pib

How to build your robot

www.pib.rocks/build

assembly instructions for:

Neck

pib#4 advanced
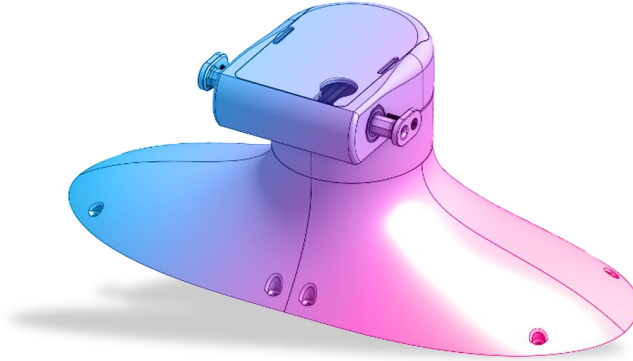
Printable and pre-assembled parts

Pib´s neck consists of **13 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.

We provide a screwdriver shaped like a pen in the box that includes the required hexagonal head. However, using a longer one can be useful

Printable parts
A71s-Inner_part_S
A72s-Top_part_S
A73-Cover_neck
A75s-R-Neck_Right_S
A75s-L-Neck_Left_S
A76-Neck_Middle
A81-Motor_shaft
A82-Neck_axis
A83-Motor_adapter_neck
A02-Face_neck_clamp
A77s-Neck_motor_wedge_S
A78s-Nodding_motor_wedge_S

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 **M21** 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
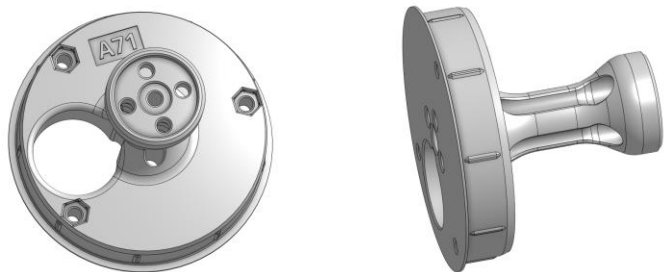
A72-Top_part

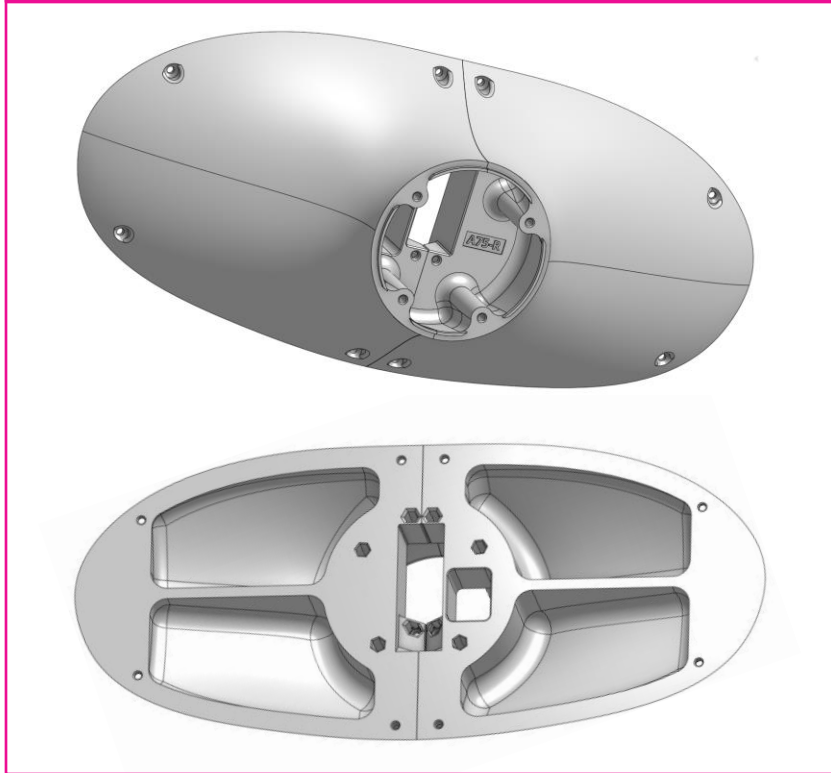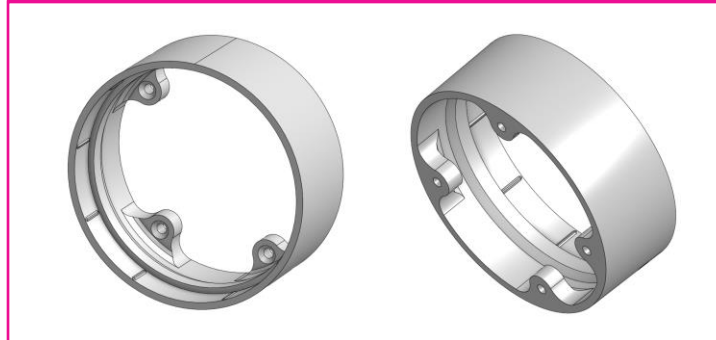## A73-Cover_neck
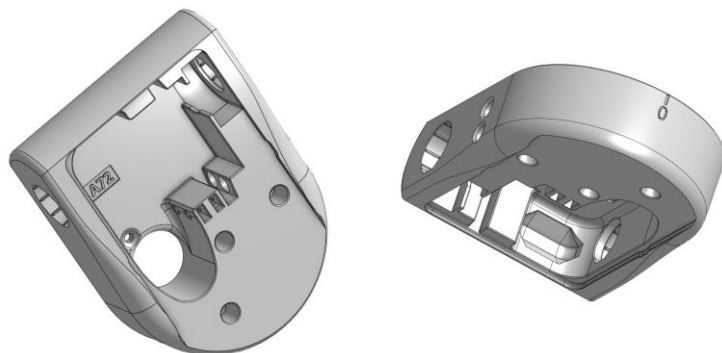
A82-Neck_axis
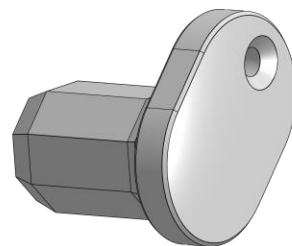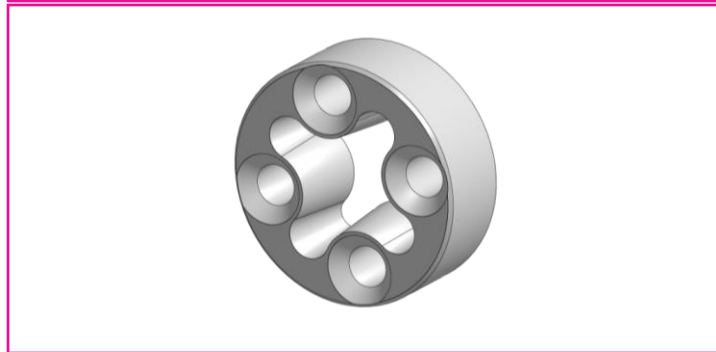
Printable parts - Overview

A75-Neck_left/right

A76-Neck_middle

A83-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 0

Make sure all motors in this tutorial have their IDs set and calibrated according to tutorial "**step 1c motor calibration**"

Step 1

1   6x

Insert **6 x nuts** in **A75s** in the shown spots.

