

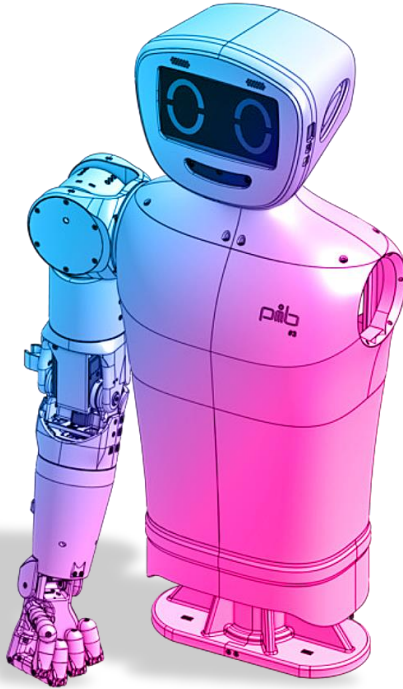


How to build your robot

www.pib.rocks/build

instructions for:
Assembly

pib#4 research



PRINT

BUILD

DEVELOP

YOUR OWN ROBOT

printable parts

You will need the following printable parts from our pib.Box Master/School.

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

[printable parts](#)

C18 - Forearm_distal_lock

Non-printable parts

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

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

Non-printable parts

4 x **S01** M3 nuts

4 x **S13** M3 40 mm screws

Servo extension cables

E23 – Cable_sheath

E20 power jack

Non-printable parts - Electronics

1 x **E13**-SPL-82

1 x **E14**-Power_Supply-cable

USB C extension 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)

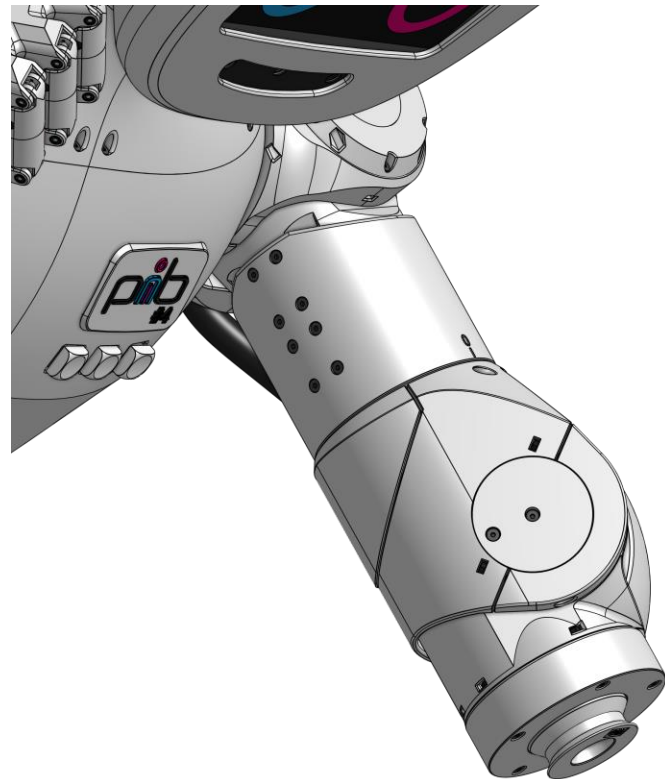
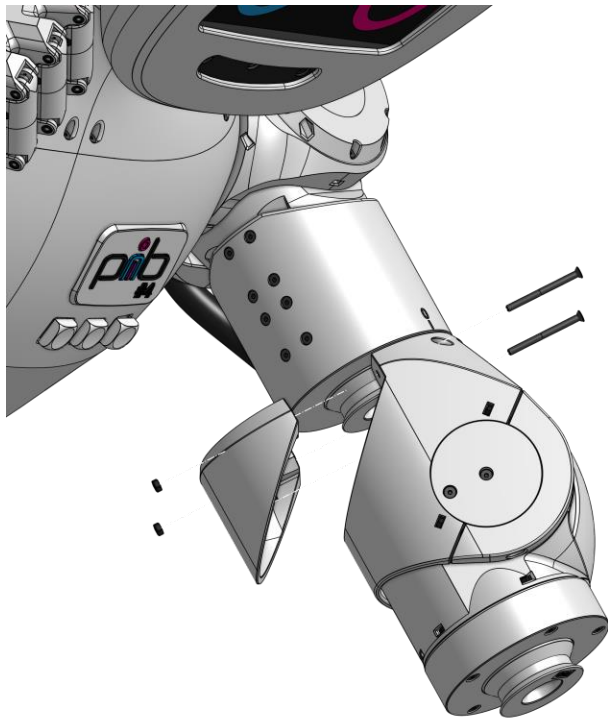


