



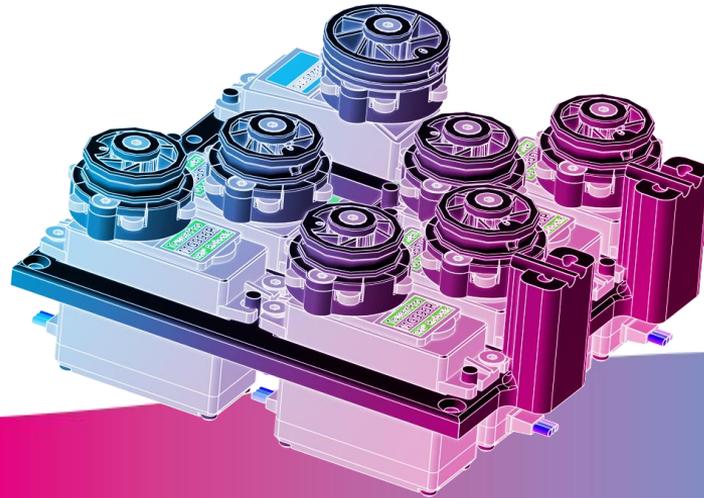
How to build your robot

www.pib.rocks/build



assembly instructions for:

INTERNAL BODY



You
Print
Build
Develop

your own robot!

Printable and pre-assembled parts



Pib's internal body consists of **29 different printable parts** and is assembled in **6 steps**.

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

Please note: For better readability we use the abbreviations in the tutorial: B13 instead of B13-Servo_scaffold.

Printable parts

B13-Servo_scaffold

4 x **B25**-Wire_connector

3 x **B26**-Wire_connector_pawl_clockwise

7 x **B27**-Wire_connector_mount

3 x **B28**-Wire_connector_anitclockwise

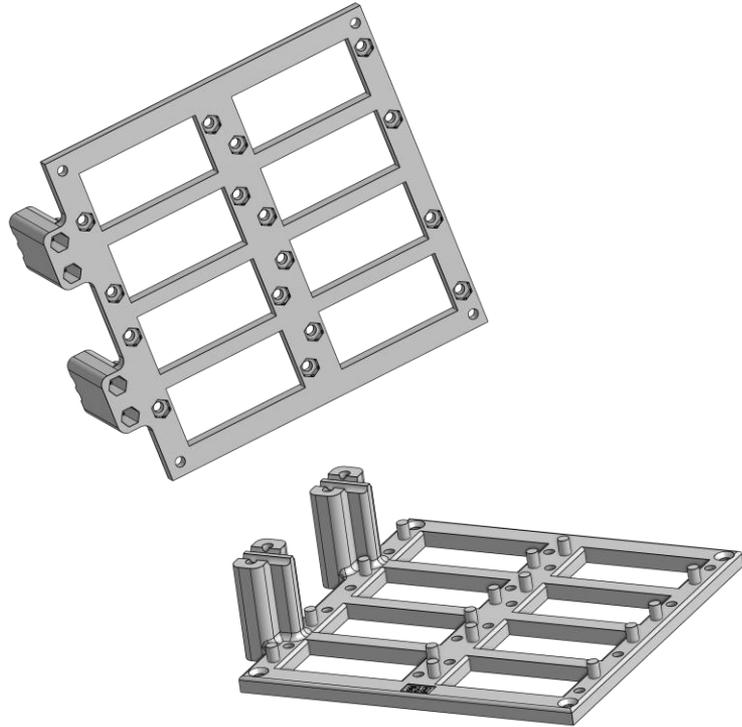
3 x **B29**-Wire_connector_pawl_anticlockwise

