

Follow this manual to get the P4 Dev Kit up and running with ease.

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Document B7296 Rev AC

## ASSEMBLY

#### Hardware

Thumb screw can be removed to allow free spin (optional).

### Electrical

- Plug the barrel jack of the 24V adapterinto J16 on the Dev Board.
- 3 Attach the male end of the Serial Cable to 11 on the Dev Board
- Cable to JI on the Dev Board.
- Connect the female end of the cable to the CAN Adapter and hand tighten.
- 5 Plug the DC Adapter into an outlet (110-220VAC) to power to the board.
- 6 Connect the CAN Adapter to a USB port on the computer.
- The Dev Board automatically regulates
   12V logic on-board from the 24V input.

### SOFTWARE INSTALLATION



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## **WINDOWS**

#### Software

- 1 Download the latest release package from <u>barrett.com/puck</u>.
- 2 Unzip the package in the desired directory path.
- From the release package, run
   PeakOemDrv.exe and install the driver.
   (Use default installation settings)

Double-click PuckUtilityApp.exe to 4 launch the program. Right click on the icon and add to taskbar (optional).

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## LINUX

#### Software

- Download the latest release package from <u>barrett.com/puck</u>.
- 2 Unzip the package in the desired directory path.
- From the PuckUtilityApp directory, open terminal and run ./setup.sh (Enter the password when prompted).
- Double-click PuckUtilityApp.exe to launch the program. Right click on the icon and add to taskbar (optional).

## **PUCK UTILITY APP**



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## **PUCK UTILITY APP**

#### **Main Features**

- 1 **Calibrate Menu -** options for automatic motor calibration. Note: The Dev Kit comes pre-calibrated for easy setup Calibration is only required for use with new motors.
- 2 **CAN Port** allows CAN bus selection from up to 4 different CAN ports. Note: This feature allows for multiple CAN busses to operate on a single computer.
- 3 Scan Pucks scans all nodes and automatically connects to lowest ID. Note: Scan runs automatically at startup. Scan is only required if power or CAN were not connected at startup
- 4 Select ID select the current Puck from any active node on the CAN bus. Note: This feature allows for control over multiple Pucks. Simply select the desired Puck ID to switch Pucks.
- 5 New ID enter a new ID (1-127) and press 'Set' to change the Puck ID. Note: The Puck ID is limited to the 7-bit CAN-ID specified by CANopen standard.
- 6 **Version** displays firmware version and enables future updates. Note: Future updates will be available for download. Clicking the logo automatically opens the webpage.
- 7 **Configure** file browser for selecting CANopen motor configurations. Note: Selecting a file automatically updates the motor configuration stored on the Puck.
- 8 Mode Select choose active mode; Torque, Vel, Pos, and Homing. Note: Input ranges are as follows: Torque: ± 420 mNm, Vel: ± 350 RPM, Pos: ± 175,780 De



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![](_page_3_Picture_0.jpeg)

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## TROUBLESHOOTING

### **No CAN bus Found!**

CAN network was unable to initialize. This could be a missing driver or an issue with the CAN adapter.

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Active on the computer. Check connections between the computer and Peak CAN adapter.

### **Motor not spinning**

A test is run but the motor does not spin or has significant cogging. This could be caused by a bad calibration or insufficient bus voltage.

Use the ADC Monitor to verify correct Bus voltage and other ADC data. Open the Calibrate menu and run through each calibration.

### **No Pucks found!**

CAN network is initialized, but no active Pucks were found on the bus. This could be an issue with power or CAN connection.

![](_page_3_Picture_13.jpeg)

Ensure cables are properly connected. Verify 5V and 3.3V LEDs are on. If the issue persists, try reconnecting the CAN adapter to the computer.

### **Other issues**

ID already in use! - Every Puck on the bus must have a unique CAN ID.
No active node! - Modes cannot be set without an active Puck selected.
No input value! - Tests cannot be run without input data.
No test selected! - A test must be selected to command input data.

If a new issue occurs, please reach out for support from Barrett Engineers!

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