How to build your robot
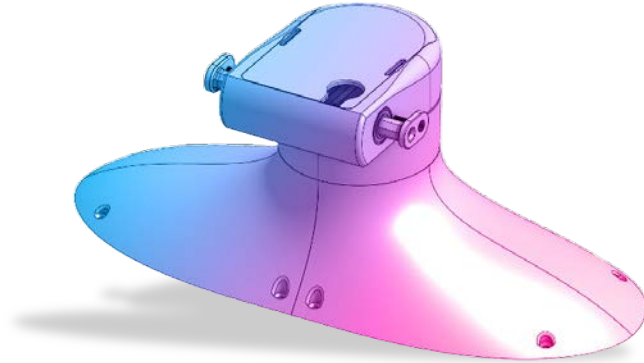
www.pib.rocks/build

assembly instructions for:
NECK Version PRO
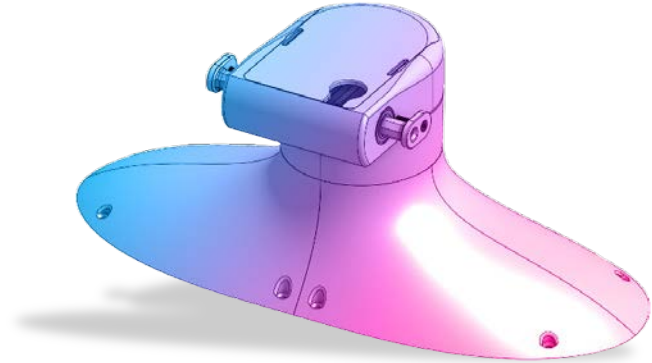v2024

PRINT
BUILD
DEVELOP
YOUR OWN ROBOT

Neck variations of pib

Pib's neck has 3 variations:

- Rookie: simple with 1 degree of freedom (left and right movement)
- **Pro**: **intermediate with 2 degrees of freedom (up and down + left and right movement)**
- and ultimate: advanced with 3 degrees of freedom.

This tutorial describes how to build the **pro variation**, which is the default one.

Printable and pre-assembled parts

Pib´s neck consists of **9 printable parts** and is assembled in **10 steps.**

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

Please note: For better readability we use the abbreviations in the tutorial: A50 instead of A50-Neck_housing.

Printable parts
A71-Inner_part
A72-Top_part
A73-Cover_neck
A74-Motor_shaft (2x)
A75-R-Neck_Right
A75-L-Neck_Left
A76-Neck_Middle
A77-Motor_Adapter_Neck

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
2 x **M03** Ballbearings
2 x **E07** MG996R servo
2 x **M18** Metal-motor-Adapter
1 x **M04** Ballbearing

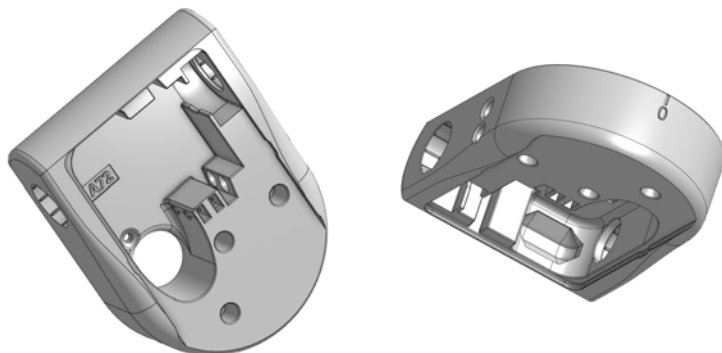| Non-printable parts |
| --- |
| 13 x **S01** M3 nuts |
| 8 x **S03** M3 8mm screws |
| 8 x **S04** M3 10mm screws |
| 5 x **S05** M3 12mm screws |
| 4 x **S06** M3 16mm screws |
| 1 x **S07** M3 18mm screws |
| 4 x **S08** M3 20mm screws |
| 3 x **S11** M3 30 mm screws |
| 1 x **S13** M3 40 mm screws |

Printable parts - Overview

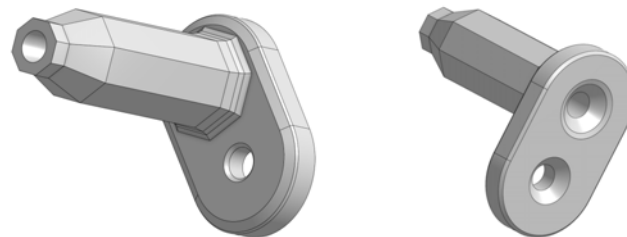**A71**-Inner_part
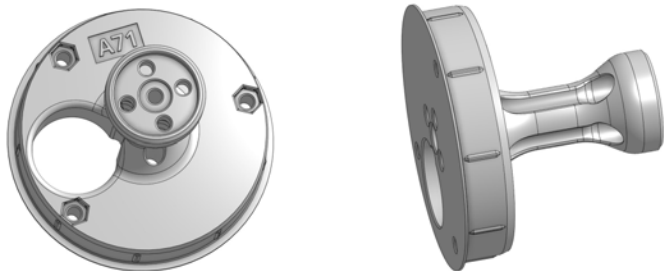
A72-Top_part
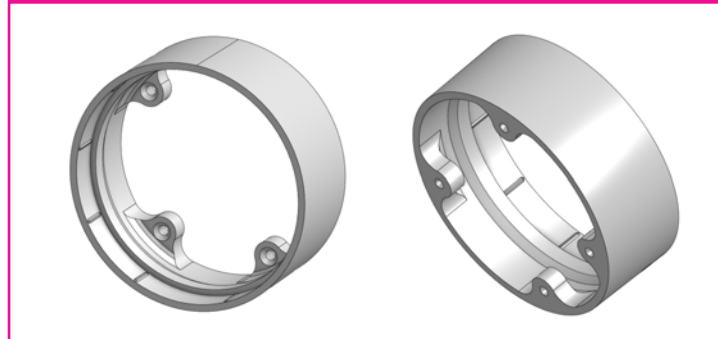