B31-Wire_connector_pawl_clockwise_Elbow

7 x **B35**-Wire_connector_base

Printable parts - Overview

B13-Servo_scaffold

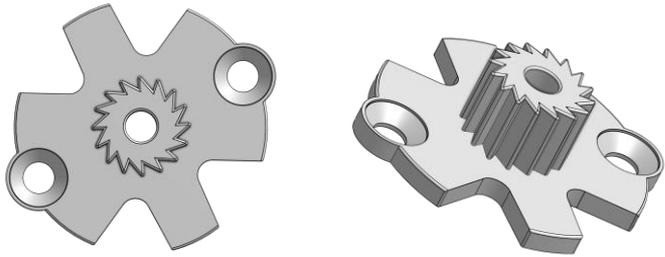


B27-Wire_connector_mount



Printable parts - Overview

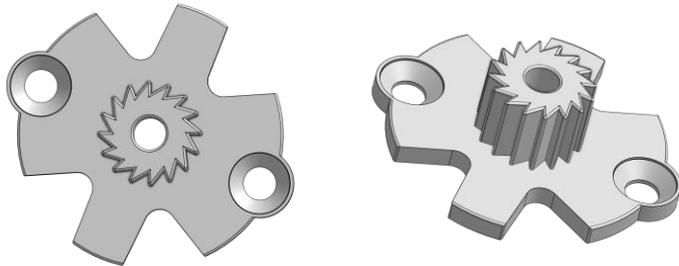
B25-Wire_connector



B26-Wire_connector_pawl_clockwise



B28-Wire_connector_anticlockwise

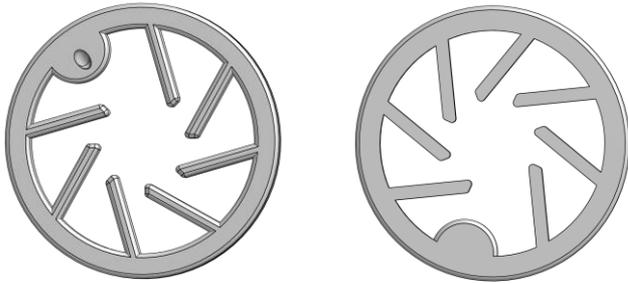


B29-Wire_connector_pawl_anticlockwise

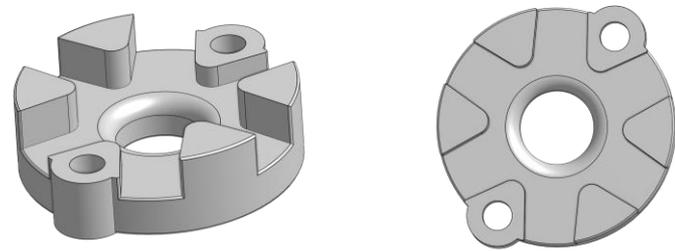


Printable parts - Overview

B31-Wire_connector_pawl_clockwise_Elbow



B35-Wire_connector_base



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

32 x **S01** M3 nuts

4 x **S13**-M3 x 40 mm screws

14 x **S04**-M3 x 10 mm screws

12 x **S03**-M3 x 8 mm screws

7 x **S08**-M3 x 20 mm screws

7 x **M15**-Nylon_motor_connector

1 x **E09**-DS3225

6 x **E07**-MG996R

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

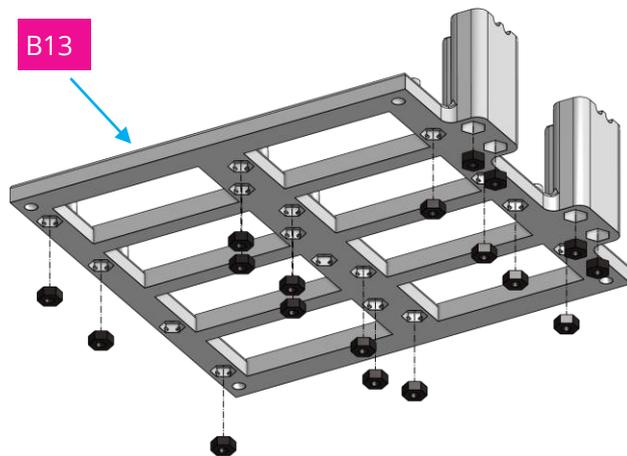
Place **18 x nuts** in the shown spots in **B13**.



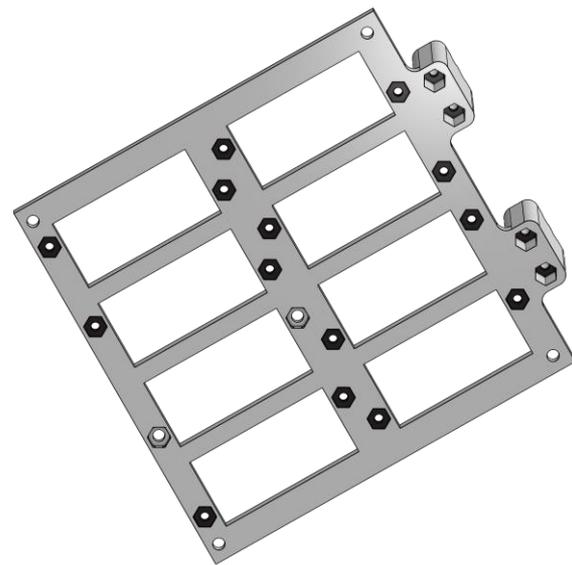
2



18x

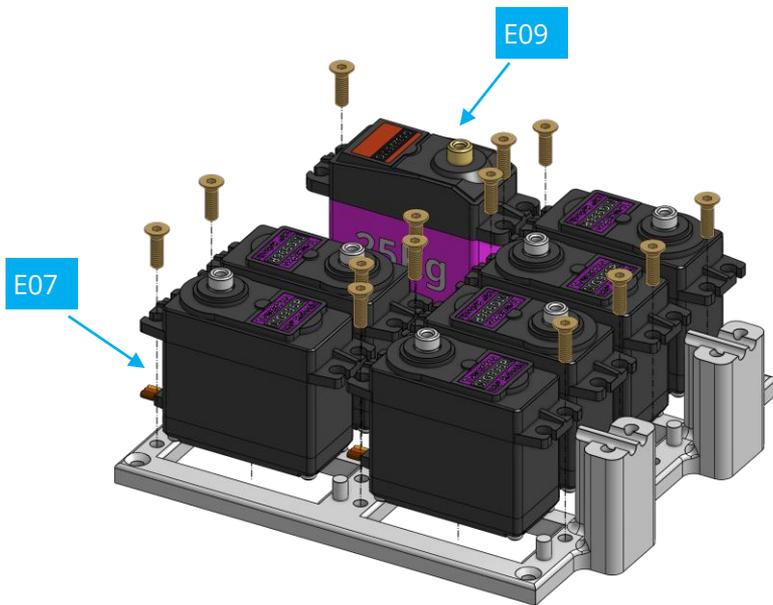


Our tip: use a hammer to gently put the nuts into the holes.



