



How to build your robot

www.pib.rocks/build

assembly instructions for:

Shoulder vertical

pib#4 research



PRINT

BUILD

DEVELOP

YOUR OWN ROBOT

Printable and pre-assembled parts

Pib's shoulder consists of **6 printable parts** and is assembled in **7 steps**.

In order to construct the shoulder vertical, you will need to print the parts as seen in the table.

Please note: For better readability we use the abbreviations in the tutorial: C08 instead of C08-Central_rotator_bracket.

Printable parts

C60s-Flange_Inner_Shoulder

C61s-Motor_Bracker_Inner_Shoulder

C62s-Ringflange_Inner_Shoulder

C63s-Motor_Axis_Inner_Shoulder

C64s-Motor_Axis_Cap_Inner_Shoulder

C76s-Motor_holder_inner_shoulder

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

15 x **S01** M3 nuts

30 x **S13** M3 40mm screws

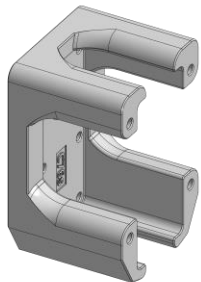
1 x **E18 STS32095** Servo

6 x **M2.5 10mm** screws

1 x **M04** Big sized ballbearings (60 x 78 x 10mm)

Printable parts - Overview

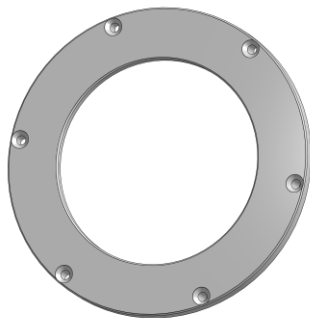
C76s-Flange_Inner_Shoulder



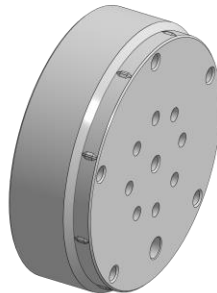
C61s-Motor_Bracker_Inner_Shoulder



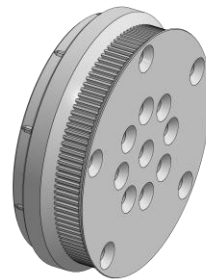
C62-Ringflange_Inner_Shoulder



C63s-Motor_Axis_Inner_Shoulder



C64s-Motor_Axis_Cap_Inner_Shoulder



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

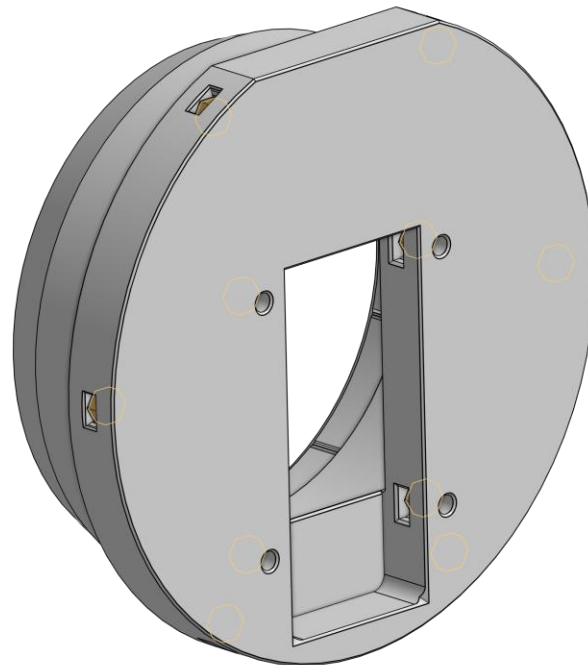
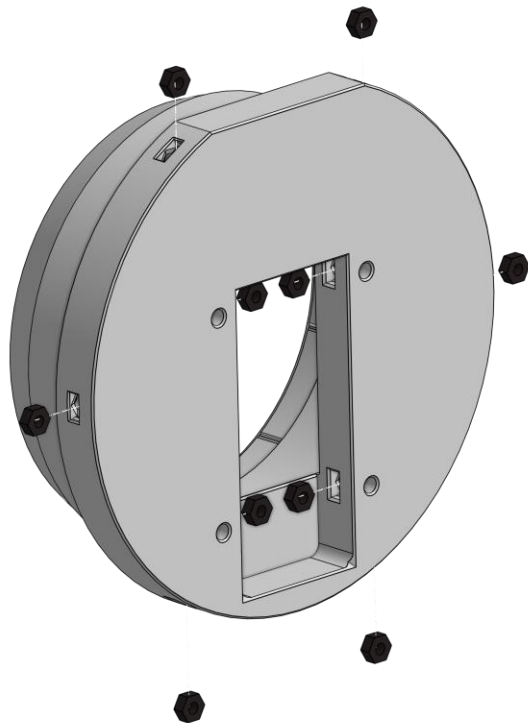
Insert 10 x **M3** nuts in **C61s**.