A75

Step 1

1 | 6x

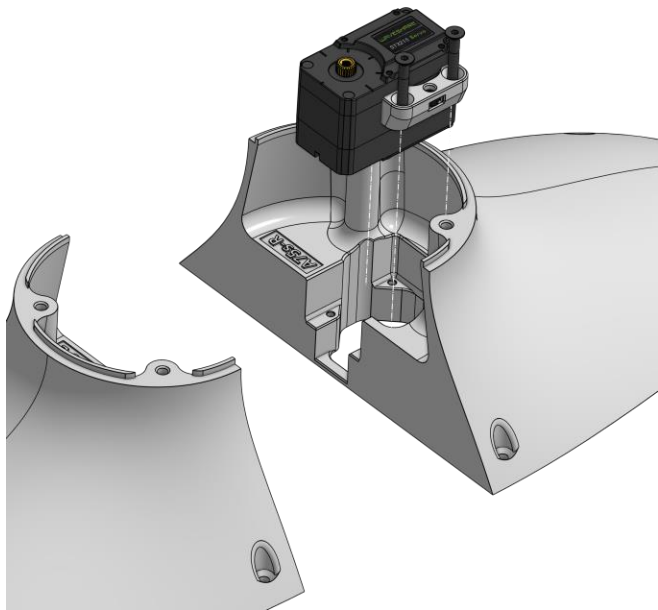Insert **6 x nuts** in **A75s** in the shown spots.

Step 2

2 | 4x | 1x
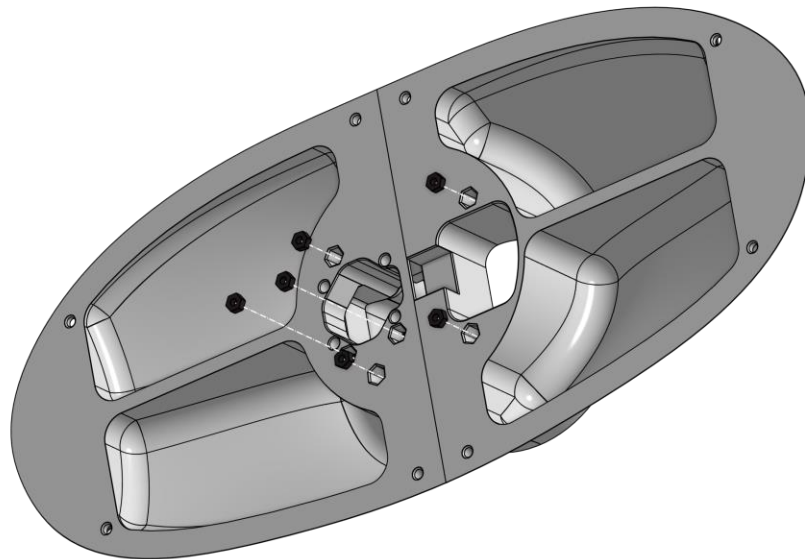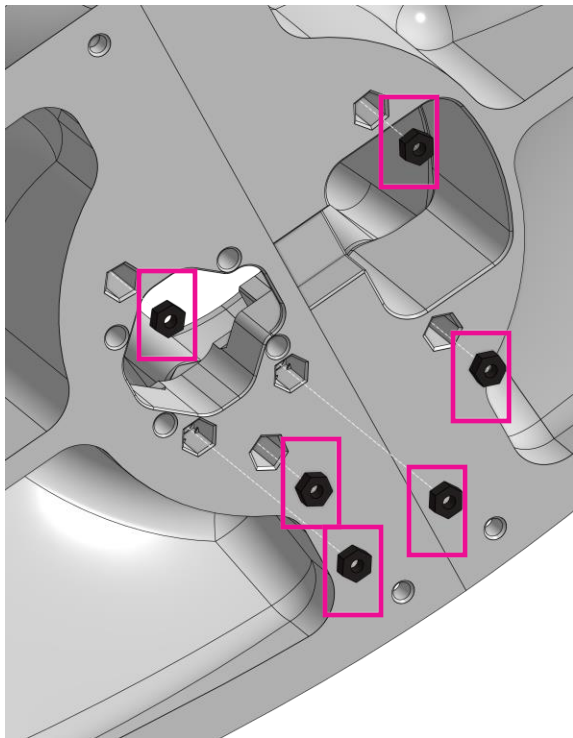