We also show you which **non-printable parts** you need for each step

Step 1a



Connect elbow to shoulder using **C39**, **2 x M3 nuts** and **2 x M3 40mm screws**



Step 1b



1

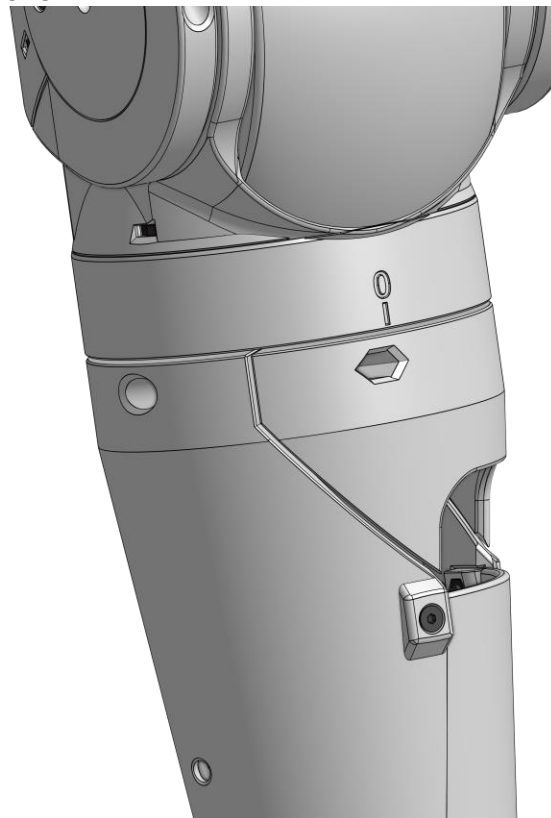
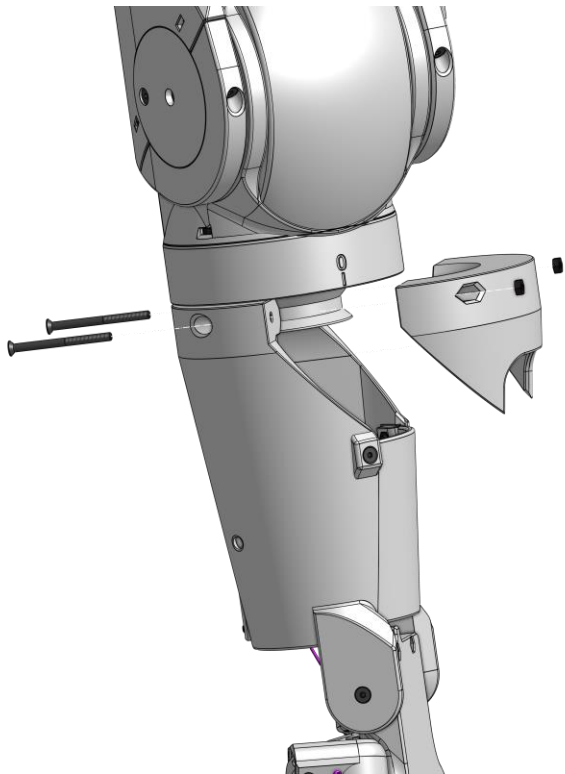


