pib

You
Print
Build
Develop

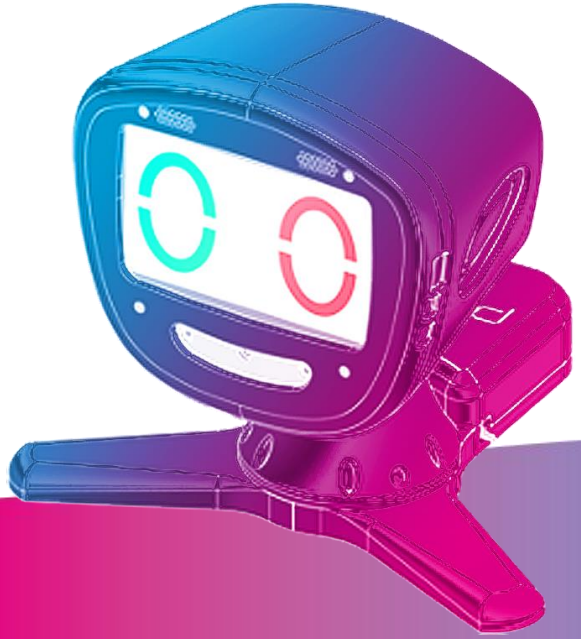
your own robot!

How to build your robot

www.pib.rocks/build

assembly instructions for:

pib BRAIN



Printable and pre-assembled parts

Pib´s head stand consists of **4 printable parts -** and the assembled parts from the neck tutorial and head tutorial - and is assembled in **11 steps.**

In order to construct the head only project, you will need to print the parts as seen in the table and also first assemble the neck and head parts.

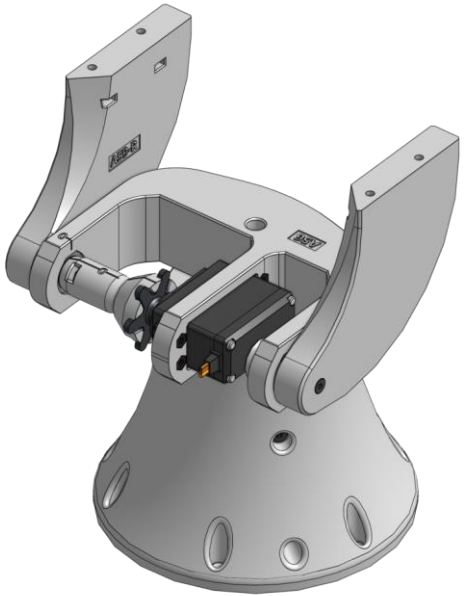
Tutorials on pib.rocks/build
https://pib.rocks/build/how-to-build-pibs-head/
https://pib.rocks/build/how-to-build-pibs-neck-variant-pro/