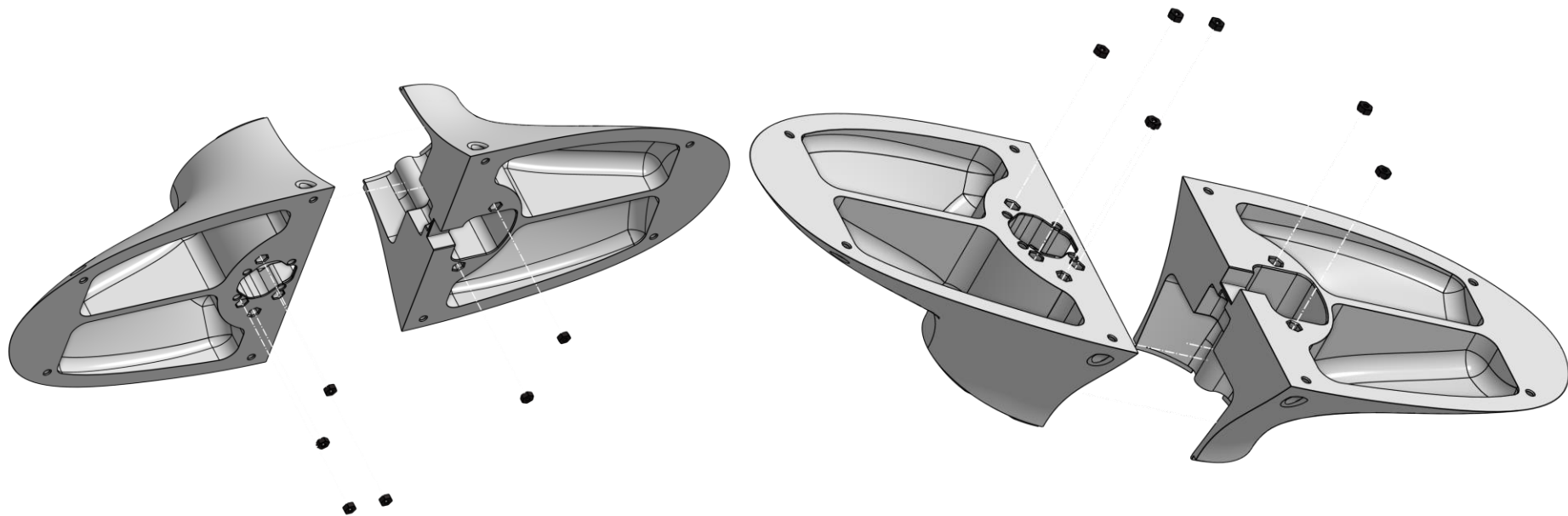
Place **1 x E19** (STS3215) in **A75** and use **2 x 12mm screws and A77s** to fix it.
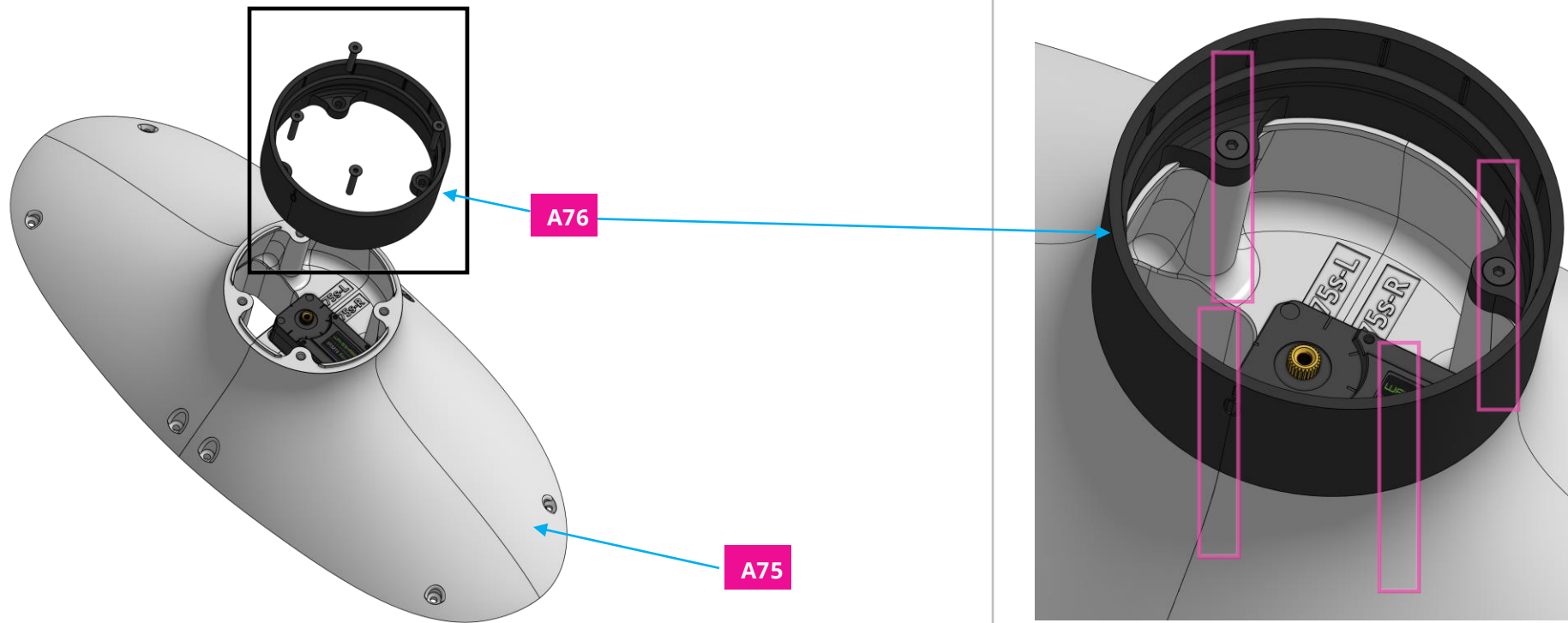
Step 3