2x



2x

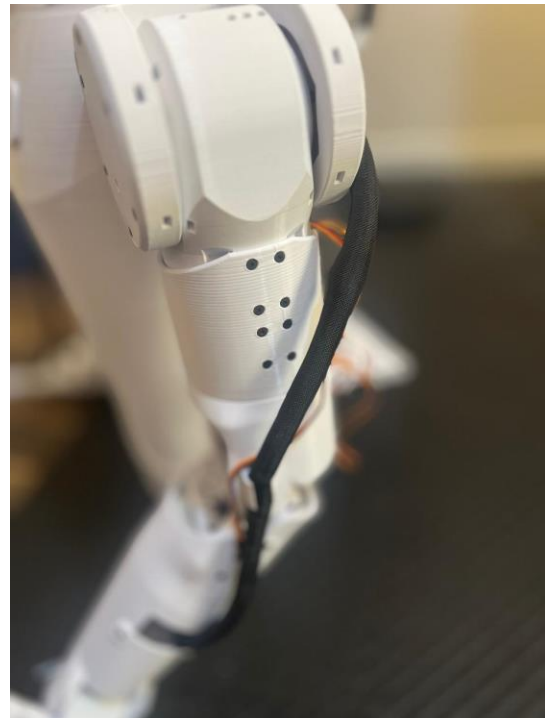
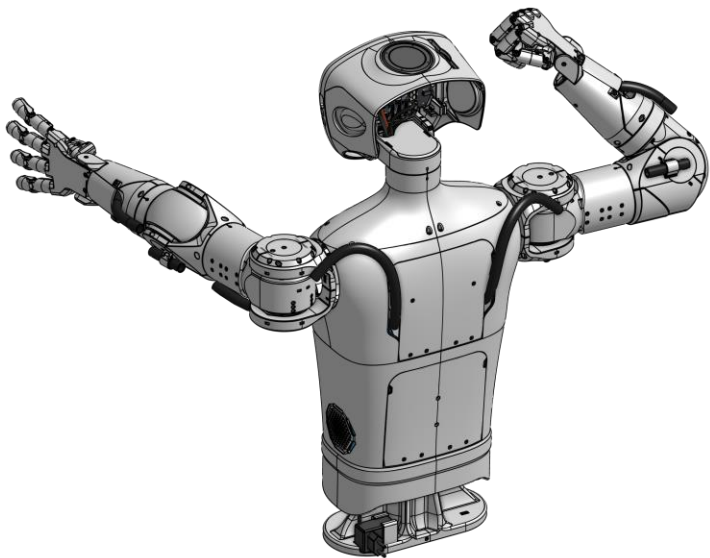
Connect forearm to elbow using **C18, 2 x M3 nuts** and **2 x M3 40mm screws**



Step 2



Guide all the wires through the black **E23-Cable_sheath** and place it in the **2 C74** in elbow and shoulder.



Step 3

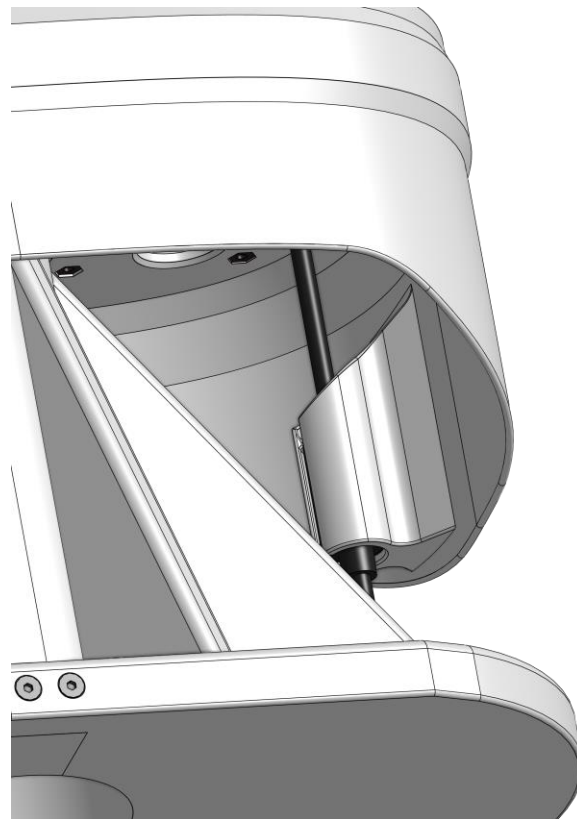


Connect output jack of **E14 power supply** into **E20 power jack**, strip both ends and insert **2 wires** on the other side of the jack (the wires should be ~ 10cm)



