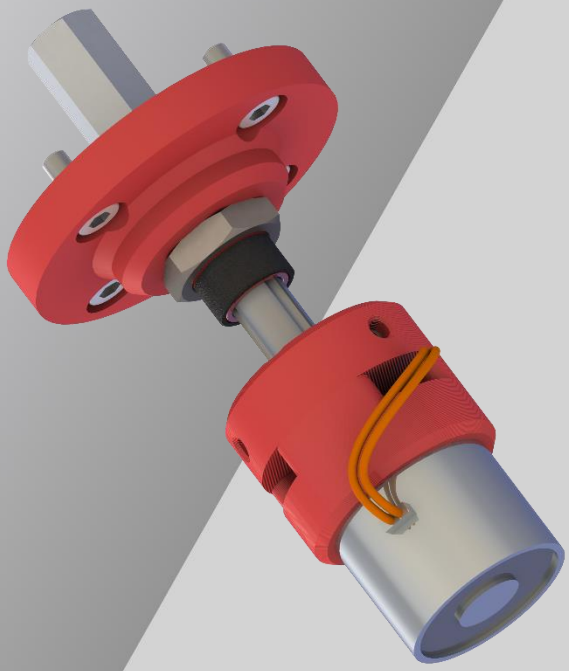
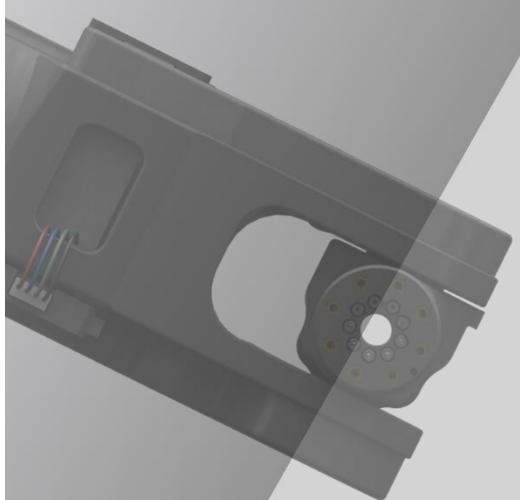
Kawasaki Robotics

ASTORINO

Magnetic Gripper Operation Manual





INTRODUCTION

This manual describes the operation of a magnetic gripper for the "Kawasaki Robotics Astorino" educational robot.

ASTORINO is an educational robot that has been specially developed for training establishments and institutions. Pupils and students can use ASTORINO to learn the automation and robotization of industrial processes in practice.

If you have any further questions, please contact local Kawasaki Support.

1. The "astorino" software included with the ASTORINO is licensed for use with this robot only and may not be used, copied or distributed in any other environment.
2. Kawasaki shall not be liable for any accidents, damages, and/or problems caused by improper use of the ASTORINO robot.
3. Kawasaki reserves the right to change, revise, or update this manual without prior notice.
4. This manual may not be reprinted or copied in whole or in part without prior written permission from Kawasaki.
5. Keep this manual in a safe place and within easy reach so that it can be used at any time. If the manual is lost or seriously damaged, contact Kawasaki.

SYMBOLS

Items that require special attention in this manual are marked with the following symbols.

Ensure proper operation of the robot and prevent injury or property damage by following the safety instructions in the boxes with these symbols.

WARNING

Failure to observe the specified contents could possibly result in injury or, in the worst case, death.

