



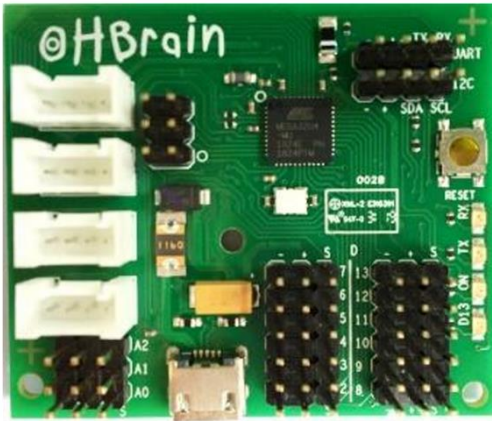
Upgrade Instructions

For Ohbot v2.1 to v2.2 (Head Roll)





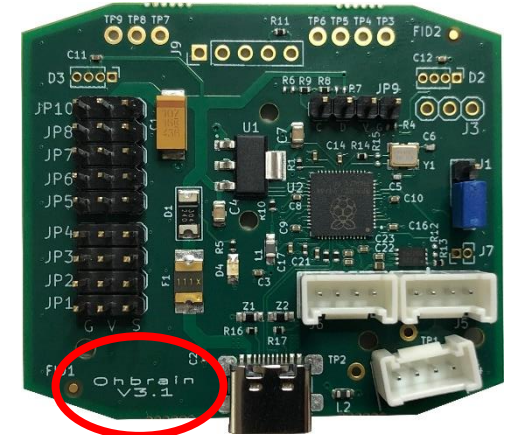
Before starting to upgrade your robot check that it has an Ohbrain circuit board that will accommodate the extra motor. It needs to be one of the ones below:



Ohbrain **V1**
(Headroll motor connects to pins 11)



Ohbrain **V3.0**
(Headroll motor connects to pins JP10)



Ohbrain **V3.1**
(Headroll motor connects to pins JP10)

If you have an Ohbrain V2 board, that currently doesn't work with the extra motor for headroll please contact us on info@ohbot.co.uk and we'll find a solution to get your Ohbot's head rolling!



x1



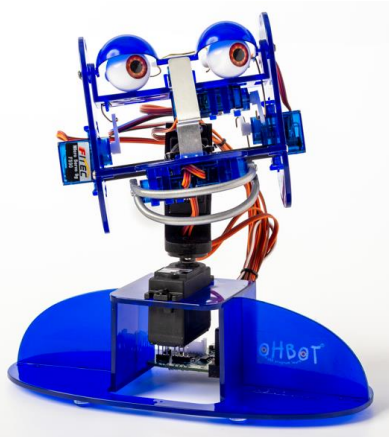
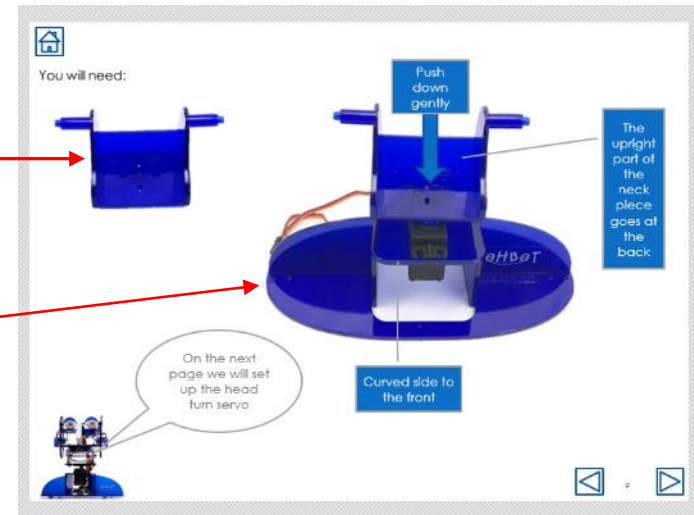
x6





Instructions

- Each page is a step in constructing Ohbot
- If there are parts needed they are shown here
- If you need tools it will show this too
- The main picture or pictures show how to assemble