2



10x



Step 2

Insert **5 x M3 nuts** in **C63s**.



2



5x



Step 3

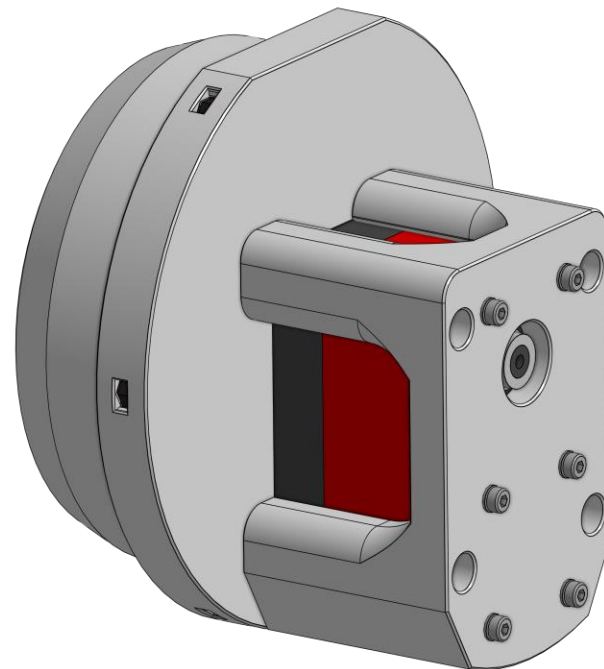
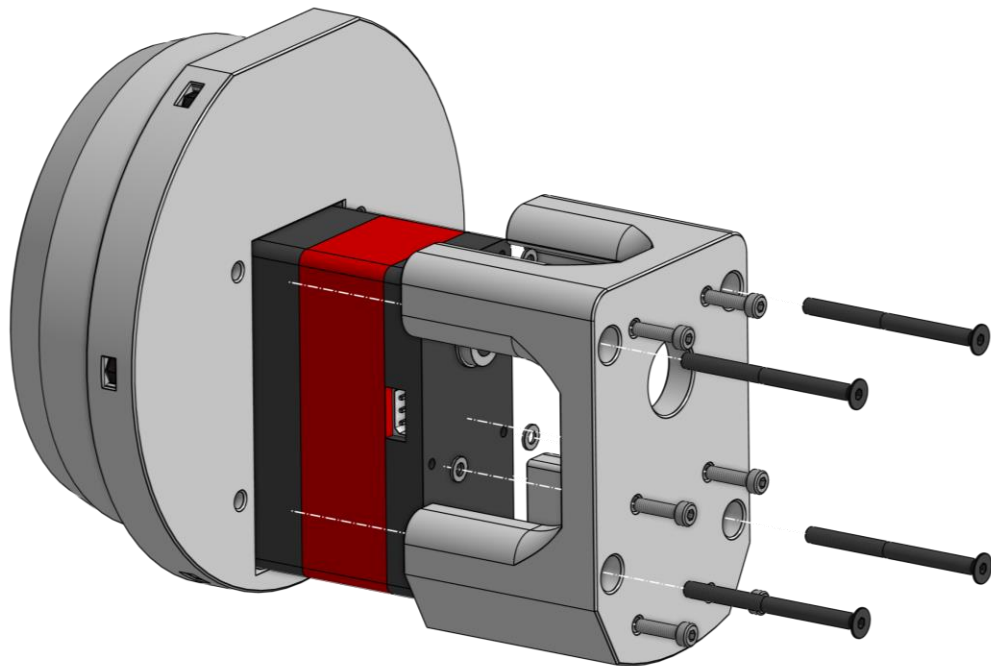
Attach **E18** to **C61s** using **C76s** and **4 x M3 40mm** screws and **6 M2.5 10mm** screws.