1   4x
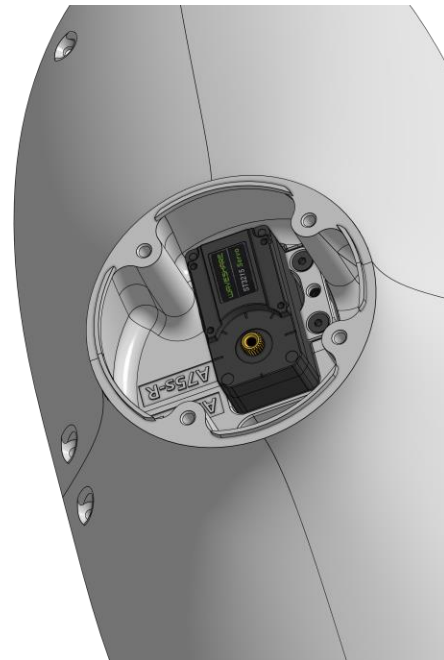
Connect **A76** to **A75s** using **4 x M3 20mm screws**.

A76

A75

Step 4a

1 | 1x | 3x

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

M18

A71
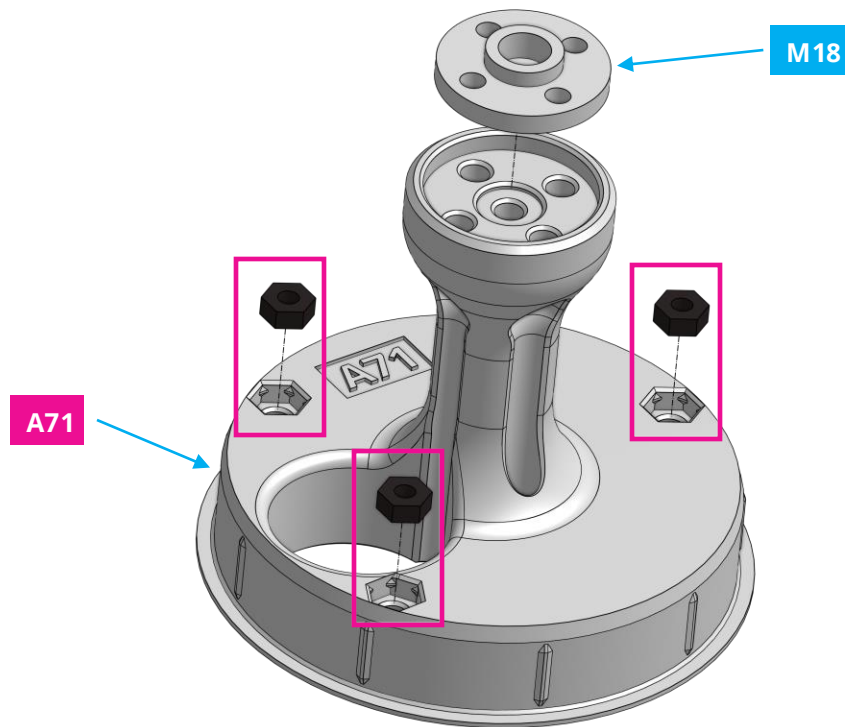
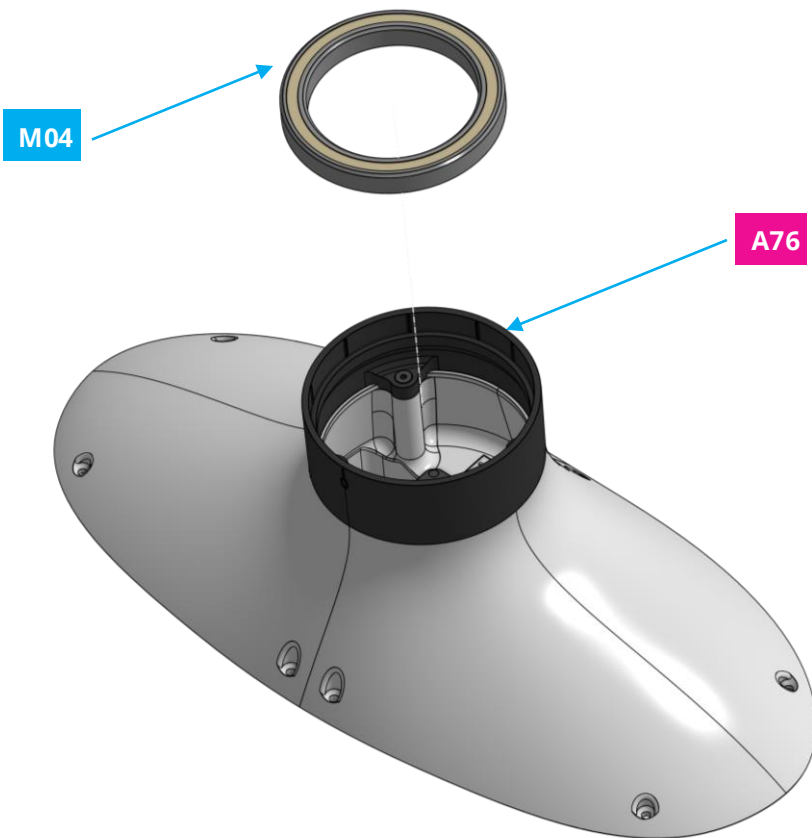## Step 4b

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

2   4x

A71

Step 5

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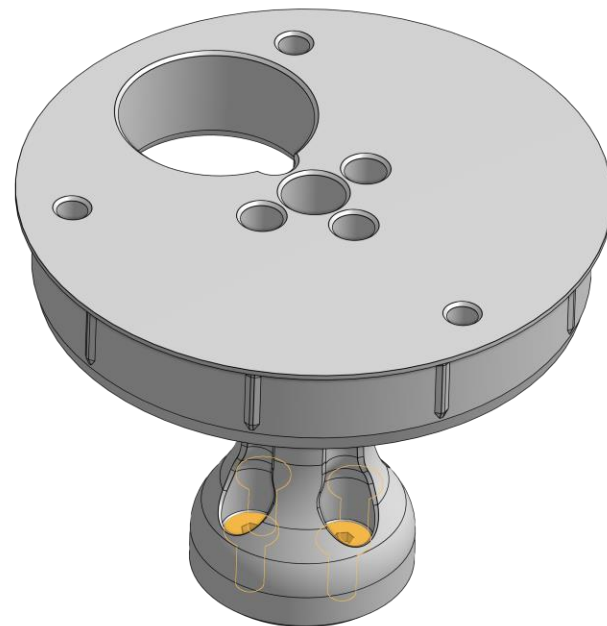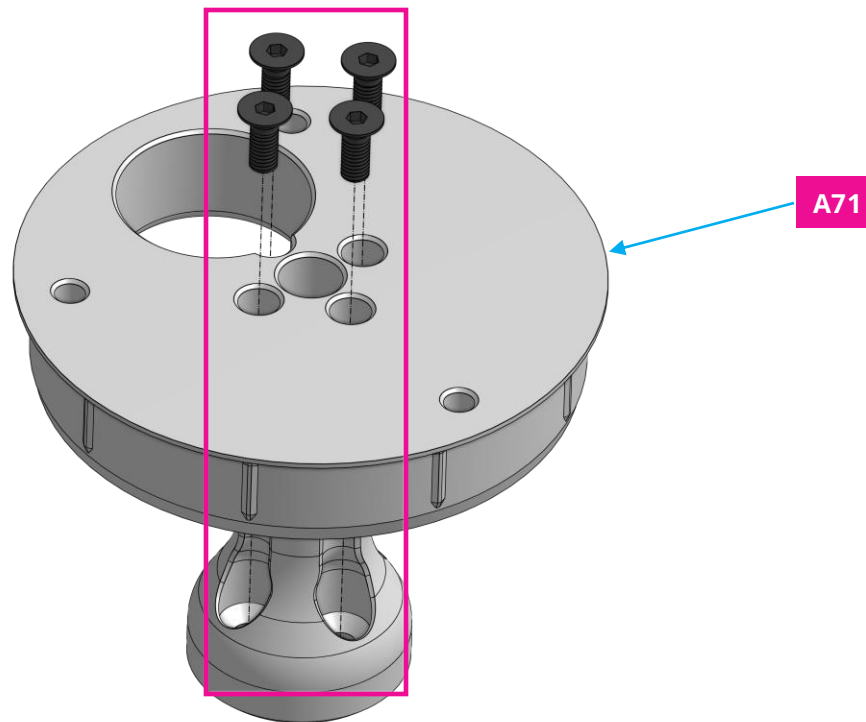
Place **1 x M04 ballbearing** in the shown spot of **A76**.

