Calibration

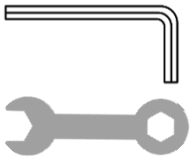
ANNEX

This document is a continuation of § 3.5 of the document **FAQ RoboRail Calibration**.

Alignment calibration of the chucks

*You must do this calibration if the laser value during the **Alignment calibration** procedure changes more than **2** (mm).*

Necessary tools:



Allen key 3 mm

Wrench 24

Some versions of the machine are attached with larger Allen screws or bolts. In that case you need another tool.

To align the chucks, do the procedure that follows:
The cover of the trolley is attached with 2x3 Allen screws with washers at the front (left + right) and 2x3 at the back (left + right) (◆ Image 1).

- Loosen the Allen screws (12 pcs) with the Allen key.
- Remove the cover of the trolley.

The rear chuck is attached with 2 bolts at both sides of the trolley. These are the bolts on the black plate (◆ Image 2).

- Loosen the 4 bolts **slightly** with the wrench. Make sure not to turn the bolts out too far.

➢ This makes it possible to move the rear chuck manually.

- Inspect the alignment of the front and rear chuck visually.
- Slightly move the rear chuck to get it aligned with the front chuck.

The preferred movement is to slide the rear chuck horizontally. If you must turn the chuck to align it, make sure not to twist the chucks relative to each other to avoid distortion of the material. Turn the chuck carefully and only if necessary.

- Make sure that the distance between the black plate and the orange material is equal over the entire length of the plate (◆ Image 3). This applies to the black plate on both sides of the trolley.
- Use the switch **[Y+]** on the control panel of the trolley (or the arrow button ◀◀ on the screen) to move the trolley fully forward.
- Keep an eye on the **Laser value** on the screen and move the trolley to the rear with switch **[Y–]** (or the arrow button ▶▶ on the screen). Make sure that the laser beam continues to hit the material.

If the laser value **increases**:

- Move the rear chuck slightly to the left to align it with the front chuck.
- Inspect the alignment of the front and rear chuck visually.

If the laser value **decreases**:

- Move the rear chuck slightly to the right to align it with the front chuck.
- Inspect the alignment of the front and rear chuck visually.

Calibration

Subsequently:

- If necessary/desired: do the steps to move the trolley forward and rearward again and make sure that the **Laser value** on the screen remains below **2** (mm).
- Tighten the bolts (2x2 pcs) to attach the rear chuck to the trolley.
- Install the cover of the trolley with the Allen screws and washers.
- Select **Return to home** on the screen.

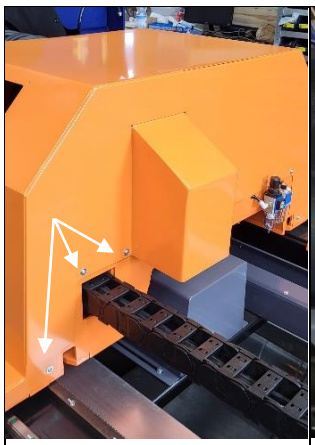


Image 1 One set of 3 Allen screws (total 12)

Image 2 Bolts below the chuck (2 sides)

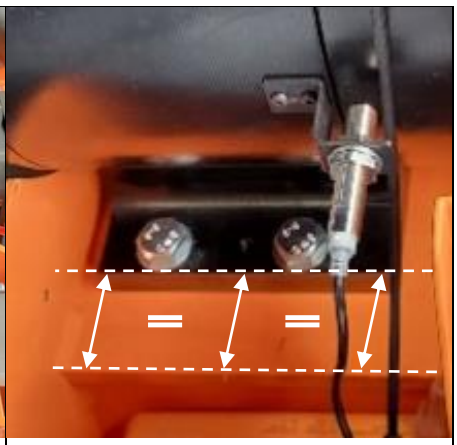


Image 3 Equal distance between the black plate and the orange material