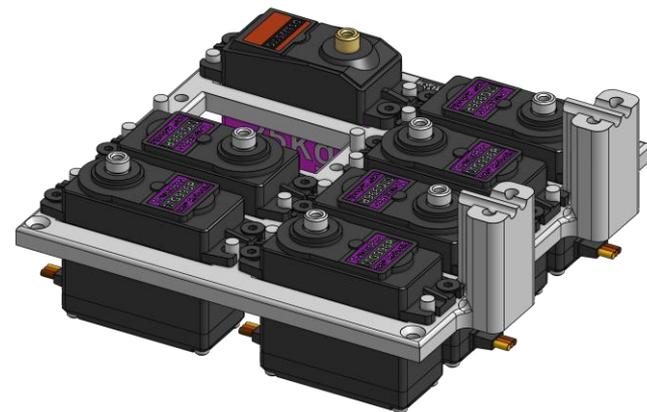
Step 2

Insert **6 x E07** and **1 x E09** in B13 and use **14 x 10mm screws** to fix them.



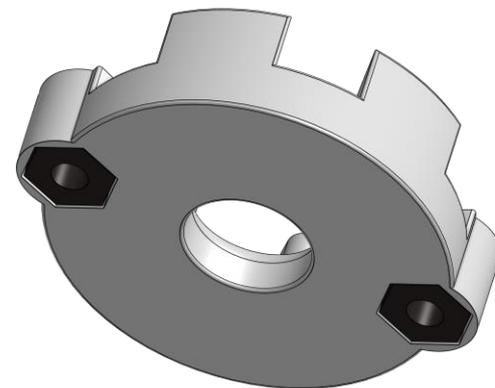
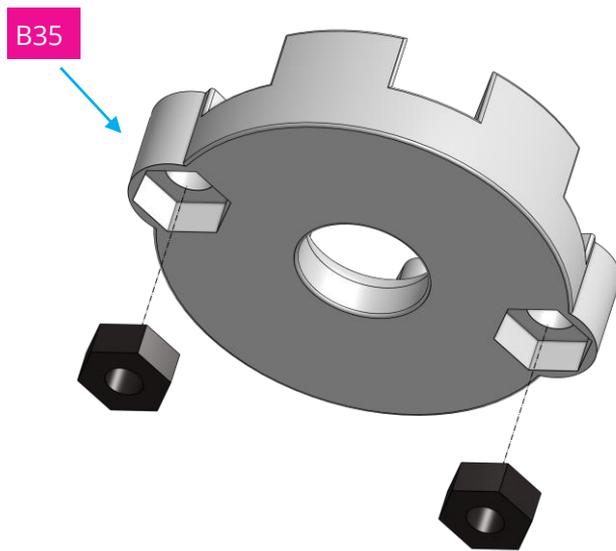
Pull the cable first, then tilt the motor a little bit to put in into the shown spot. You may apply some gently force.

Make sure to follow the orientation of the motors shown in the picture.



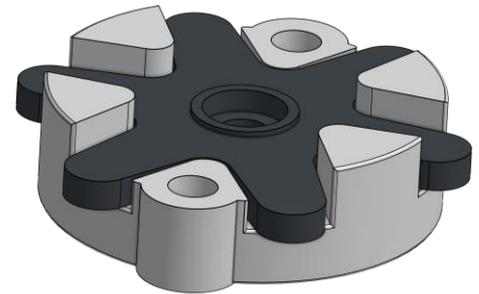
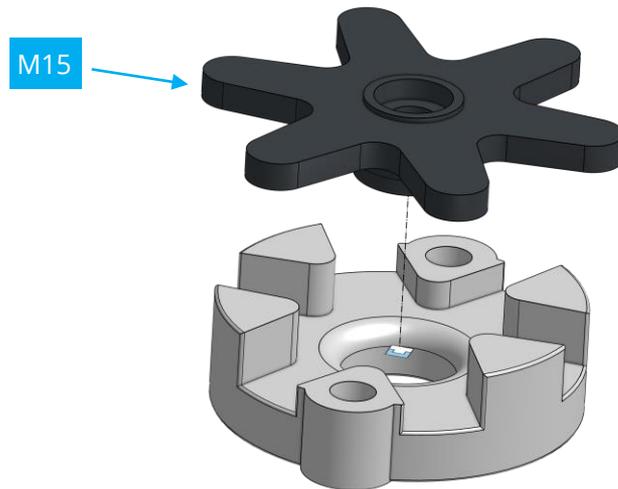
Step 3a

Place **2 x nuts** in **B35**.



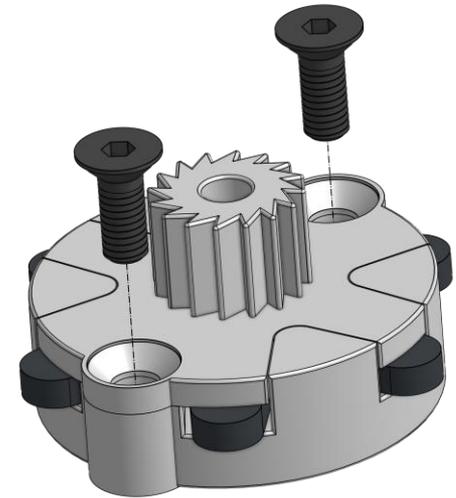
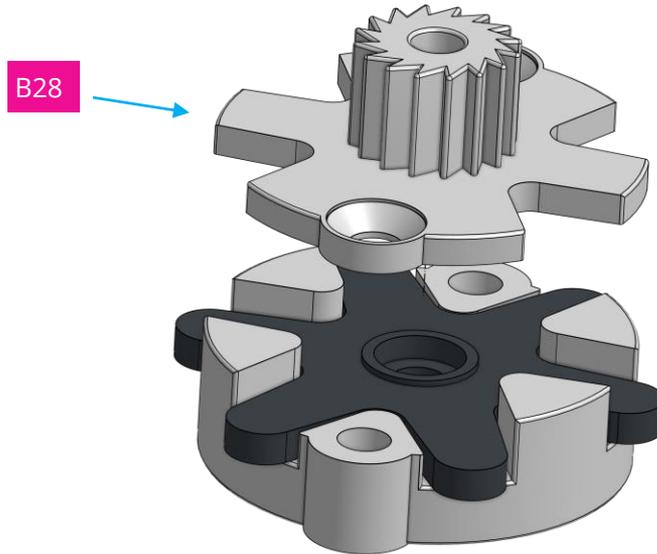
Step 3b

Insert **1x M15** on top of **B35**.