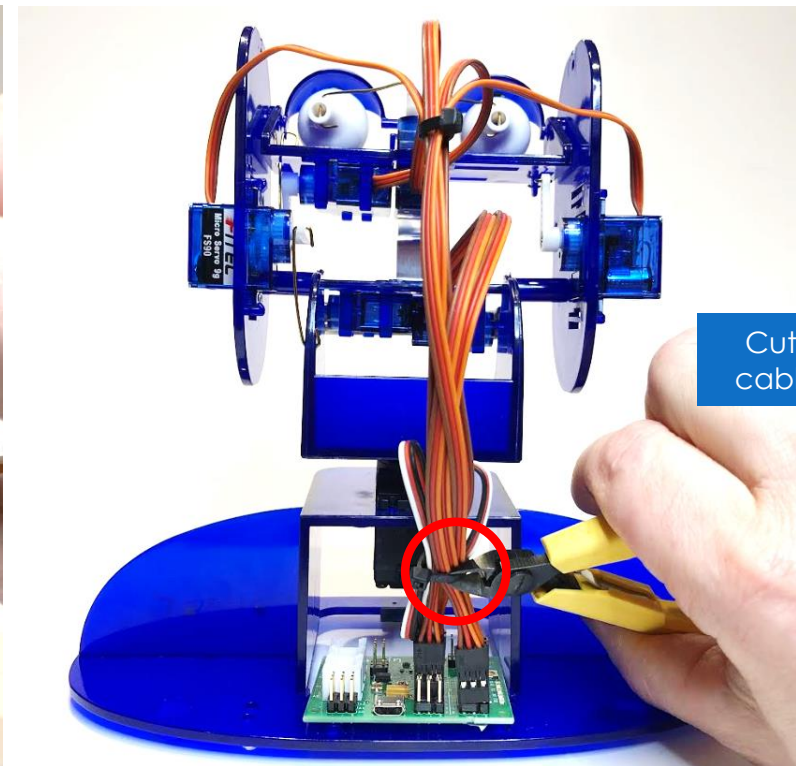
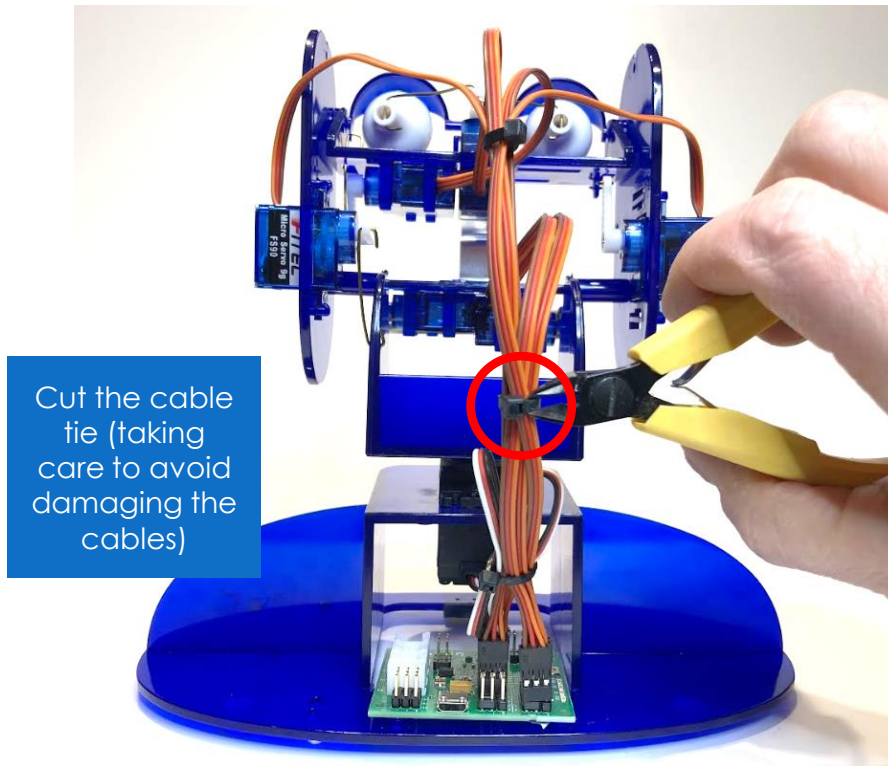
Look out for my tips too!





Cutting cable ties

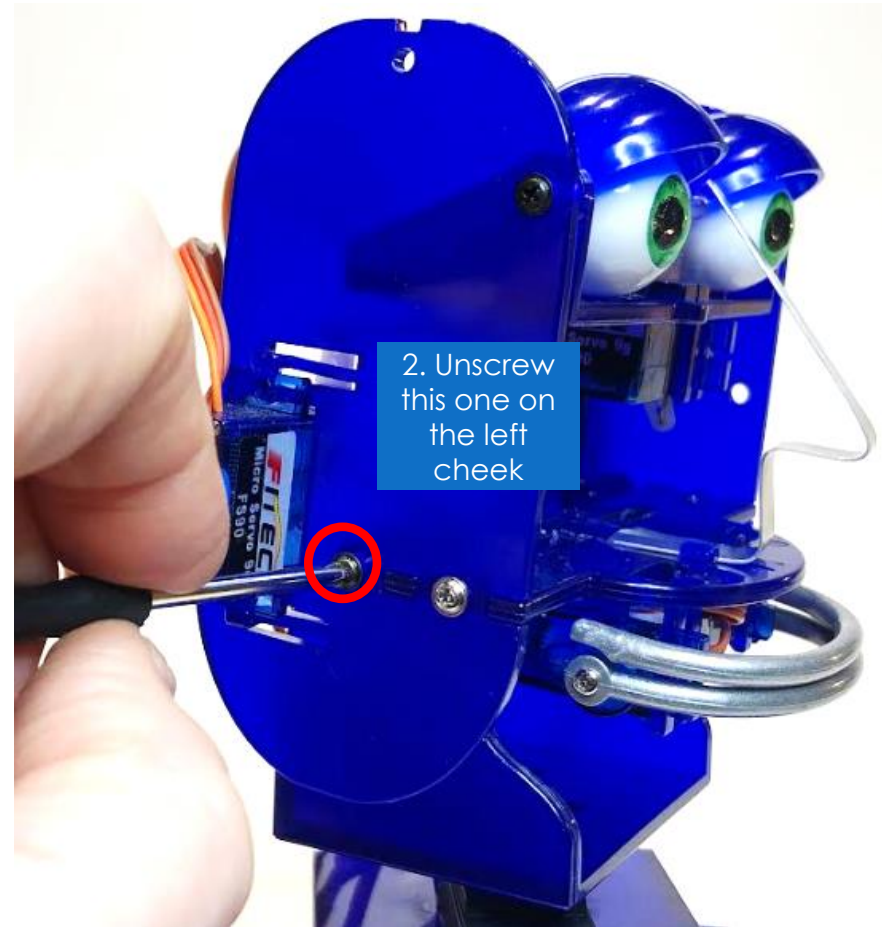
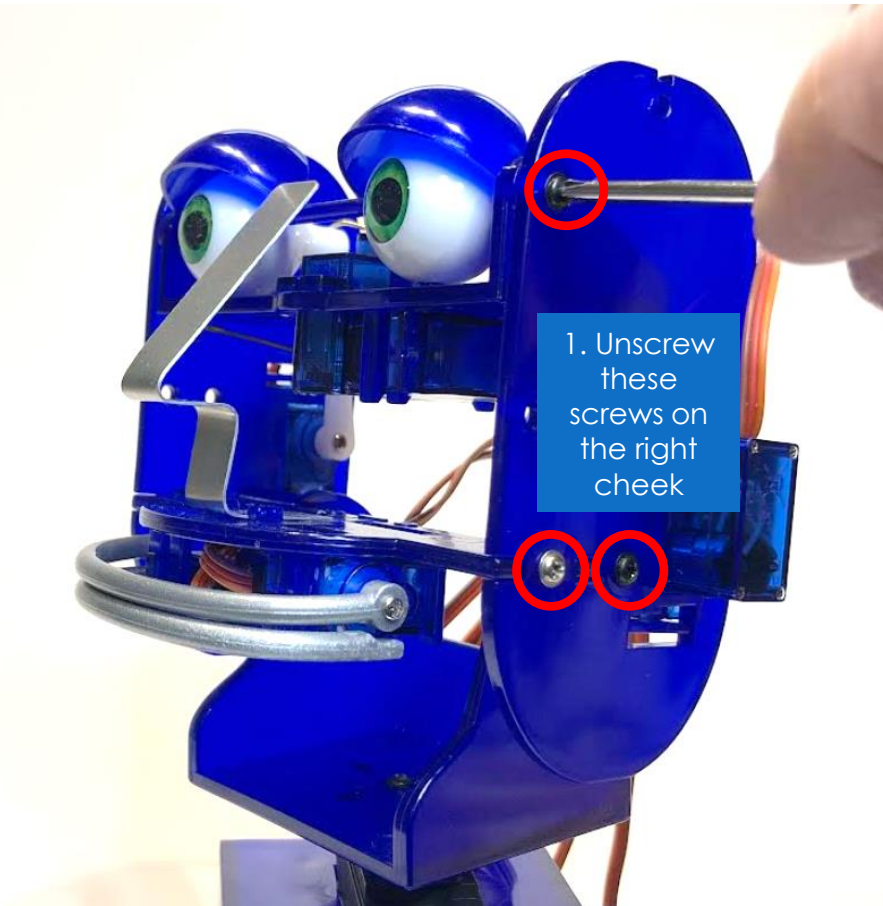
You will need:





Dissassembly of cheeks

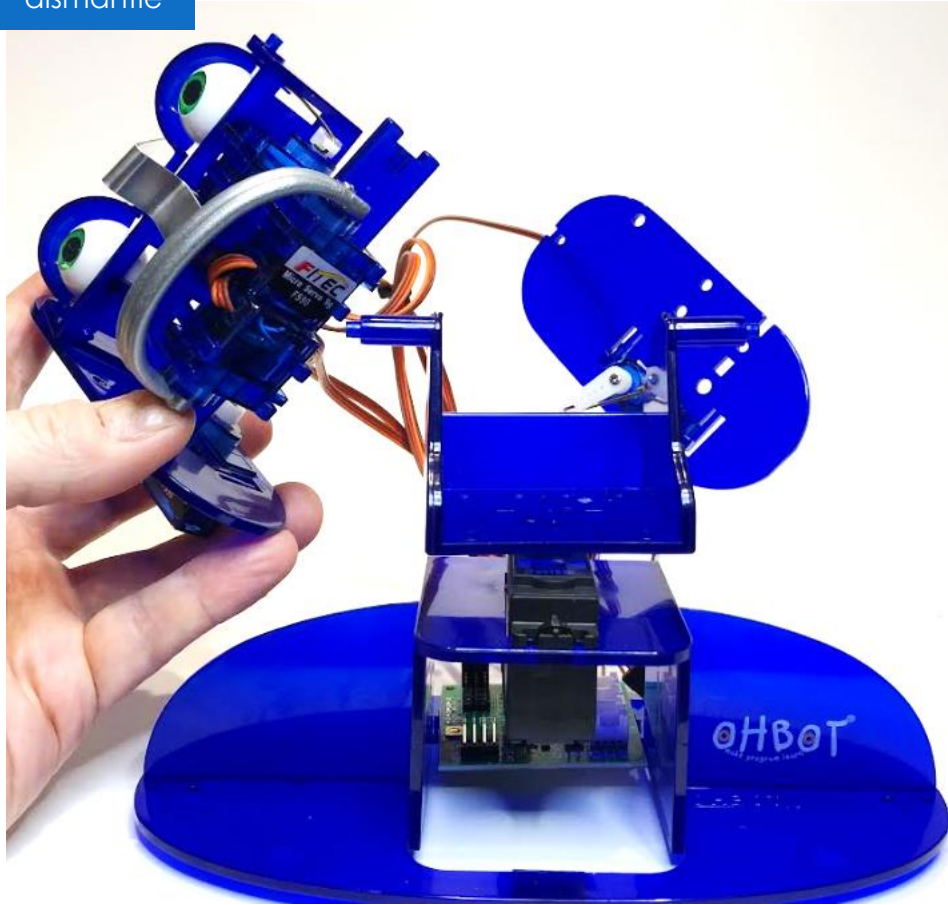
You will need:





Dismantling

dismantle

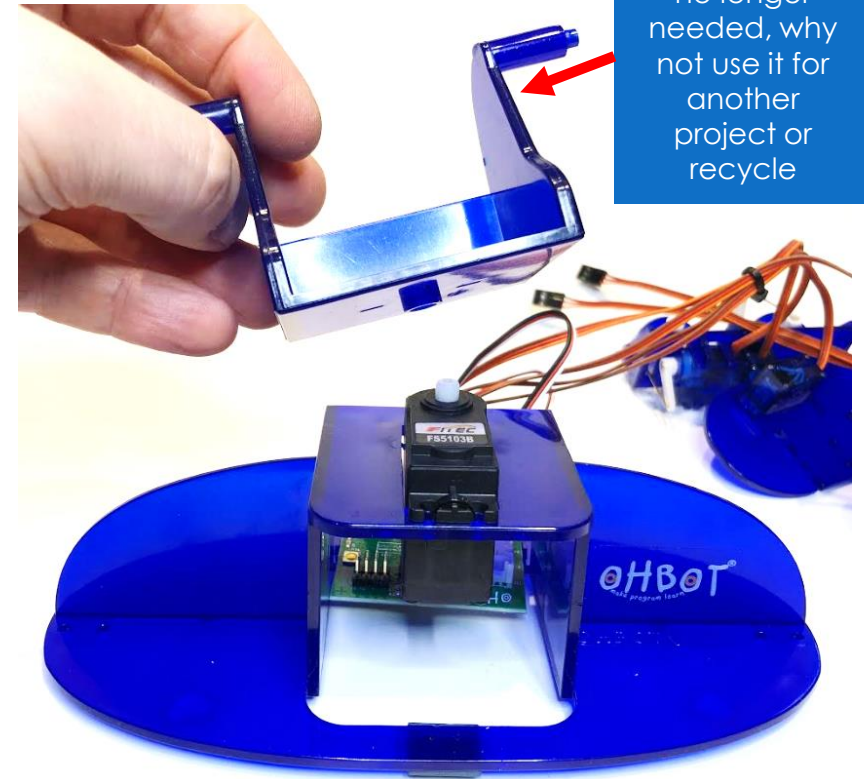
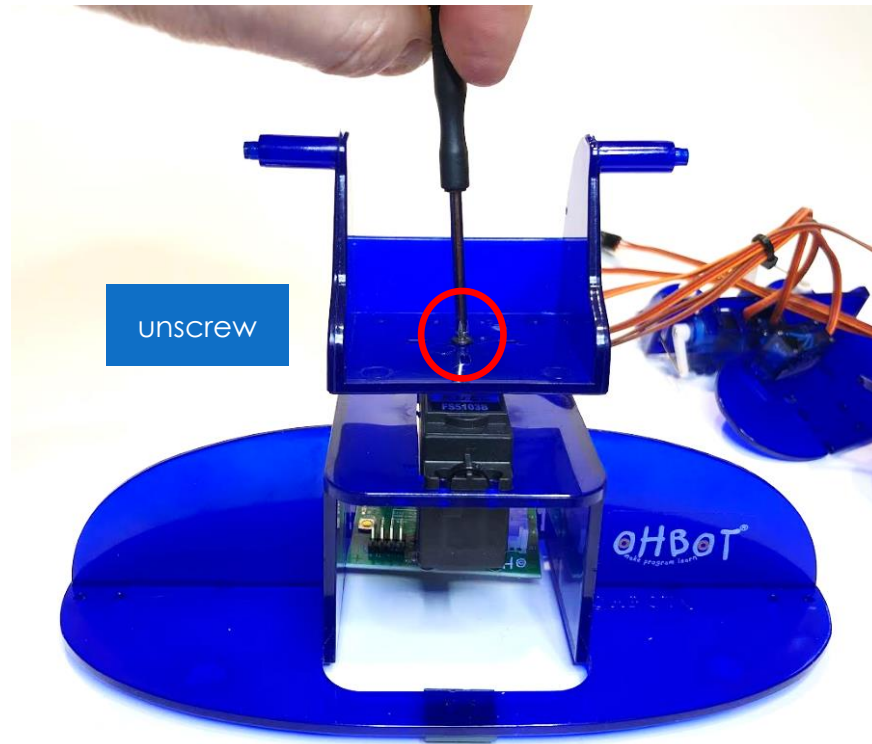


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Dismantling





Fixing the Head Roll motor

You will need:

1. Push the top part of the motor through like this



2. Use Screw D to fix in place





Attaching the neck

You will need:



push neck
socket
onto the
motor shaft



10

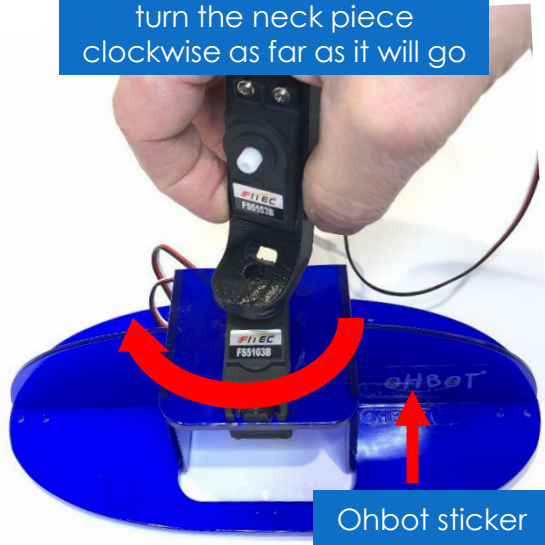




Setting up the neck turn motor

You will need:  

1. Make sure the base is facing you with the Ohbot sticker to the front. Gently turn the neck piece clockwise as far as it will go



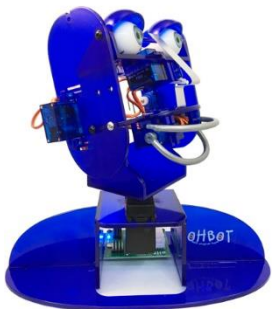
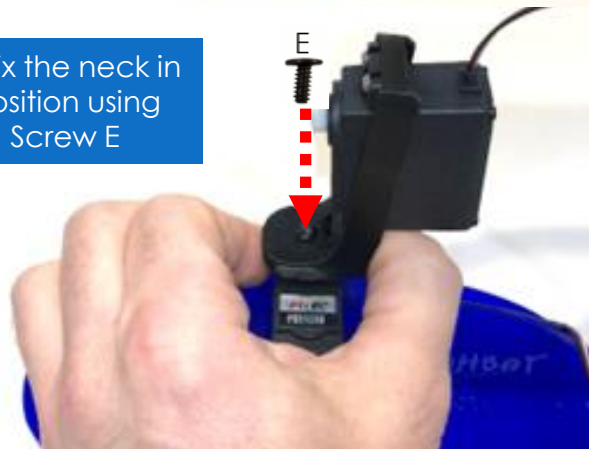
2. Lift off the neck piece



3. Orient the neck piece in the position shown, then push it back onto the motor



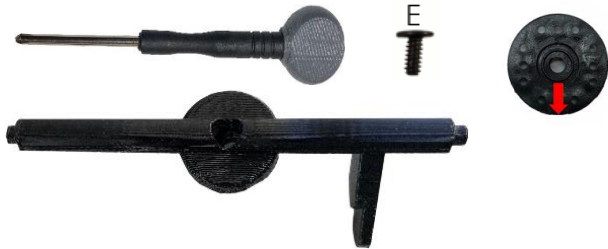
4. Fix the neck in position using Screw E





Setting up the head roll motor

You will need:



1. Push the circular setting tool onto the motor shaft and turn it in the direction shown as far as it will go



2. Remove the circular setting tool from the motor taking care not to turn the shaft of the motor as you do



3. Push back onto the shaft of the motor so that the arrow is facing straight down (6 o'clock)



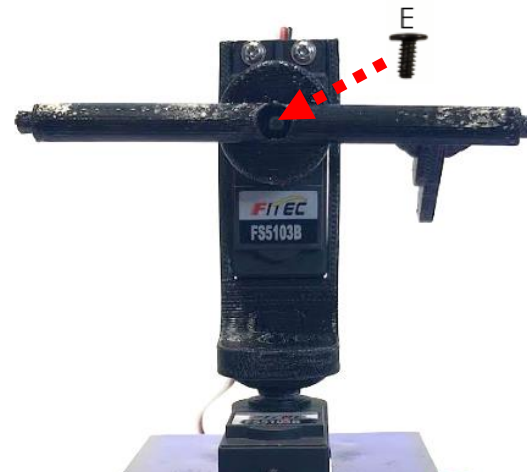
4. Turn it 90 degrees clockwise so that the arrow is pointing to the left (9 o'clock).



5. Take the circular setting tool off without turning the motor shaft



6. Orient the nod/roll bar so that it is horizontal and push it onto the motor



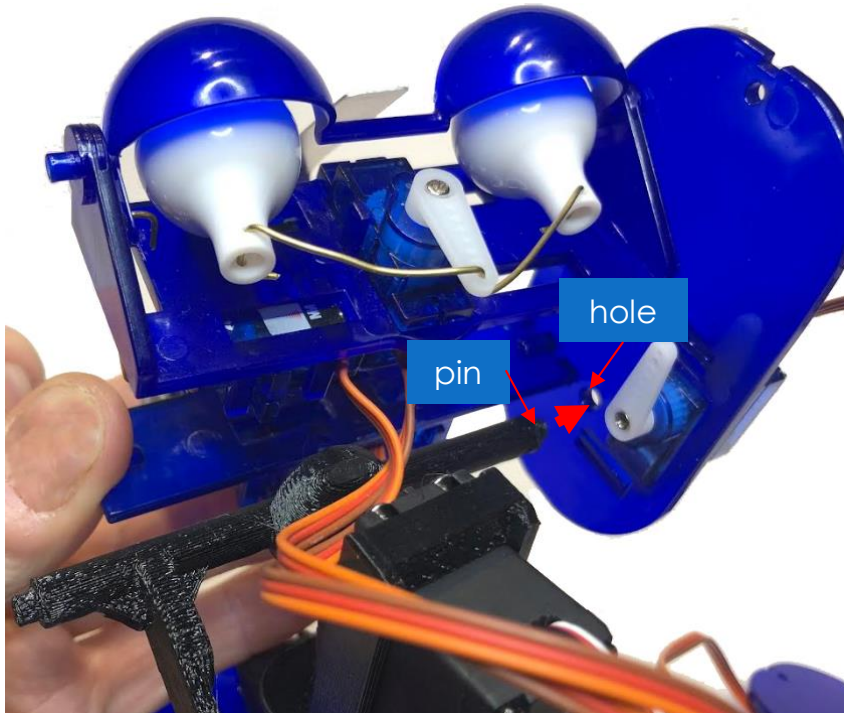
7. Fix in place using screw E



Locating the jaw and cheek on the neck

You will need:

1. Locate the pin on the neck in the hole in the left cheek



2. Hold in place ready for the next step

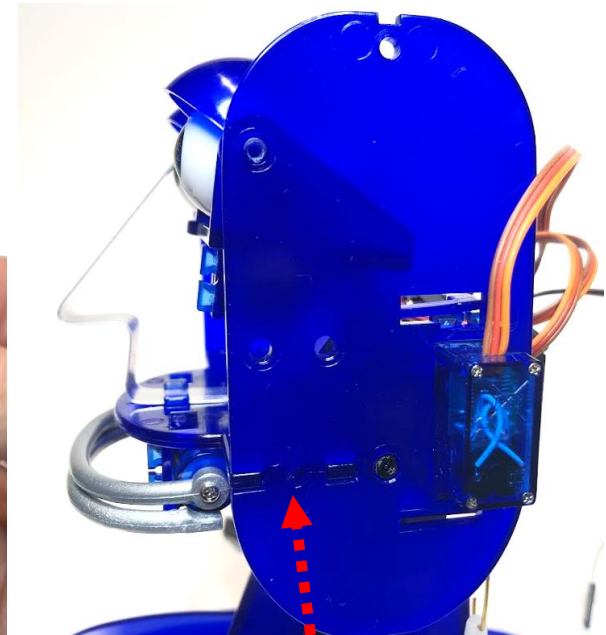
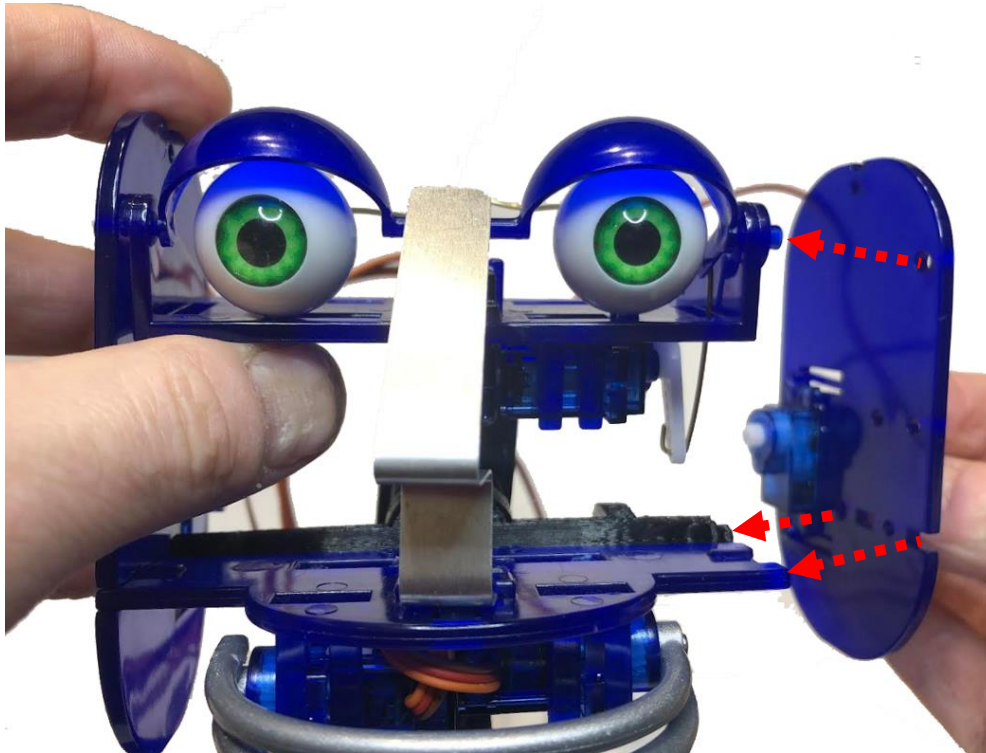




