

Astorino - CALIBRATION OF AXES

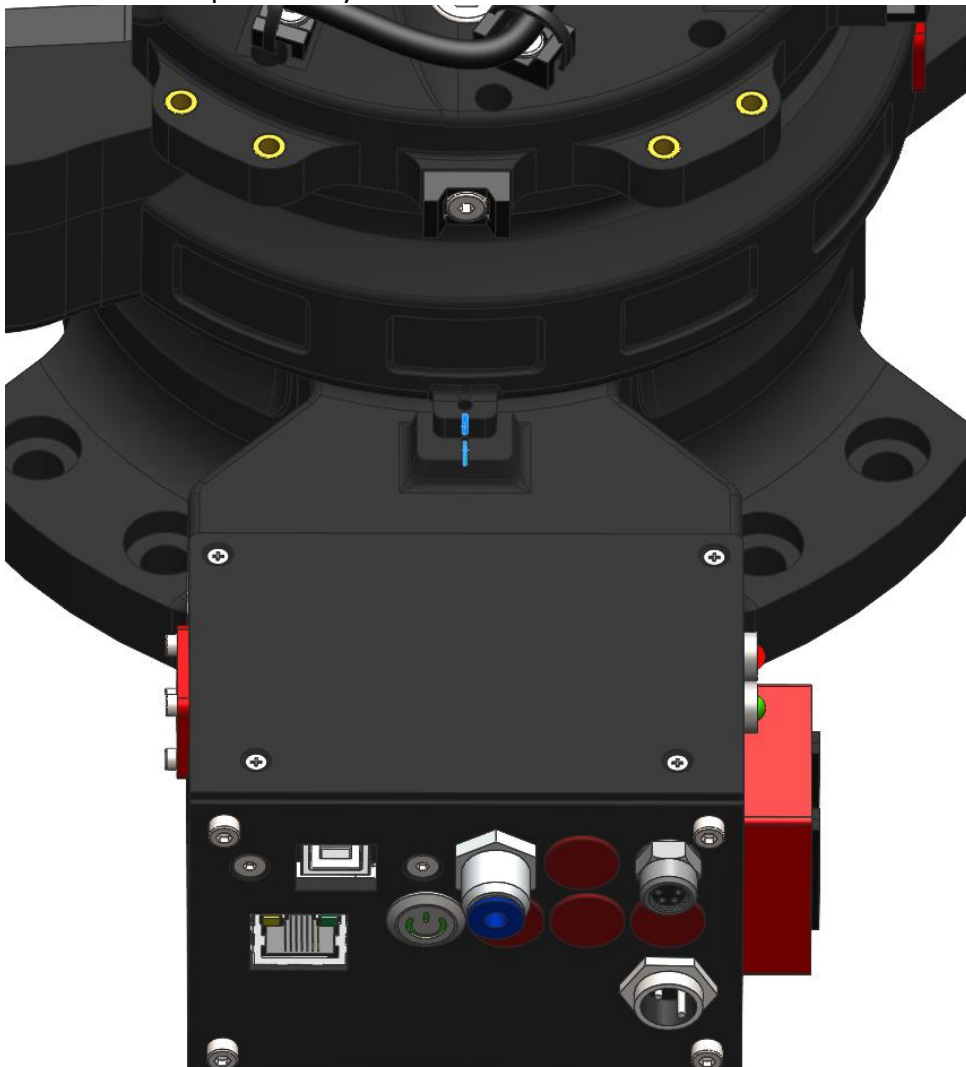
Calibration of axes must be done only after changing the 3d printed parts or after the first assembly.

Preparation:

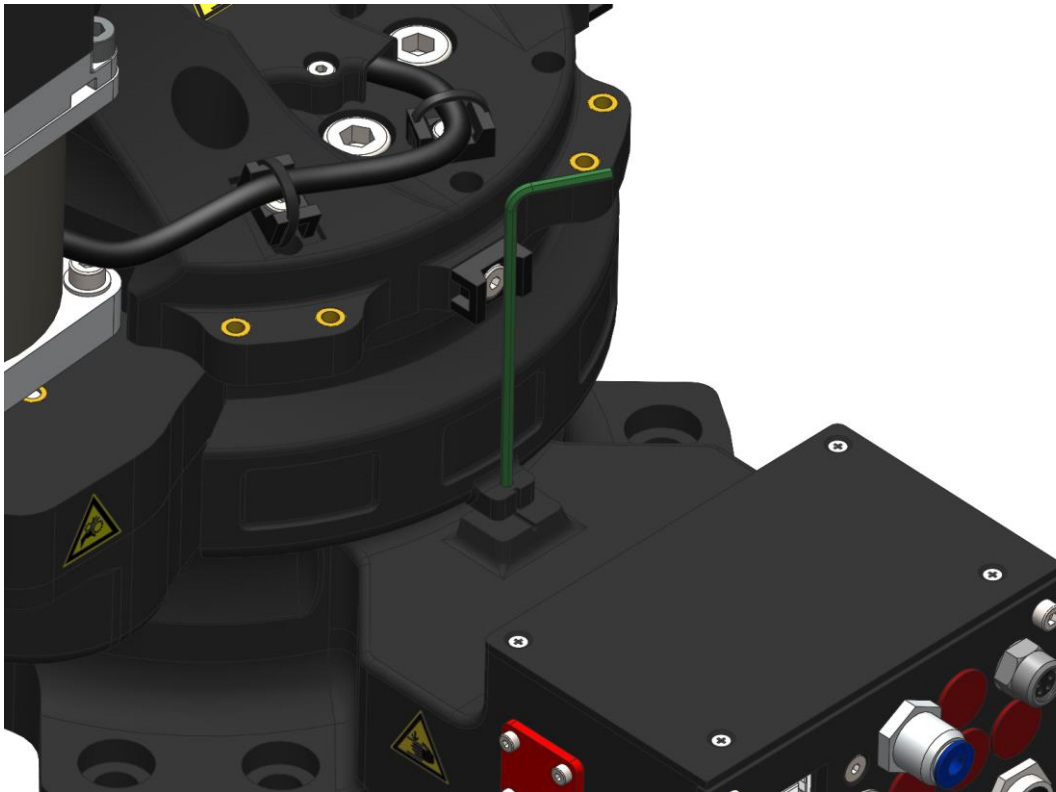
1. Turn on the robot
2. Connect to the robot
3. Go to Sys. Set tab page
4. Type in in the Terminal command: `z_user 3`

JT1:

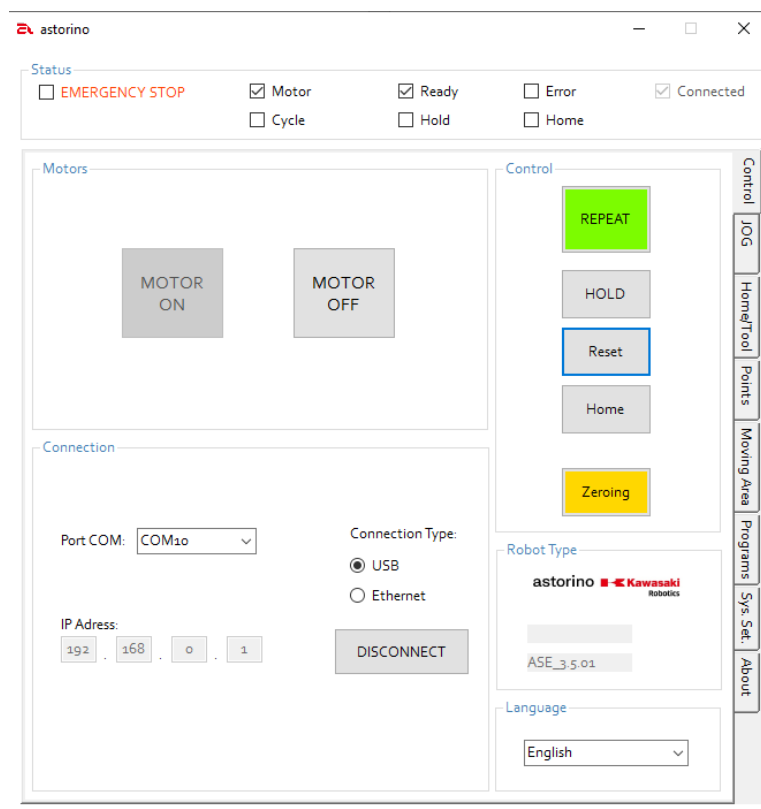
1. Move JT1 to zero position by hand:



You can use 2.5mm drill or 2mm hex allen wrench to find zeroing position (increases the zeroing accuracy)



2. Turn on the motors and press RESET – zeroing should be flashing



3. From calibration menu choose JT1, then press CALIB. Robot will move slowly to the zeroing sensor.



If you used drill or alan wrench remove it before pressing
CALIB

The screenshot shows the 'Astorino - Robot Controller' software window. It features a top status bar with checkboxes for 'EMERGENCY STOP', 'Motors OFF', 'Ready', 'Error', 'Connected', 'Cycle', 'Hold', and 'Home'. Below this are three main sections: 'System Data' with 'Direction' (PC/ROBOT) and 'LOAD/SAVE' buttons; 'All Data' with 'Direction' (PC/ROBOT) and 'SAVE/LOAD' buttons; and 'Calibration' with a 'Move JT to 0 deg positon then press Calib' instruction, a dropdown menu set to 'JT1', and a 'Calib' button. To the right is an 'IO' panel with tabs for 'Dedicated IO', 'Conveyor', and 'Ether'. It includes 'Enable IO Module', 'INPUTS' (1-8), 'OUTPUTS' (1-8), and 'INTERNAL' (1-16) sections, each with checkboxes. A vertical sidebar on the right contains buttons for 'Control', 'IOG', 'Points', 'Home/Tool', 'Programs', 'Sys. Set.', and 'About'. A large text area at the bottom is currently empty.