Step 4a

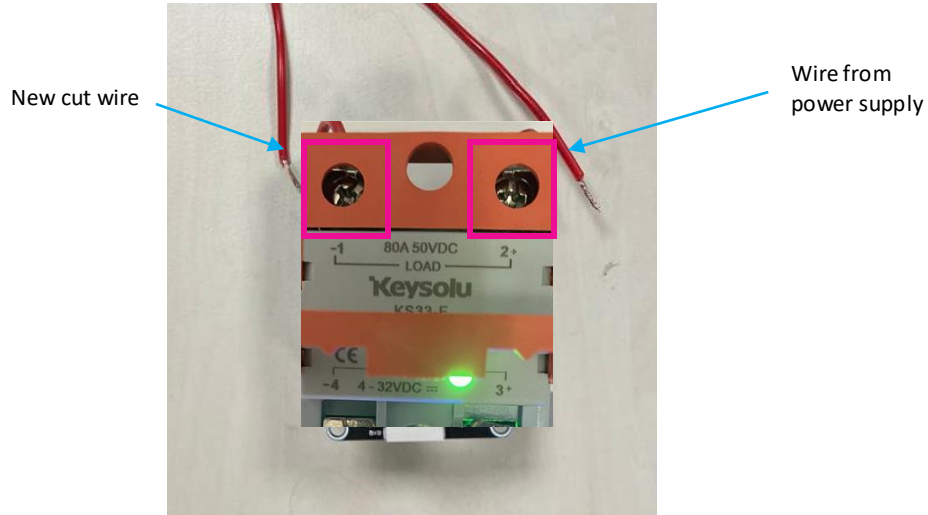
Place **E14's output wire** in the shown orientation and spot in **B43-L**.



Step 4b



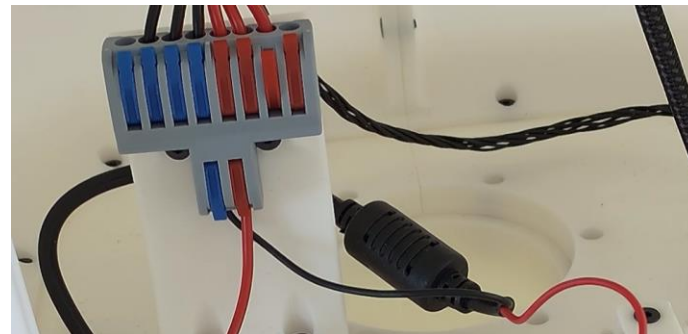
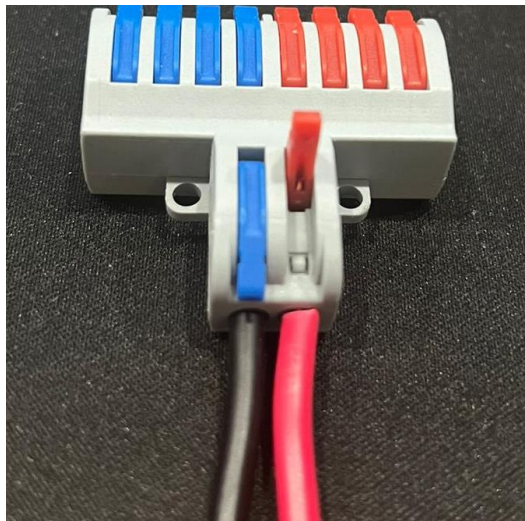
Connect the **red wire** coming out of the **power supply** to the + side of the **relay** and cut a small piece of the **red cables** you have and connect it to the other side. Unscrew terminals, insert **wires** and then screw them back.