[**ATTENTION**]

Identifies precautions regarding robot specifications, handling, teaching, operation,

WARNING

1. **The accuracy and effectiveness of the diagrams, procedures and explanations in this manual cannot be confirmed with absolute certainty. Should any un-
explained problems occur, contact Kawasaki Robotics GmbH at the above address.**
2. **To ensure that all work is performed safely, read and
understand this manual. In addition, refer to all applicable laws, regulations, and related materials, as well as the safety statements described in each chapter.**

PARAPHRASES

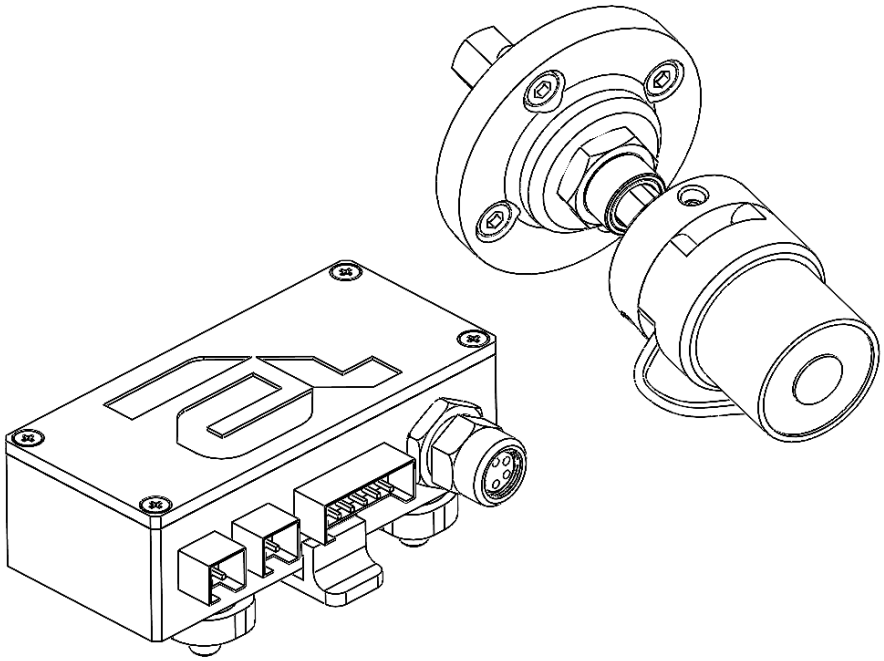
The following formatting rules are used in this manual:

- For a particular keystroke, the respective key is enclosed in angle brackets, e.g. <F1> or <Enter>.
- For the button of a dialog box or the toolbar, the button name is enclosed in square brackets, e.g. [Ok] or [Reset].
- Selectable fields are marked with a square box ☐.
  If selected a check mark is shown inside the symbol ☑.

1 TECHNICAL SPECIFICATIONS

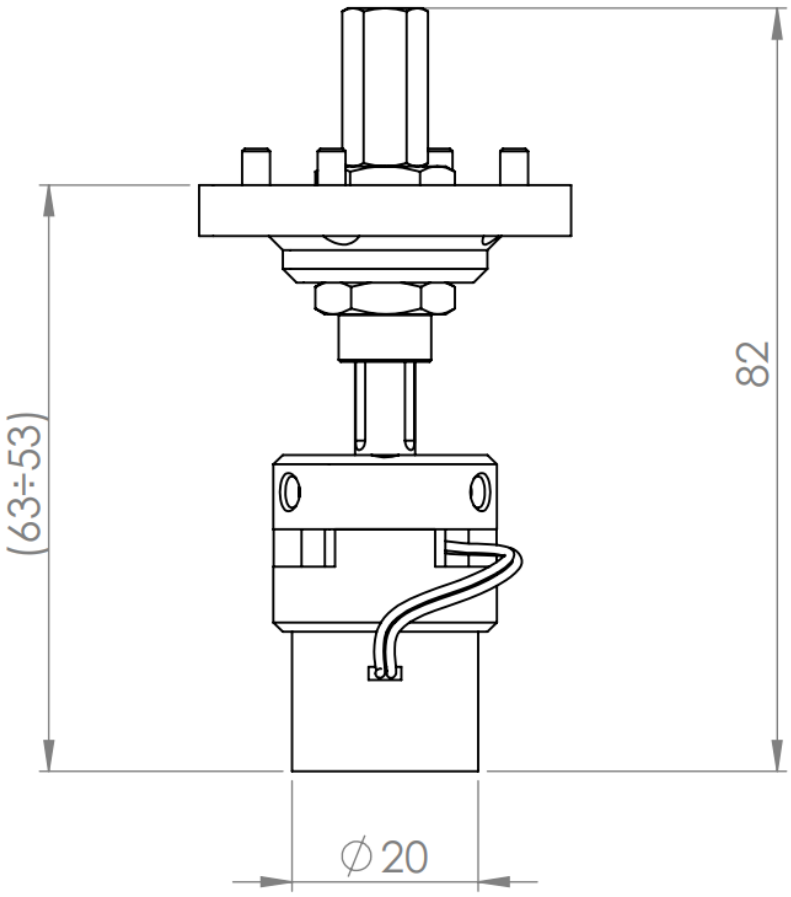
Characteristics		Astorino Magnetic gripper
Working environment	Temperature	0–40°C
	Humidity	35–80%
Max. power		2.5W
Max. hold force		20 N
Size		40x40x82mm
Power supply		24V
Compensation stroke		10 mm
Non-rotating		Yes
Weight		80 g
Material		Aluminium, PET-G, Steel
Colour		Silver/Red/Black