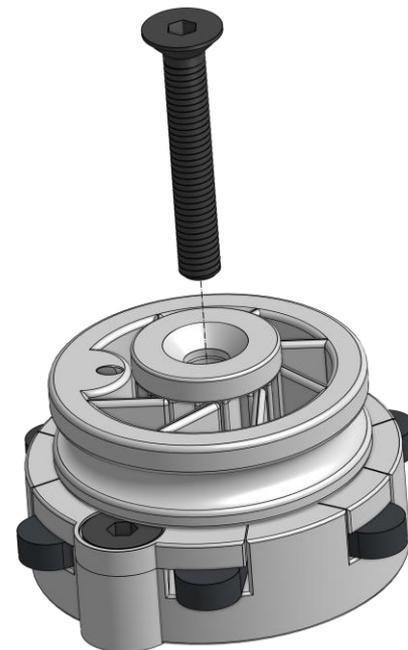
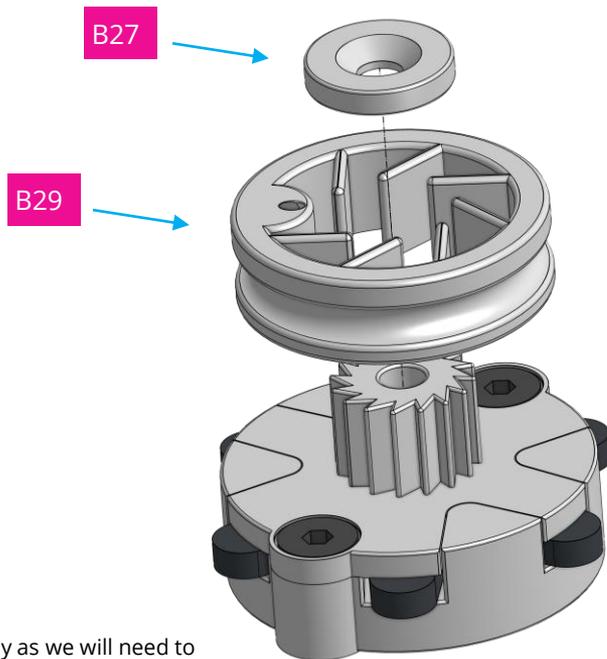
Step 3c

Put **B28** on top and fix it using **2 x 8 mm screws**.



Step 3d

Attach **B29** and **B27** to the previous assembly and use **1 x 20mm screw** to fix it.

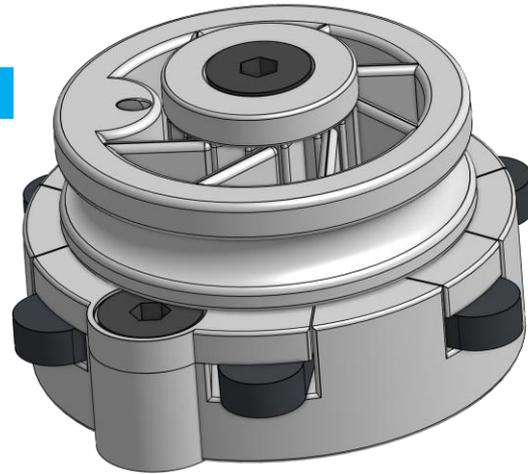


Tighten the screw only slightly as we will need to unscrew it later for the assembly onto the servo.

Step 3 - note

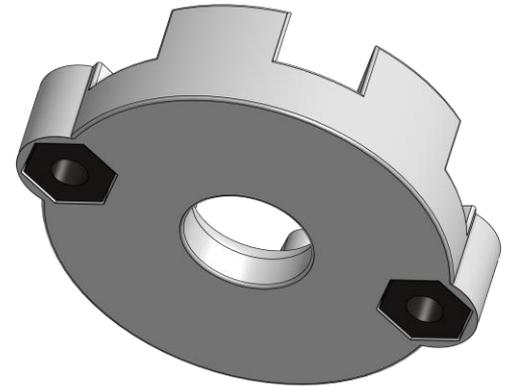
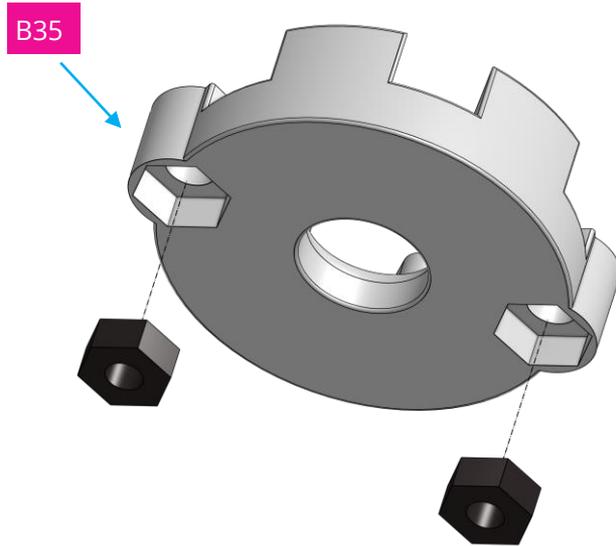
Repeat Step **3a - d** twice so you will have three assemblies.