M04

A76

Step 6

2 | 1x
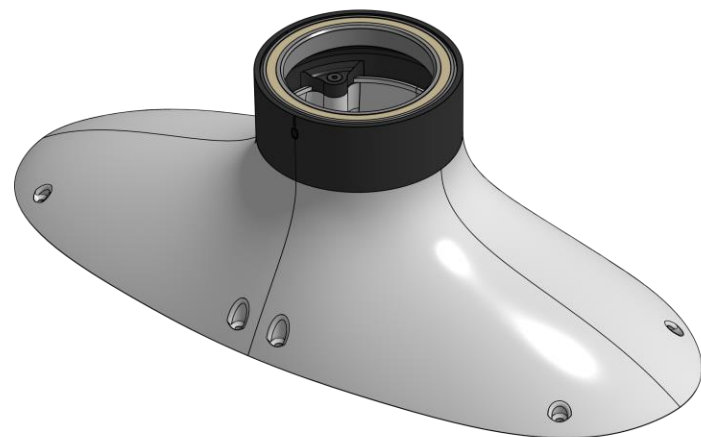
Connect **A71s** to **A75** using **1 x M3 30mm screw**.
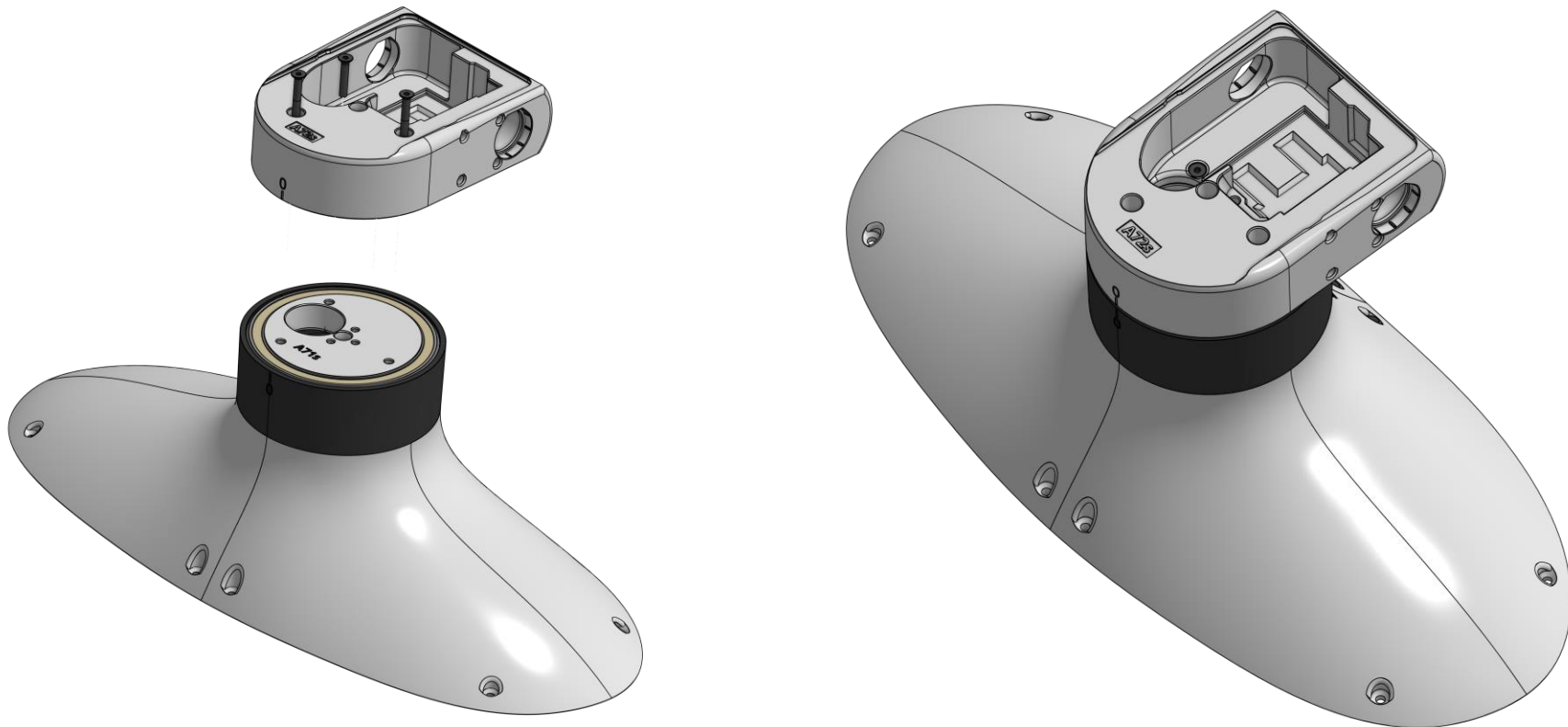
A71

A75

Step 7

2

3x
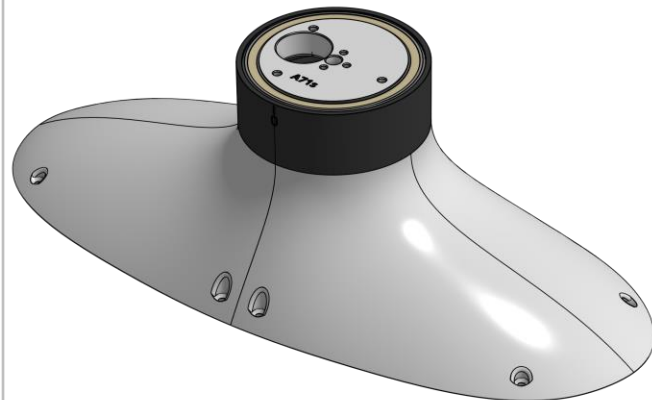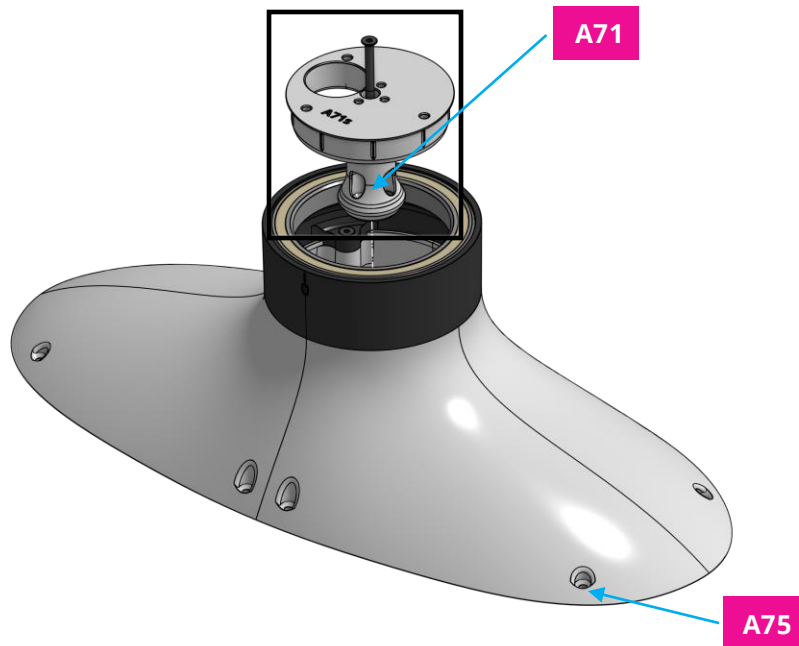
Connect **A72** to the assembly using **2 x M3 30mm screw** and **1 x M3 18mm screw**.