Attaching the right cheek to the jaw

You will need:

D



D



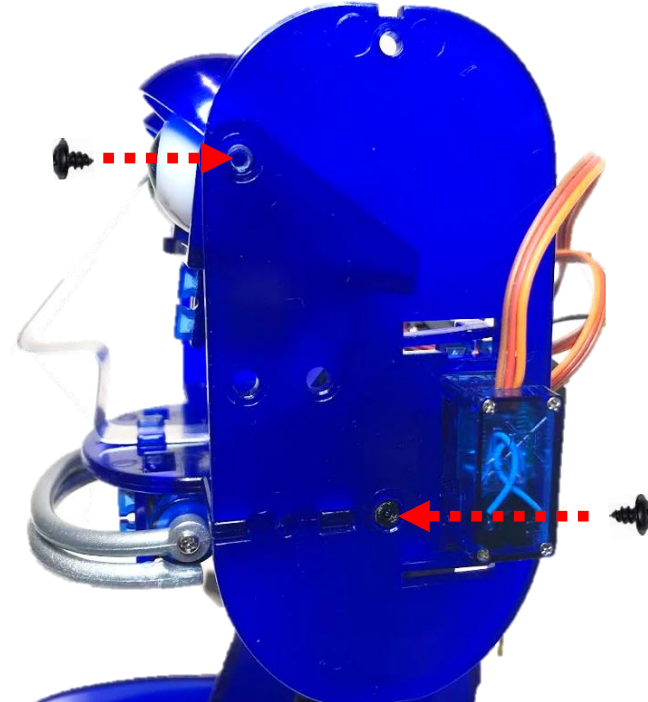
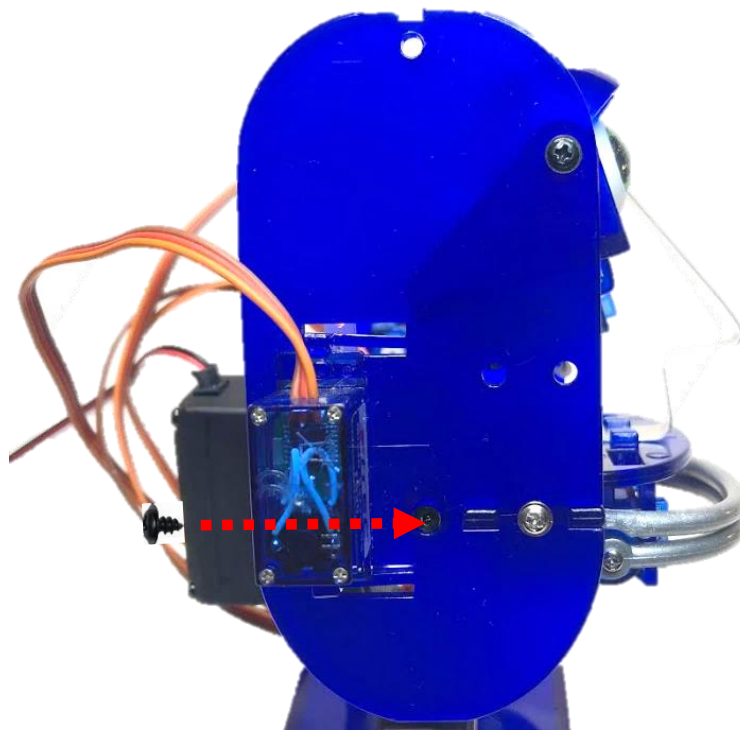
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Attaching the right cheek to the jaw

You will need:





Disconnecting the lip motors

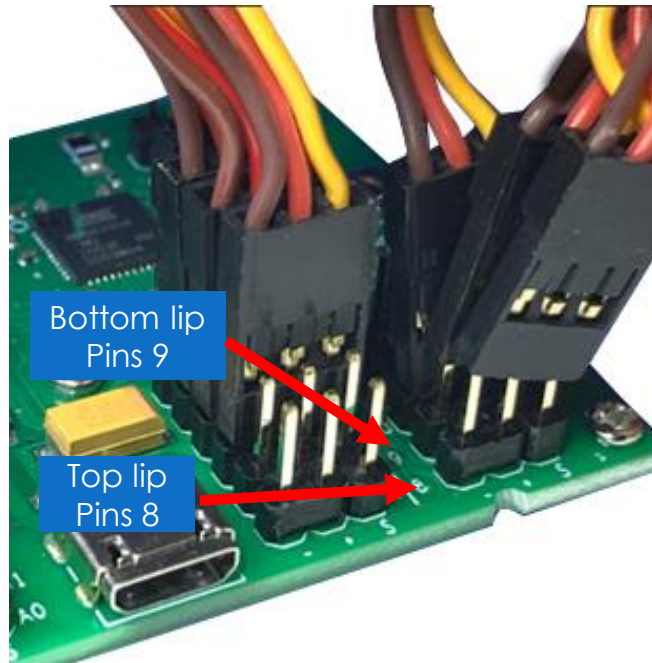
1. Locate the connectors for the top and bottom lip servos. Use a pen to mark the cable for the Bottom lip