Printable parts
A81-Stand-back
A82-Stand-back-cover
2 x **A83**-Stand-front

Preassembled parts - Overview

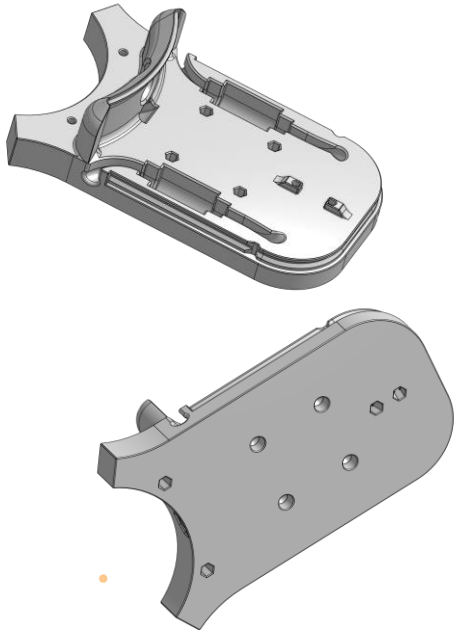
Preassembled Head

Preassembled Neck

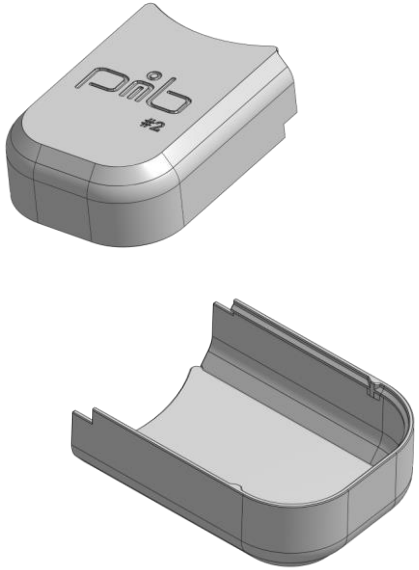


Printable parts - Overview

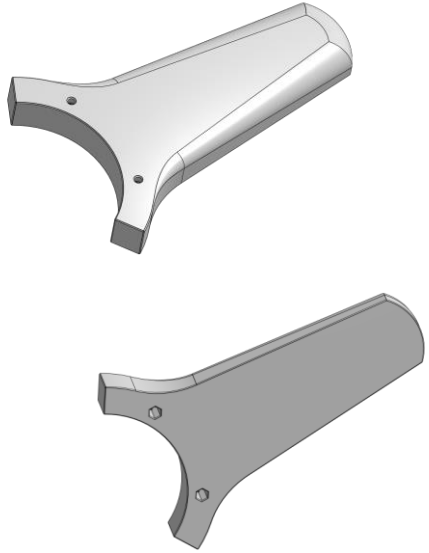
A81-Stand-back



A82-Stand-back-cover



A83-Stand-front



Non-printable parts

You will also need the following non-printable parts from our pib.Box Master.

If you do not have it yet, you can buy in our shop https//shop.pib.rocks.

Non-printable parts
1 x **E03** Tinkerforge Servo_Bricklet-V2 (with black terminal connector)
1 x **E13** SPL-82 (T-Connector)
4 x **M13** distancers
12 x **S01** nuts
4 x **S02** 6mm screws
6 x **S06** 16mm screws
2 x **S08** 20mm screws
1 x bricklet cable
1 x **E14** PowerSupply
71 cm black/red cable

Build it better: our suggestion for assembling pib

We recommend **tools** for each step. These are a suggestion, you can of course also use other tools.

1-5

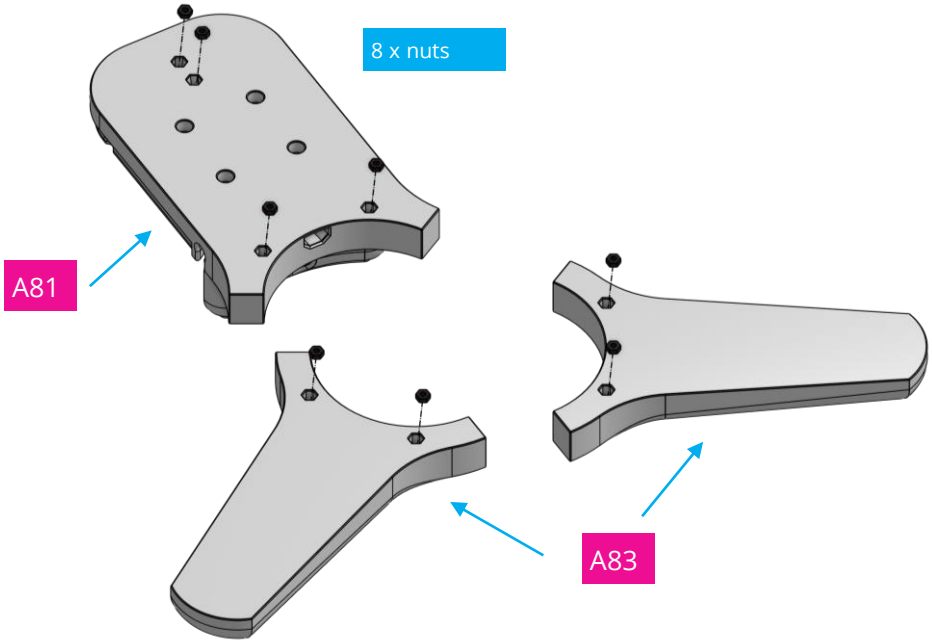
We have categorized each step according to its **difficulty** - from **1-5** (1 being the easiest, 5 the hardest)

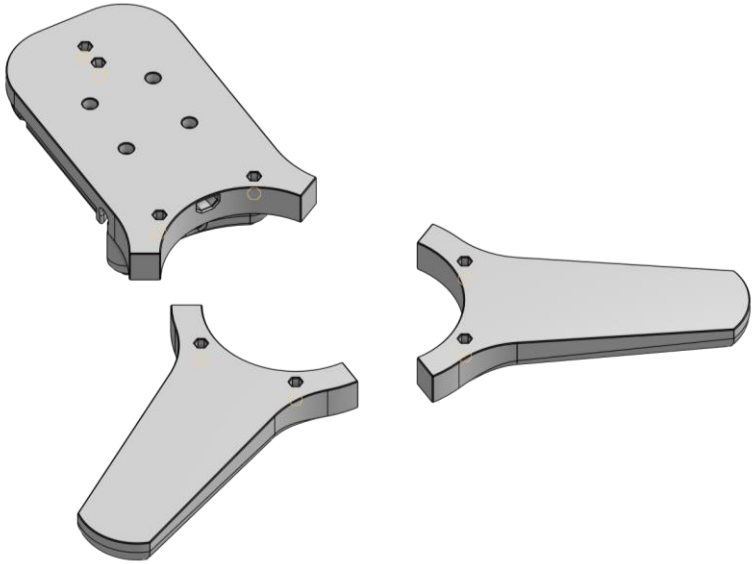
We also show you which **non-printable parts** you need for each step

Step 1

1 8x

Place **8 x nuts** in **A81** and both **A83** as shown.