A73-Cover_neck
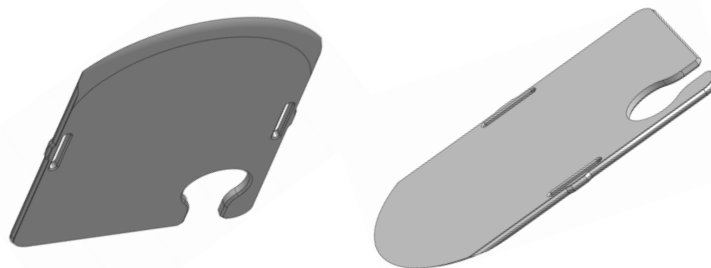
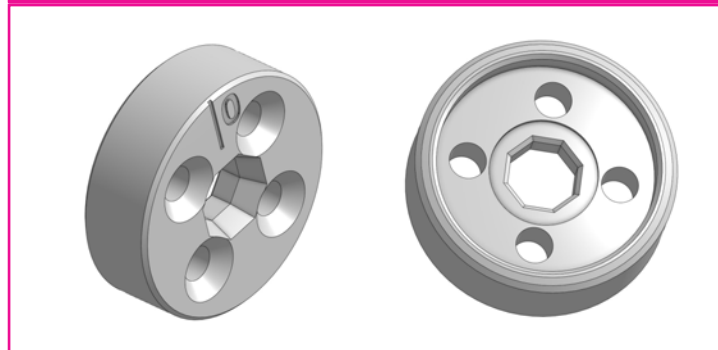**A74**-Motor-shaft

Printable parts - Overview

A75-Neck_left/right

A76-Neck_middle

A77-Motor_adapter_neck

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.
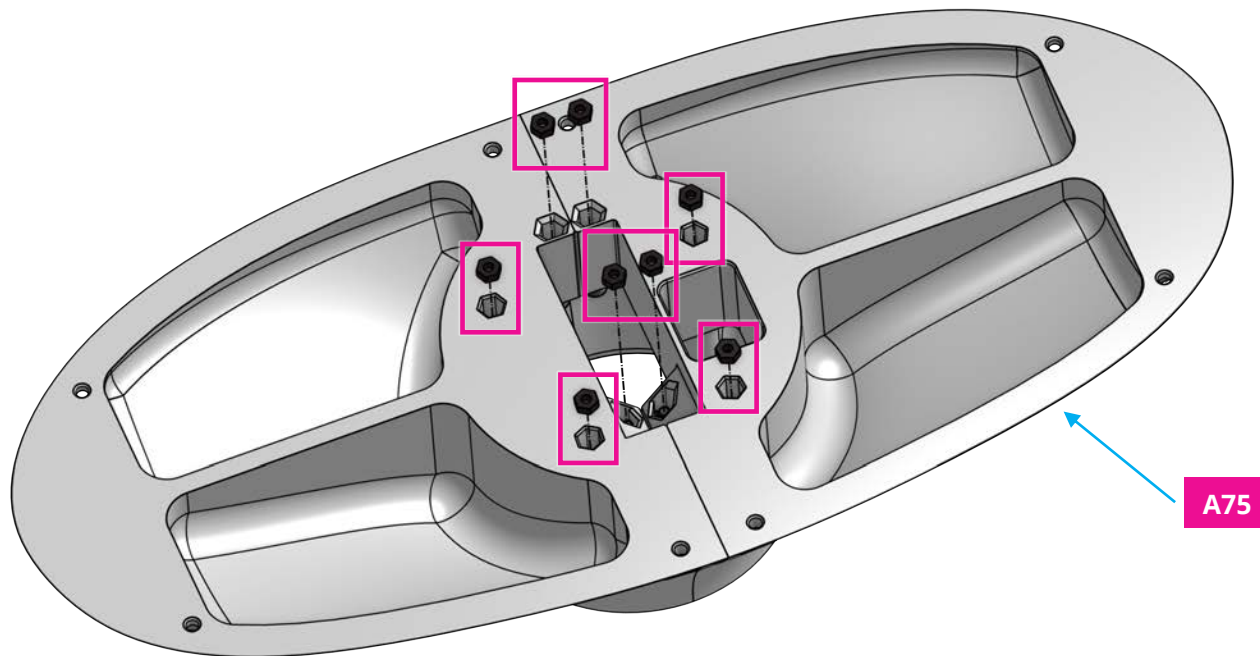
1-5

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

Insert **8 x nuts** in **A75** in the shown spots.

A75

Step 2

2   4x   1x

Place **1 x E07** (MG996R) in **A75** and use **4 x 12mm screws** to fix it.