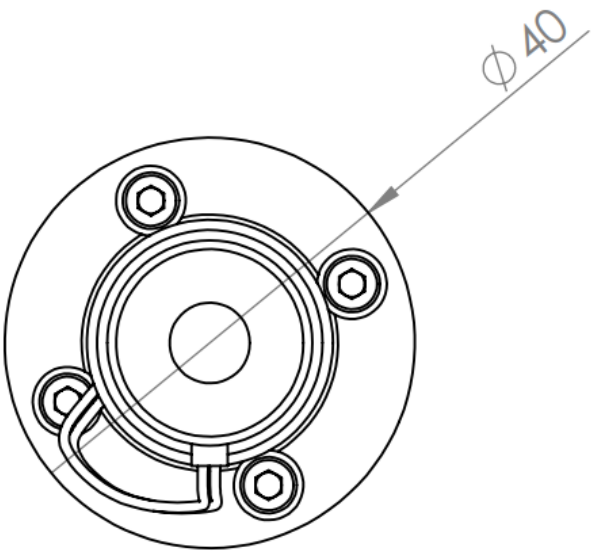
2 MAGNETIC GRIPPER PACKAGE CONTENTS



Part	Qt
Gripper with level compansator	1
Connector box with holder	1
Installation screws	8

3 DIMENSIONS

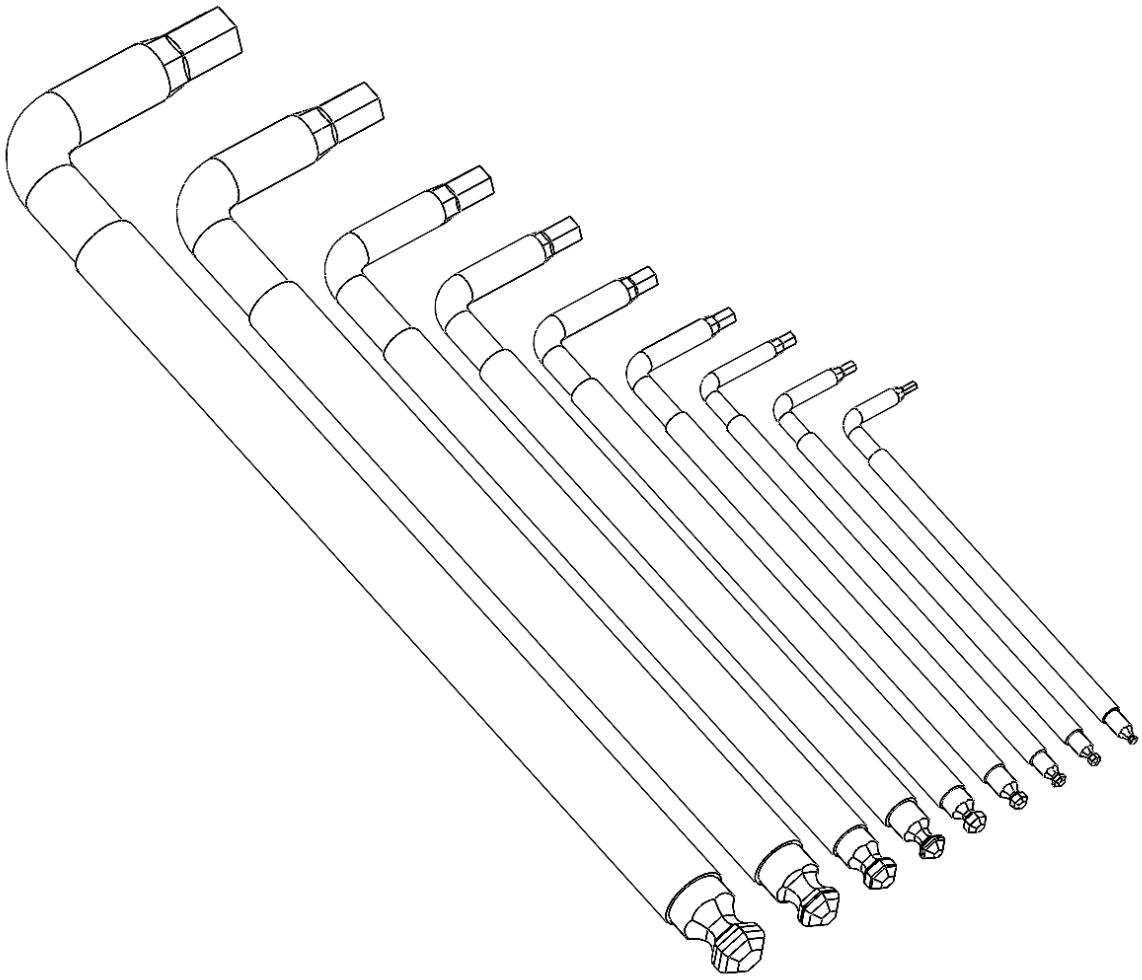




