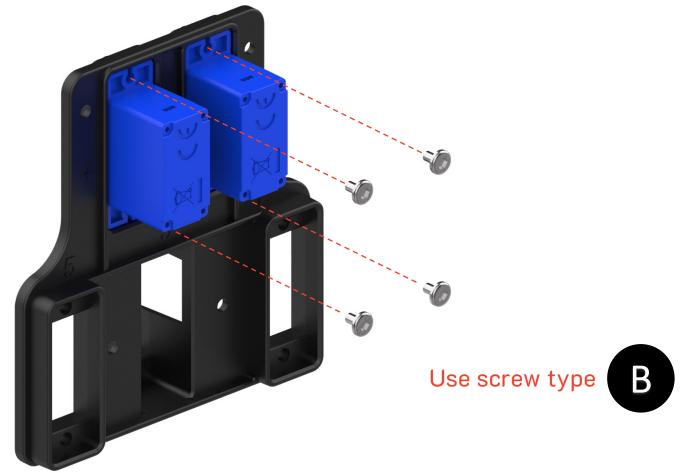
Install two servo motors on the servo board.



Ensure the orientation of the servo motors matches precisely with the depiction

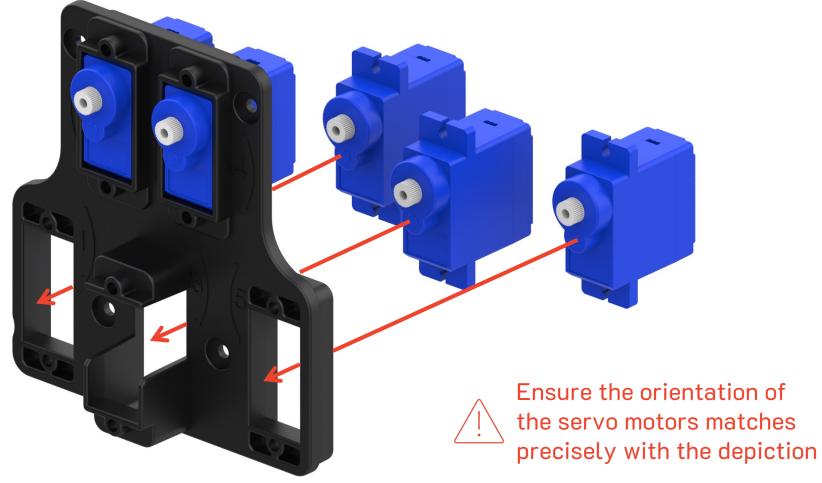


Secure the top two servo motors.



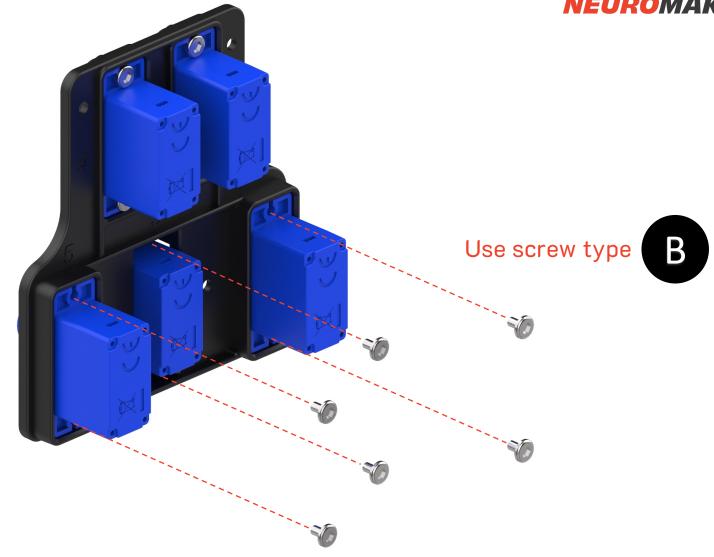


Install three more servo motors on the servo board.





Secure the bottom three servo motors.