Ohbrain v1

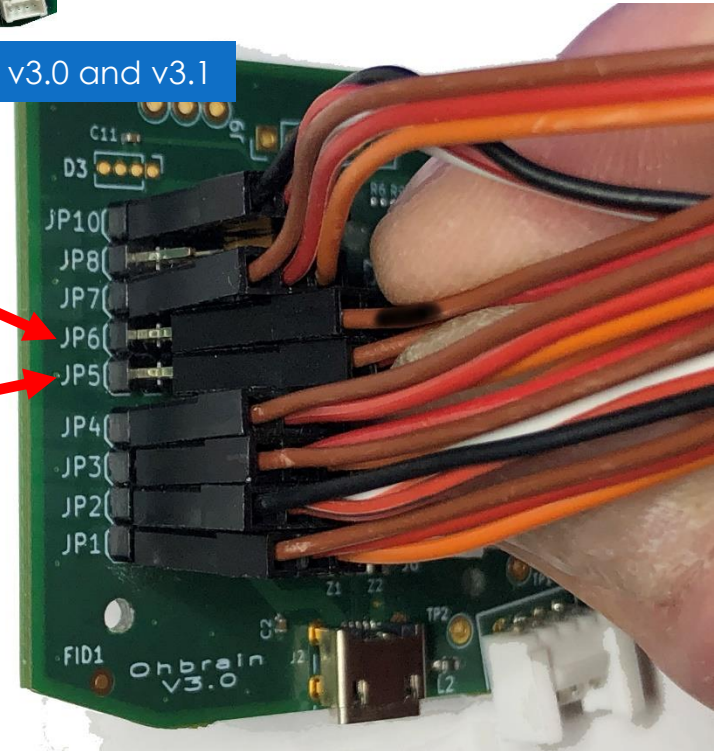


Ohbrain v3.0 and v3.1



Bottom lip
Pins JP6

Top lip
Pins JP5



2. Pull out both plugs



Threading lip motor cables through the neck

You will need:

1. Thread the cables from the two lip motors through the hole in the neck

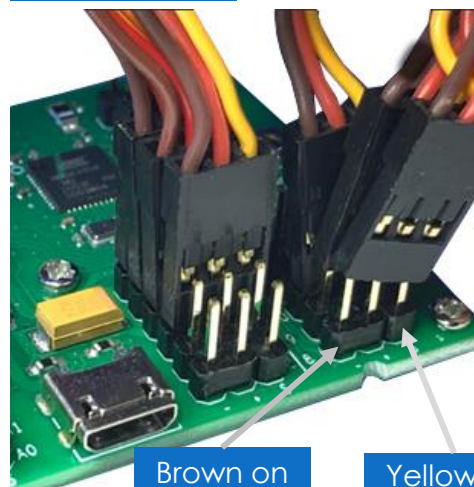


Ohbrain v1



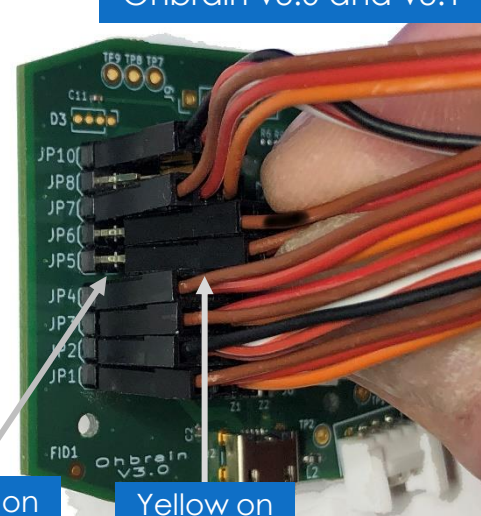
Ohbrain v3.0 and v3.1

2. Plug the cables back into the board. Check that you connect the cable with the mark to either Pins 9 (Ohbrain 1) or JP6 (Ohbrain 3 or 3.1)