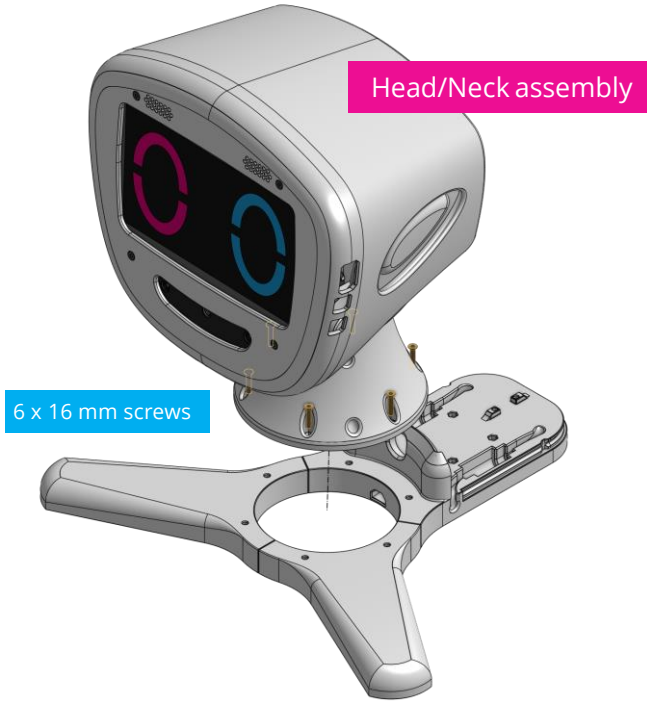




Step 2

2 6x

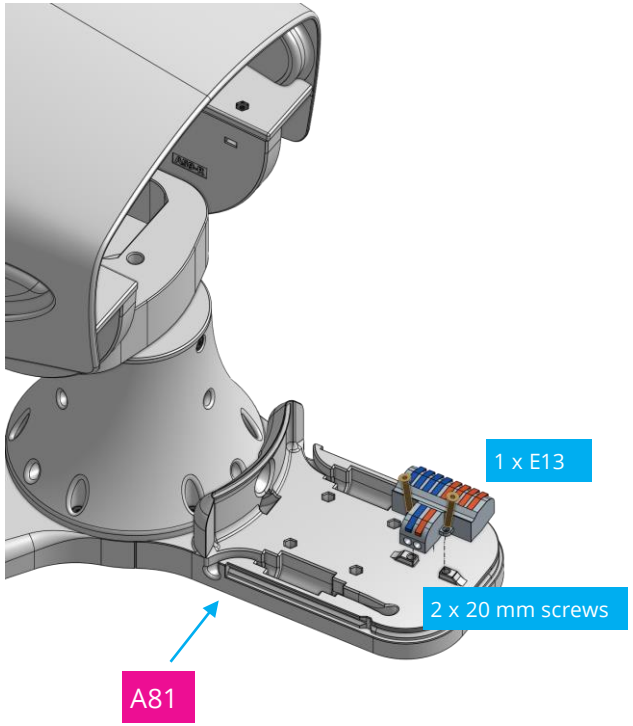
Flip the parts from step 1 and connect the “head and neck assembly” to them using **6 x 16 mm screws**.

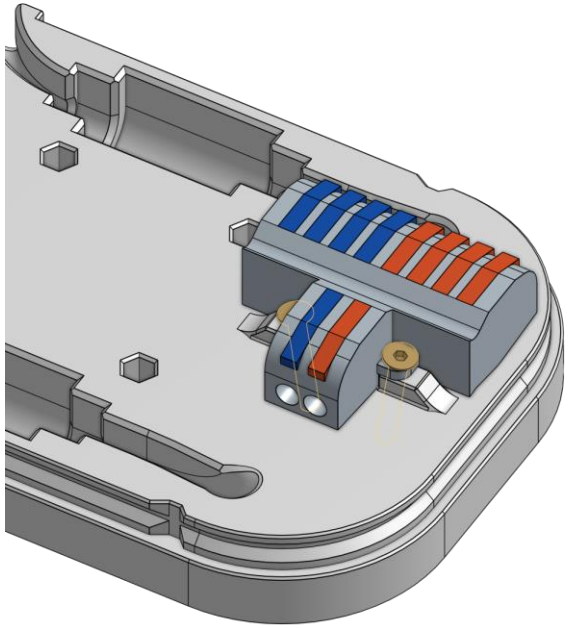


Step 3

2 2x 1x

Place **1x E13** (T-connector) on **A81** and fix it with **2 x 20 mm screws**.