4. After calibration is done turn off the motors
5. Calibration of JT1 is done.

JT2:

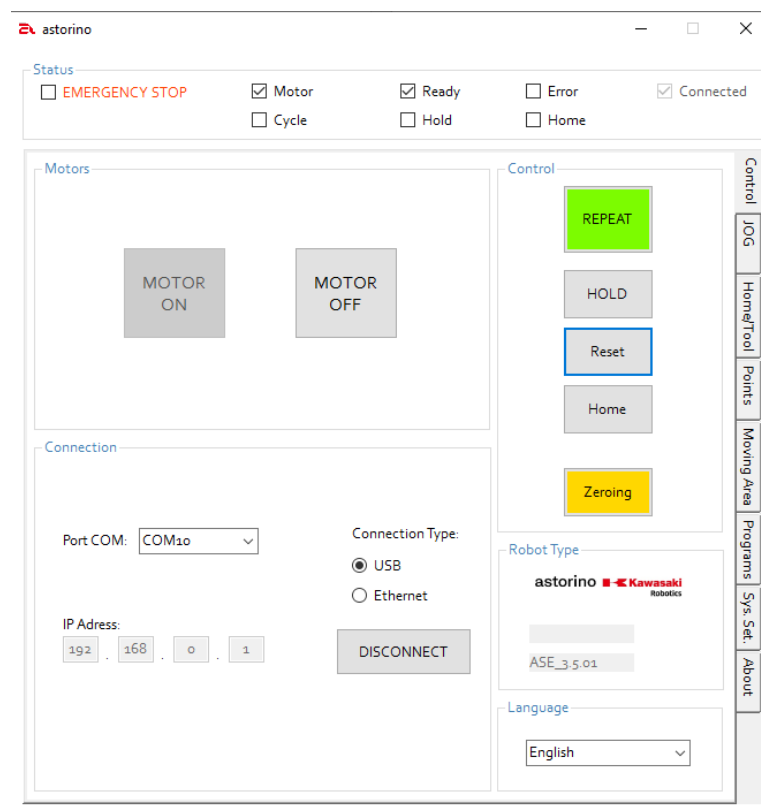
1. Move JT2 to zero position by hand:



You can use 2 or 2.5mm drill or 2mm hex allen wrench to find zeroing position (not necessary)



2. Turn on the motors and press RESET – zeroing should be flashing



3. From calibration menu choose JT2, then press CALIB. Robot will move slowly to the zeroing sensor.



If you used drill or alan wrench remove it before pressing
CALIB

Astorino - Robot Controller

Status

☐ **EMERGENCY STOP** ☐ Motors OFF ☐ Ready ☐ Error ☐ Connected
☐ Cycle ☐ Hold ☐ Home

System Data

Direction: ☒ PC ☐ ROBOT

All Data

Direction: ☐ PC ☐ ROBOT

Calibration

Move JT to 0 deg positon then press Calib

JT1

☐ H1 ☐ H2 ☐ H3 ☐ H4 ☐ H5 ☐ H6 ☐ H7

IO Dedicated IO Conveyor Ether

☐ Enable IO Module

INPUTS

☐ INPUT 1
☐ INPUT 2
☐ INPUT 3
☐ INPUT 4
☐ INPUT 5
☐ INPUT 6
☐ INPUT 7
☐ INPUT 8

OUTPUTS

☐ OUTPUT 1
☐ OUTPUT 2
☐ OUTPUT 3
☐ OUTPUT 4
☐ OUTPUT 5
☐ OUTPUT 6
☐ OUTPUT 7
☐ OUTPUT 8

INTERNAL

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐
7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐
13 ☐ 14 ☐ 15 ☐ 16 ☐

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4. After calibration is done turn off the motors
5. Calibration of JT1 is done.

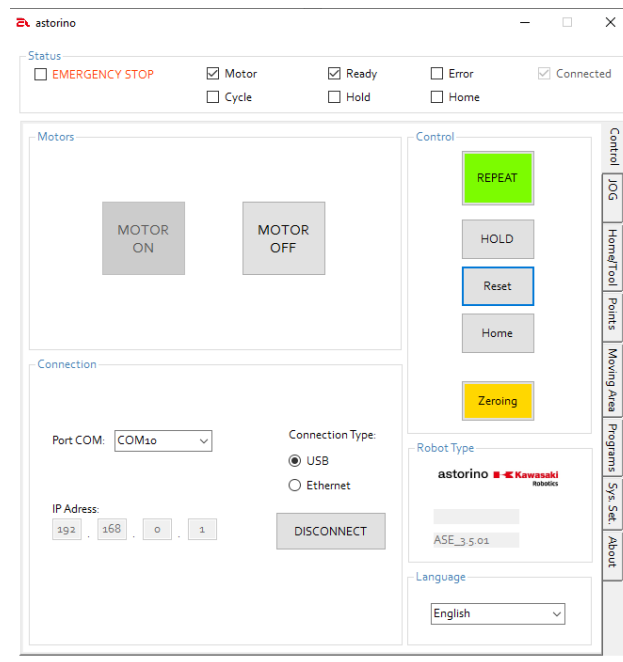
JT3:

1. Move JT3 to zero position by hand:

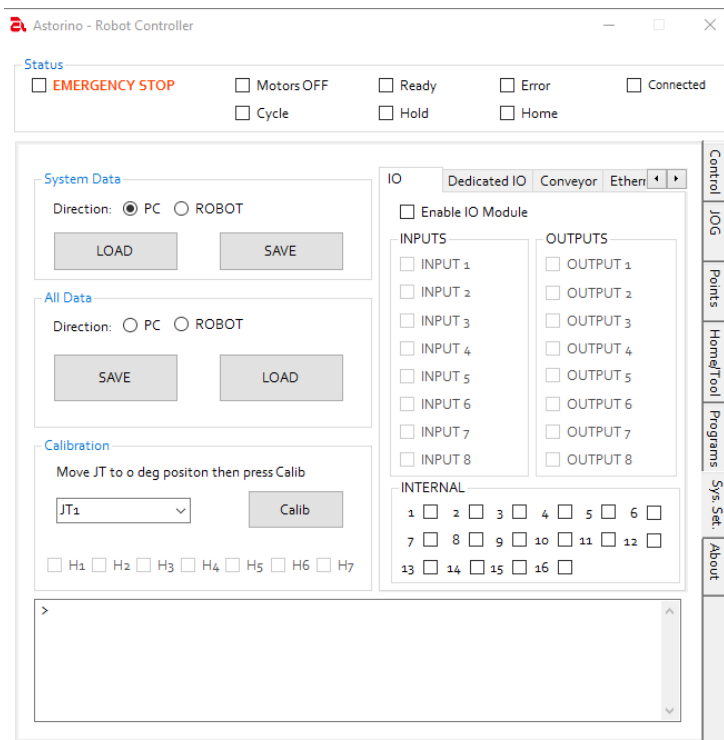


JT3 should touch the limit stop

2. Turn on the motors and press RESET – zeroing should be flashing



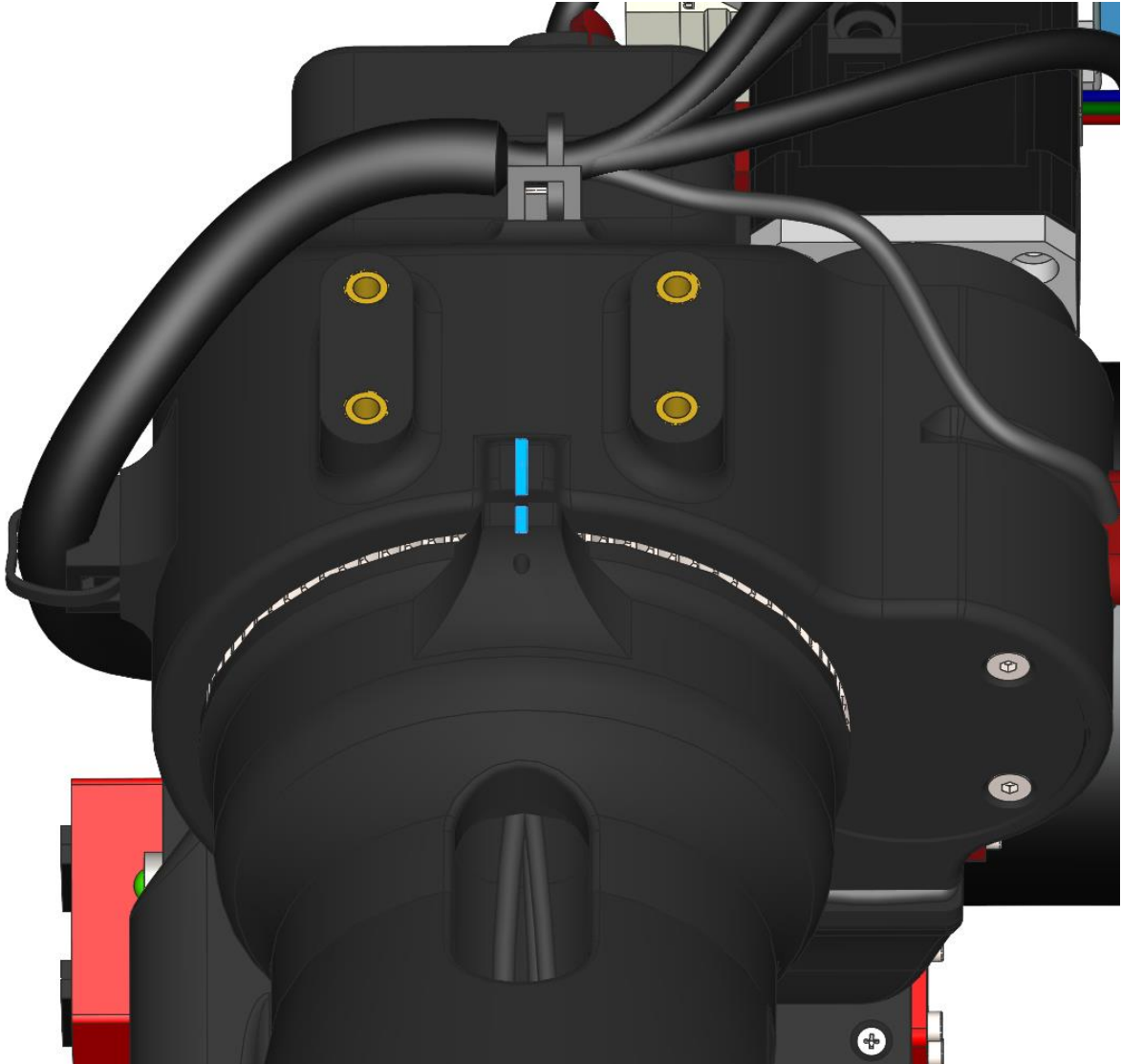
3. From calibration menu choose JT3, then press CALIB. Robot will move slowly to the zeroing sensor.



