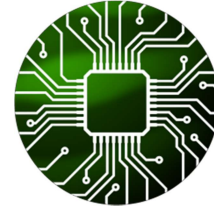


Sci-Fi Universal Board Wiring Manual



Thanks for purchasing a Sci-Fi Board!

Please join the [Sci-Fi Board Group on Facebook](#) and follow on [YouTube](#). This is where I make announcements, post installation tips, inform you of software updates for you board, and answer frequently asked questions. <https://www.facebook.com/groups/248635068944842/>

- A Paintball Marker is NOT a toy. Misuse can result in injury or death.
- Please understand the operation of this board before using it.
- Test your marker using safe practices to ensure proper board settings.
- Always make sure your board uses settings approved by the paintball field or event.
- ALWAYS wear eye protection that is specifically designed for paintball & conforms to the ASTM / CE standards.

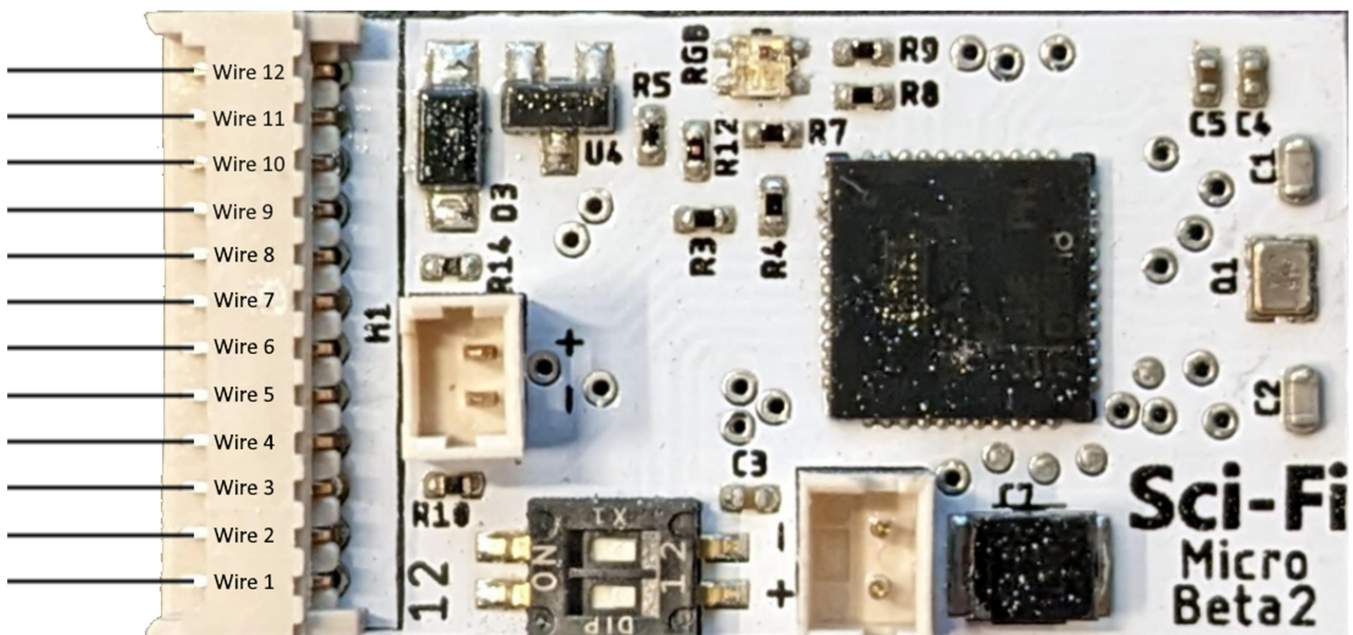
See standard board manual for operating instructions. The board manual can be found on the website www.scifi-paintball.com/support

- 1) Hold the Trigger while turning on the board until the LED is Solid to enter MENU mode & connect using the Android or iOS app.
- 2) While the RGB-LED is White, hold the trigger for 5 seconds to return to Firing mode.

