# pib

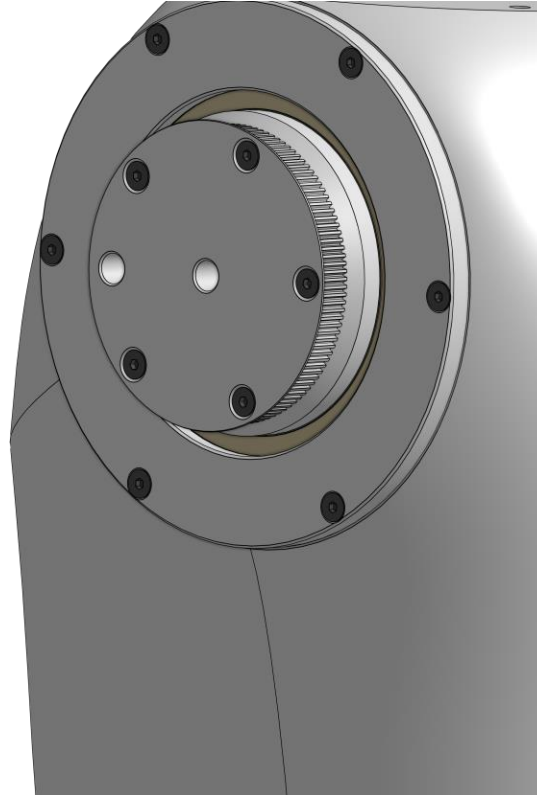## How to build your robot

www.pib.rocks/build

assembly instructions for:
## Shoulder vertical

pib#4

# Printable and pre-assembled parts

Pib´s shoulder consists of **5 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 |
| --- |
| **C60**-Flange_Inner_Shoulder |
| **C61**-Motor_Bracker_Inner_Shoulder |
| **C62**-Ringflange_Inner_Shoulder |
| **C63**-Motor_Axis_Inner_Shoulder |
| **C64**-Motor_Axis_Cap_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.

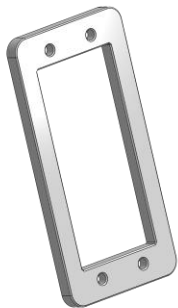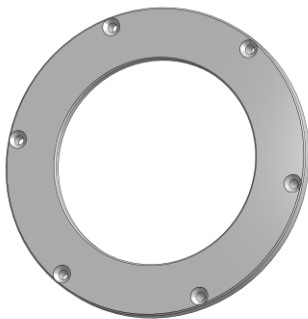| Non-printable parts |
| --- |
| 5 x **S01** M3 nuts |
| 13 x **S13** M3 40mm screws |
| 1 x **E15** DS5180SSG Servo |
| 1 x **M17** Motor_clamp-18T |
| 1 x **M04** Big sized ballbearings **(**60 x 78 x 10mm) |

# Printable parts - Overview
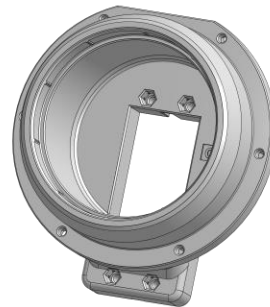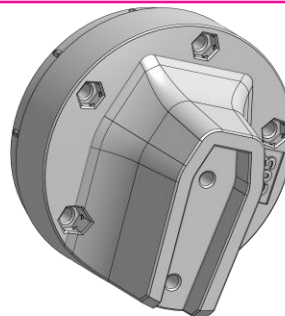
| **C60**-Flange_Inner_Shoulder |
|---|


| **C61**-Motor_Bracker_Inner_Shoulder |
|---|


| **C62**-Ringflange_Inner_Shoulder |
|---|


| **C63**-Motor_Axis_Inner_Shoulder |
|---|


| **C64**-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)