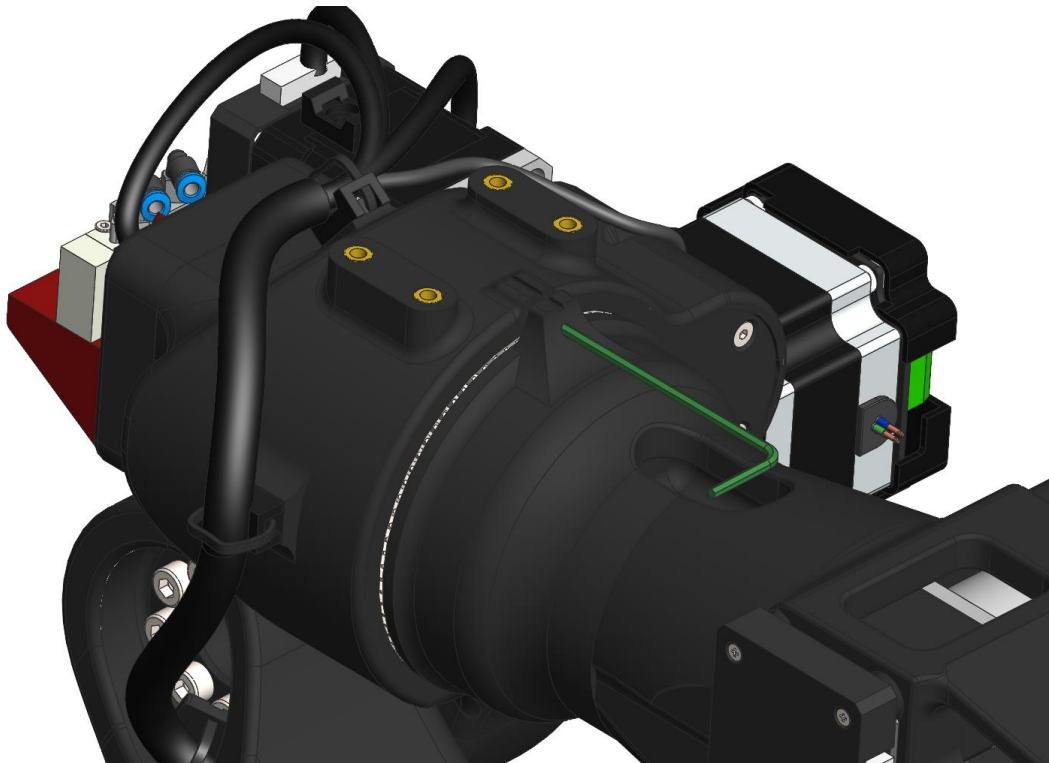
4. After calibration is done turn off the motors
5. Calibration of JT1 is done.