3 x assembly Step 3



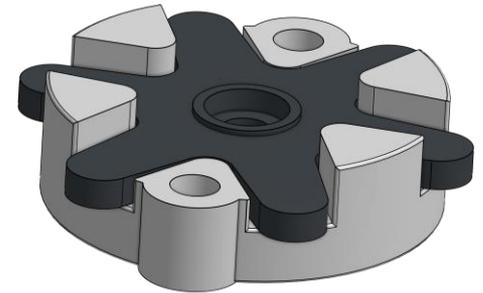
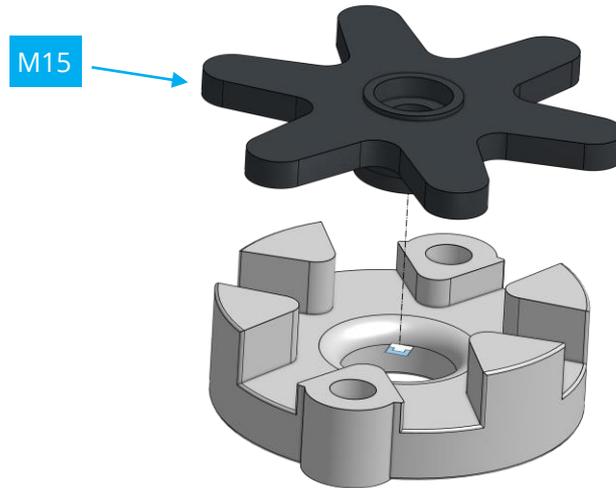
Step 4a

Place **2 x nuts** in **B35**.



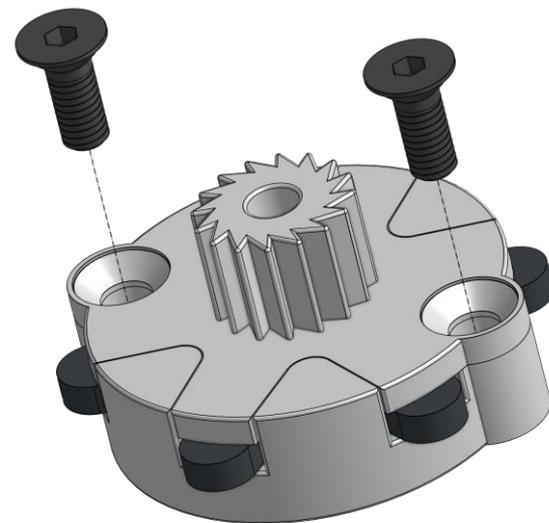
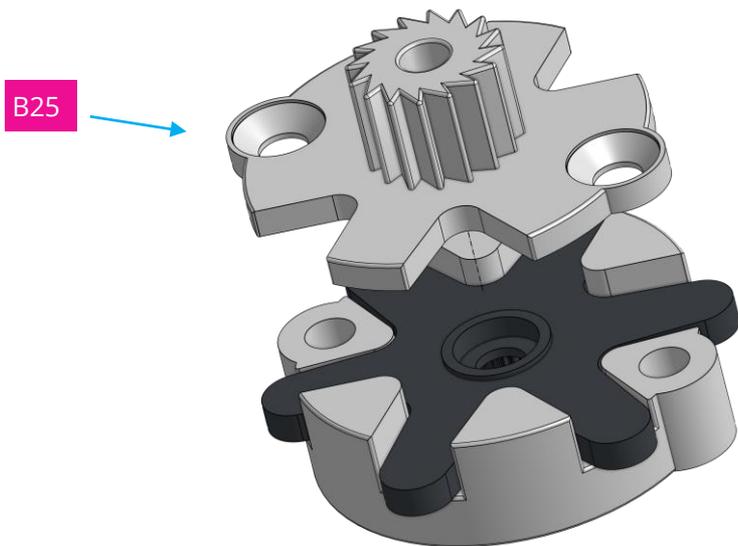
Step 4b

Insert **1x M15** on top of **B35**.



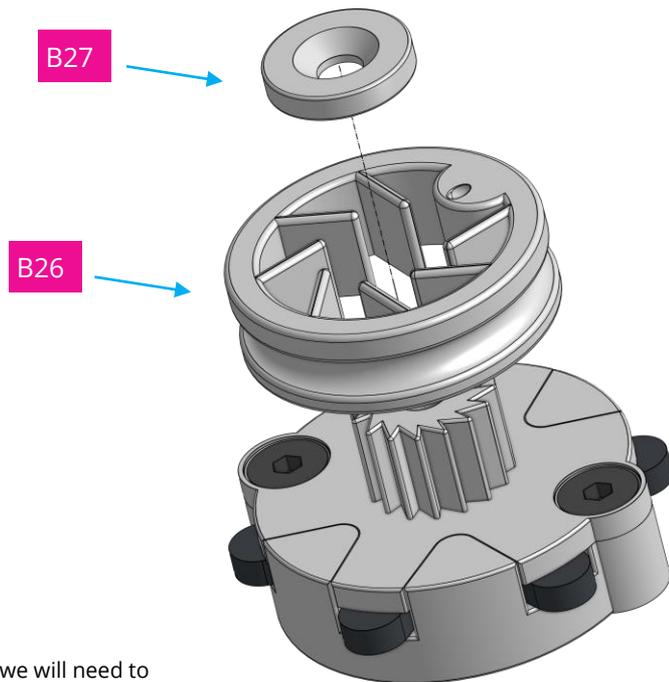
Step 4c

Put **B25** on top and fix it using **2 x 8 mm screws**.