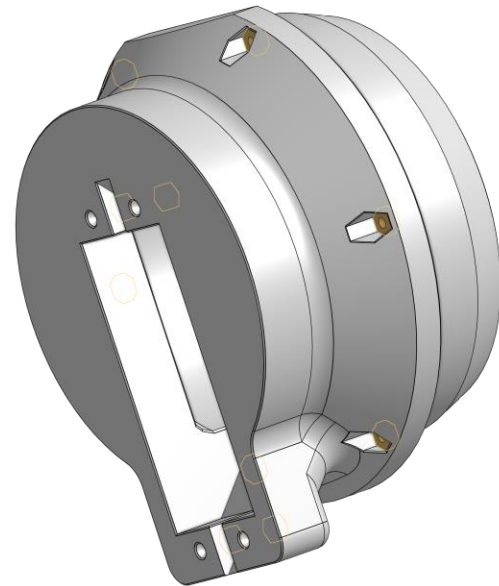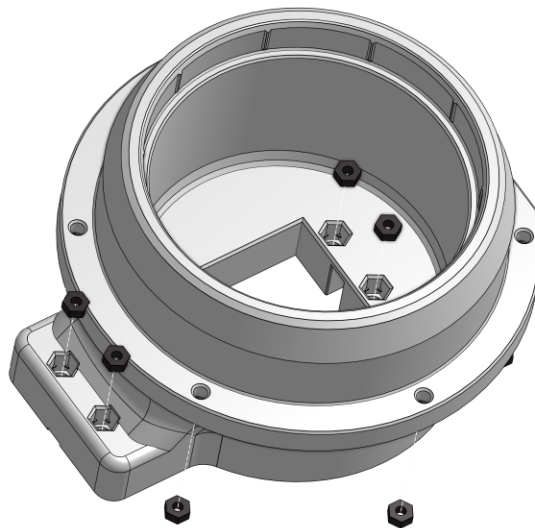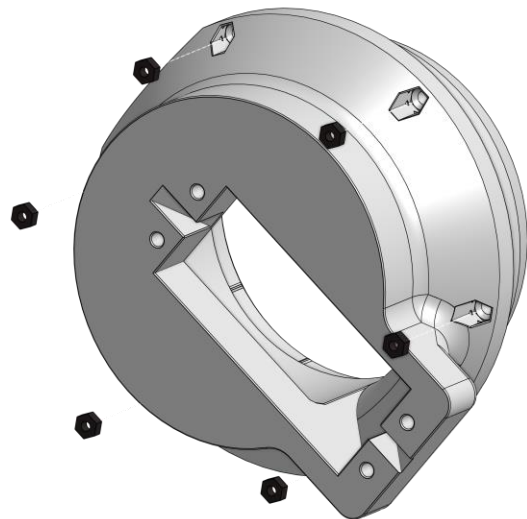We also show you which **non-printable parts** you need for each step
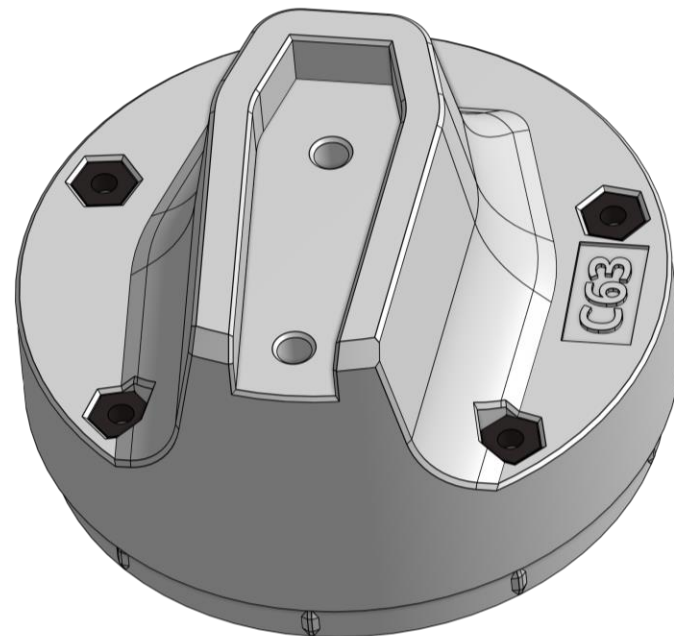
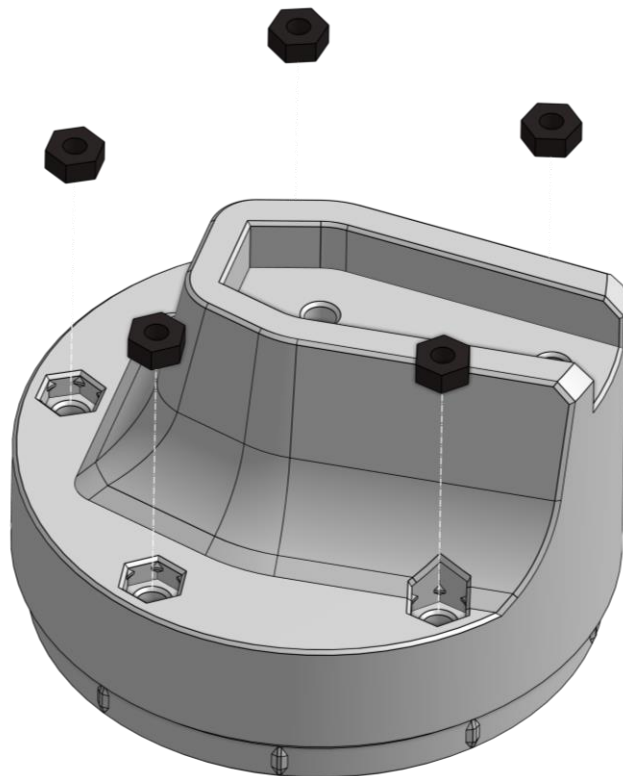## Step 1