JT4:

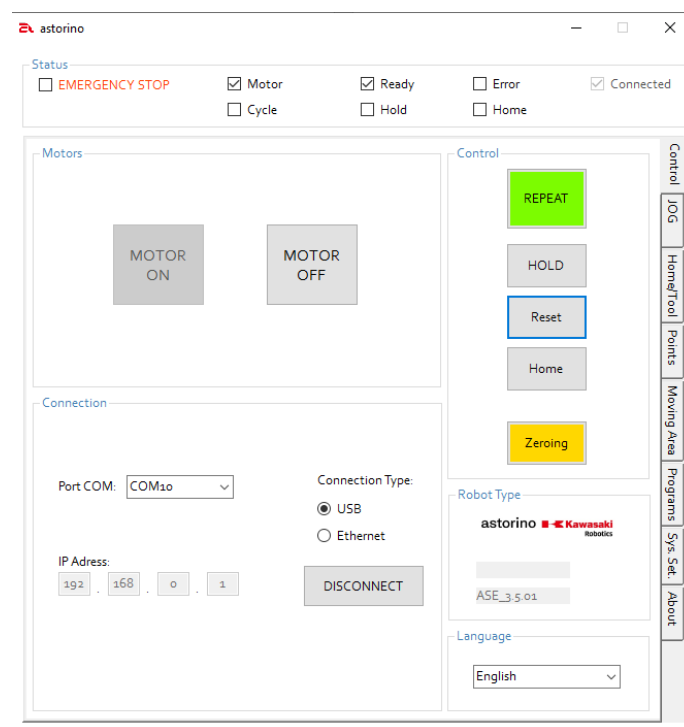
1. Move JT4 to zero position by hand:



You can use 2 or 2.5mm drill or 2mm hex allen wrench to find zeroing position (not necessary)



2. Turn on the motors and press RESET – zeroing should be flashing



3. From calibration menu choose JT4, then press CALIB. Robot will move slowly to the zeroing sensor.



If you used drill or alan wrench remove it before pressing
CALIB

Astorino - Robot Controller

Status

☐ **EMERGENCY STOP** ☐ Motors OFF ☐ Ready ☐ Error ☐ Connected
☐ Cycle ☐ Hold ☐ Home

System Data

Direction: ☒ PC ☐ ROBOT

LOAD SAVE

All Data

Direction: ☐ PC ☐ ROBOT

SAVE LOAD

Calibration

Move JT to 0 deg positon then press Calib

JT1

☐ H1 ☐ H2 ☐ H3 ☐ H4 ☐ H5 ☐ H6 ☐ H7

IO

Dedicated IO Conveyor Ether

☐ Enable IO Module

INPUTS

☐ INPUT 1 ☐ INPUT 2 ☐ INPUT 3 ☐ INPUT 4 ☐ INPUT 5 ☐ INPUT 6 ☐ INPUT 7 ☐ INPUT 8

OUTPUTS

☐ OUTPUT 1 ☐ OUTPUT 2 ☐ OUTPUT 3 ☐ OUTPUT 4 ☐ OUTPUT 5 ☐ OUTPUT 6 ☐ OUTPUT 7 ☐ OUTPUT 8

INTERNAL

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐
7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐
13 ☐ 14 ☐ 15 ☐ 16 ☐

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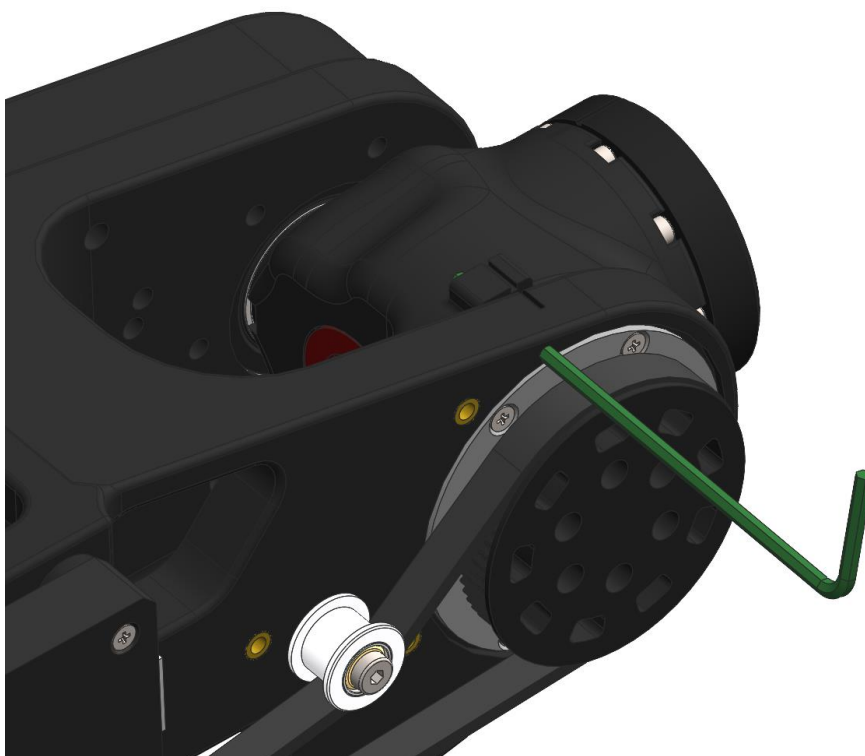
4. After calibration is done turn off the motors
5. Calibration of JT4 is done.