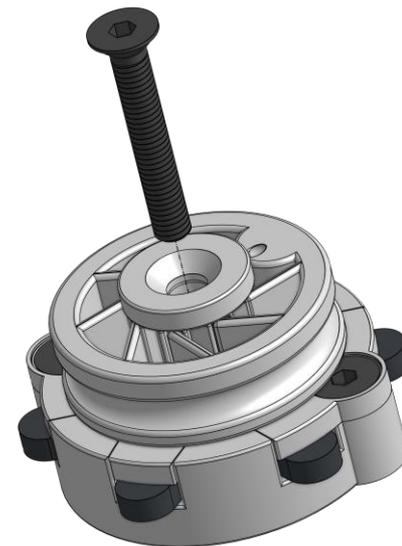


Step 4d

Attach **B26** and **B27** to the previous assembly and use **1 x 20mm screw** to fix it.



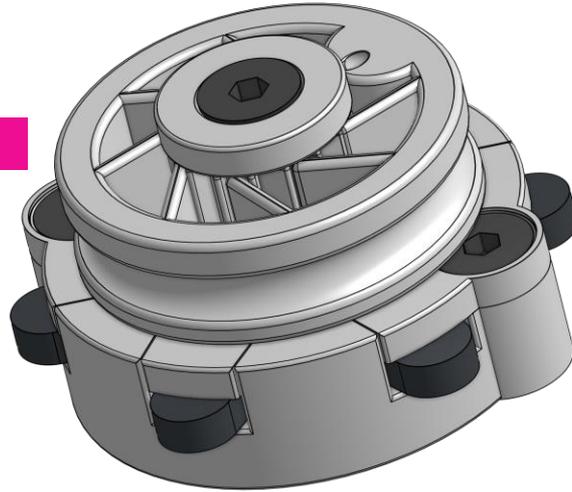
Tighten the screw only slightly as we will need to unscrew it later for the assembly onto the servo.



Step 4 - note

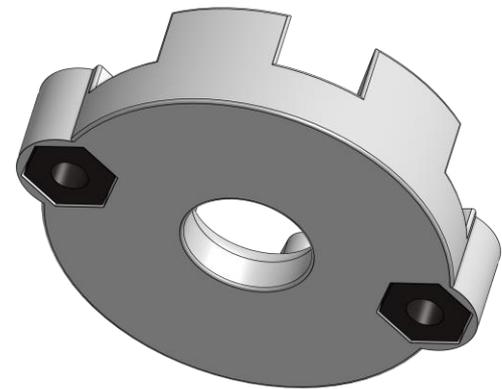
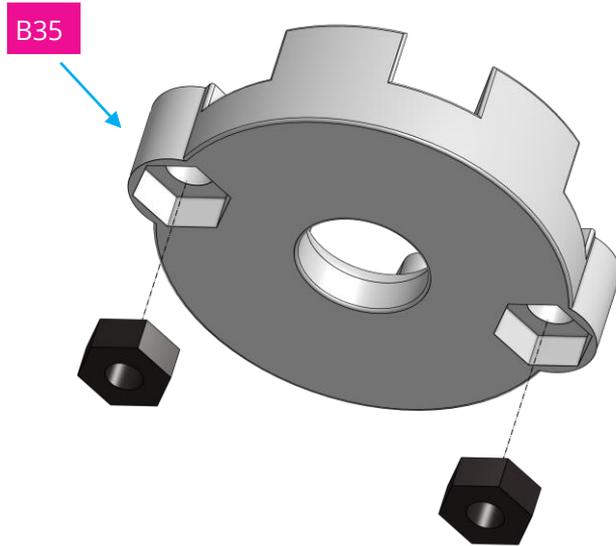
Repeat Step **4a - d** twice so you will have three assemblies.

3 x assembly Step 4



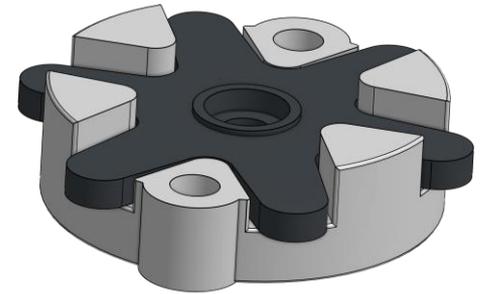
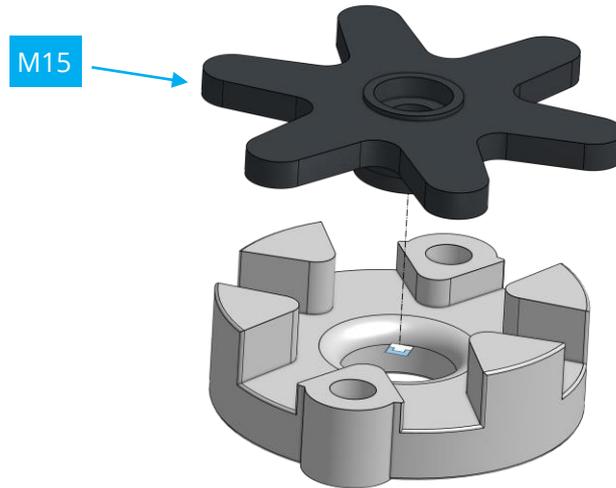
Step 5a

Place **2 x nuts** in **B35**.