A75

E07

Step 3

1   4x
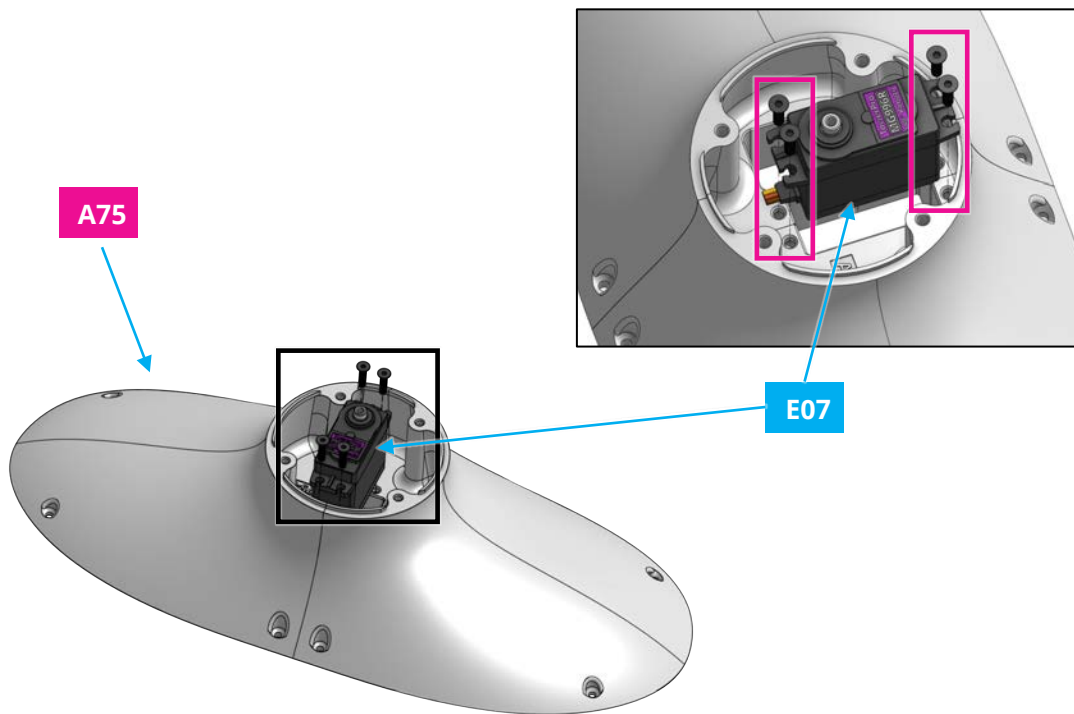
Connect **A76** to **A75** using **4 x M3 20mm screws**.