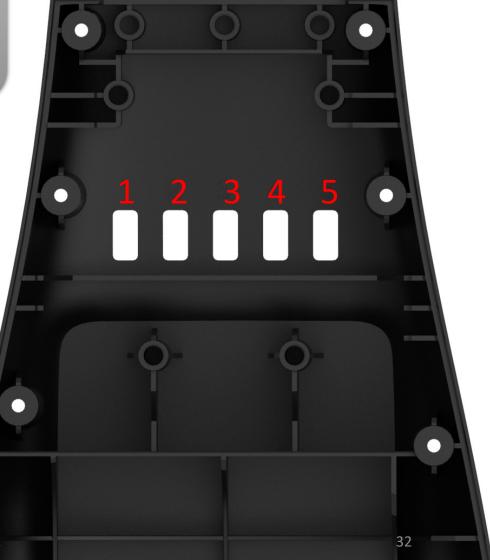






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Pay attention to the number markings on both the servo board and the back arm.
They will be used in the following steps.





Bring the servo motor assembly close to the back arm.



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Guide the servo motor cables through the 5 holes on the back arm.

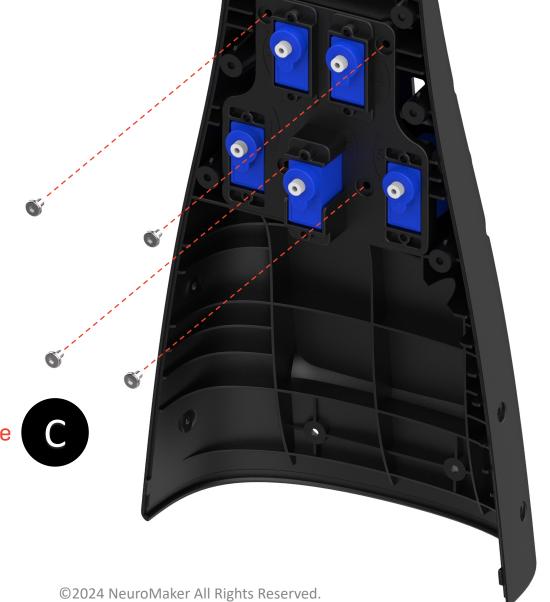
Match the servo board numbers with the hole numbers. For example, cable from servo #1 goes through hole #1.





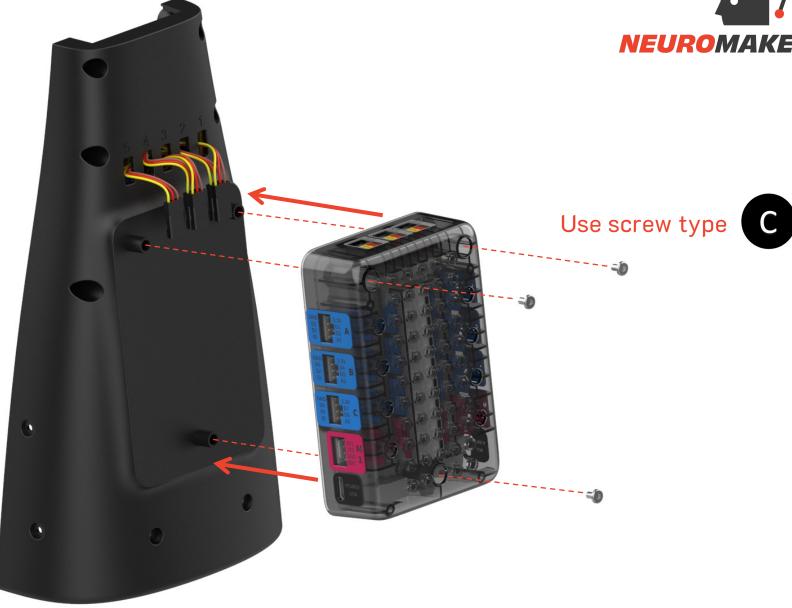
Install the servo board on the back arm.