Step 4c



Pull the red and blue switches in **E13**, insert the **red wire** coming out of the relay and the **black wire** coming out of the power supply.



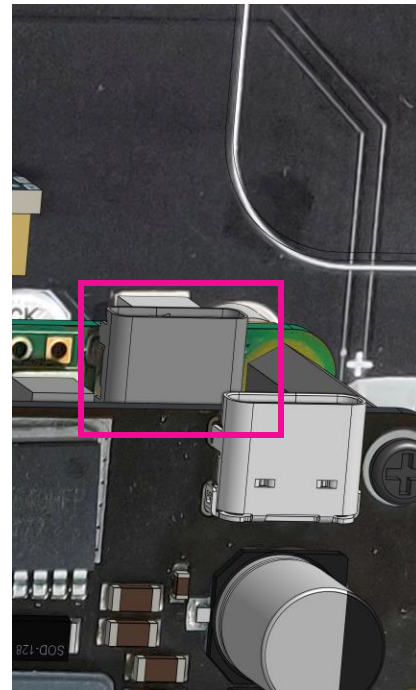
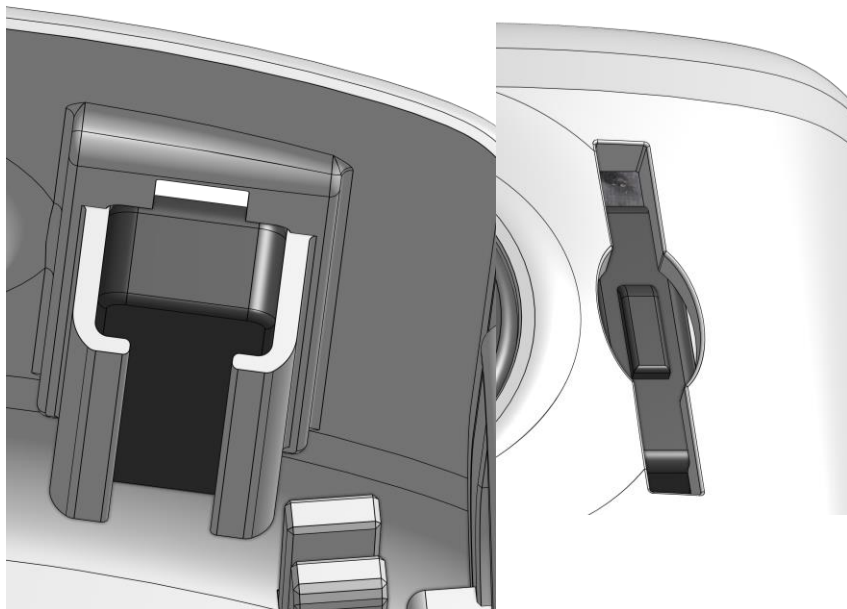
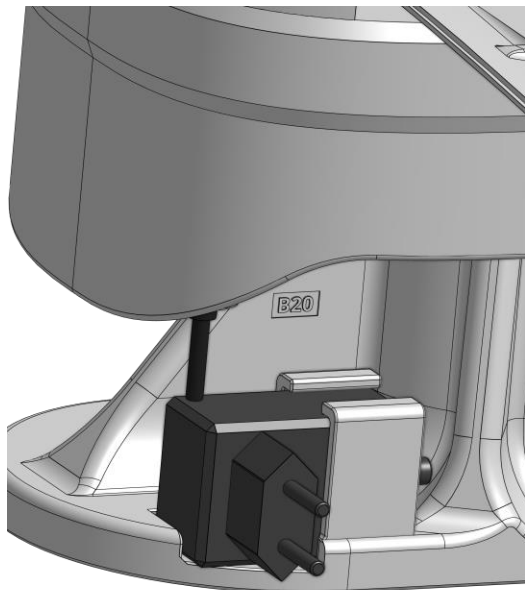
Make sure to place the wires in the correct switches:

- ✓ **Red** wire to **red** switch
- ✓ **Black** wire to **blue** switch

Step 4d

Pass **E16 RPi power supply** from **B20** through the holes in the upper body to the shown spot in **A01** and connect it to **Raspberry Pi**.