Step 8a

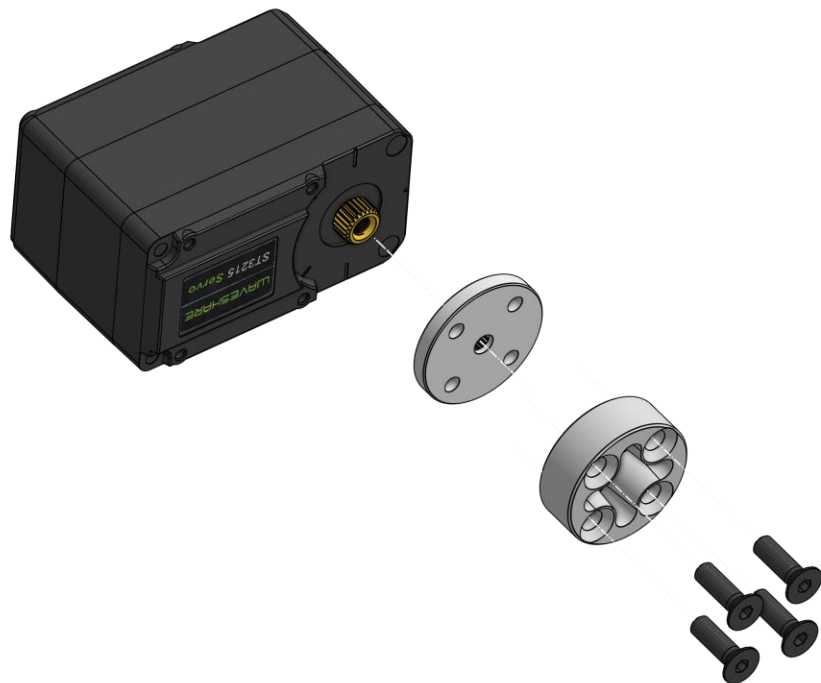Connect **E07**, **M18** and **A83** using **4 x M3 10mm screws**.

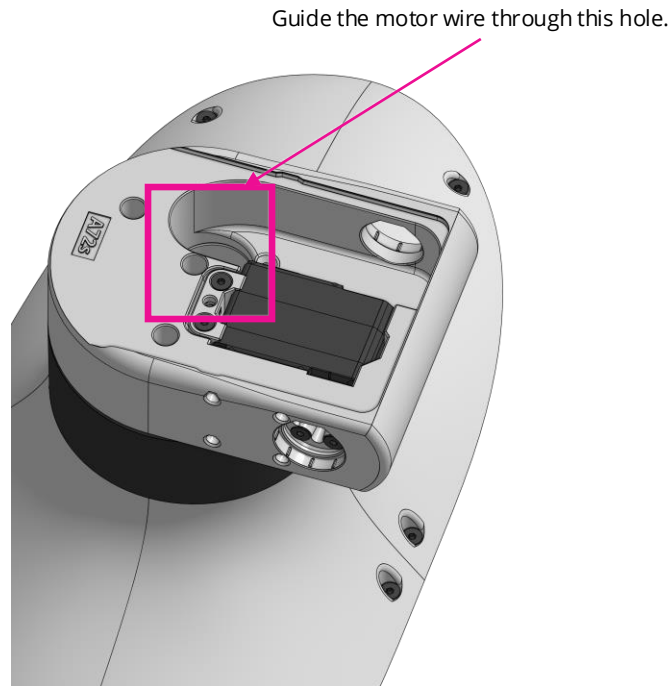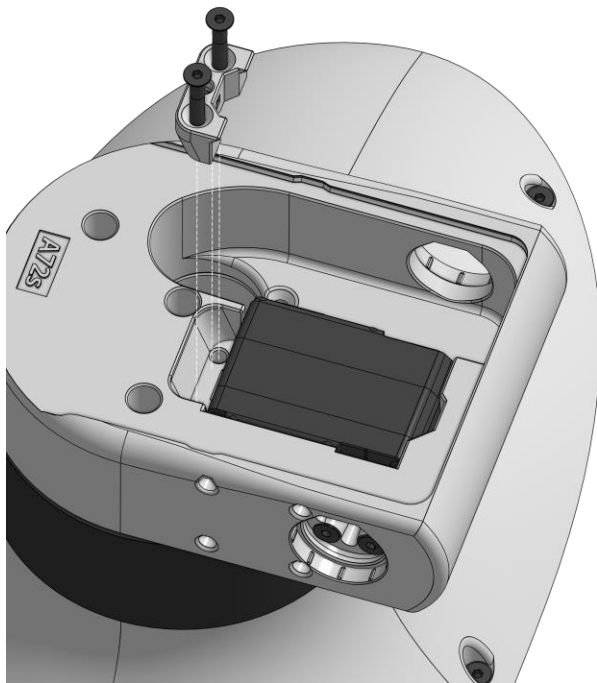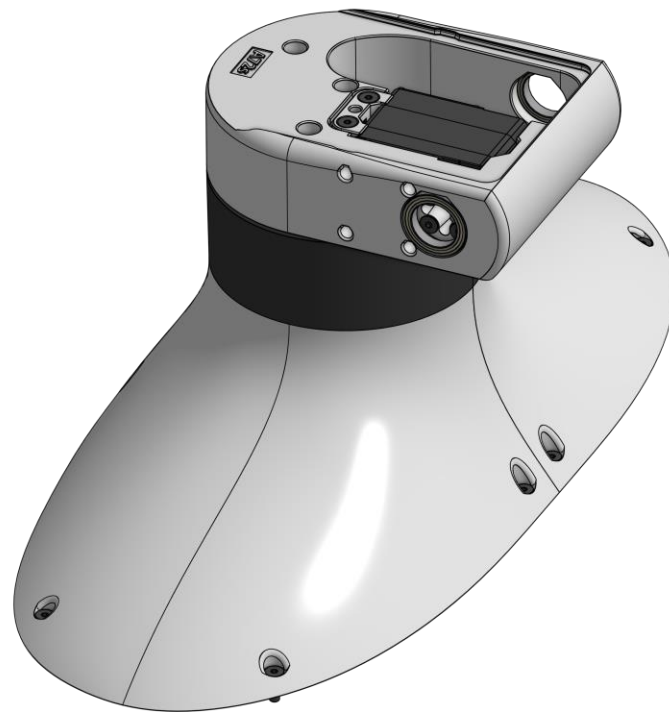3 · 🪛 · 🔧 1x · ✳️ 1x · 🔩 4x

Step 8b

3 · 2x

Insert **E07** in **A72** and fix it using **2 x M3 20mm screws**.