A76

A75
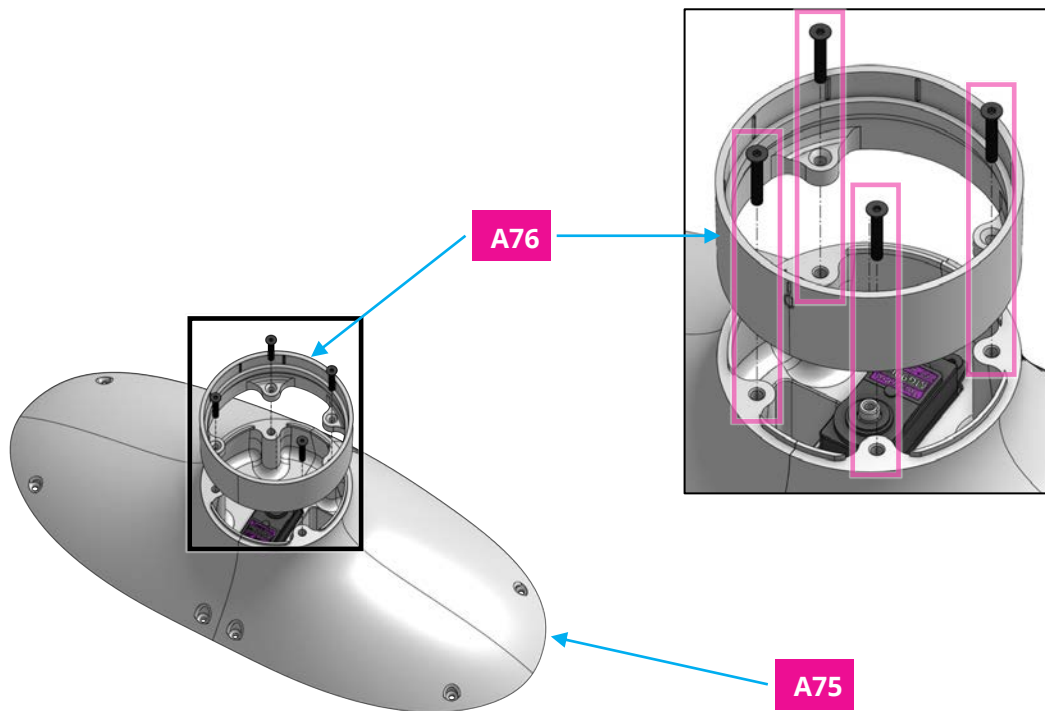
Step 4a

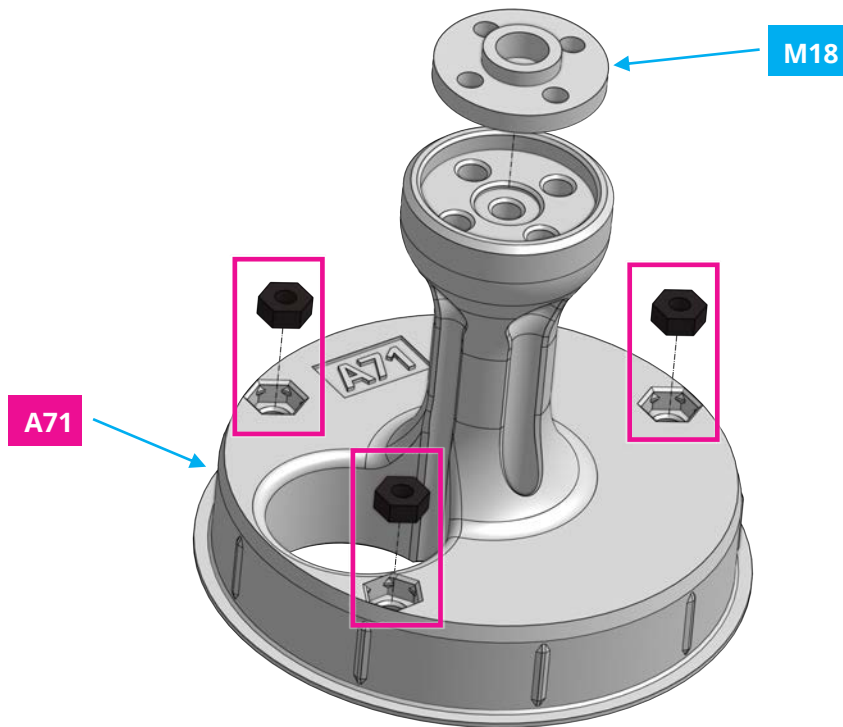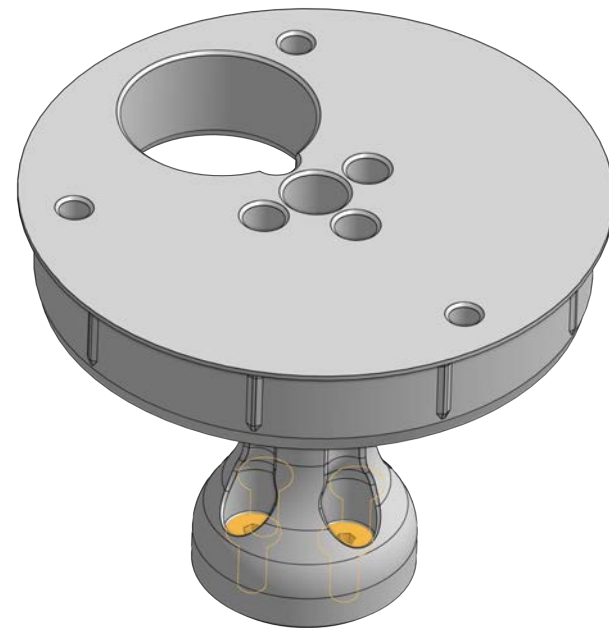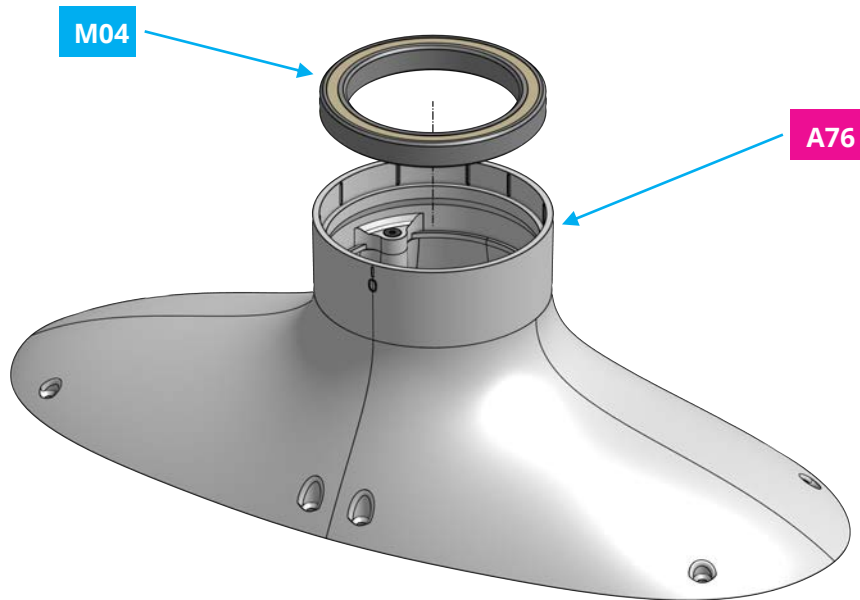Attach **3 x M3 nuts** and **1 x M18** to **A71**.

1   1x   3x

M18

A71

Step 4b
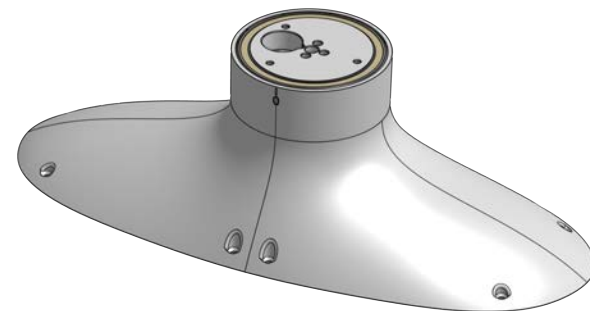
2 | 4x

Fix **M18** using **4 x M3 8mm screws**.
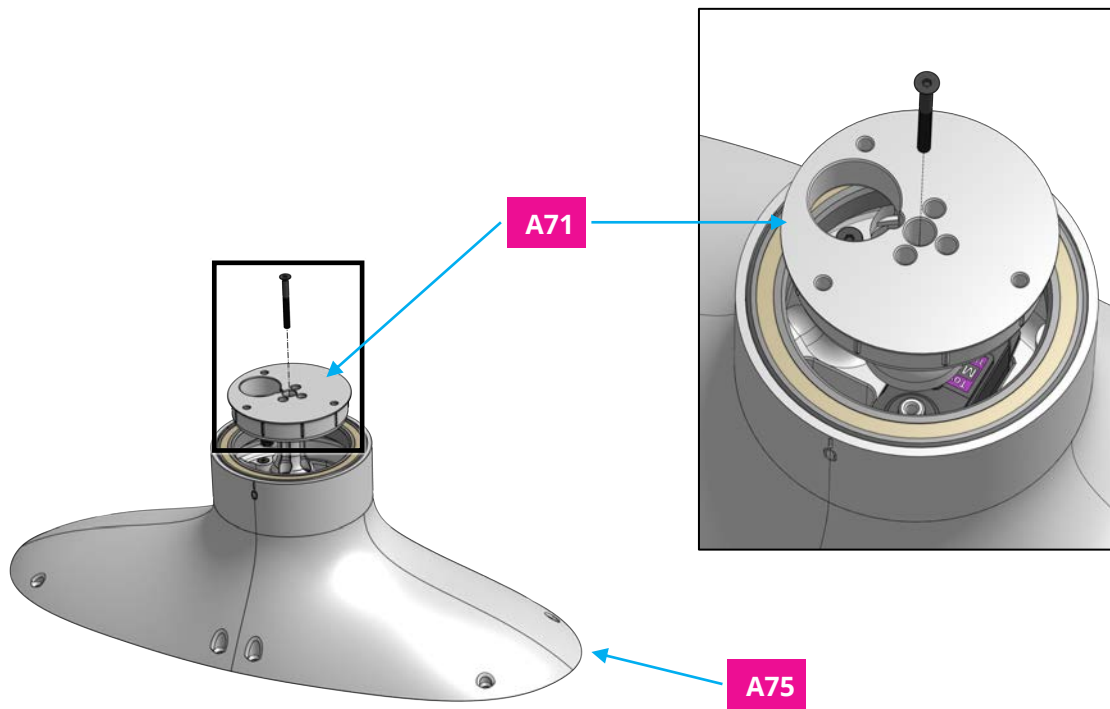