JT5:

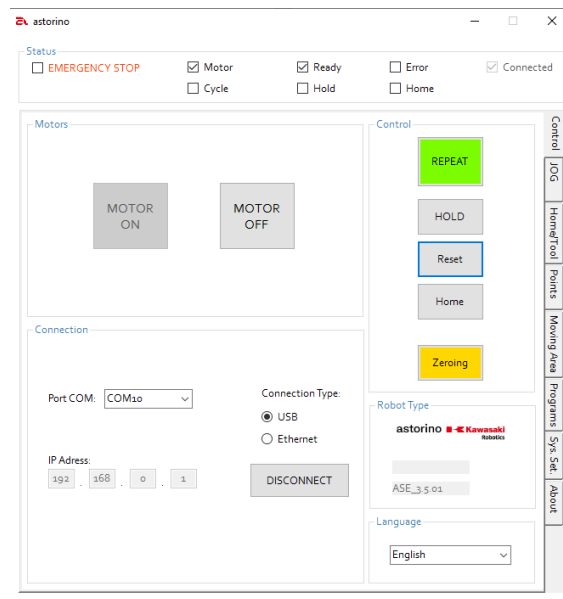
1. Move JT5 to zero position by hand:



You can use 1 or 1.5mm drill or 1.5mm hex allen wrench to find zeroing position (not necessary) – remove the JT6 motor cover



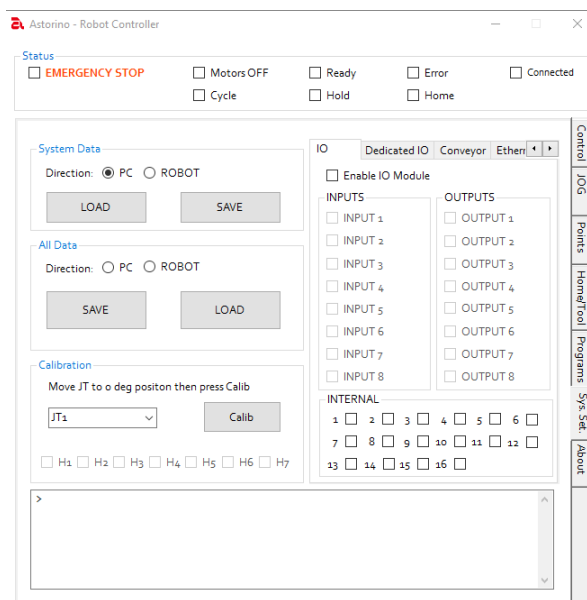
2. Turn on the motors and press RESET – zeroing should be flashing



3. From calibration menu choose JT4, then press CALIB. Robot will move slowly to the zeroing sensor.



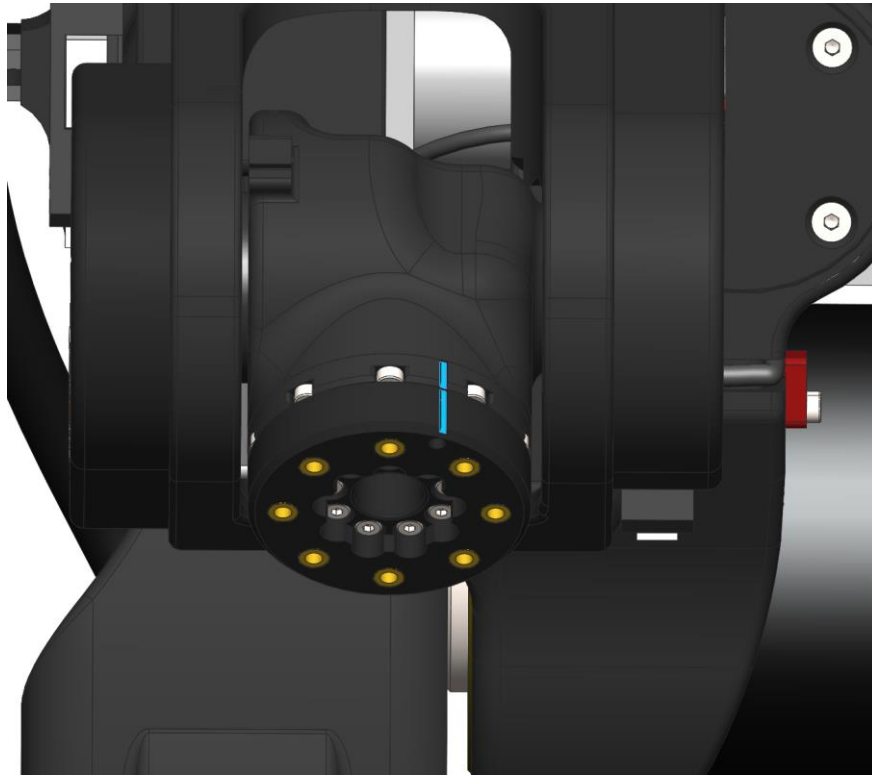
If you used drill or alan wrench remove it before pressing
CALIB