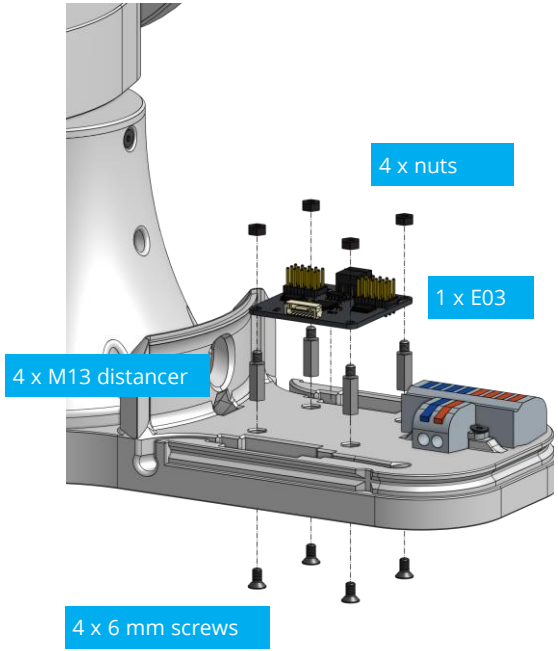


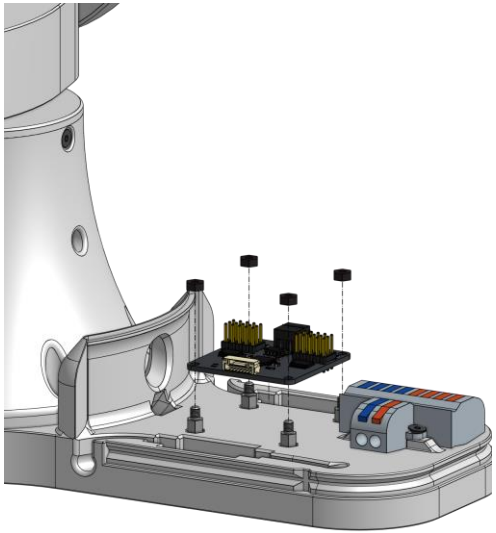
Step 4

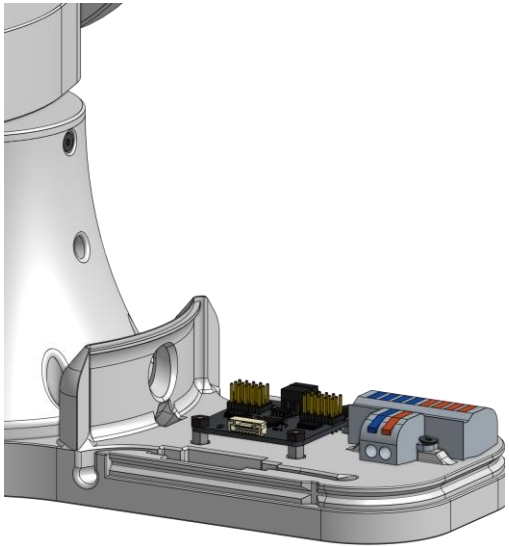
2 4x 4x 1x

Connect **1 x E03** Tinkerforge Servobricklet to **A81.**

Use **4 x M13 distancers**, **4 x nuts** and **4 x 6 mm screws**.







Step 5a

1

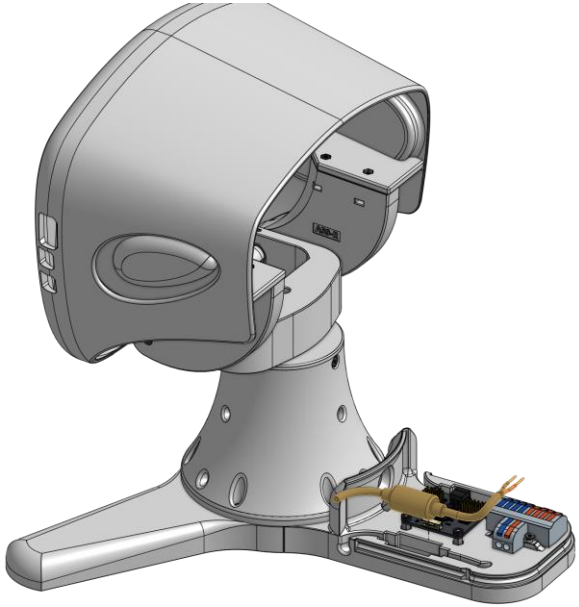
Cut the output barrel of the **power supply E14** as shown in the pictures. (If you haven´t it done already in the calibration tutorial)