A71

Step 5

1   1x
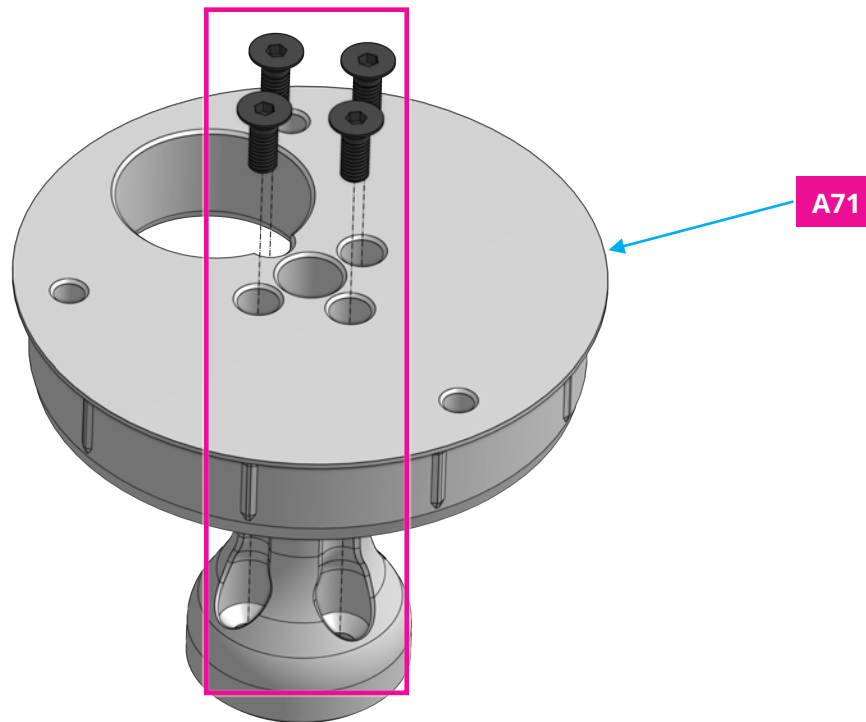
Place **1 x M04 ballbearing** in the shown spot of **A76**.

M04

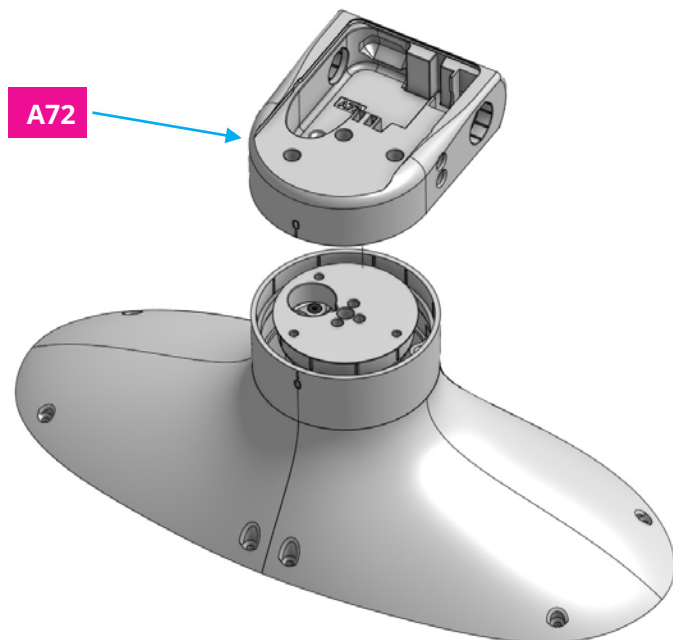**A76**

Step 6

Connect **A71** to **A75** using **1 x M3 30mm screw**.

2   1x

A71

A75

Step 7

2 3x

Connect **A72** to the assembly using **2 x M3 30mm screw** and **1 x M3 18mm screw**.