2



4x



Step 4

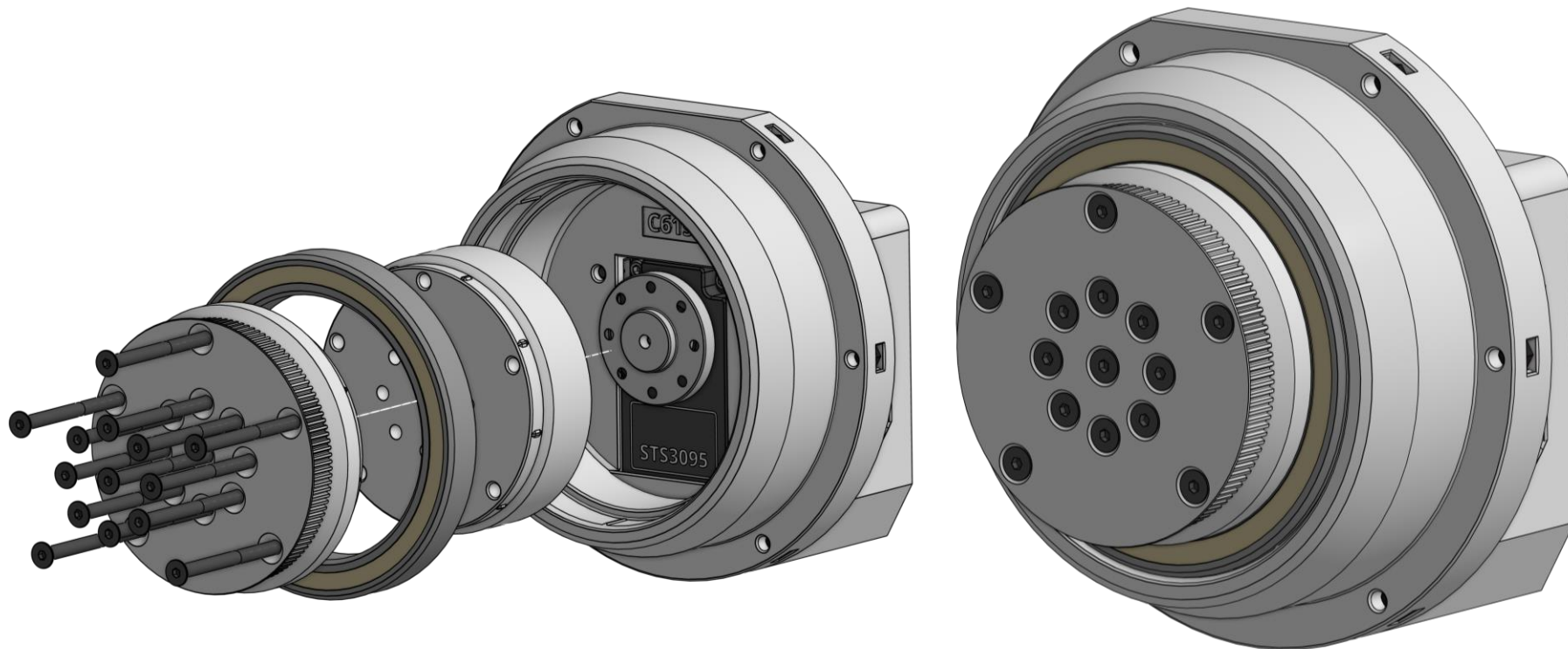


2



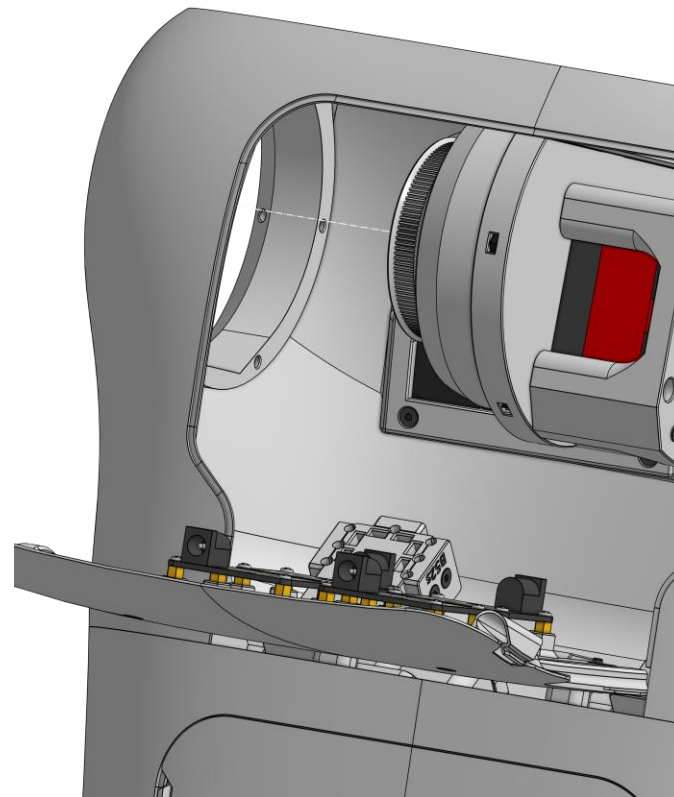
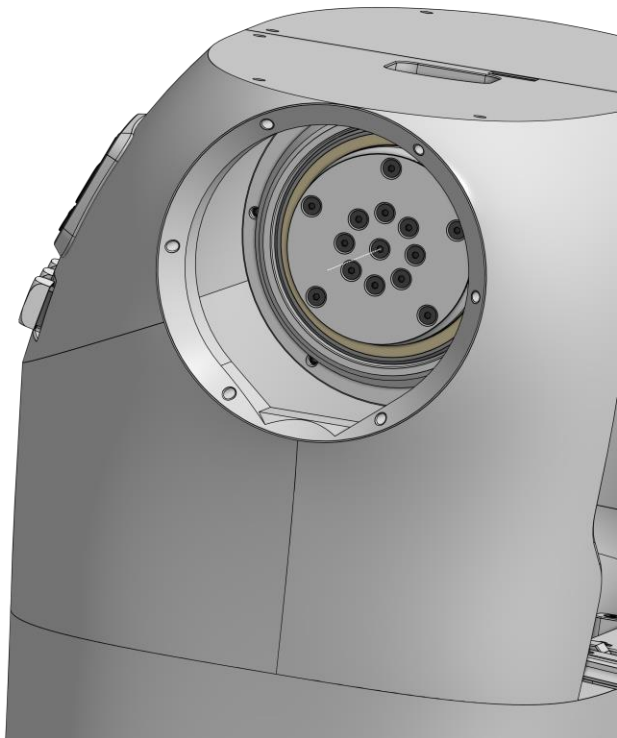
14x

Attach **C63s** and **C64s** to assembly using **14 x M3 40mm** screws and place **1 x M04** ballbearing in between.