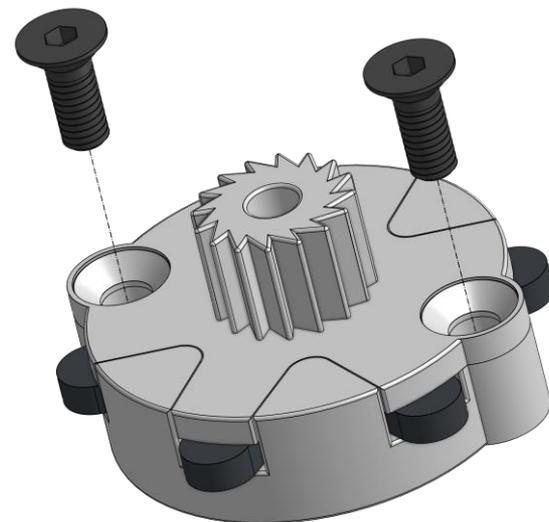
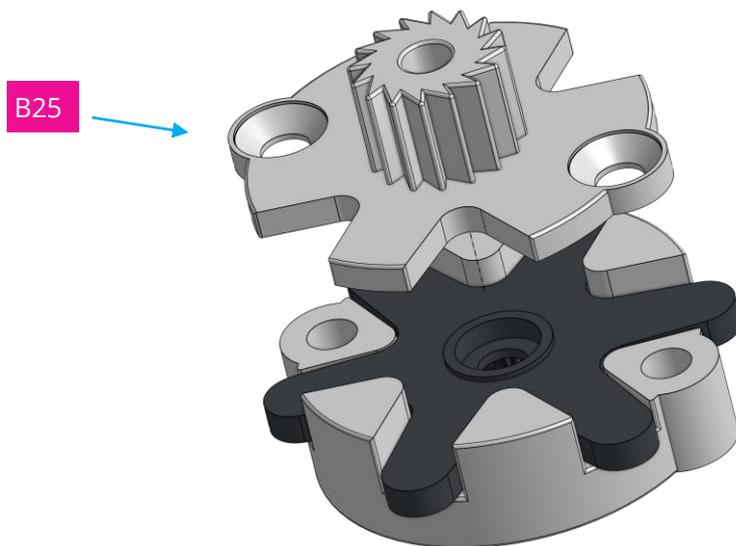
Step 5b

Insert **1x M15** on top of **B35**.



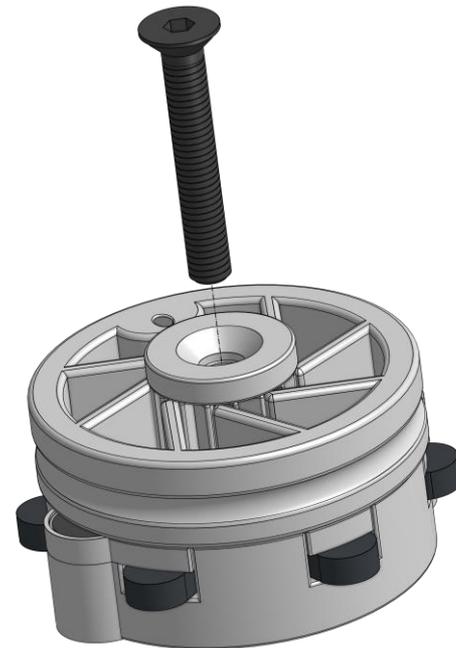
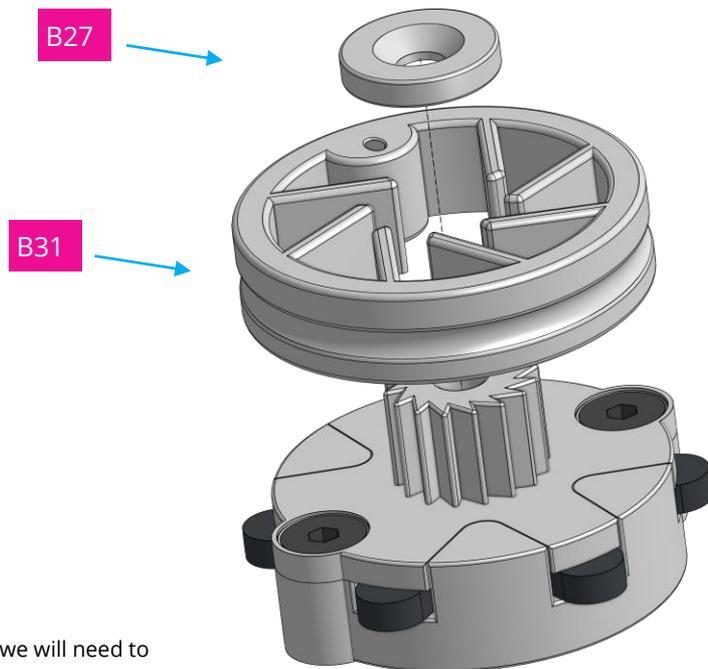
Step 5c

Put **B25** on top and fix it using **2 x 8 mm screws**.



Step 5d

Attach **B31** and **B27** to the previous assembly and use **1 x 20mm screw** to fix it.

