

Status Lights

Be sure to also look up status lights online and read the specific component documentation.

Pigeon 2.0 CTRE

| | |
|------------------|--------------------------------------------|
| Red Alternate | No CAN/PWM |
| Orange Alternate | CAN Detected, Phoenix Not Running on Robot |
| Orange Blink | Robot Disabled |
| Green Alternate | Robot Enabled |
| Red + Orange | Damaged Hardware |
| Green + Orange | In Bootloader |

Radio VN-109

Hardware (unlimited) | 13.75 MHz (Driver Motor) | 10.75 MHz (AP Motor) | 13.75 MHz (View) | 10.0 MHz (Default)

2.4GHz Connector is very unreliable. Use 1.6GHz. (No Light Blink on Connection)

Power

| | |
|-------|---------|
| Green | Powered |
|-------|---------|

System Status

| | |
|------------------|--------------------------|
| Green | Able to Ping the Field |
| Green Slow Blink | Unable to Ping the Field |
| Green Blink | Firmware being flashed |
| Green Strobe | Performing First Boot |

2.4 GHZ

| | |
|-------|----------------|
| Green | Wifi Available |
|-------|----------------|

6 GHZ

| | |
|------------|-------------------------------------|
| Blue | 6GHZ Connection Made |
| Blue Blink | Battery Detected, Wireless Disabled |

RoboRio 2.0 NI

Power

| | |
|--------|-------------------------------------------|
| Green | Powered |
| Orange | Brownout Protection |
| Red | Power Fault, Check Ribs for Short Circuit |

Mode

| | |
|--------|--------------------|
| Green | "kleep" Enabled |
| Orange | Autonomous Enabled |
| Red | Test Enabled |
| Off | Robot Disabled |

Comm

| | |
|-----------|-----------------------------|
| Green | Communicating |
| Red Blink | Emergency Stopped |
| Red | Communicating, No User Code |
| Off | No Communications |

Status (on during boot)

| | |
|---------------|------------------------------------------------------|
| 2 Blinks | Software Error, Reimage Ric |
| 3 Blinks | Safe Mode, Structure P's, Reimage I not Resolved |
| 4 Blinks | Software Crashed Twice, Reboot, Reimage if not Fixed |
| Blink / Solid | Tripp of boot, Unrecoverable Error |

CANivore CTRE

Stat

| | |
|------------------|------------------------------------------|
| Red Double Blink | 12V Powered, No Usb |
| Red Strobe | 12V Powered, No Usb |
| Orange Strobe | 12V Powered, CAN Streaming is Disabled |
| Green Strobe | 12V Powered, No CAN Streaming is Enabled |
| Green + Orange | In Bootloader |
| Red + Orange | Hardware Fault |

CAN

| | |
|---------------|--------------------------------------------|
| Red | Not enough voltage for CAN Network |
| Red Strobe | No CAN Communication, Termination enabled |
| Orange Strobe | Legacy CAN 2.0B Mode, Termination disabled |
| Green Strobe | CAN FD Active, Termination enabled |

Spark MAX + FLEX REV

First Connecting to Rev Hardware Class, try Flipping the USB-C

| | |
|------------------|----------------------------------------------------------|
| Red Blink | Motor Running in Reverse |
| Red | Motor Running in Reverse at Full Power |
| Red + White | Reverse Limit |
| Green Blink | Motor Running Forwards |
| Green | Motor Running Forwards at Full Power |
| Green + White | Forward Limit |
| Orange + Blue | Running on USB Power, Motor Will Not Run Without 12V |
| Orange + Magenta | Sensor Fault - Fix Conn, Plug Cable in, or Hopin' Sensor |
| Orange + Cyan | Gate Driver Fault |
| Orange + Yellow | CAN Fault |
| Magenta + White | Device Identify |
| Yellow + White | CAN Bootloader Firmware Updating |
| Blue + White | CAN Bootloader Firmware Retry |

Brushless

| | |
|---------------|----------------------------------------------------|
| Off | Firmware Update Corrupt Firmware Recovery Mode |
| Magenta | Coast Mode, Valid Signal |
| Magenta Blink | Coast Mode, No Signal |
| Cyan | Brake Mode, Valid Signal |
| Cyan Blink | Brake Mode, No Signal |

NOVA Thrifty

November 25th, 2025

| | |
|------------------|------------------------------------|
| Red Alternate | Fatal Fault |
| Blue Strobe | Encoder not Connected or Invalid |
| Yellow Alternate | Enabled, J01 |
| Yellow Blink | No CAN Data detected |
| Yellow | CAN Detected but No Control Frames |
| Green Blink | Motor Running Forwards |
| Red Blink | Motor Running in Reverse |
| Orange Strobe | Approaching Thermal Limit - V5VC |
| Orange Blink | Motor Reached Thermal Limit - V5VC |

CAncoder CTRE

| | |
|---------------------|------------------------------------------------|
| Red Blink | No CAN |
| Red Strobe (dim) | No CAN, Magnet Out of Range |
| Orange Strobe (dim) | No CAN, Magnet in Reduced Accuracy Range |
| Green Strobe (dim) | No CAN, Magnet in Range |
| Red Strobe | CAN Detected, Magnet Out of Range |
| Orange Strobe | CAN Detected, Magnet in Reduced Accuracy Range |
| Green Strobe | CAN Detected, Magnet in Range |
| Red + Orange | Damaged Hardware |
| Green + Orange | In Bootloader |

PDP + PCN CTRE

| | |
|----------------|--------------------------|
| Green Strobe | Robot Enabled |
| Green Blink | Robot Disabled |
| Orange Blink | Slipky Fault |
| Red Blink | No CAN or Solenoid Fault |
| Red + Orange | Damaged Hardware |
| Green + Orange | In Bootloader |
| Red Slow Blink | Compressor Fault |

PDH + PH REV

First Connecting to Rev Hardware Class, try Flipping the USB-C

| | |
|------------------|----------------------------------|
| Blue | No Communication |
| Green | Communication Established |
| Cyan | Connected to REV Hardware Client |
| Magenta Blink | Keep Alive Timeout |
| Orange + Yellow | CAN Fault |
| Orange + Magenta | Device Over Current |
| Orange + Cyan | Hardware Fault |
| Orange + Green | Compressor Over Current |
| Orange + Blue | Low Battery |

PDH Switched Channels

| | |
|-----------|-----------------------------------------------------|
| Off | Channel has NO Voltage and is Operating as Expected |
| Red | Channel has NO Voltage and has an Active Fault |
| Red Blink | Slipky Fault, Check for Tripped Breaker |

Talon FX / FXS CTRE

| | |
|------------------|------------------------------------------------|
| Red Alternate | No CAN/PWM |
| Orange Alternate | CAN Detected, Phoenix Not Running on Robot |
| Orange Blink | Robot Disabled |
| Orange | Idle |
| Red Blink | Motor Running in Reverse |
| Green Blink | Motor Running Forwards |
| Red Offset | Limited Direction Decreases Forward Or Reverse |
| Orange Offset | Thermal Cutoff |
| Red + Green | Pro feature enabled on unlicensed hardware |
| Red + Orange | Damaged Hardware |
| Green + Orange | In Bootloader |

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