Guide the motor wire through this hole.

The motor cable should hang out at the bottom of **A75**.
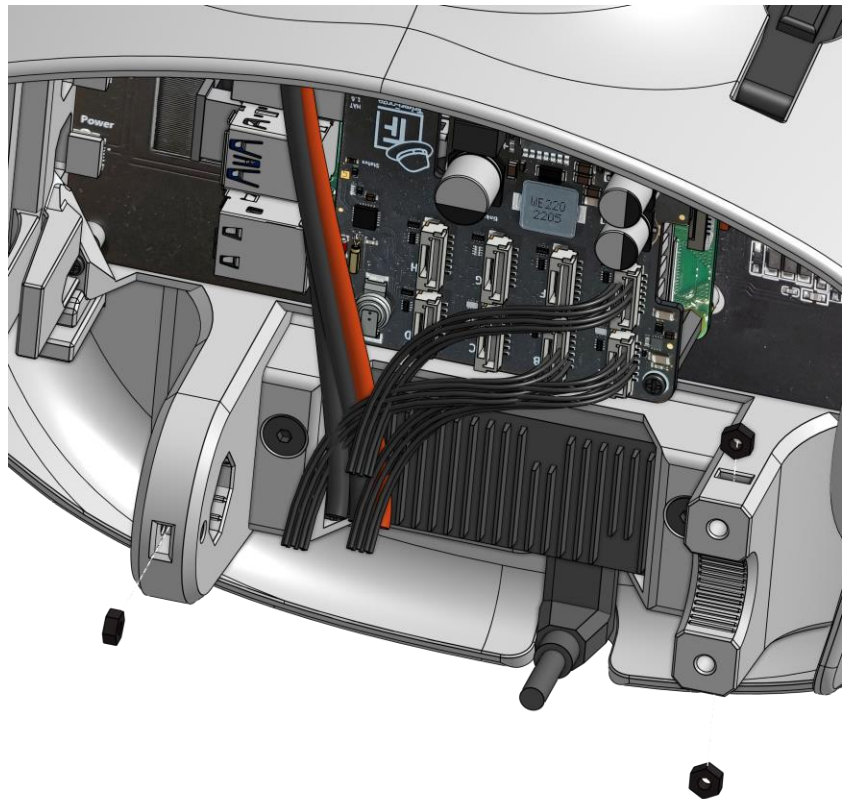
Step 9a

Insert **2 x M21** in the shown spots of **A72s**.
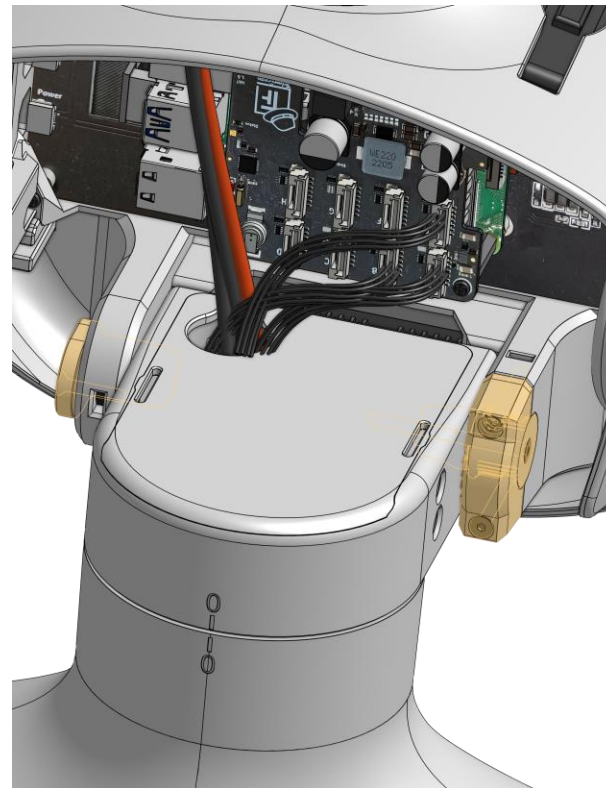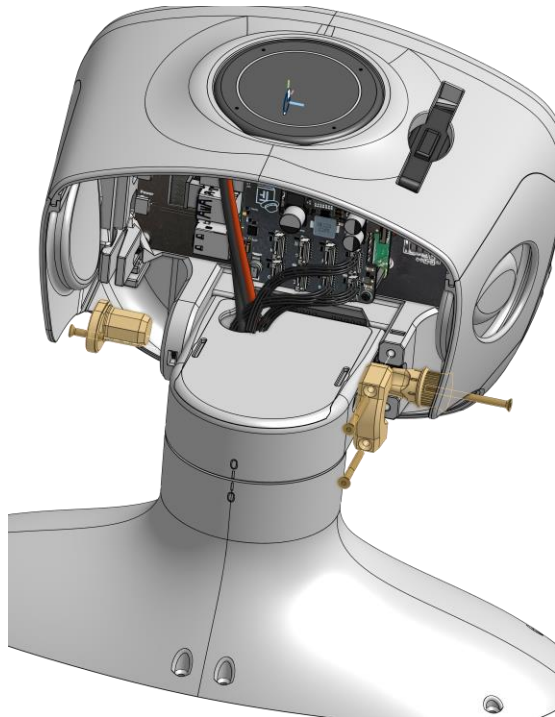
1   2x

