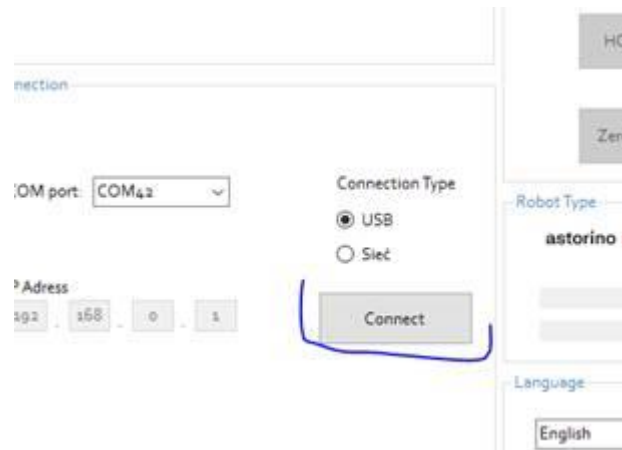


Firmware update of Astorino Robot

The update of the firmware is possible even with new Astorino software. You don't need to use the corresponding Astorino software to the firmware of the robot arm.
Please install at first the latest Astorino Software to your pc.

Then follow the steps below to install the new firmware:

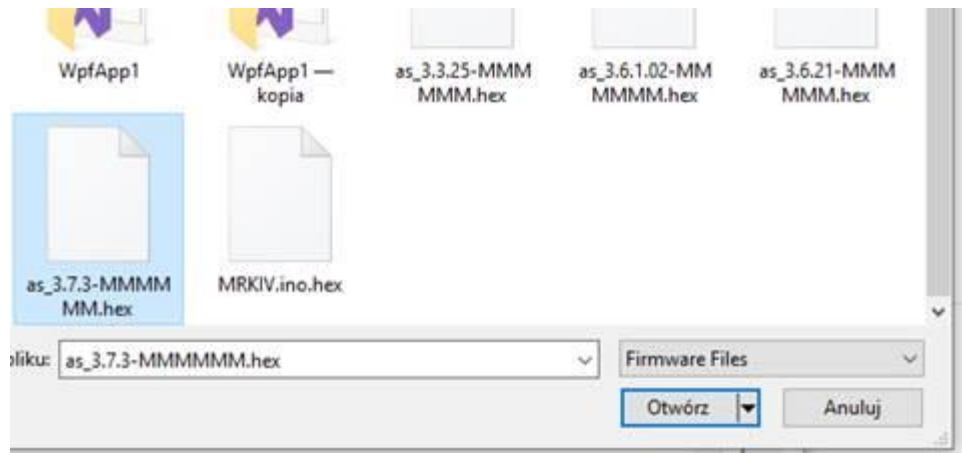
- 1) Connect the USB cable to the robot and open the Astorino software.
- 2) Just connect the robot physically to the PC, but **don't press** CONNECT button on the Astorino program



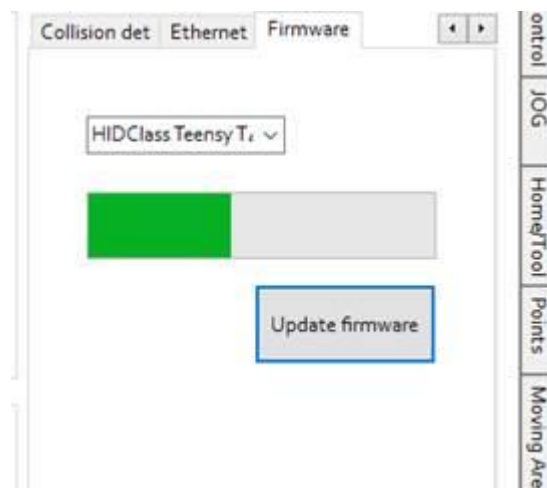
- 3) Be sure that the robot is in a position where the Motors can be switched off. The best is if the motors are already switched off. During firmware upload they will turn off and if the robot is in upward position, it could fall down.
- 4) If the robot is off, please turn it on.
- 5) Open the Sys.Set tab and go to the Firmware tab.



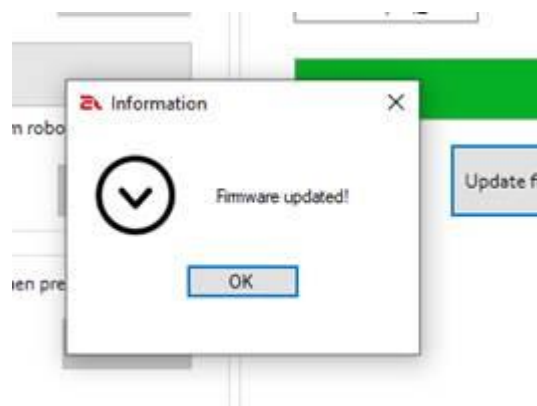
- 6) Then press Update firmware button and choose the HEX file. (Please check the “Kawasaki_Robotics_ASTORINO_WhichFirmware.pdf” document to find which software you need to choose).