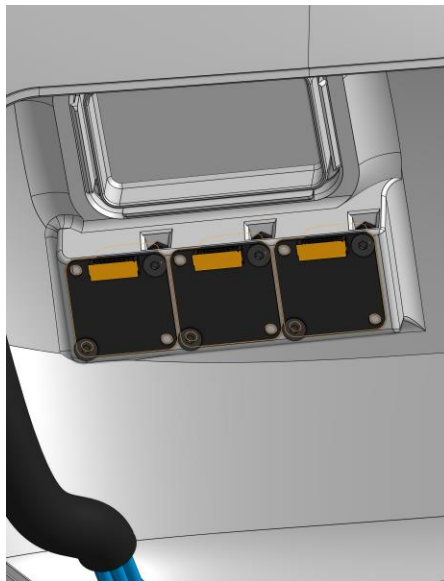
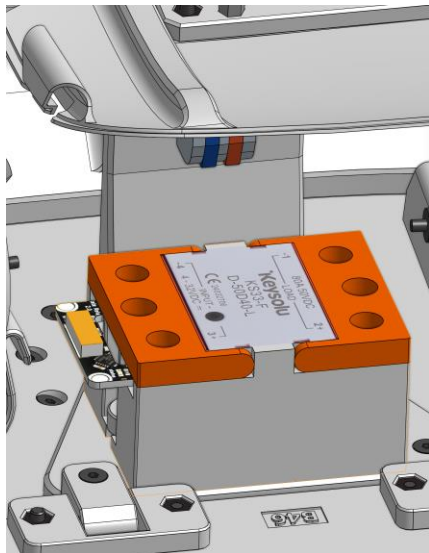
2



Step 4e



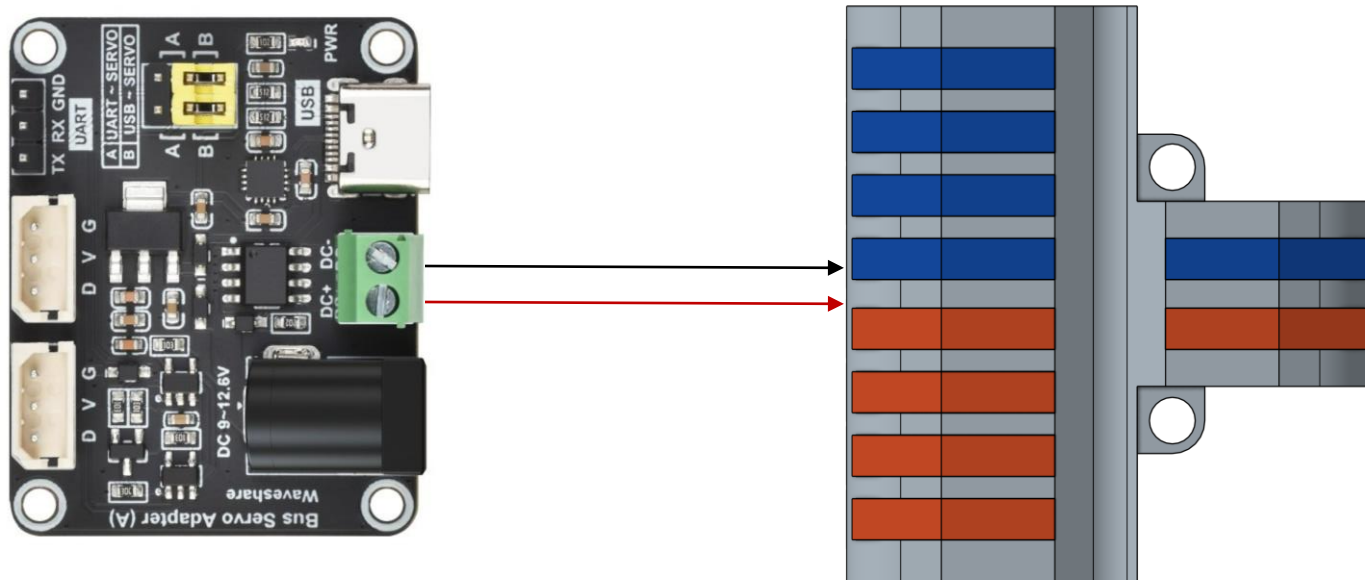
Connect all **E19 bricklet cables** coming out of electronics (RGB buttons and relay) to **E02 brick hat**. Correct ports are mentioned in next slide. Relay should use 1 meter bricklet cable and all others use 50cm bricklet cables