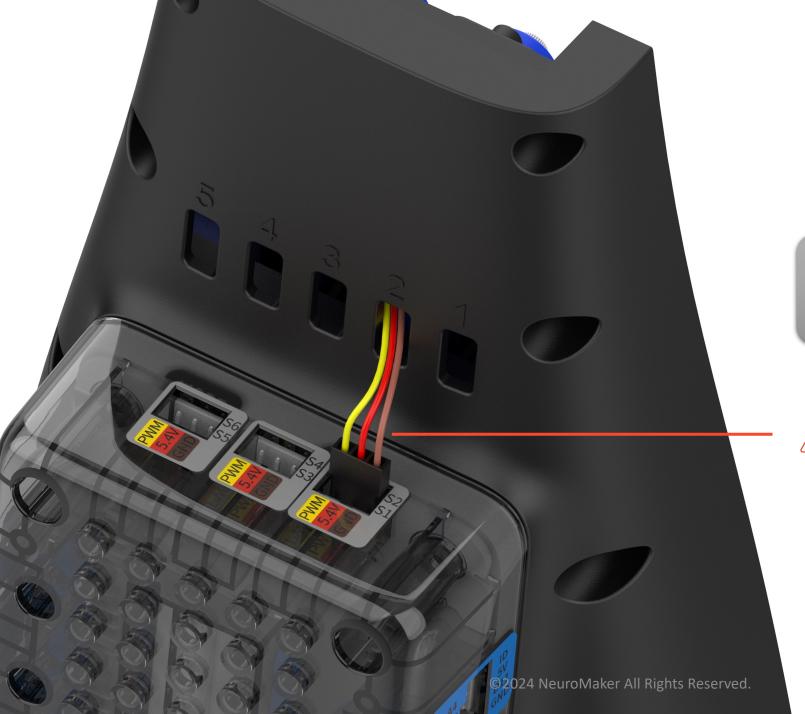
Use screw type





Install the NeuroMaker Core on the back arm.



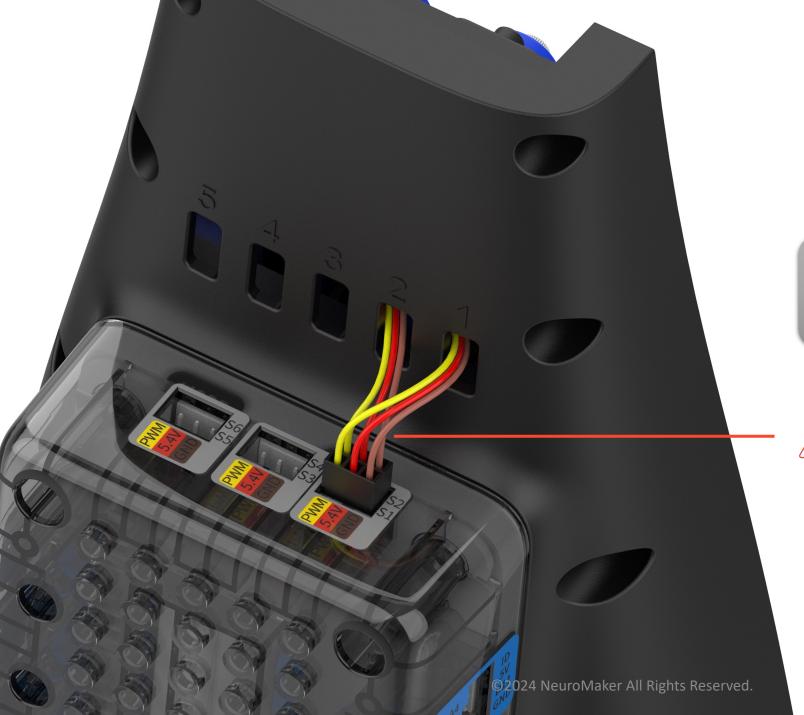




Plug in the servo motor #2 to the \$2 port on the NeuroMaker Core.