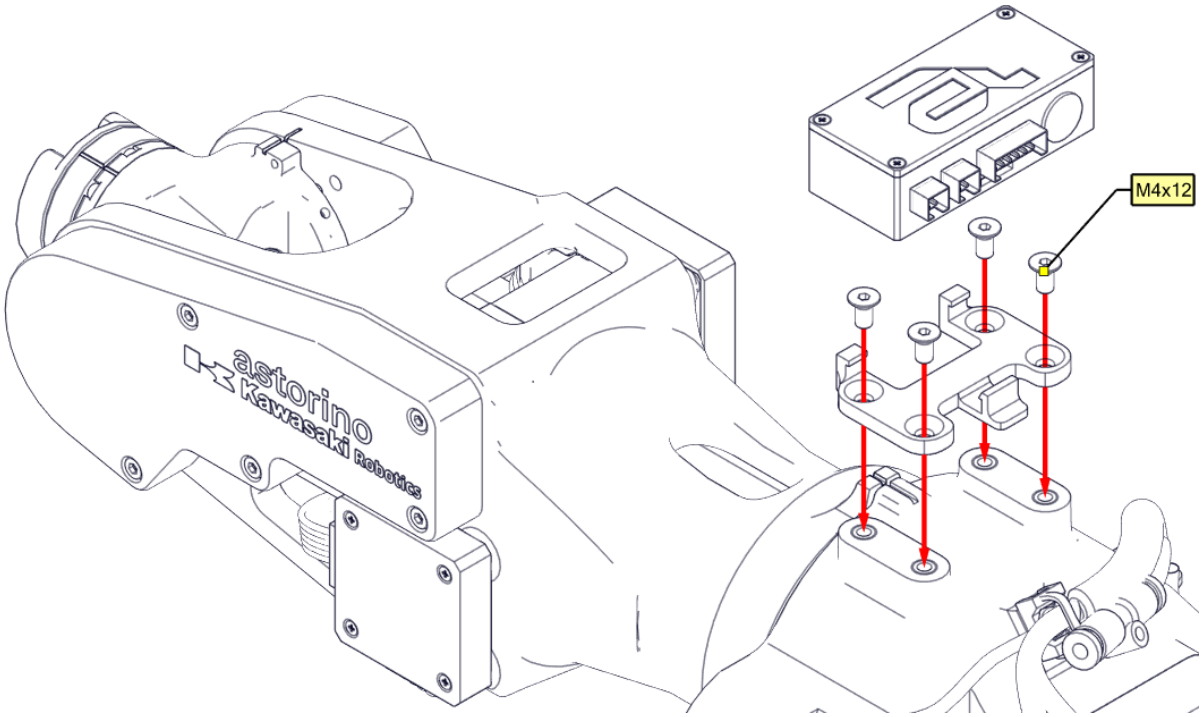
4 INSTALLATION

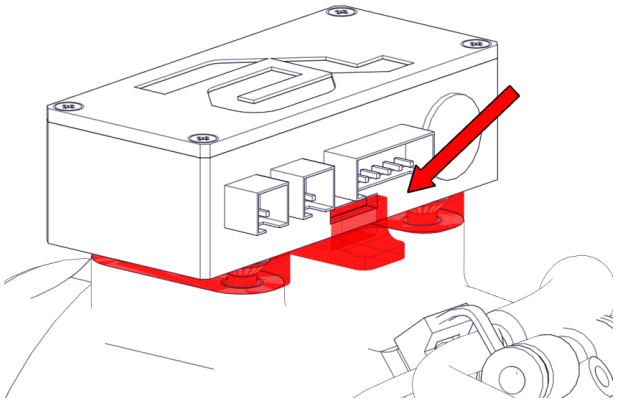
4.1 TOOLS REQUIRED

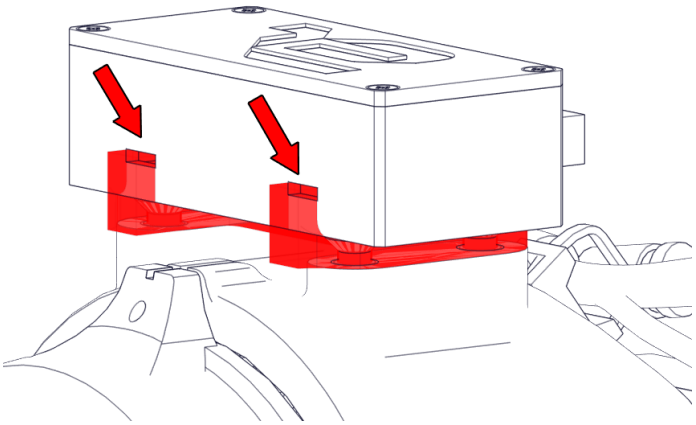
Allen wrenches



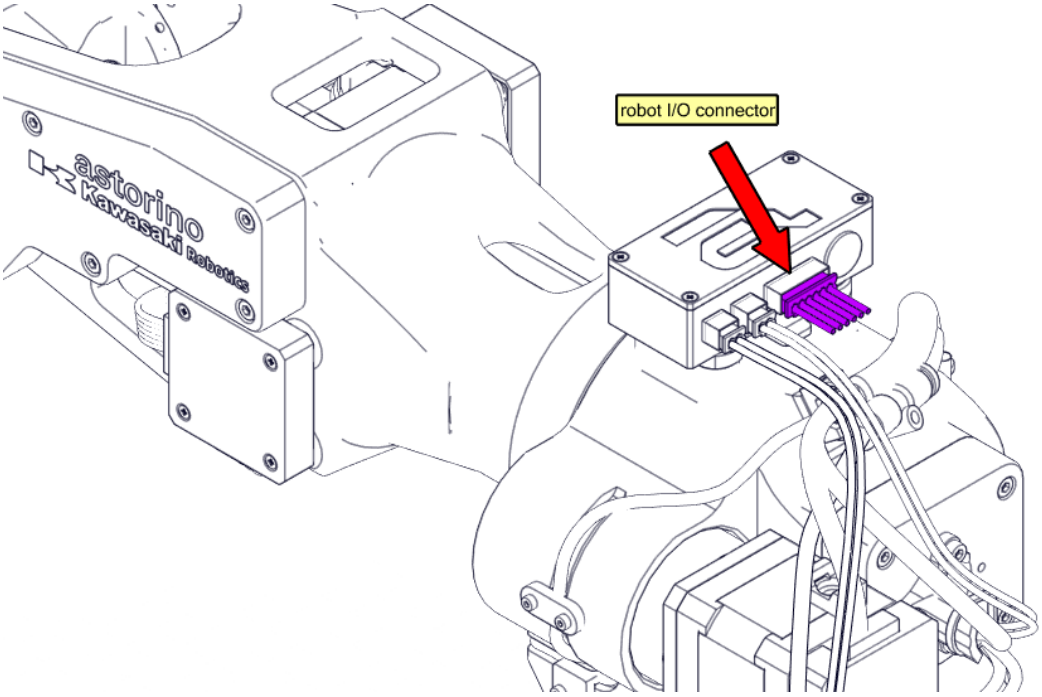