Step 5

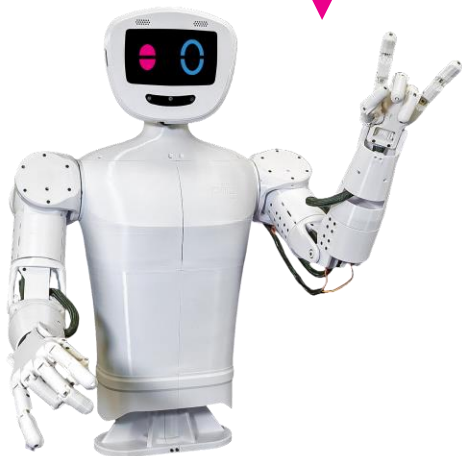


Cut 30 cm x 4 from each red and black wires and connect the bricklets to **E13**

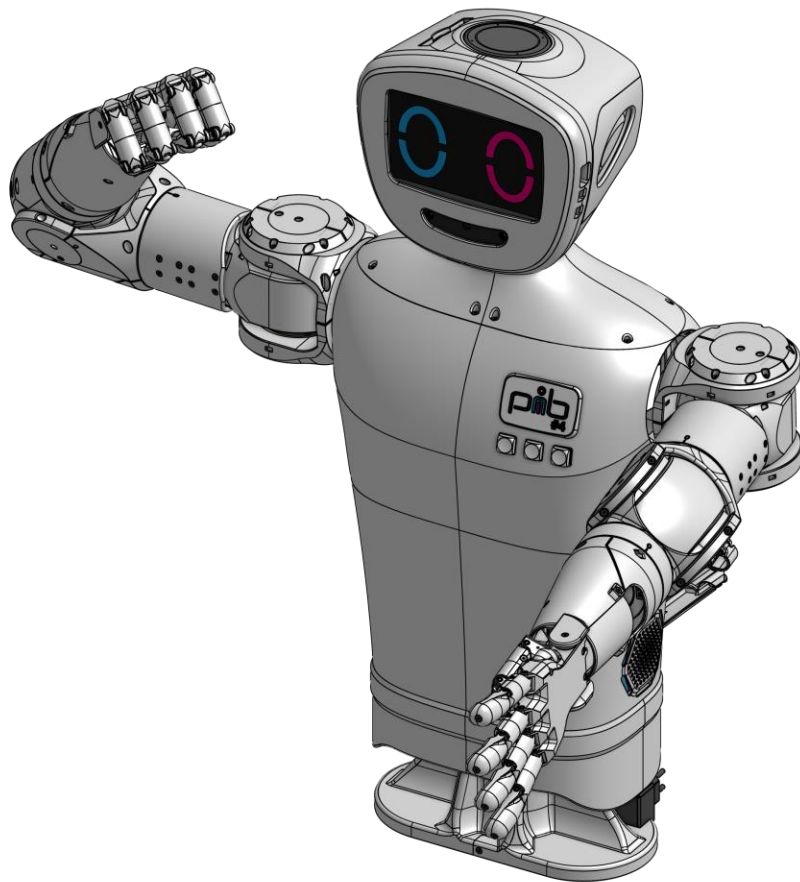


Congratulations

You did a great job, pib is assembled!



Well done!



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?

Please contact us.



team@pib.rocks

Send us an email.



discord.com/invite/GRdpyeDu7P

Join us on Discord.



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Order non-printable parts for pib.