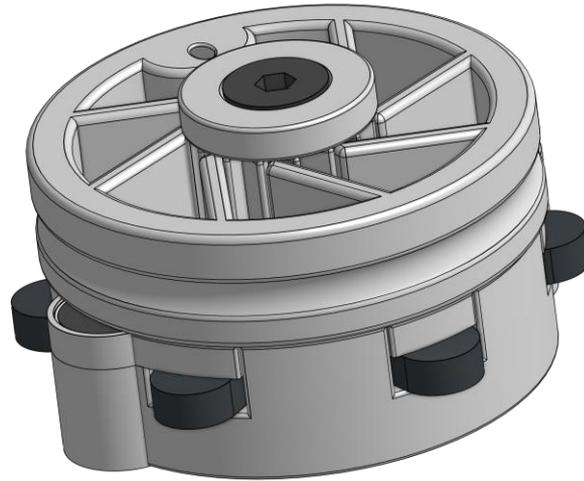


Tighten the screw only slightly as we will need to unscrew it later for the assembly onto the servo.

Step 5 - note

This assembly is only needed once, you do not have to repeat it.

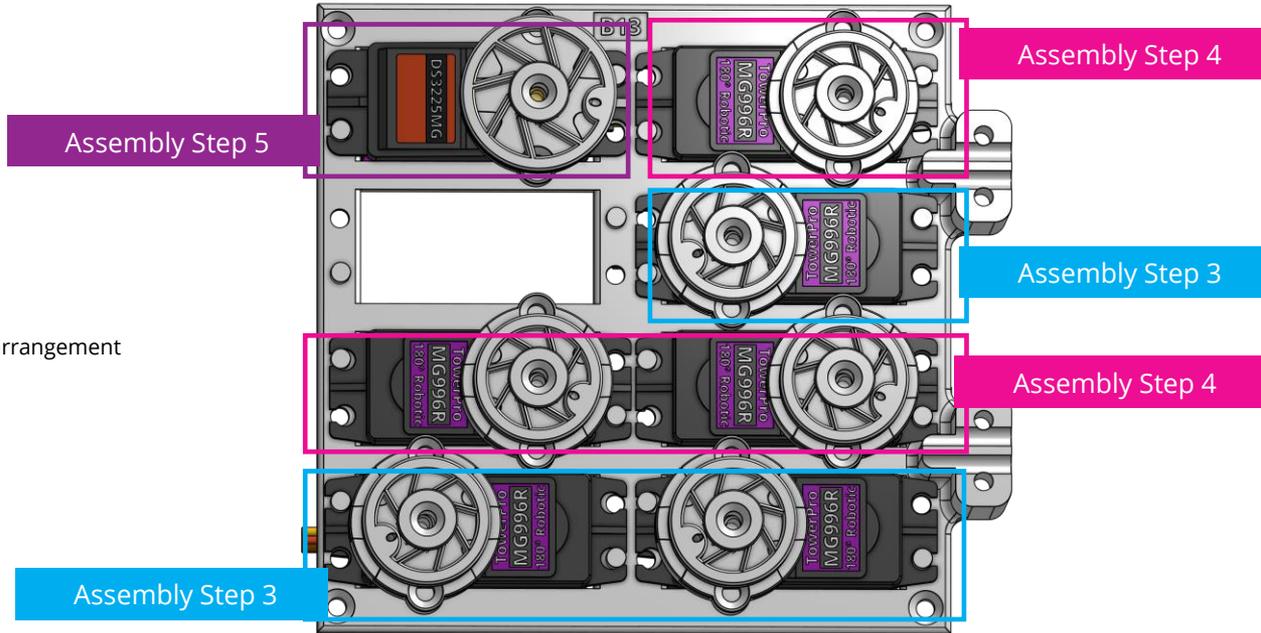
1 x assembly Step 5



Step 6

Now we can put all our **prepared assemblies** from Step 3, 4 and 5 **on top of the servos**.

Loose the 20 mm screw in the assemblies, put the assembly on top of the servo and fix it by tighten the 20 mm screw.

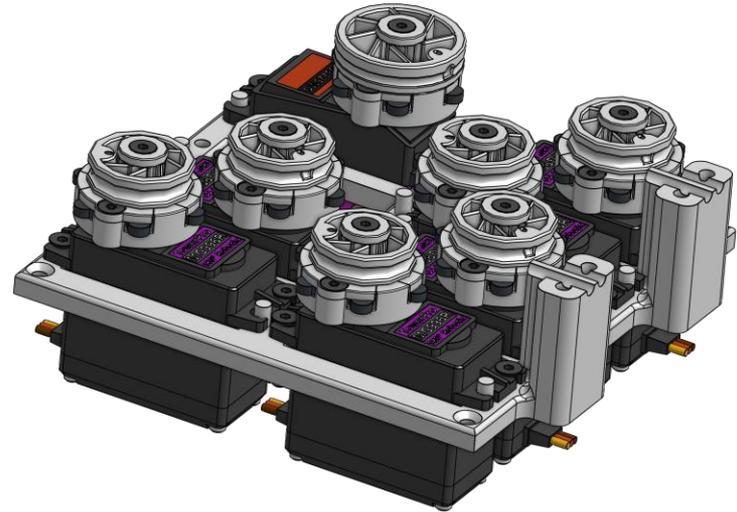
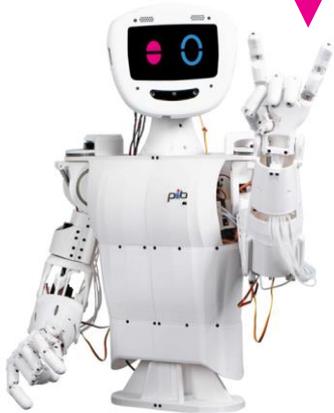


Please follow the shown arrangement of the assemblies.

Congratulations

You did a great job, pib´s internal body 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.



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