4.2 MOUNTING IO MODULE



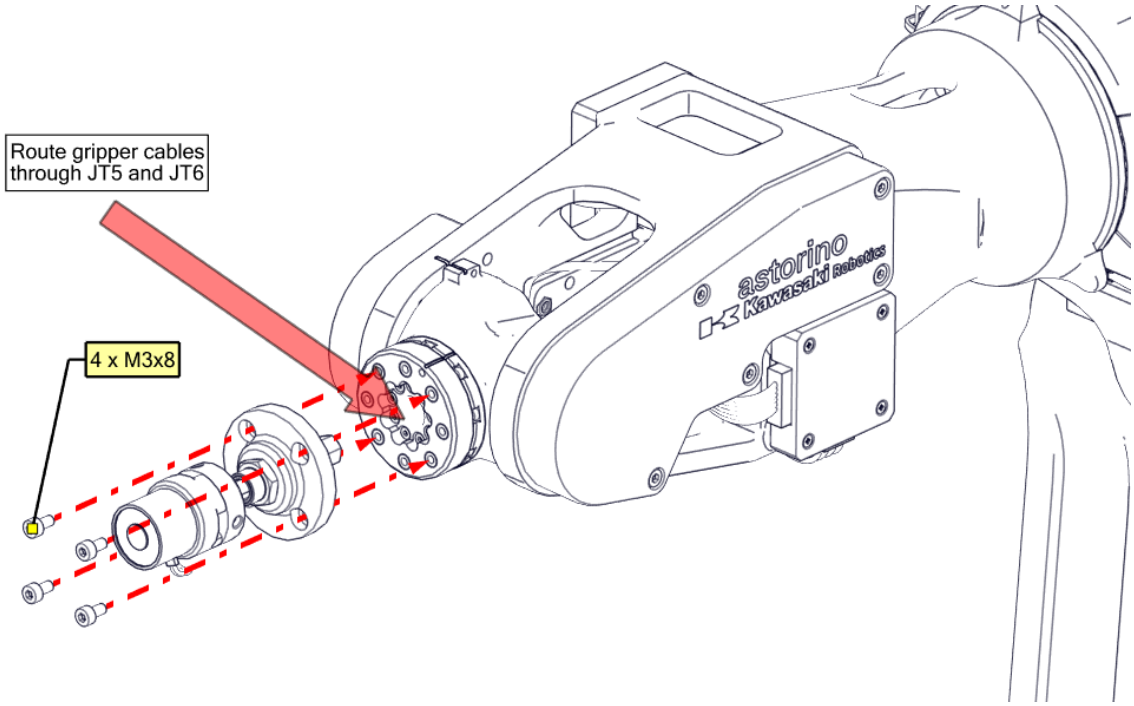




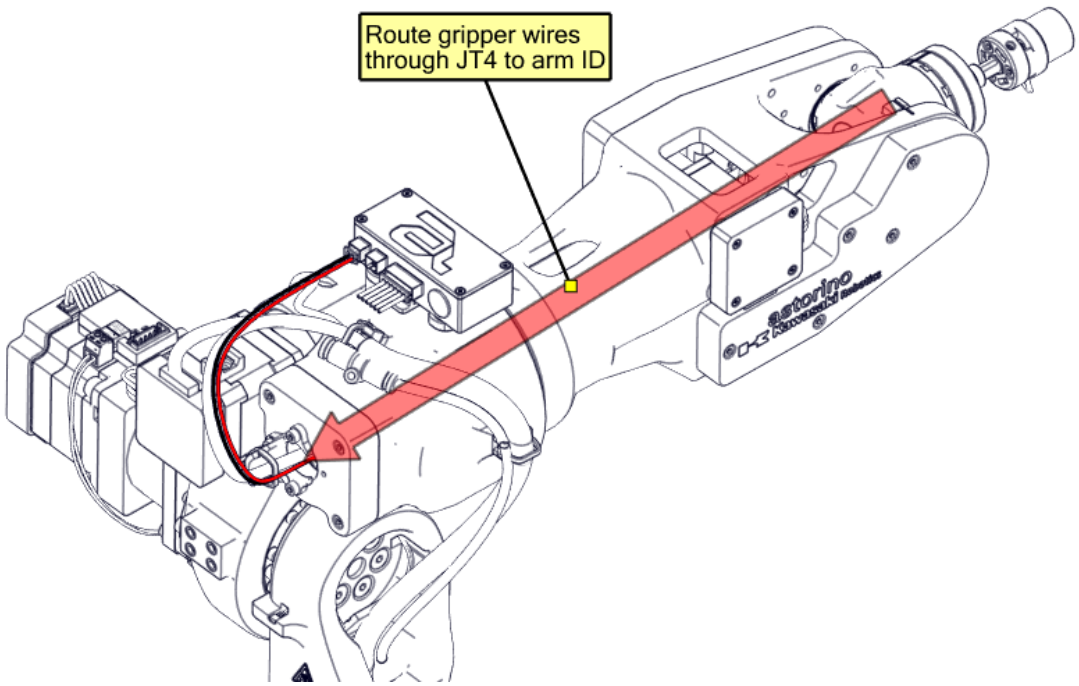
Connect the IO cable



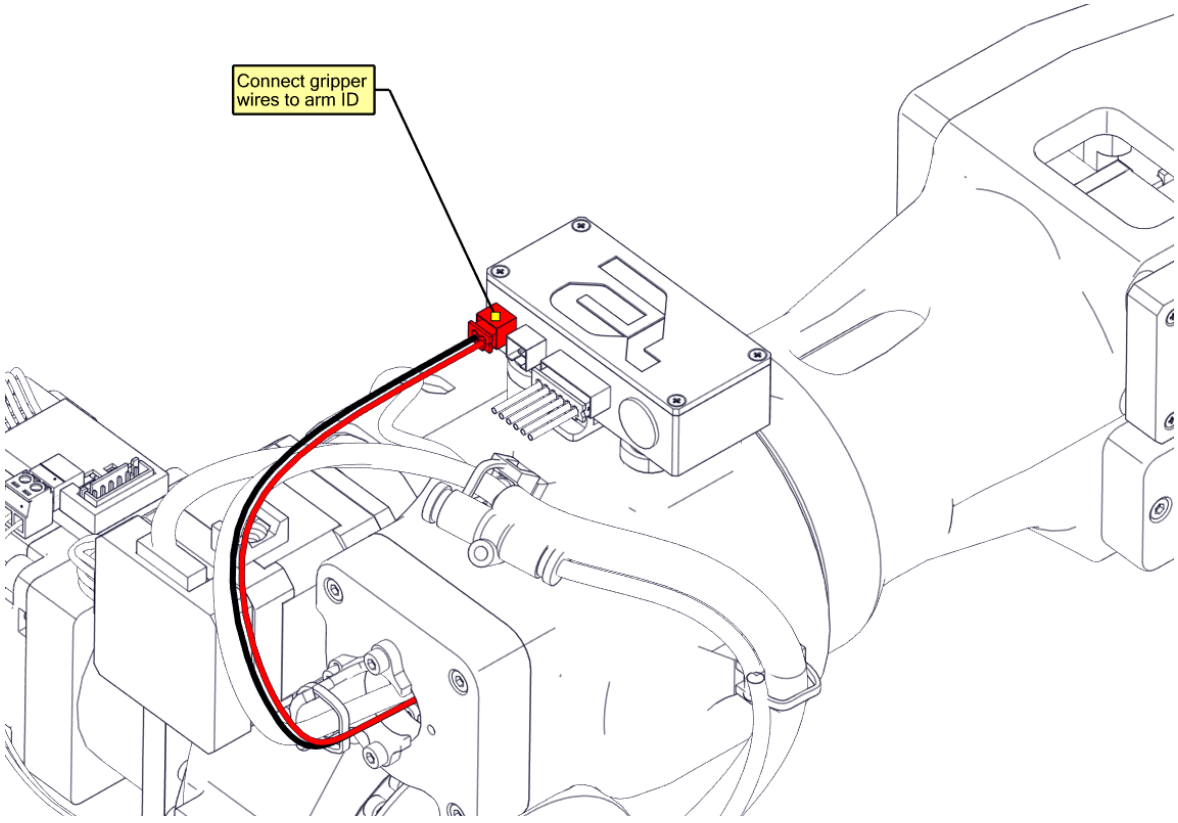
4.3 GRIPPER ASSEMBLY