A72

1x M3 18mm

2x M3 18mm
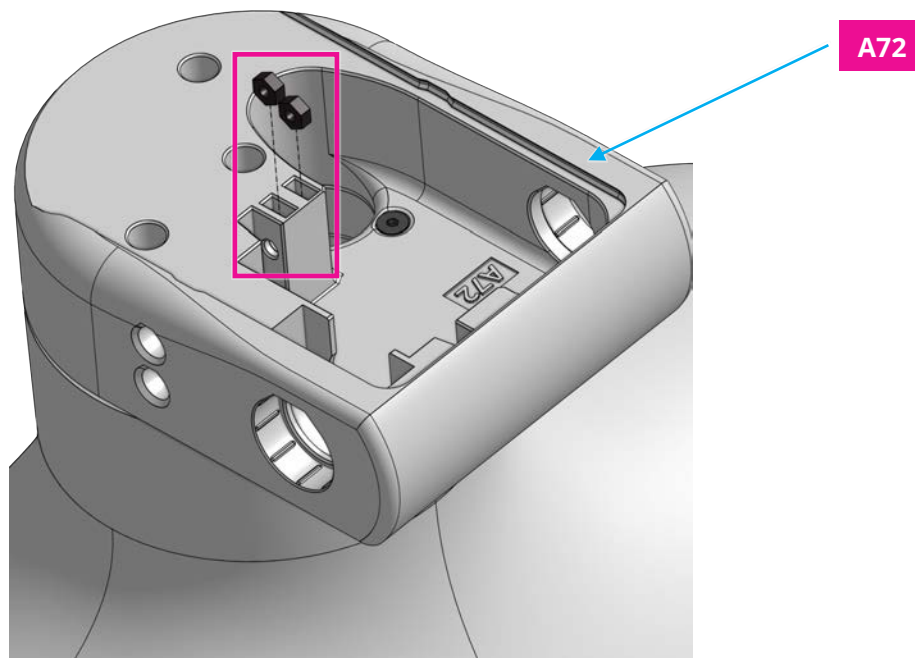
Step 8

1 | 2x
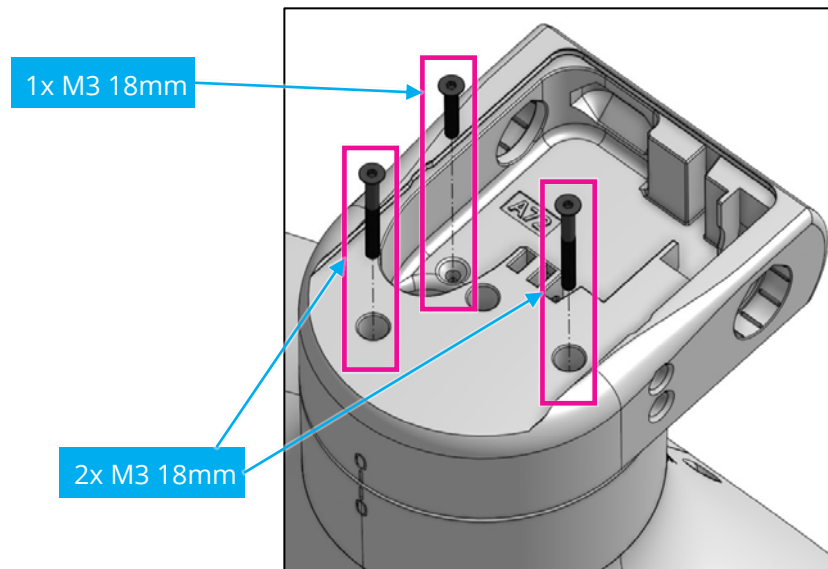
Insert **2 x M3 nuts** In **A72**.

A72

Step 9a

3

1x 1x 4x

Connect **E07**, **M18** and **A77** using **4 x M3 8mm screws**.
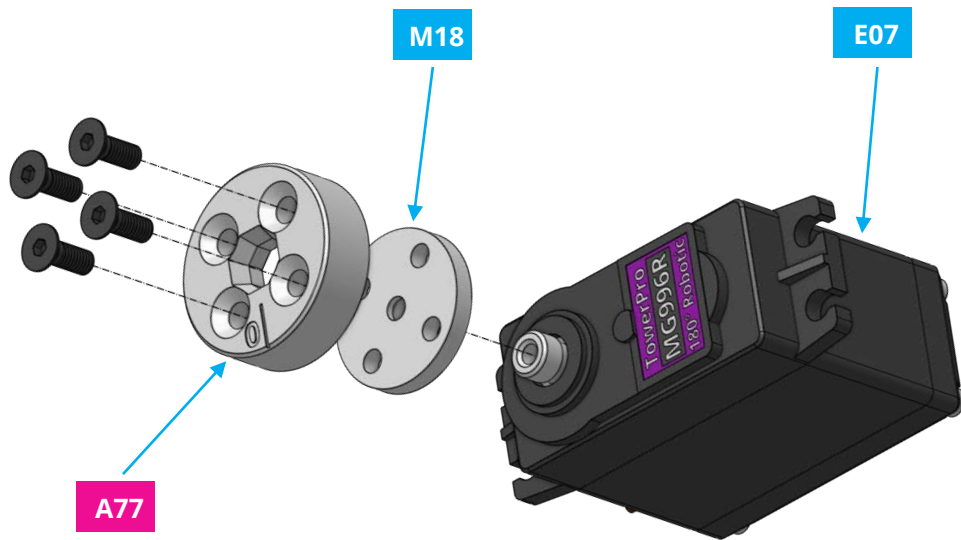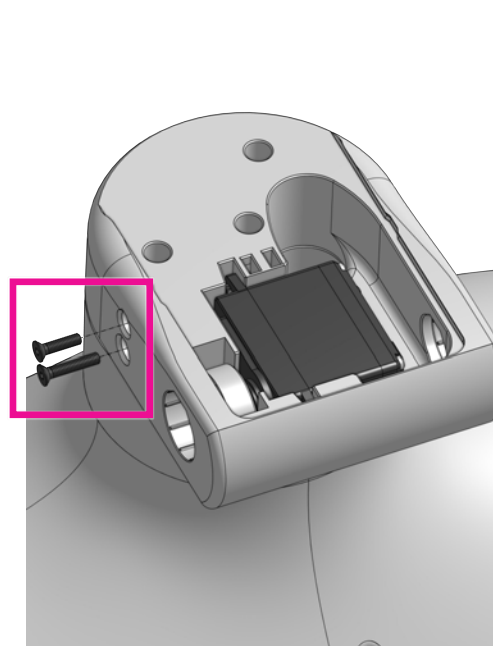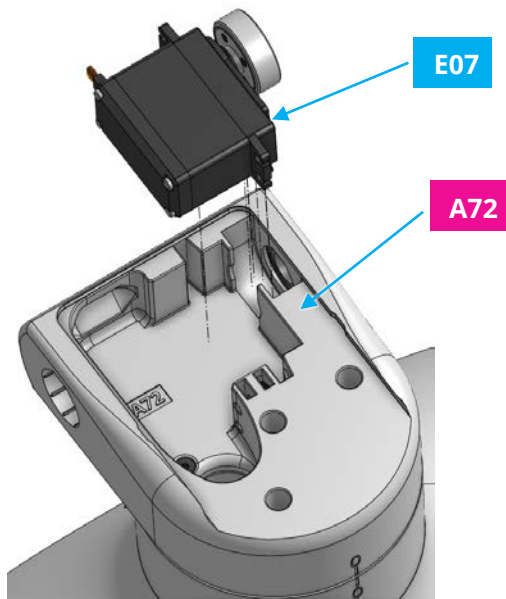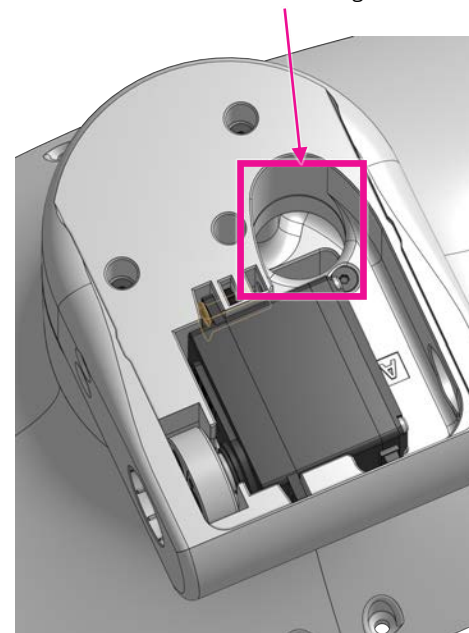
M18