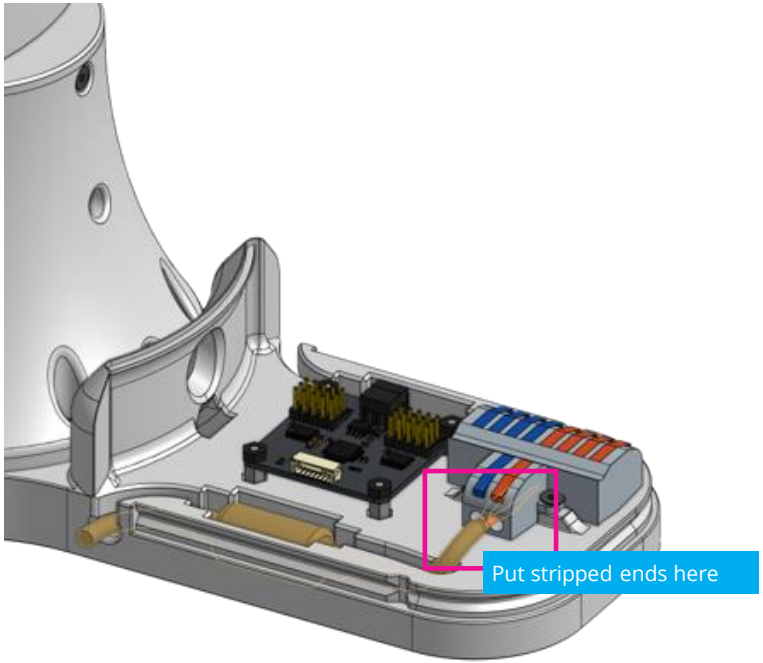
Strip the ends of powersupply output wire to ensure the inside copper windings can be seen.

Step 5b

1

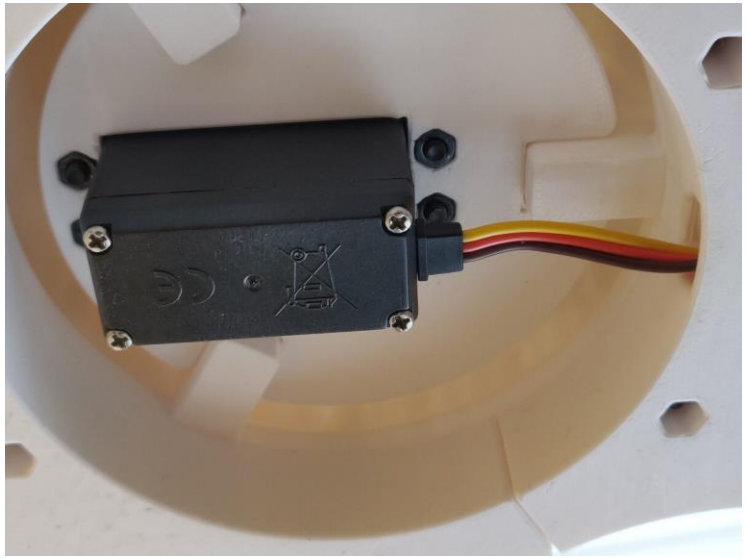
Place the **output wire** in the shown spot in **A81**and insert the stripped ends of the wire into E13.