Insert 12 x **M3** nuts in **C61.**

2    10x
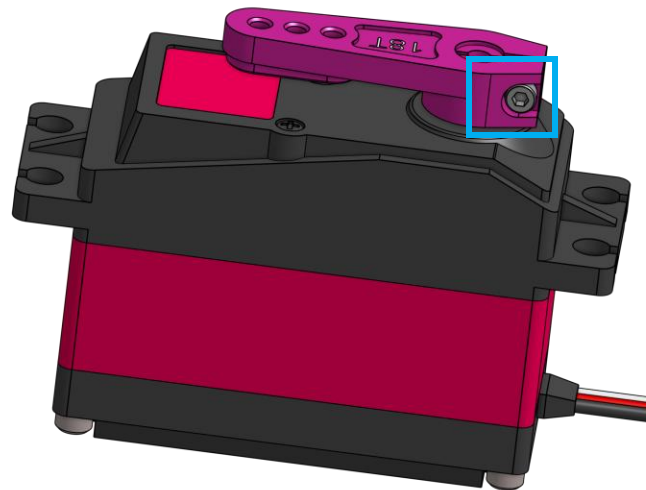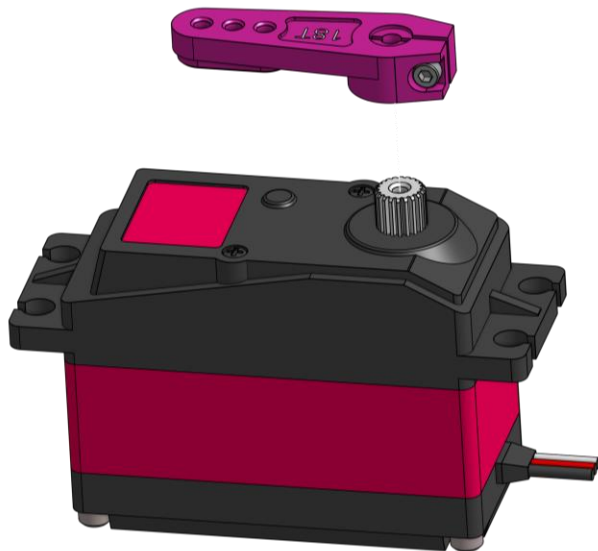
## Step 2