4.4 CABLE ROUTING



4.5 CONNECTING GRIPPER

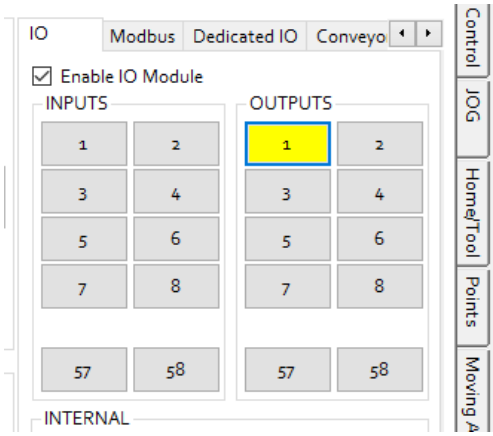


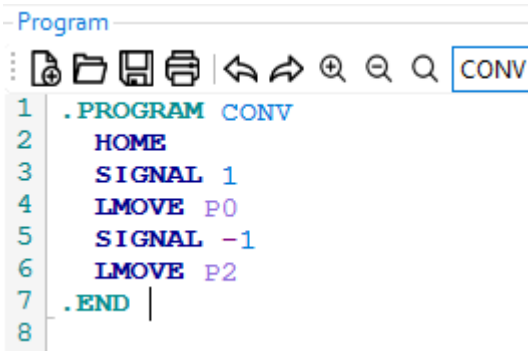
5 CONTROLLING GRIPPER VIA OUTPUTS

WARNING

Do not leave a gripper turned on for a long period of time, this might overheat the electromagnet!

To control gripper use astorino software or Teach Pendant to turn ON or OFF OUTPUTS that are connected to the gripper, or use SIGNAL command in your program.





[**ATTENTION**]

B – version of the robot uses ARM IO for controlling grippers. Use 57 or 58 signal to switch gripper ON or OFF.

6 MANUFACTURER DATA

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