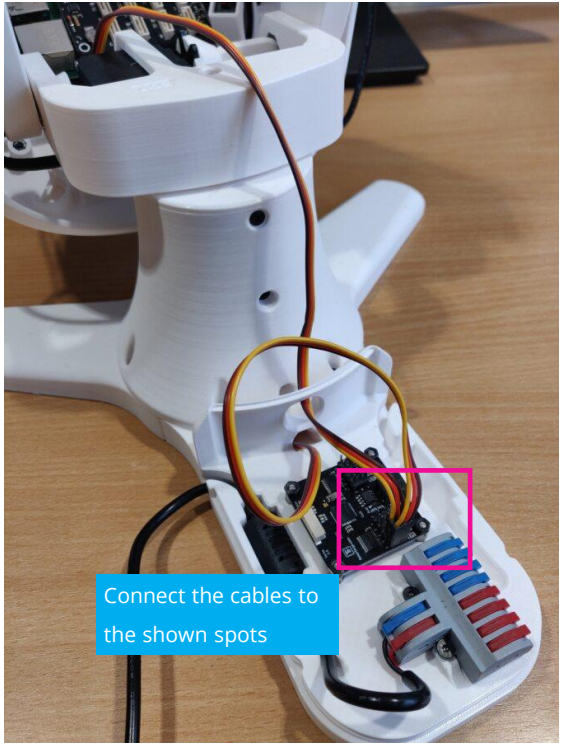




Step 6

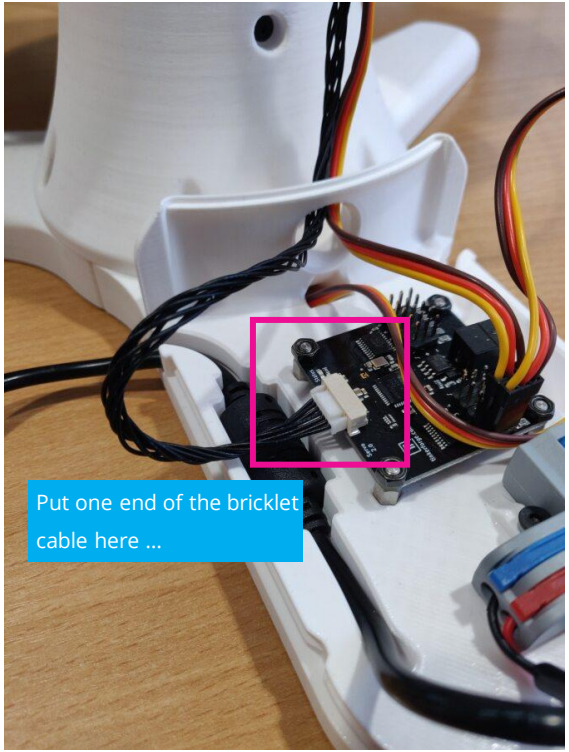
Connect both servo motors from the neck to E03 Tinkerforge ServoBricklet using the servo cables.

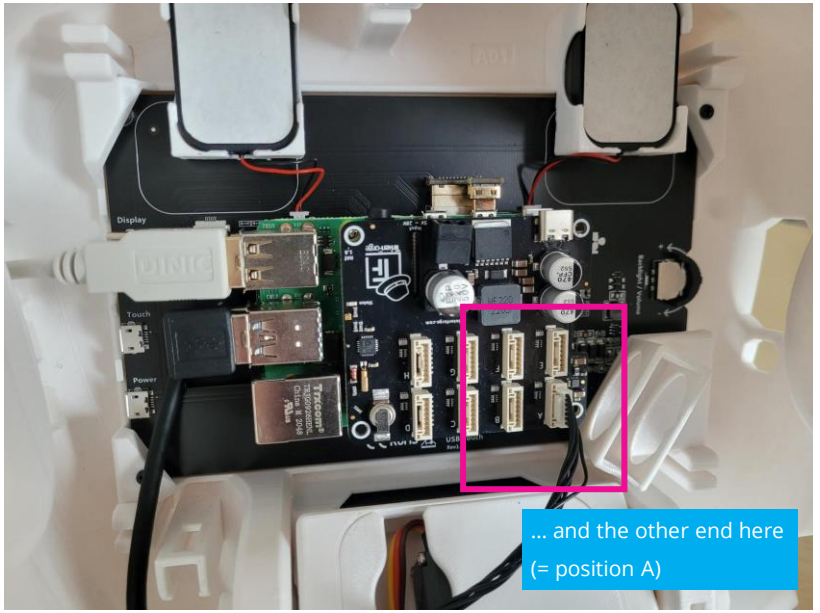




Step 7

Connect **E03 Tinkerforge ServoBricklet** to **E02 Tinkerforge HAT** (part of the head) using **1 x bricklet cable**.