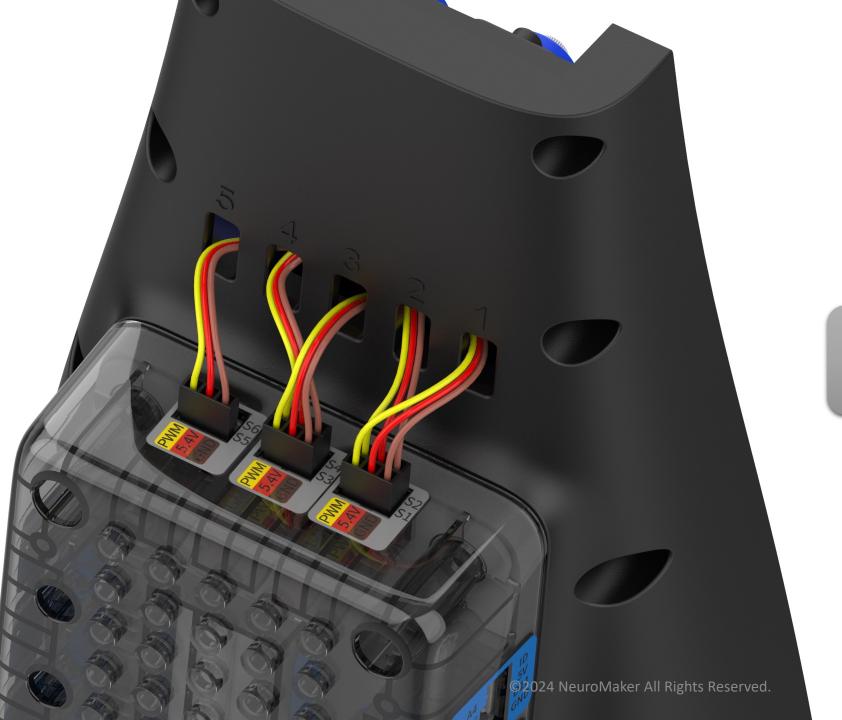
Yellow wire must be on the left. $\stackrel{\text{\ensuremath{igselse}}}{=}$ Brown wire must be on the right.





Plug in the servo motor #1 to the 31 port on the NeuroMaker Core.

Yellow wire must be on the left. $\stackrel{\text{\ensuremath{/}}{}}{}$ Brown wire must be on the right.





Following the same steps, plug in the cables from servo motors #4, #3 and #5.

