

Talon FX

LEDs	Colors	Talon SRX State
Both	Blinking Green	Forward throttle is applied. Blink rate is proportional to Duty Cycle.
Both	Blinking Red	Reverse throttle is applied. Blink rate is proportional to Duty Cycle.
None	None	No power is being applied to Talon SRX
LEDs Alternate	Off/Orange	CAN bus detected, robot disabled
LEDs Alternate	Off/Slow Red	CAN bus/PWM is not detected
LEDs Alternate	Off/Fast Red	Fault Detected
LEDs Alternate	Red/Orange	Damaged Hardware
LEDs Strobe towards (M-)	Off/Red	Forward Limit Switch or Forward Soft Limit
LEDs Strobe towards (M+)	Off/Red	Reverse Limit Switch or Reverse Soft Limit
LED1 Only (closest to M+/V+)	Green/Orange	In Boot-loader
LEDs Strobe towards (M+)	Off/Orange	Thermal Fault / Shutoff (Talon FX Only)

Spark MAX

Operating Mode	Idle Mode	State	Color/Pattern	
Brushed	Brake	No Signal	Blue Blink	
		Valid Signal	Blue Solid	
	Coast	No Signal	Yellow Blink	
		Valid Signal	Yellow Solid	
Brushless	Brake	No Signal	Cyan Blink	
		Valid Signal	Cyan Solid	
	Coast	No Signal	Magenta Blink	
		Valid Signal	Magenta Solid	
Partial Forward	-	-	Green Blink	
Full Forward	-	-	Green Solid	
Partial Reverse	-	-	Red Blink	
Full Reverse	-	-	Red Solid	
Forward Limit	-	-	Green/White Blink	
Reverse Limit	-	-	Red/White Blink	
Firmware Update Mode	-	-	Dark (LED off)	
Fault Conditions				
12V Missing	-	-	Orange/Blue Slow Blink	
Brushless Encoder Error	-	-	Orange/Magenta Slow Blink	
Gate Driver Fault	-	-	Orange/Cyan Slow Blink	
CAN Fault	-	-	Orange/Yellow Slow Blink	

PCM Status LED

LED	Strobe	Slow	Long
Green	No Fault Robot Enabled	Sticky Fault	NA
Orange	NA	Sticky Fault	NA
Red	NA	No CAN Comm or Solenoid Fault (Blinks Solenoid Index)	Compressor Fault

Tip

If a PCM LED is showing more than one color, see the PCM LED special states table below. For more information on resolving PCM faults see the PCM User Manual.

Note

Note that the No CAN Comm fault will not occur only if the device cannot communicate with any other device, if the PCM and PDP can communicate with each other, but not the roboRIO.

PCM LED Special States Table

LED	Problems
Red/Orange	Damaged Hardware
Green/Orange	In Bootloader
No LED	No Power/Incorrect Polarity

PDH Status LED

LED Color	Status
Blue Solid	Device on but no communication established
Green Solid	Main Communication with roboRIO established
Magenta Blinking	Keep Alive Timeout
Solid Cyan	Secondary Heartbeat (Connected to REV Hardware Client)
Orange/Blue Blinking	Low Battery
Orange/Yellow Blinking	CAN Fault
Orange/Cyan Blinking	Hardware Fault
Orange/Red Blinking	Fail Safe
Orange/Magenta Blinking	Device Over Current

Channel LEDs

LED Color	Status
Off	Channel has voltage and is operating as expected
Red Solid	Channel has NO voltage and there is an active fault. Check for tripped or missing circuit breaker / fuse
Red Blinking	Sticky fault on the channel. Check for tripped circuit breaker / fuse.

Radio

Power	Blue	On or Powering up
	Blue Blinking	Powering Up
Eth Link	Blue	Link up
	Blue Blinking	Traffic Present
WiFi	Off	Bridge mode, Unlinked or non-FRC firmware
	Red	AP, Unlinked
	Yellow/Orange	AP, Linked
	Green	Bridge mode, Linked

RoboRIO

Power	Green	Power is good	
	Amber	Brownout protection tripped, outputs disabled	
	Red	Power fault, check user rails for short circuit	
Status	On while the controller is booting, then should turn off		
	2 blinks	Software error, reimage roboRIO	
	3 blinks	Safe Mode, restart roboRIO, reimage if not resolved	
	4 blinks	Software crashed twice without rebooting, reboot roboRIO, reimage if not resolved	
	Constant flash or stays solid on		Unrecoverable error
Radio	Not currently implemented		
Comm	Off	No Communication	
	Red Solid	Communication with DS, but no user code running	
	Red Blinking	E-stop triggered	
	Green Solid	Good communications with DS	
Mode	Off	Outputs disabled (robot in Disabled, brown-out, etc.)	
	Orange	Autonomous Enabled	
	Green	Teleop Enabled	
	Red	Test Enabled	