Brown on this side

Yellow on this side



Brown on this side

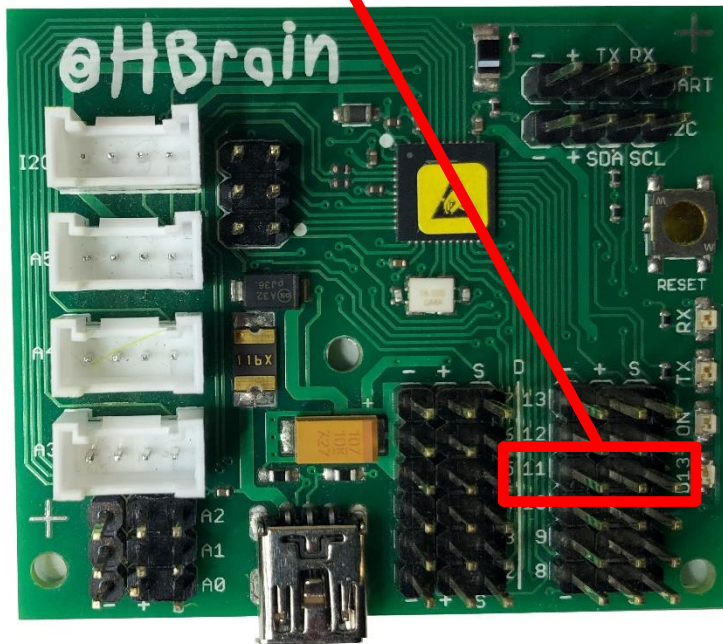
Yellow on this side



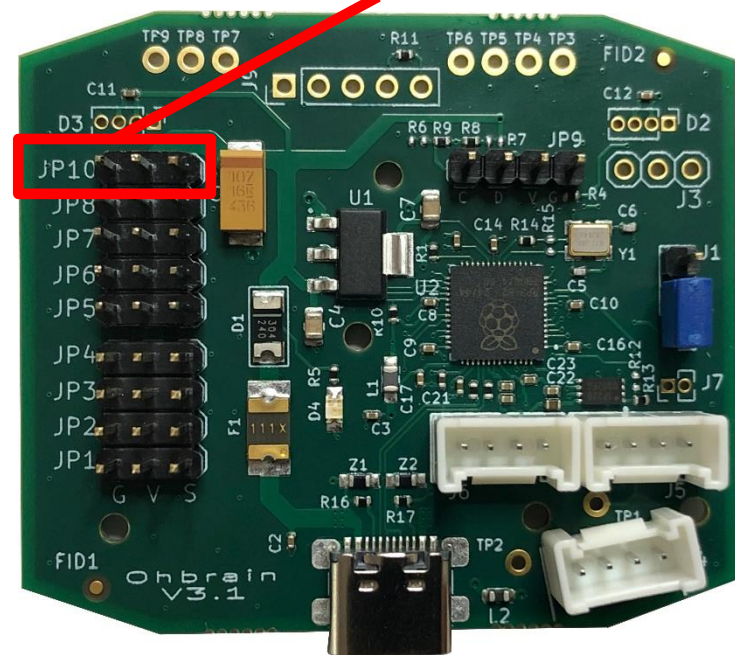


Connecting the headroll motor to Ohbrain

Connect the plug for the HeadRoll motor to the pins marked 11



Connect the plug for the HeadRoll motor to the pins marked JP10





Install Ohbot software

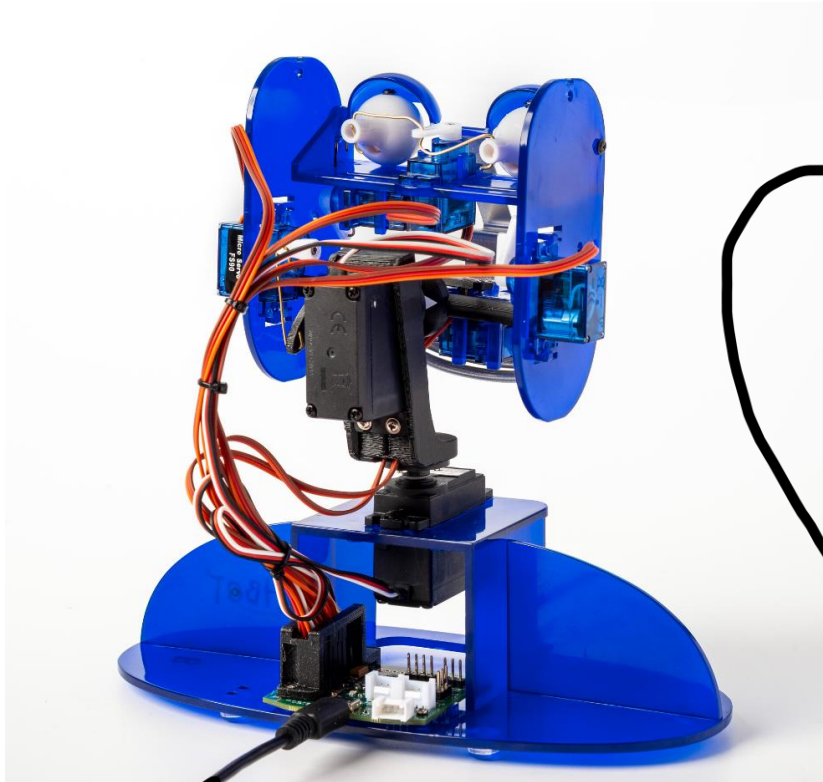
Before continuing with getting your Ohbot upgraded please install OhbotApp2.

Please go to
Follow the instructions to install





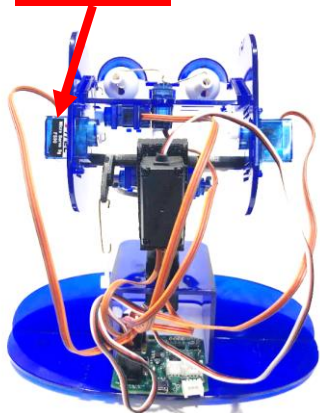
Connecting the cable to Ohbot



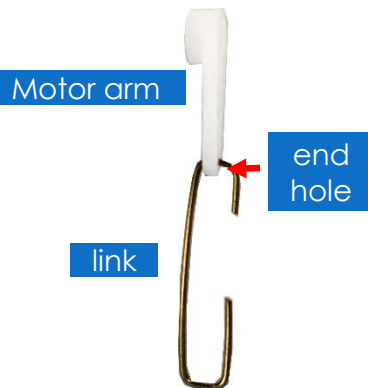


Setting up Motor 1 (makes Ohbot's head nod)

Motor 1



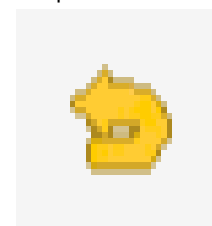
1. Thread the **link** through the end hole of the **motor arm**



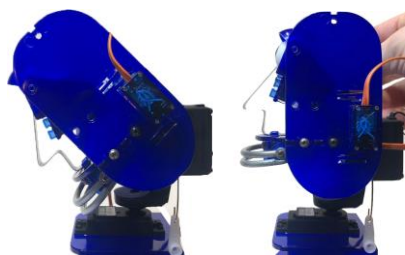
3. Tilt Ohbot's head to one side and thread the link wire through the hole on the headnod pivot



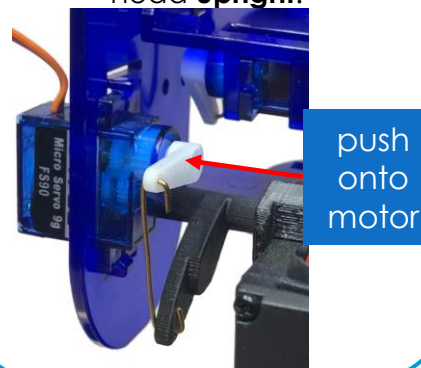
3. With Ohbot connected to your computer start OhbotApp2. Click the reset button. You should see Ohbots motors move to their reset positions



3. Hold Ohbot's head upright



5. Whilst holding Ohbots head upright push the Motor arm onto the shaft of Motor 1 so it holds Ohbot's head **upright**.



6. Fix the arm onto the motor using screw B