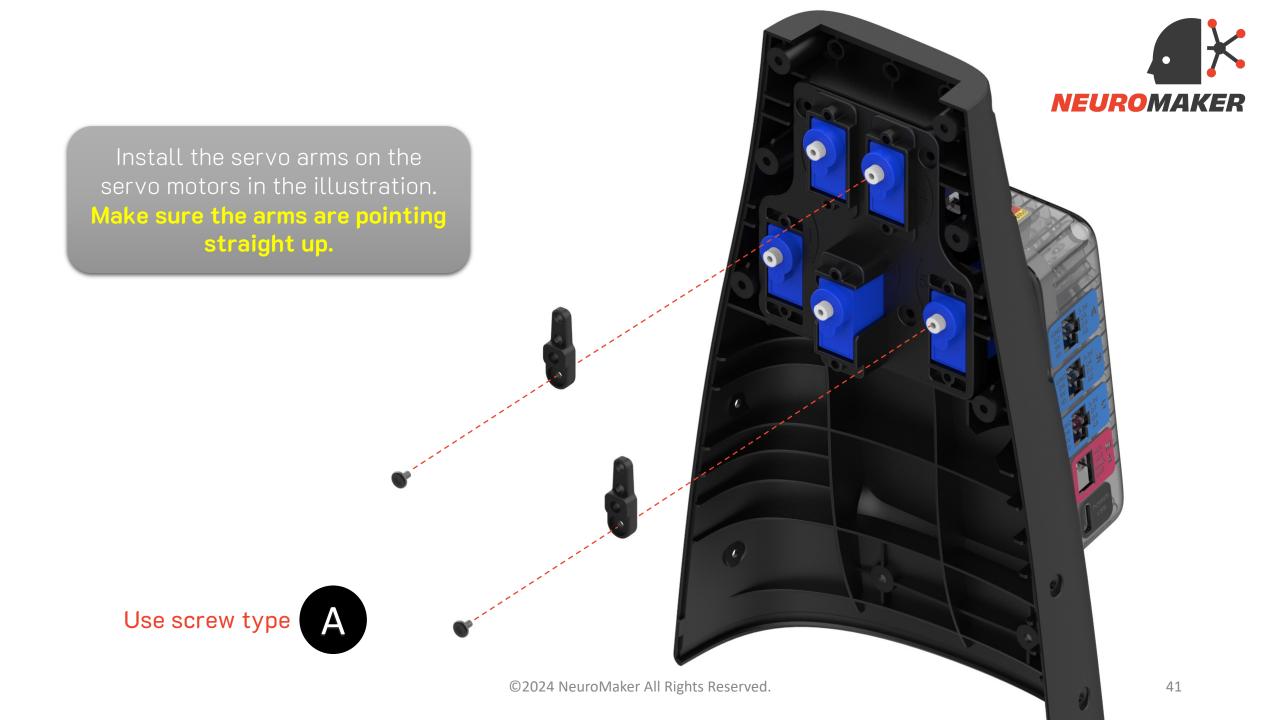


Step 1: Push the switch all the way to the left. Make sure it's under "IR".



Step 2: Press the power button to turn on the NeuroMaker Core.









Finished servo arm assembly.





Assemble the hand assembly and the back arm assembly.

Use screw type







Finished servo arm assembly.



Pay attention to the numbers on both the palm and the servo board.

In the upcoming steps, it is crucial to connect each tendon wire to its corresponding servo motor.

For instance, the tendon wire from hole #5 should be connected to servo #5.

