A first-generation KX-2 robot can be identified by the style of power connector located on the left side of the connector panel on the robot base. The first-generation KX-2 used a 13-pin friction lock female DIN connector, as opposed to the 8-pin thread-in male connector found on newer KX-2 robots.

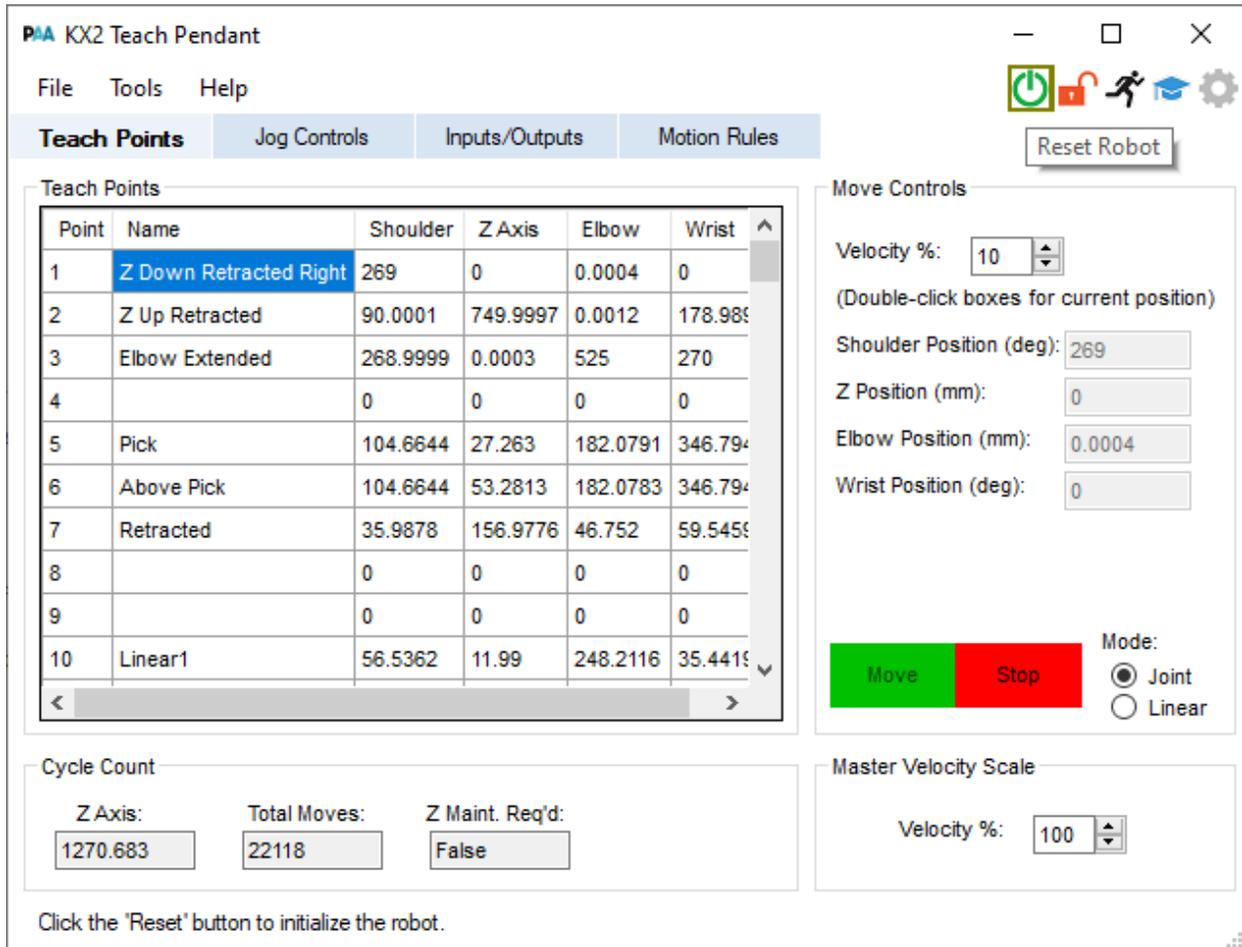Updated Power Supply Connector for KX-2 Rail & Newer Robots:

This connector plugs into the end of the rail

The following changes are required to use a first-generation KX-2 robot on a KX-2 rail:

- The gripper CAN Node ID must be changed from 5 to 6 (the rail is Node 5)
- A CAN/USB adapter bypass jumper (part number 95110006.AA) must be installed inside the robot base (this must be done for any second-generation robot as well that was not configured by the factory for rail use)
- A new power supply (86107000.AB must be used that has a new 8-pin power output connector compatible with the rail. A capacitor has also been added to the power supply for absorbing regenerated voltage produced by the rail during deceleration
- A power connector adapter (95110007.AA) must be used between the rail and robot

Gripper Node ID Change:

1) Connect the robot by itself (without a rail) to the PC. Connect the power supply and all cables (see User's Manual for more information)
2) Open the KX-2 Teach Pendant and reset the robot (see User's Manual for more information)

3) Open Tools/Terminal and send the following commands:

        MO.5=0   (the second digit is the letter O, not a zero)

        PP[13].5=6

        SV.5
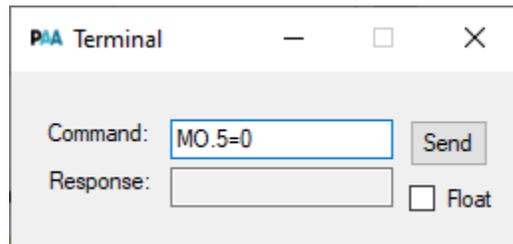
4) Shut down the robot
5) Disconnect power from the robot, wait 30 seconds, and reconnect power
6) Reset the robot from the KX-2 Teach Pendant
7) Open Tools/Terminal, send PP[13].6 and confirm the response is 6

CAN/USB Adapter Bypass Jumper Installation:

1) Detach the robot from the table and lay the robot on its side on a soft surface
2) Remove the four M2 screws from the bottom of the robot

3) Remove the six M5 screws from the perimeter of the bottom of the robot

Note: Before proceeding, verify all four M2 screws are removed. If any of these screws are left installed, damage to the shoulder motor drive may occur during the next step. If the M2 screws are left installed and the shoulder motor drive detaches from the PCB in the following step, then remove the drive from the bottom plate and reinstall it on the PCB. Be sure to line the motor drive pins up with their corresponding connectors and confirm none of the pins are bent.
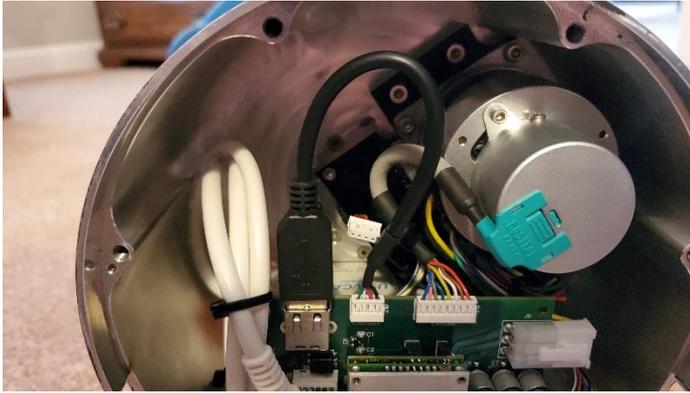
4) Remove the bottom plate from the robot. Pull evenly on the three main mounting tabs. Some wiggling may be required

5) Disconnect the two CAN/USB adapter connectors from the PCB

6) Plug the CAN bypass cable into the two PCB connectors

7) Anchor the CAN/USB adapter USB connector to the bypass cable with a wire tie in an orientation that will prevent the disconnected USB connector from touching the PCB

8) Reinstall the bottom plate. Install the M5 screws (tighten firmly) and then the M2 screws
9) The robot is now ready to be attached to the rail. Use the following power cable adapter when attaching the robot to the rail:

Power Connector Adapter (95110007.AA):