Troubleshooting with LEDS

Follow this guide to troubleshoot issues with subsystems using the LEDs.

Reading Statuses

To read the status for a particular subsystem, count from the **RoboRIO end of the LED strip** to the LED that corresponds to your subsystem. See the subsystem names below for indices.

Colors

Color	Meaning	Description
🟩	Good	Subsystem fully operational.
🟨	Warning	There is a minor issue with the subsystem that may impede its operation.
🟥	Error	There is a major issue with the subsystem that will impede its operation.
🟪	Unknown	Status reporting is yet to be implemented for the subsystem.

Deciphering issues

The following is a list of what might be causing warning and errors for each subsystem. Check each problem that corresponds with the color to figure out what exactly is wrong.

1 Drive

Color	Problem	Solution
🟥	Gyro disconnected	Ensure the gyroscope is plugged into the roboRIO and recieving power.
🟥	Swerve module disconnected	Ensure all swerve modules are plugged in and powered. Check AdvantageScope or see a coder if the issue isn't apparent.

2 Vision

Color	Problem	Solution
🟨	Cameras haven't detected AprilTags	Face a camera towards an AprilTag to get a reading.
🟥	Camera disconnected	Ensure each camera is powered and connected to ethernet.

3 Turret

Color	Problem	Solution

Color	Problem	Solution
🟨	Not homed	Rotate the turret to the home position.
🟨	Hall effect sensor hasn't changed	Rotate the turret to ensure the sensor is working.
🟥	Motor disconnected	Make sure the motor is connected to the CAN and the encoder is plugged in.

4 Kicker

Color	Problem	Solution
🟨	IR sensor hasn't changed	Trigger the sensor to ensure it's working
🟥	Motor Disconnected	Make sure the motor is connected to the CAN and the encoder is plugged in.

5 Shooter

Color	Problem	Solution
🟥	Motor Disconnected	Make sure the motor is connected to the CAN and the encoder is plugged in.

6 Climber

Color	Problem	Solution
🟥	Motor Disconnected	Make sure the motor is connected to the CAN and the encoder is plugged in.

7 Hood

Color	Problem	Solution
🟥	Motor Disconnected	Make sure the motor is connected to the CAN and the encoder is plugged in.

8 Hopper/Indexer

Color	Problem	Solution
🟥	Motor Disconnected	Make sure the motor is connected to the CAN and the encoder is plugged in.

9 Intake

Color	Problem	Solution

Color	Problem	Solution
🟥	Motor Disconnected	Make sure the motor is connected to the CAN and the encoder is plugged in.
🟥	Pneumatic solenoid disconnected	Make sure the pneumatic assembly is connected properly

10 Logging USB

Color	Problem	Solution
🟨	USB almost full	The USB drive is almost at full capacity. Replace it with a different one (formatted FAT32) or see a coder to clean it out.
🟥	USB not connected	Ensure the USB drive is plugged in. If it is, replug it and wait about 2 seconds.

11 Battery

Color	Problem	Solution
🟨	Battery under 12.5 volts	Be aware the battery may need to be replaced soon.
🟥	Battery under 12 volts	Replace the battery, or be aware drive may not work well.