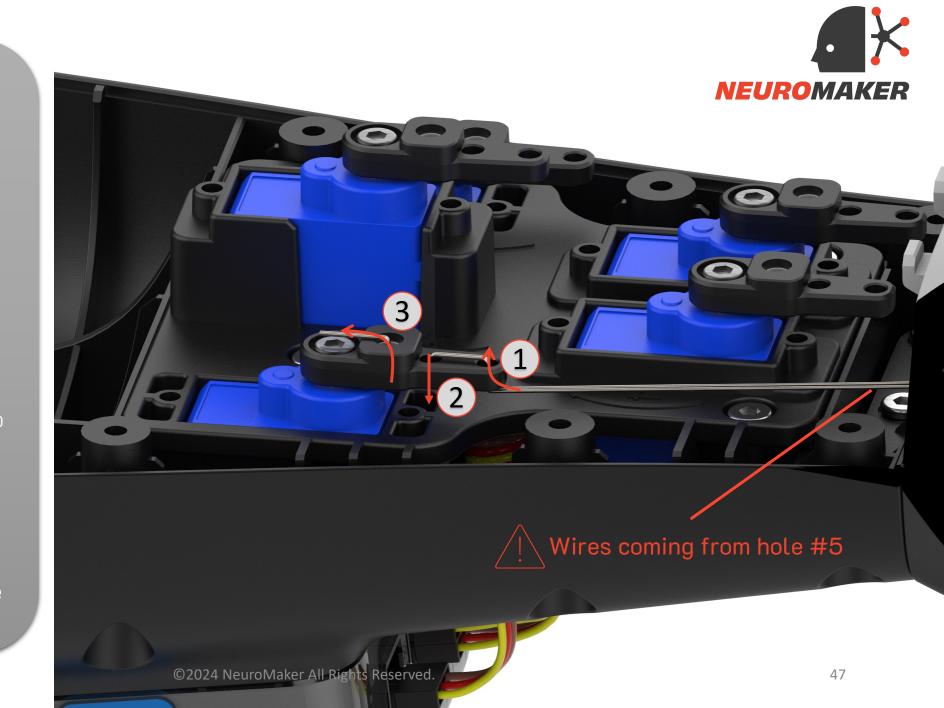


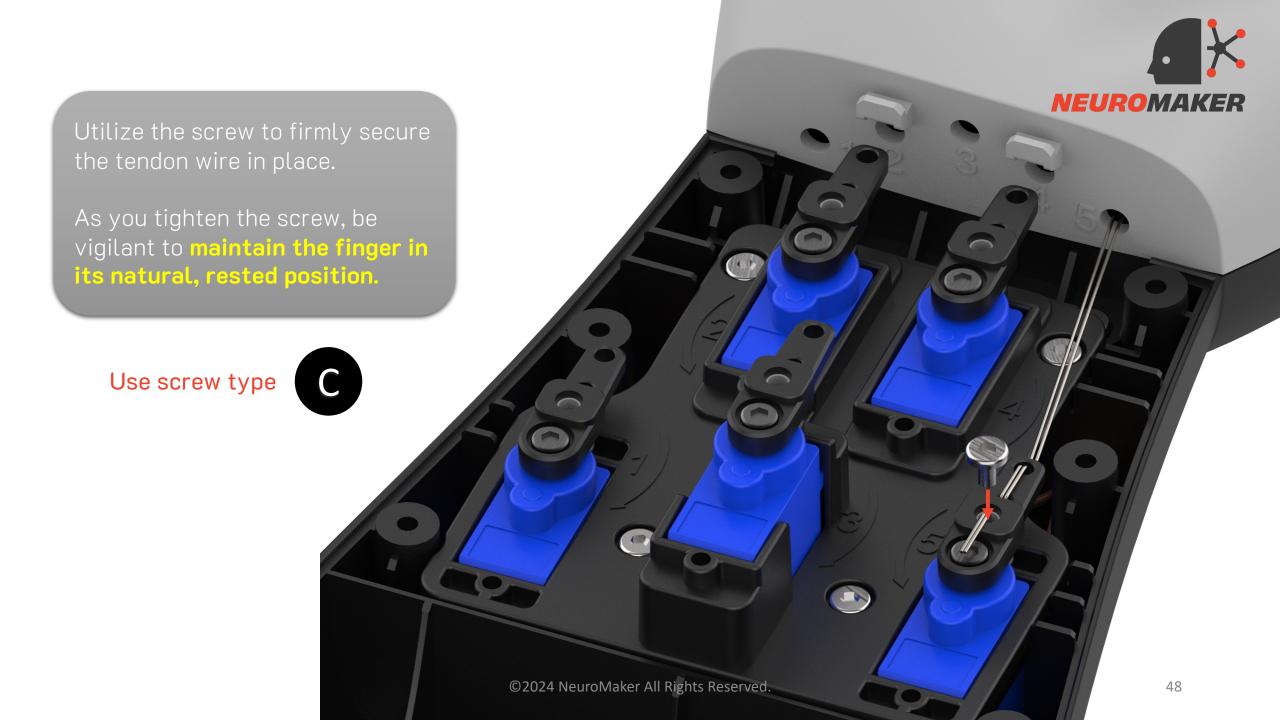


Step 1: Gently pull the tendon wires and thread them through the first hole of the servo arm, starting from the underside and guiding them upwards, through to the top side.

Step 2: Take the wires and lead them through the second hole. This time, insert from the top side, pushing them downwards to emerge from the bottom.

Step 3: Draw the wire from the underside of the servo arm, threading them upwards to exit through the top side of the third hole.











Assemble the front arm and the arm insert.

Use screw type C





Install screws to secure the front arm and the arm insert.

Use screw type



Assemble the front arm assembly with the main body.





Install screws to secure two assemblies.

Use screw type C





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Congratulations! Your NeuroMaker Hand is built.

Move on to the next page to start exploring!



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