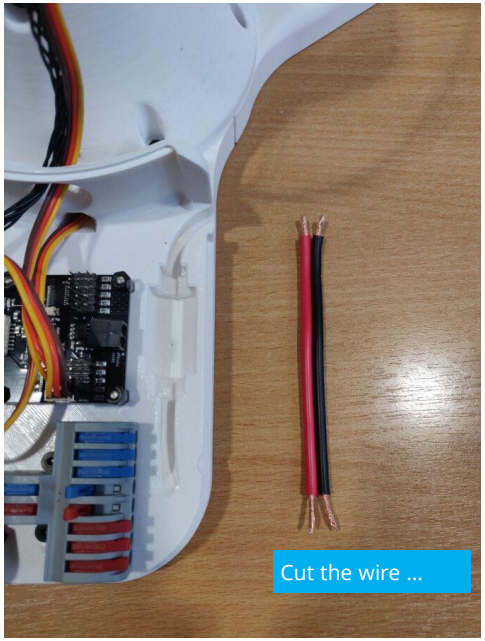


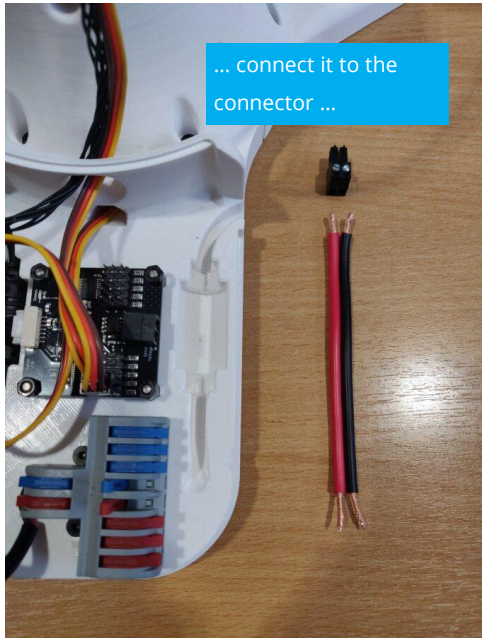


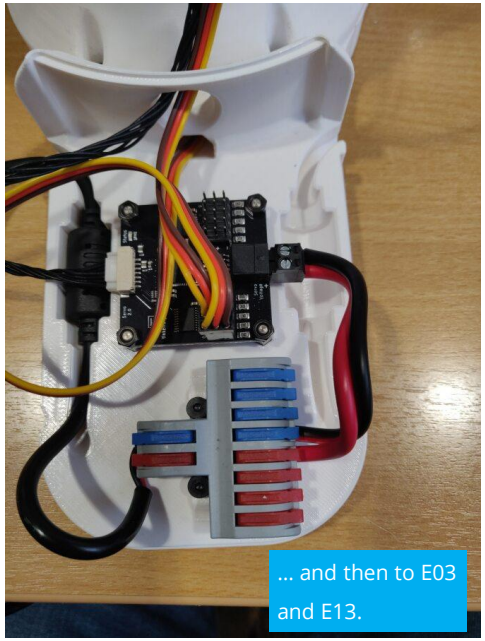
Step 8

Cut **11cm of black/red wire** and connect it to **black terminal connector** (part of the Tinkerforge Kit).

Then, use it to connect **E03 to E13**.