2  5x

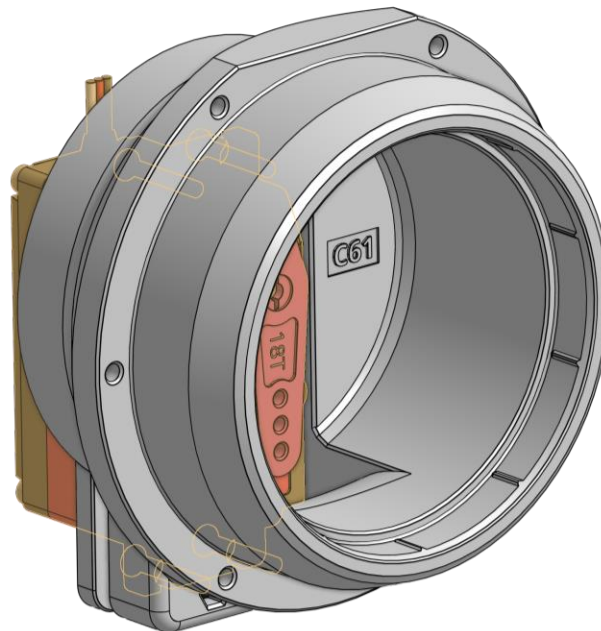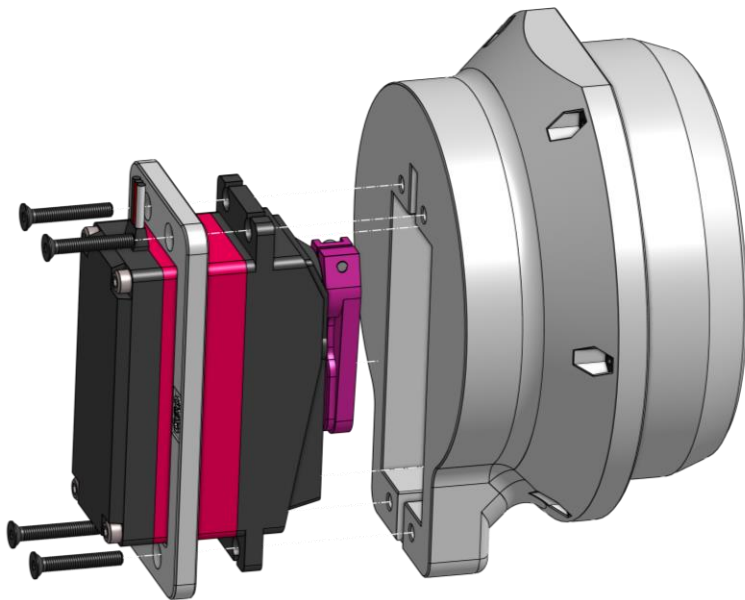Insert **5 x M3 nuts** in **C63.**

## Step 3

Attach **M17** to **E15** and tighten the connection using the shown screw.



