

In the event that the Driver Station (using the antenna) cannot connect to the robot, use this list to test and troubleshoot problems.

*If there is anything that needs to be added to this list, just add it with a similar format to the bottom (or higher if it is more important or common), or tell someone else on the team such as a mentor or older student who can let people know.*

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In the event of a communication or technical related issue, check these:

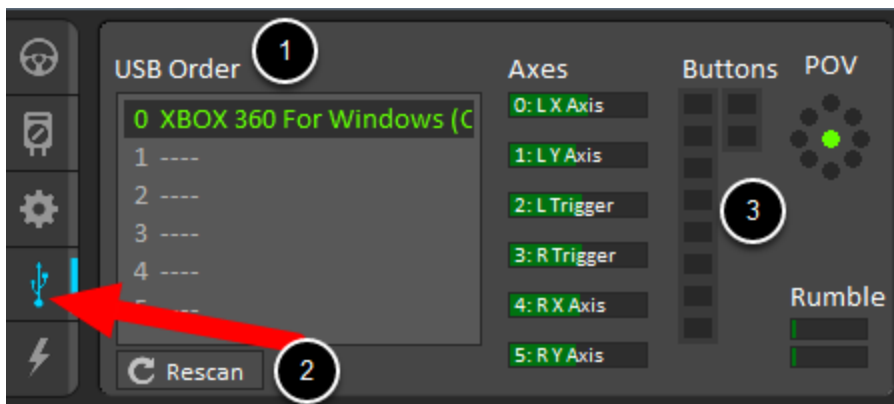
- **Check that the current date and time on the Driver Station are accurate.**

This has been known to cause issues with the Driver Station program, such as rearranging the controllers and other misc connectivity problems.

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8/20/2019

- **Check that the controllers are all in the correct channels.** This information can be located on our 2019 repository in the includes folder under “channel\_helper.hpp” ([Link](#)). under the “ChannelController” enumeration. Select the fourth tab, on the left side of the Driver Station program (with the USB icon) and ensure it matches the list. Some controllers match names, so select them and press a button to test which controller it is.

```
enum ChannelController
{
    XBOX_CONTROLLER = 0,
    //LOGITECH_CONTROLLER = 1,
    FLIGHT_JOYSTICK = 1,
    LEFT_DRIVE_JOYSTICK = 2,
    LEFT_BUTTON_HUB = 3,
    RIGHT_DRIVE_JOYSTICK = 4,
    RIGHT_BUTTON_HUB = 5
};
```



- **Check the connections on the robot.** Check the ethernet cables and ensure that they are connected properly. Also make sure that the power cords for PoE (Power over Ethernet) are connected (Only used for the Limelight and Radio). Check the power for the network switch, and look to make sure all of the corresponding lights are blinking.



- **Power cycle the robot.** Turn the robot off (press the red button on the breaker), then turn it back on by pushing the black lever back into the robot.



- **Change the robot battery.** It is essential that the robot has a properly charged battery, and it should be changed to limit any outside variables.



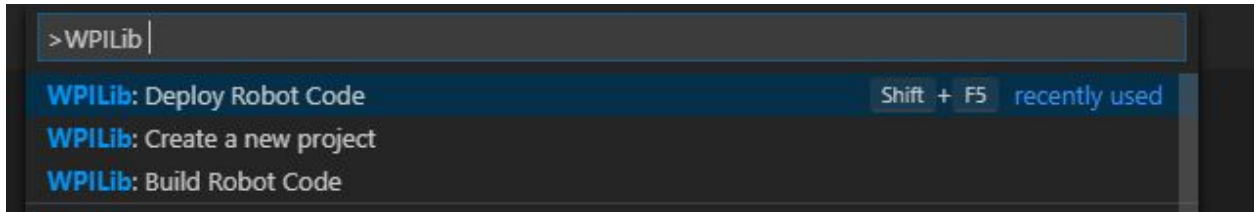
- **Restart the Driver Station PROGRAM.** The Driver Station program might be having issues that a simple restart can solve.

- **Restart the Driver Station BOARD/COMPUTER.** Restarting the computer can take a while, but can also resolve issues similarly to power cycling the robot or restarting the program.

- **Redeploy the code.** If you are connected, but cannot drive properly, redeploying the code can change the code on the robot to a 'clean slate' of a known working version (Usually latest version on the master branch on our github repos).

- Open VSCode (FRC supported IDE - for more info go on their site) using the “FRC VS Code 2019” desktop shortcut and load the code.
- Click the “Open WPILib Command Palette” button on the top right of the screen.
- Select “WPILib: Deploy Robot Code”.





- **Try different connections.** Try using an ethernet connection to the Driver Station to the robot (into the network switch). You can also try using a laptop with the Driver Station program on it (wireless and wired w/ ethernet just like with the DS).