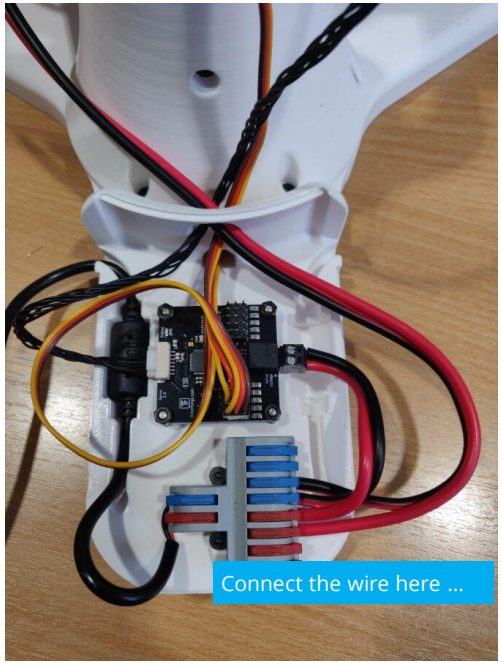


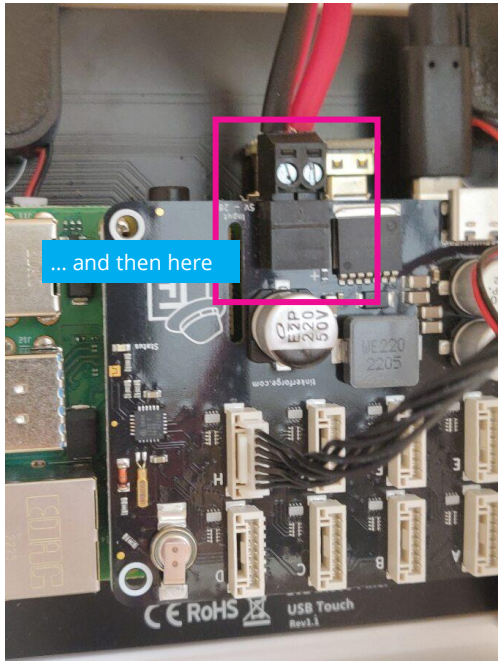




Step 9

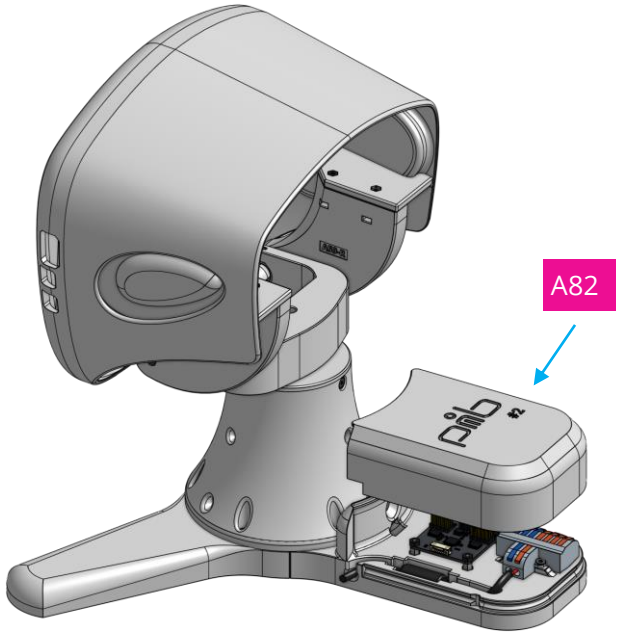
Cut **60cm of black/red wire** and connect it to black terminal connector (part of the Tinkerforge Kit) and use it to connect E03 to E02.





Step 10

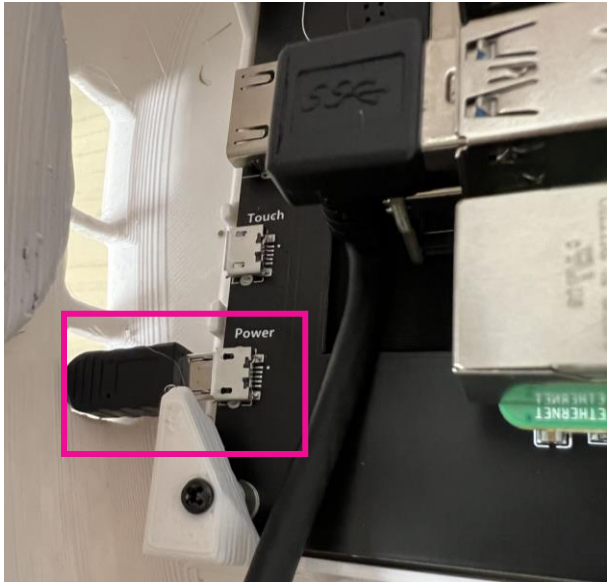
Adjust all cables carefully and enclose A81 with **A82**.



Step 11

Lastly, your pib.Brain needs some power.

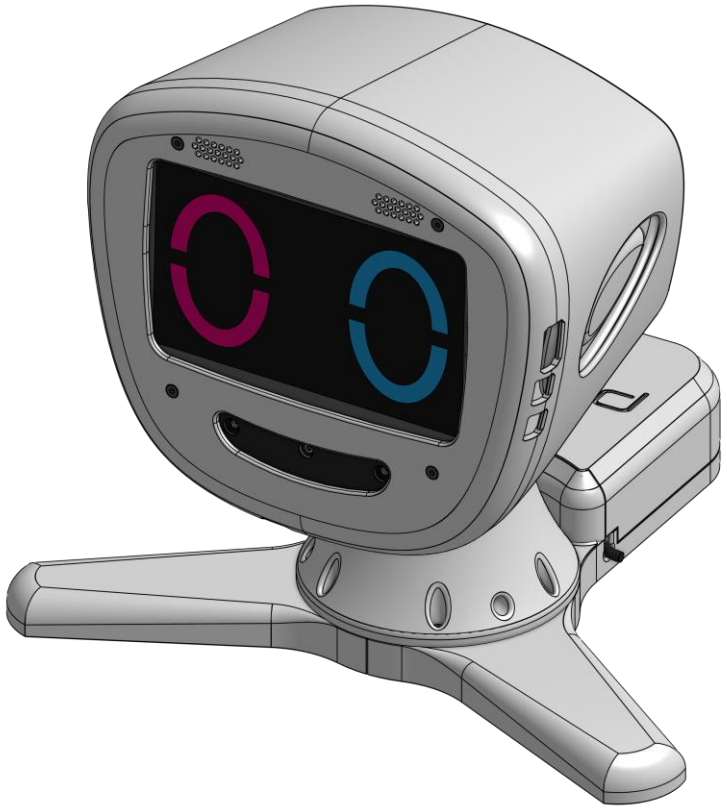
Therefore connect the power adapter to the shown spot of the screen (in the head).



Congratulations

You did a great job, pib.Brain is assembled!

Plug both power supplies to the power distributor and your pib.Brain is ready for all kind of fun stuff.



Do you need support?

Or do you need our pib.Box with all non-printable parts?

Or maybe you have some new ideas and improvements?

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