E07

A77

Step 9b

3

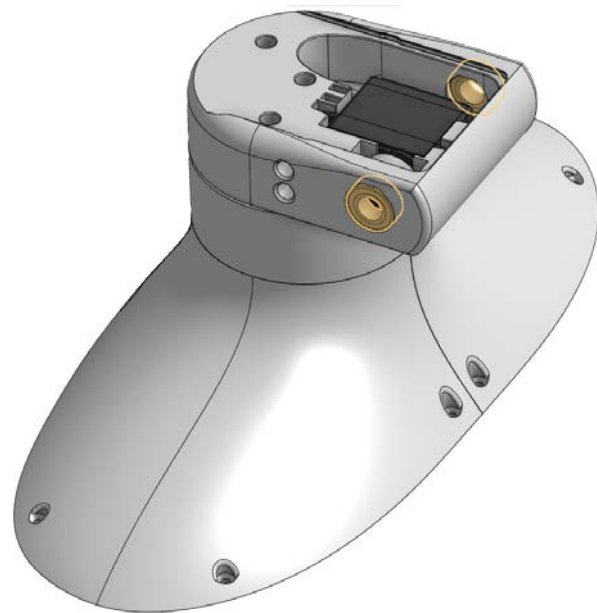Insert **E07** in **A72** and fix it using **1 x M3 12mm** and **1 x M3 16mm screws**.
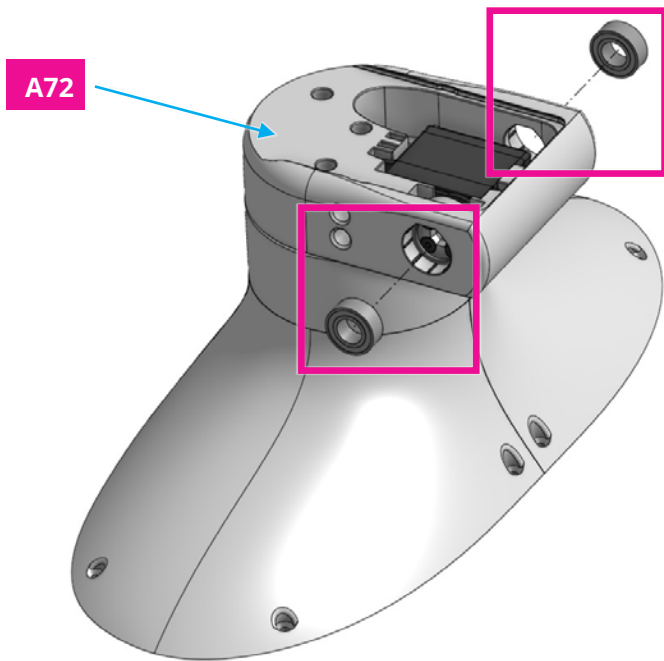
E07

A72

Guide the motor wire through this hole.

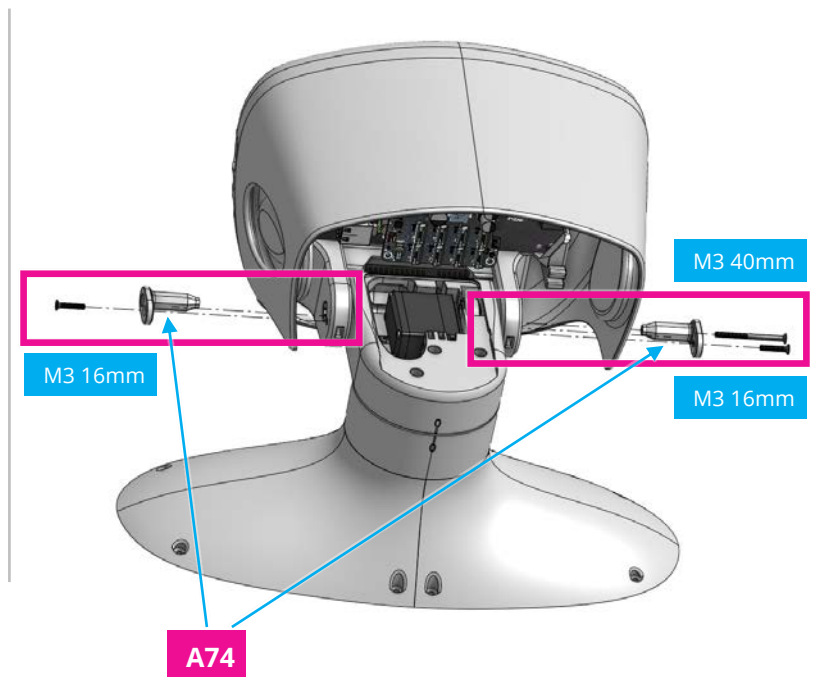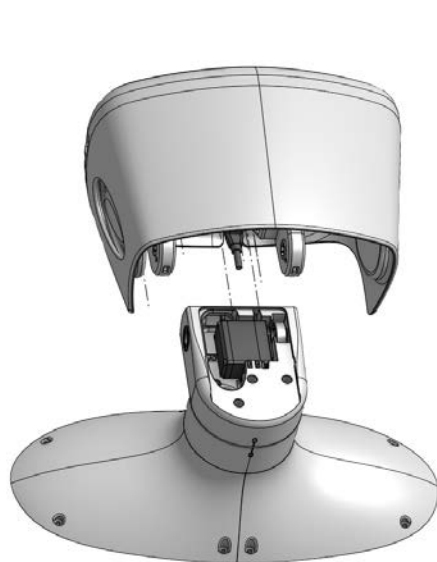The motor cable should hang out at the bottom of **A75**.