*Please revert back to step 0 and calibrate the motor if it was not calibrated*

## Step 4

2   4x

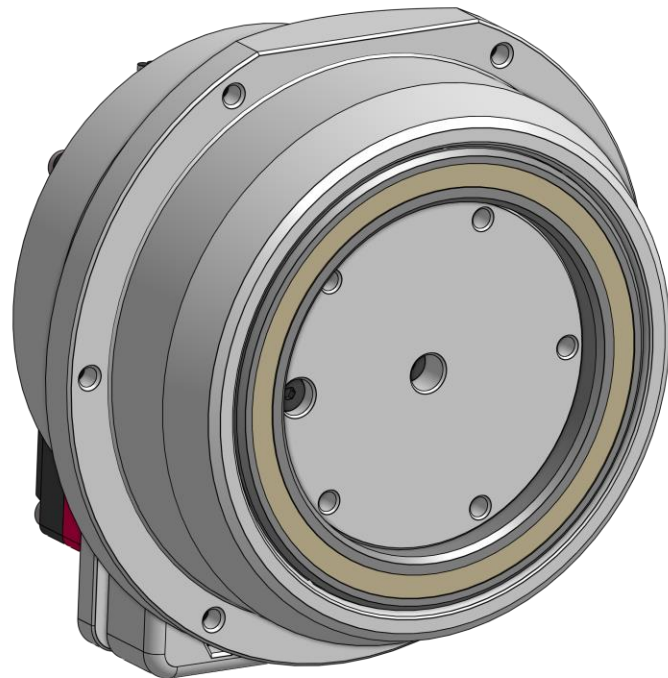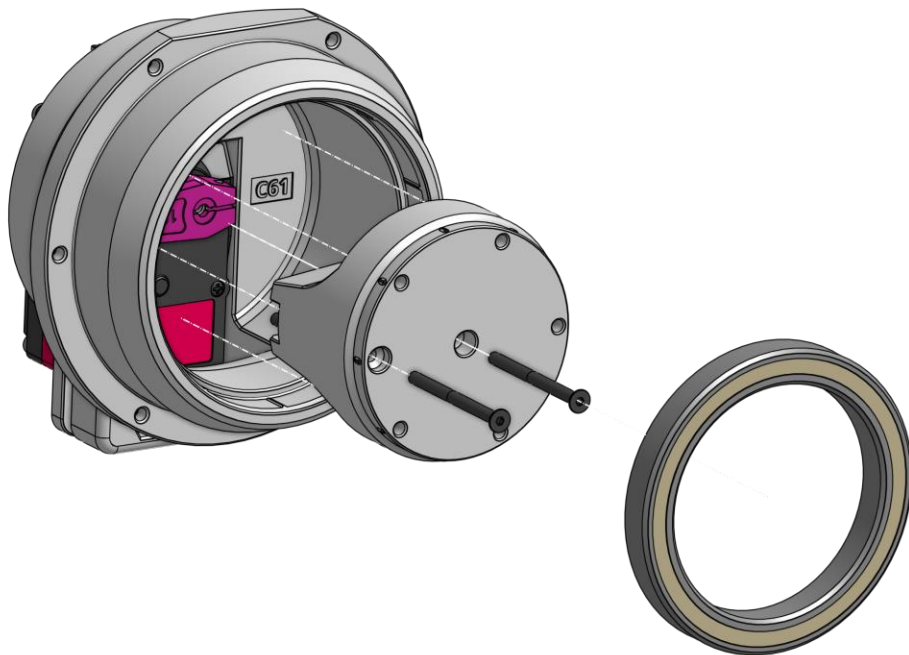Attach **E15** to **C61** using **C60** and **4 x M3 20mm** screws.

## Step 5

2    2x

Attach **C63** to assembly using **2 x M3 40mm** screw and place **1 x M04** ballbearing on top.
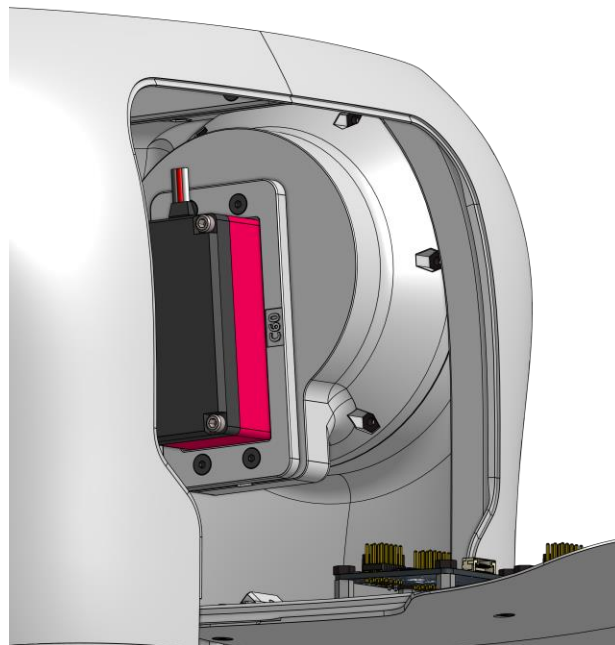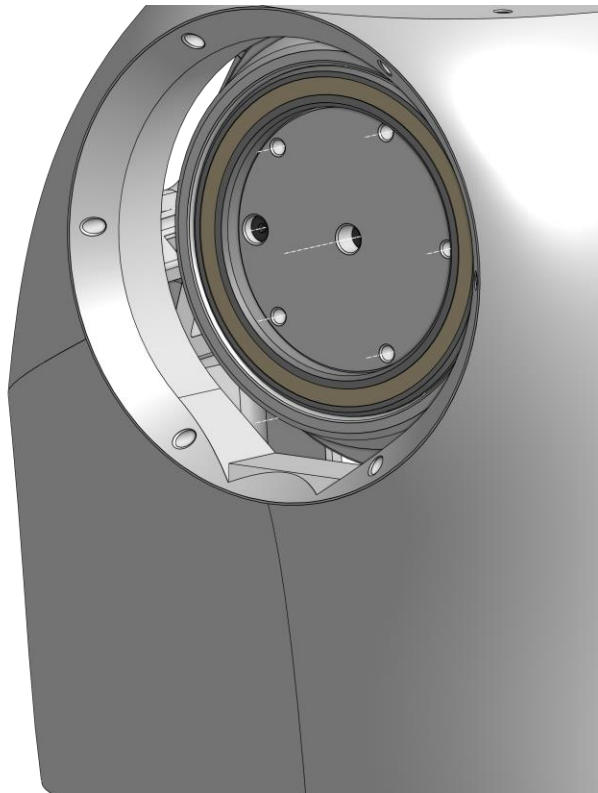
**Step 6**