Step 6

Place assembly into clavicles like shown in the pictures.



Step 7

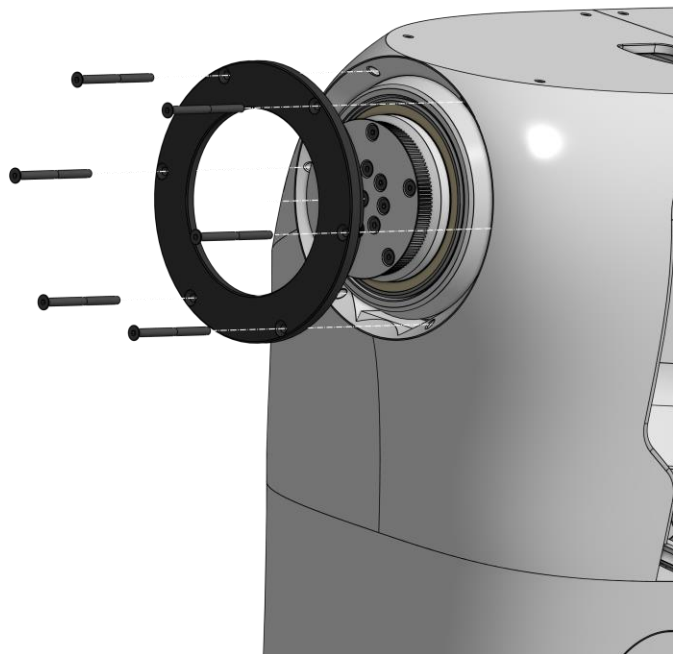
Fix the shoulder using **C62** and **C64** with **6 x M3 40mm** screws and **5 x M3 40mm** screws.



2

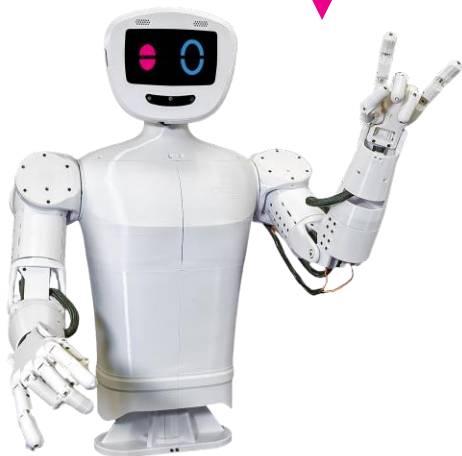


11x

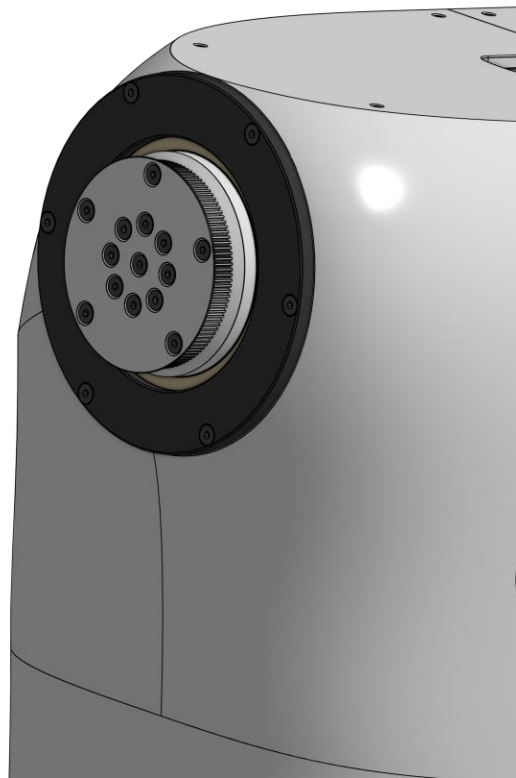


Congratulations

You did a great job, pib's shoulder 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.



shop.pib.rocks

Order non-printable parts for pib.