

Setup

VEXnet Joystick Calibration Instructions

This document contains the procedure for calibrating the VEXnet Remote Control joysticks. Some steps are time-sensitive, so it's recommended that you read through the instructions once before following along.

The VEXnet Remote Control includes two joysticks (each having an X and Y-axis), 8 buttons on the front, and 4 additional trigger buttons on the top. Inside, there is also 3-Axis accelerometer, capable of providing X-Y-Z acceleration values. Values from the joysticks, buttons, and accelerometer are sent as a constant stream of information over VEXnet to the robot, enabling a user to control the robot in real-time.

To ensure that the VEXnet Remote Control sends out accurate joystick values, the joysticks must be calibrated before their first use, and after any firmware updates are applied to the remote control.

You will need:

- A VEXnet Remote Control with batteries
- A VEX Cortex with robot battery
- A small Allen wrench (1/16" or smaller) or paper clip

1. Power on the VEXnet Remote Control and VEX Cortex. Allow them to sync over VEXnet.



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VEXnet Joystick Calibration Instructions (cont.)

2. Press and hold the **6U** trigger button.



2. Press and hold the **6U** trigger button

3. While keeping the **6U** trigger button pressed in, use your Allen wrench or paper clip to press in the internal **CONFIG** button until the **JOYSTICK** LED blinks red and green.



3a. Press and the **CONFIG** button

While still pressing in the 6U trigger button, use an Allen wrench or paper clip to press in the CONFIG button.



3b. **JOYSTICK LED**

Once the JOYSTICK LED begins to blink red and green, release both the 6U and CONFIG buttons.

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VEXnet Joystick Calibration Instructions (cont.)**Important - Time Sensitive Instructions**

There is a 10 second time limit to complete steps 4 and 5. If they are not completed in time, the calibration process will timeout and the **VEXnet** LED will blink red briefly.

4. Move both joysticks through their full ranges of motion. When the remote control detects that the joysticks have been fully rotated, the **JOYSTICK** LED stops blinking red and green, and switches to a solid green.

**4a. Move the Joysticks**

Move the joysticks through their full ranges of motion - Up, Down, Left, Right, and in a circle.

**4b. JOYSTICK LED**

Once the remote control detects that the joysticks have been fully rotated, the JOYSTICK LED switches to solid green, indicating that you can stop moving the joysticks.

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VEXnet Joystick Calibration Instructions *(cont.)*

5. Press the **8U** button to save the new calibration.



5. Save
Press the 8U button to save the joystick calibration on your remote control. The JOYSTICK LED will blink green for a few seconds.



Additional Information

- If the calibration is not saved, the process will timeout after 10 seconds and the **VEXnet** LED will blink red.
- To cancel a calibration, press the **7U** button. The calibration process will be discontinued and the **VEXnet** LED will blink red.
- Once the calibration is discontinued or saved, all of the remote control LEDs will resume their normal function.
- The joysticks must be calibrated any time the firmware on the remote control is downloaded.