Place assembly into clavicles like shown in the pictures.

## Step 7

2    11x

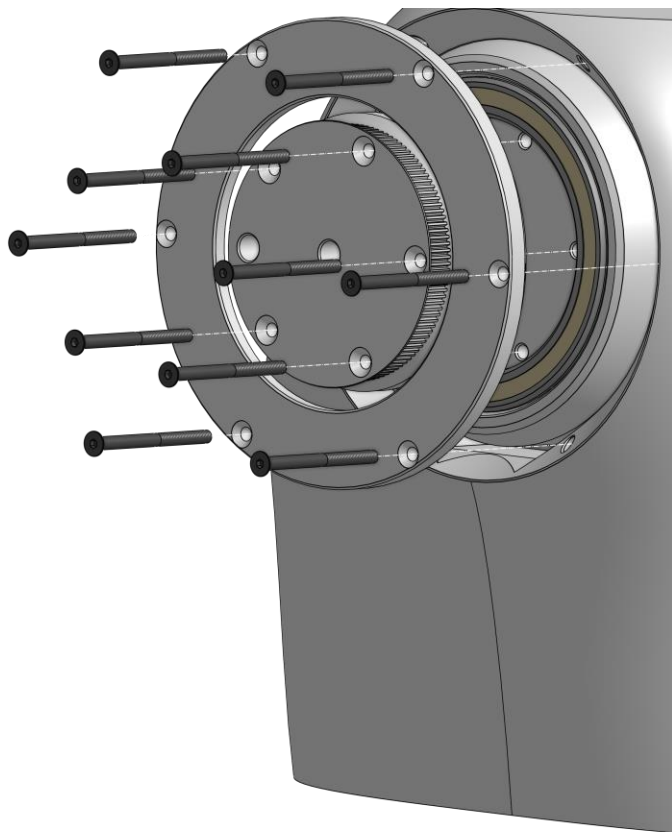Fix the shoulder using **C62** and **C64** with **6 x M3 40mm** screws and **5 x M3 40mm** screws.
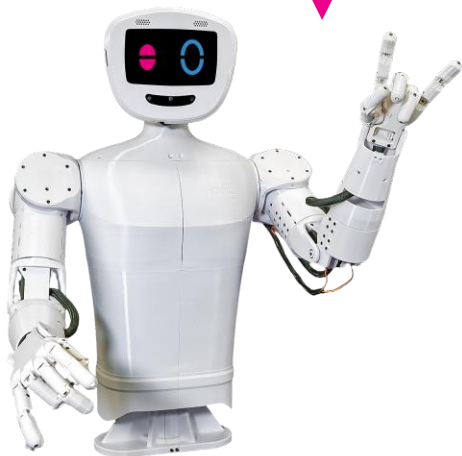
## Congratulations

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.