A72s
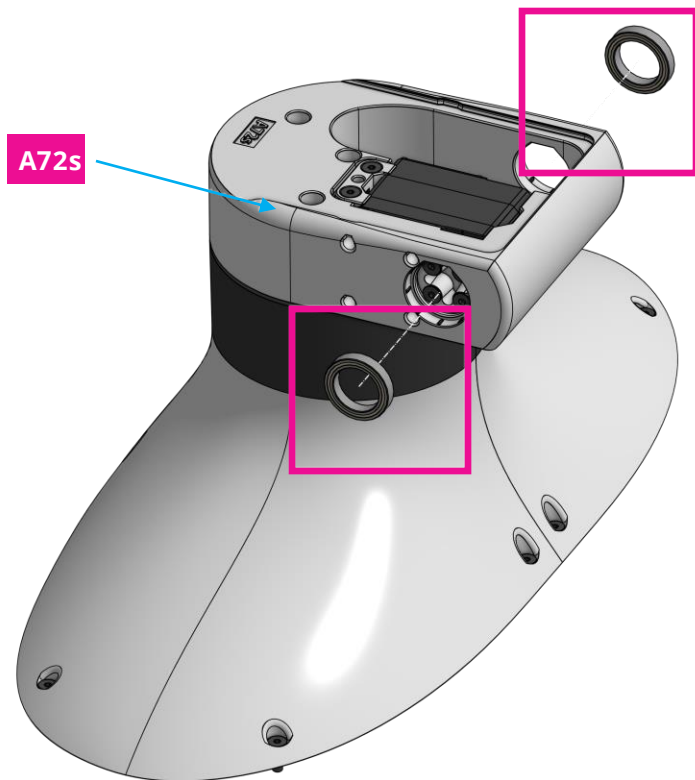
Step 9b

Insert **3 x M3 nuts** in the shown spots the head

Step 9c

4

1x   1x
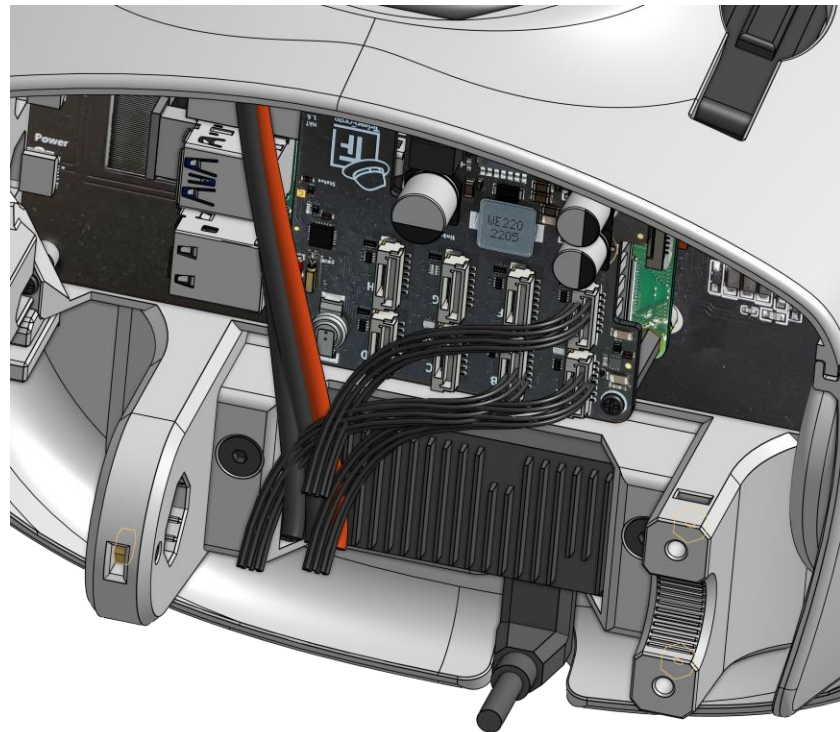
Connect head to neck using **A81 and A82**, **1 x M3 16mm screws** and **1 x M3 40mm screws**.
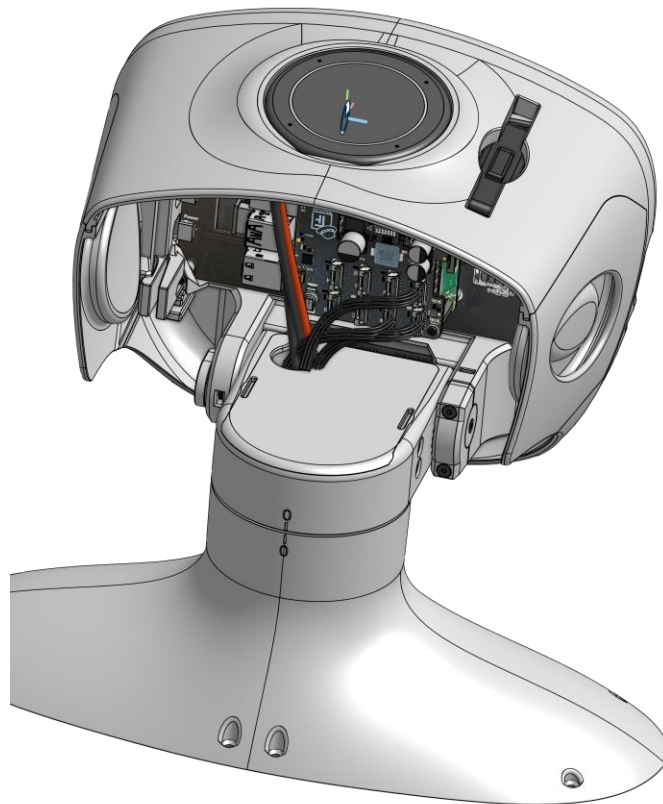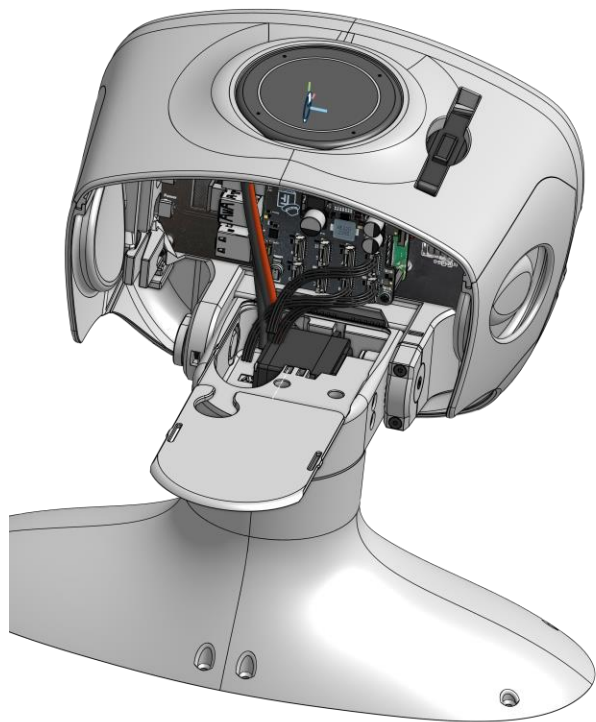
Then enclose **A81** with **A02**

Step 10d

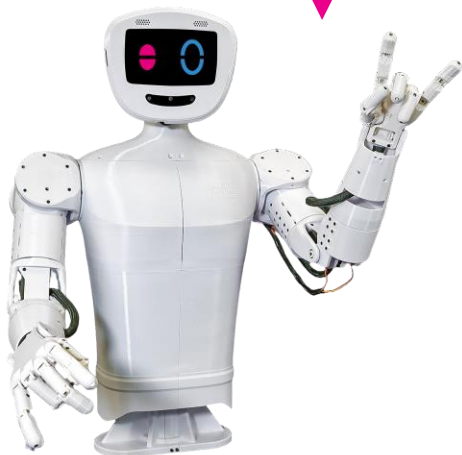Guide the wires from the head through the hole in **A72**, then close **A73**.

Congratulations

You did a great job, pib´s neck is assembled!

Well done!

. assembly instructions for: **Neck**

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.