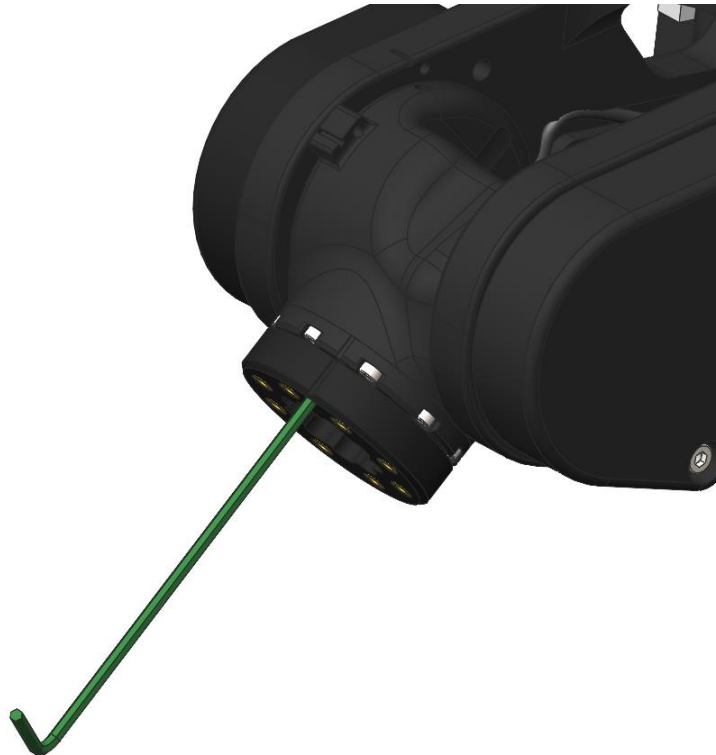
4. After calibration is done turn off the motors
5. Calibration of JT5 is done.

JT6:

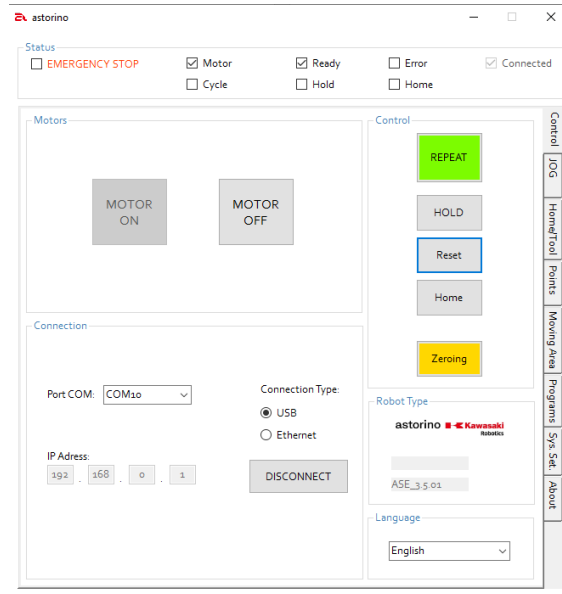
1. Move JT6 to zero position by hand:



You can use 1 or 1.5mm drill or 1.5mm hex allen wrench to find zeroing position (not necessary)



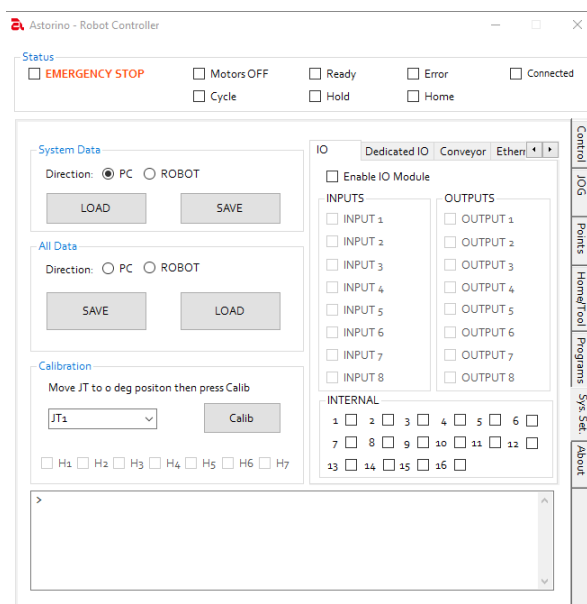
2. Turn on the motors and press RESET – zeroing should be flashing



3. From calibration menu choose JT6, then press CALIB. Robot will move slowly to the zeroing sensor.



If you used drill or alan wrench remove it before pressing
CALIB



4. After calibration is done turn off the motors
5. Calibration of JT5 is done.

POST CALIBRATION:

After calibration please restart the robot.