Step 10a
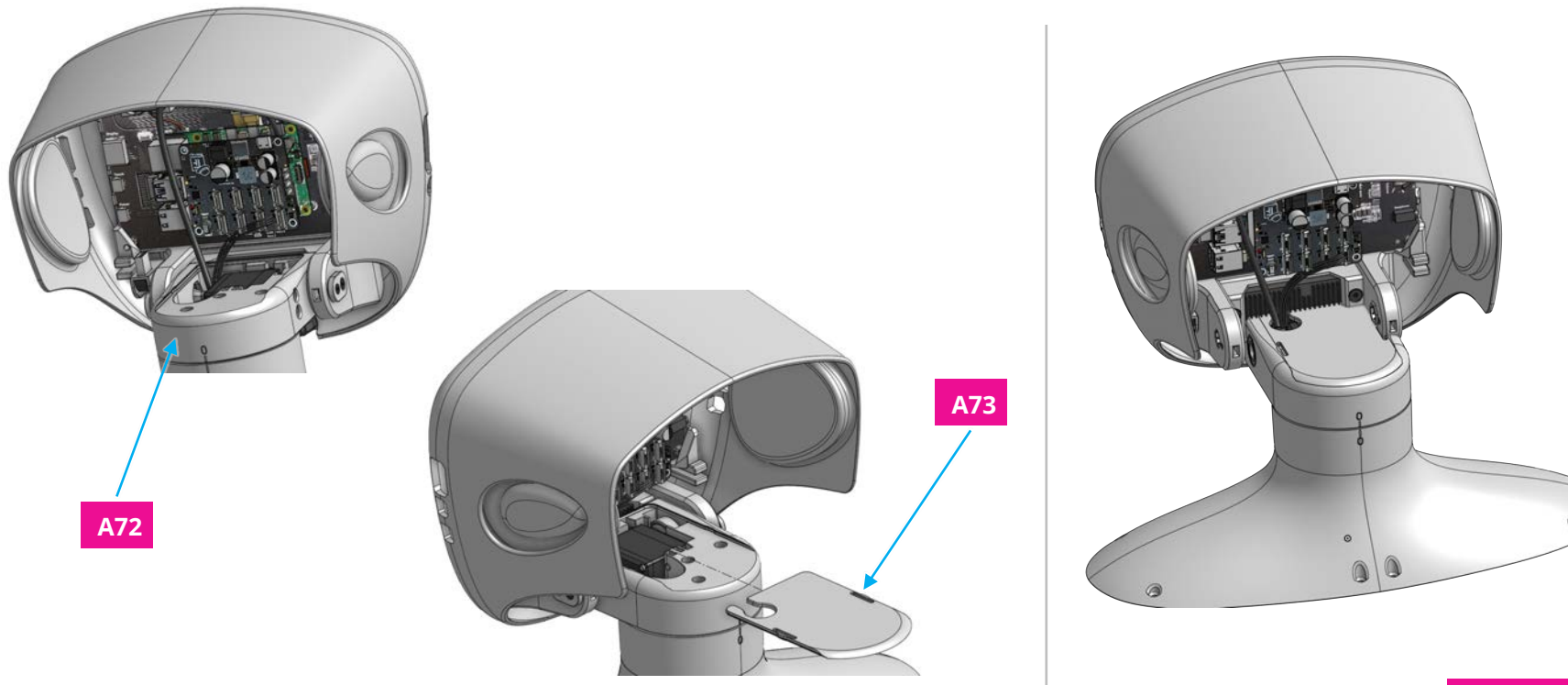
1   2x

Insert **2 x M03** in the shown spots of **A72**.

A72

Step 10b

4

2x   1x

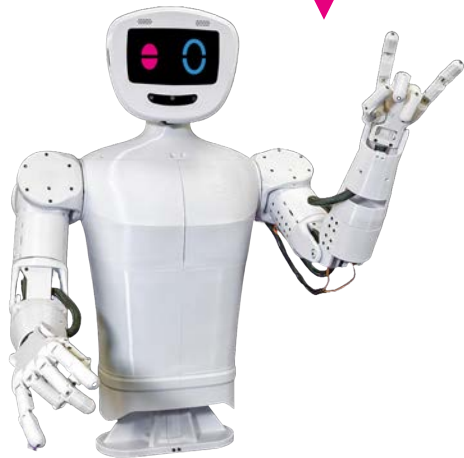Connect head to neck using **2 x A74**, **2 x M3 16mm screws** and **1 x M3 40mm screws**.

M3 40mm

M3 16mm

M3 16mm

A74

Assembly step 4

Step 10c

2

Guide the wires from the head through the hole in **A72**, then close **A73**.

A72

A73

Congratulations

You did a great job, pib´s neck 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.