- 7) The progress bar should now start moving

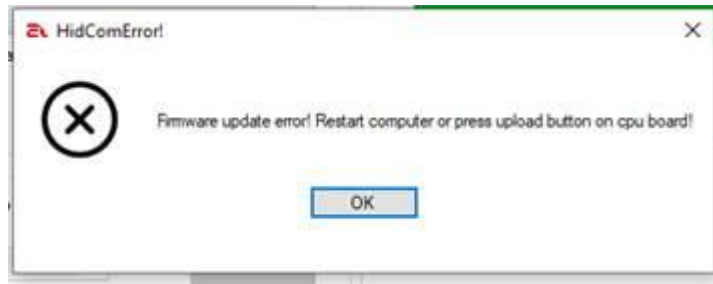


- 8) After the progress bar reached 100 % you will get the message:



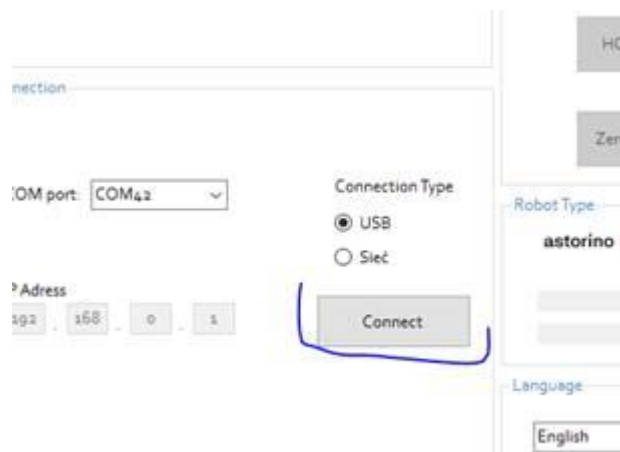
- 9) Now the firmware upload is finished. And the RED LED will be flashing.
- 10) Now restart the robot. The RED LED will not be flashing and you can now use the robot normally.

In case that an error occurs, please try again, without button pressing or restarting the computer.

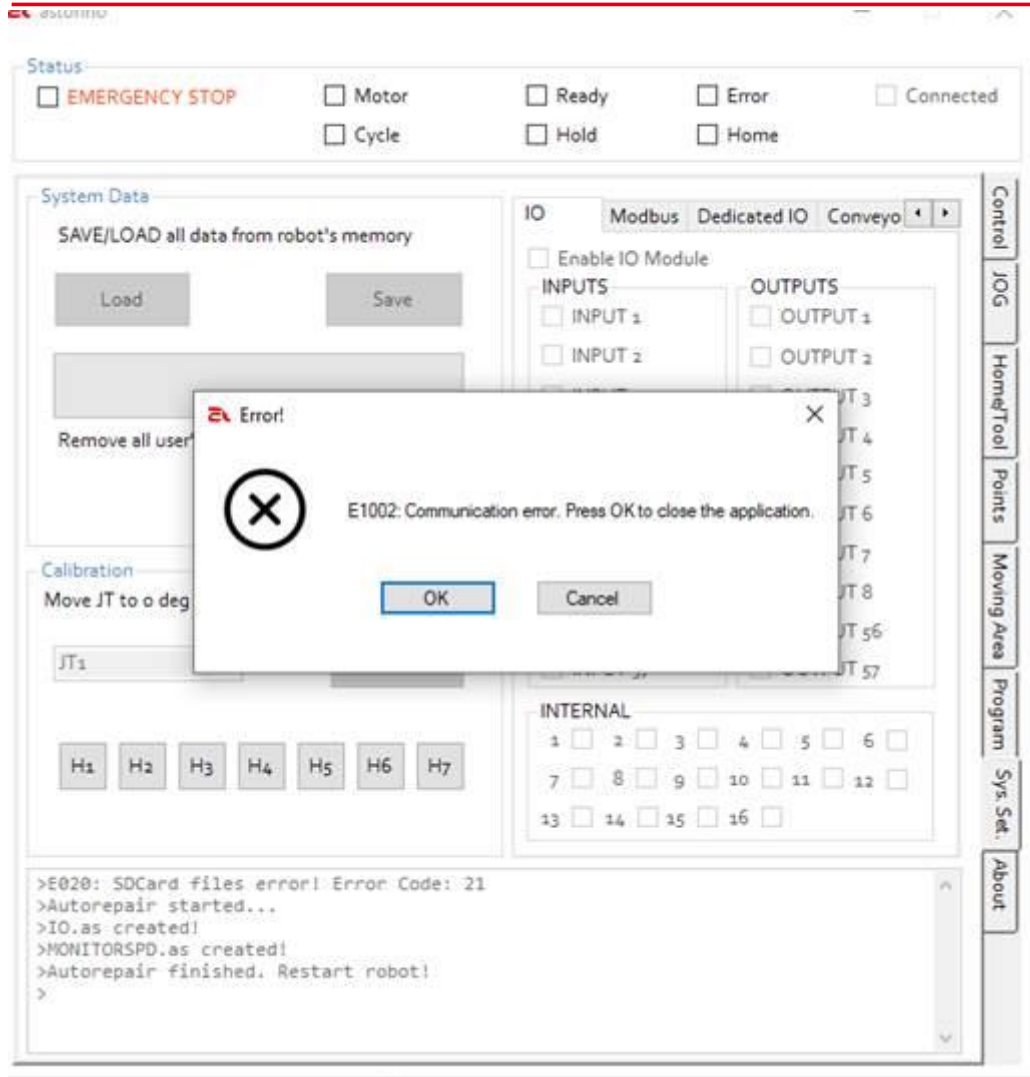


After update process was finished the RED LED will be flashing.

If it is flashing 2x a second then restart the robot, if the RED LED is flashing fast then connect to the robot



You will get an error and on the terminal there will be information about updating internal system data. Cancel the error information and wait until on the terminal you will see:
"Autorepair finished. Restart the robot"



After that restart the robot, now the RED LED will not be flashing and you can now use the robot normally