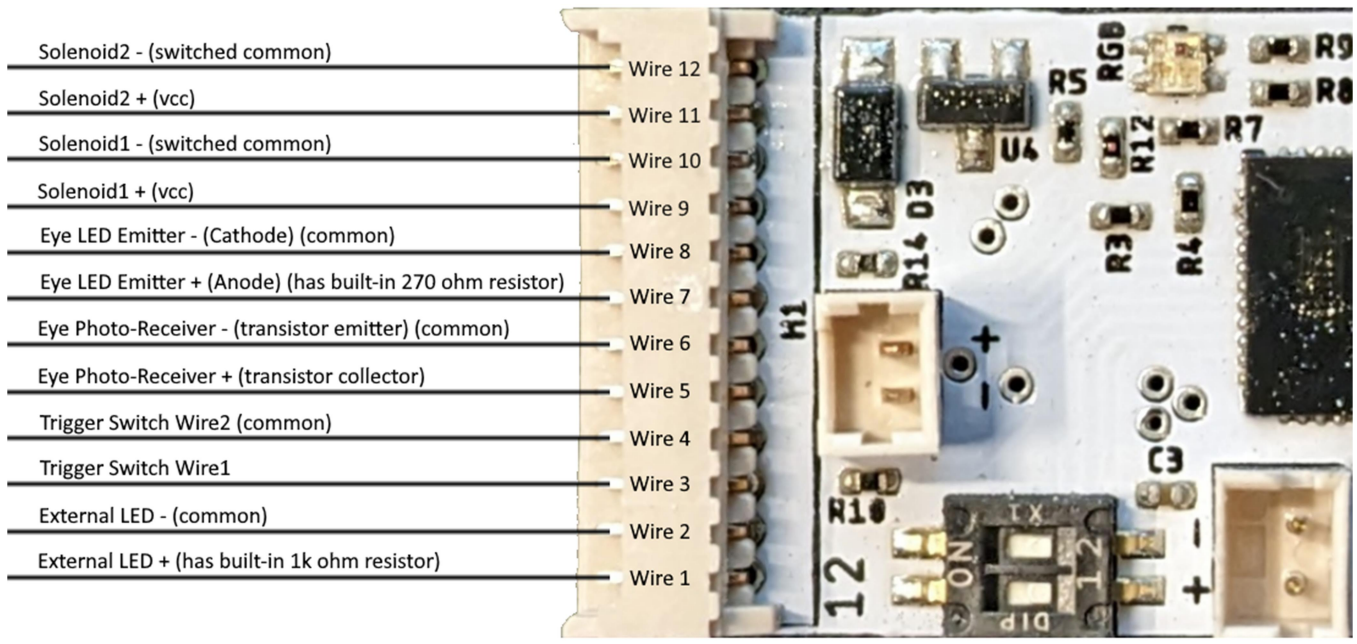
Pro Wiring Tips:

- 1) Solder your wire connections, don't "twist & tape".
- 2) Remove or tape unused wires. Loose wires can cause electrical damage to electrical devices.
- 3) Start with the battery and trigger switch, then test board operation.
- 4) Test each circuit individually one-by-one as they are installed. If something doesn't work, power off the board immediately to prevent damage to board.
- 5) **Don't just wire the whole board and hope it works. That will make troubleshooting more difficult.**

Wire numbers:

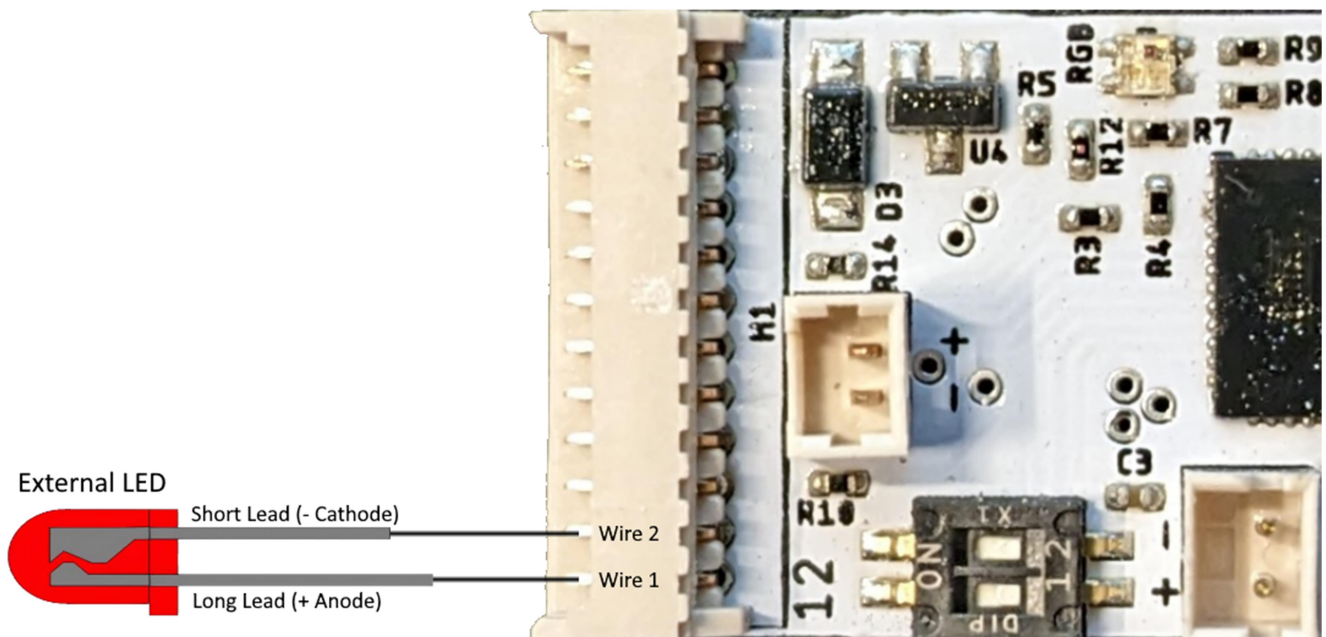


Wire Functions:



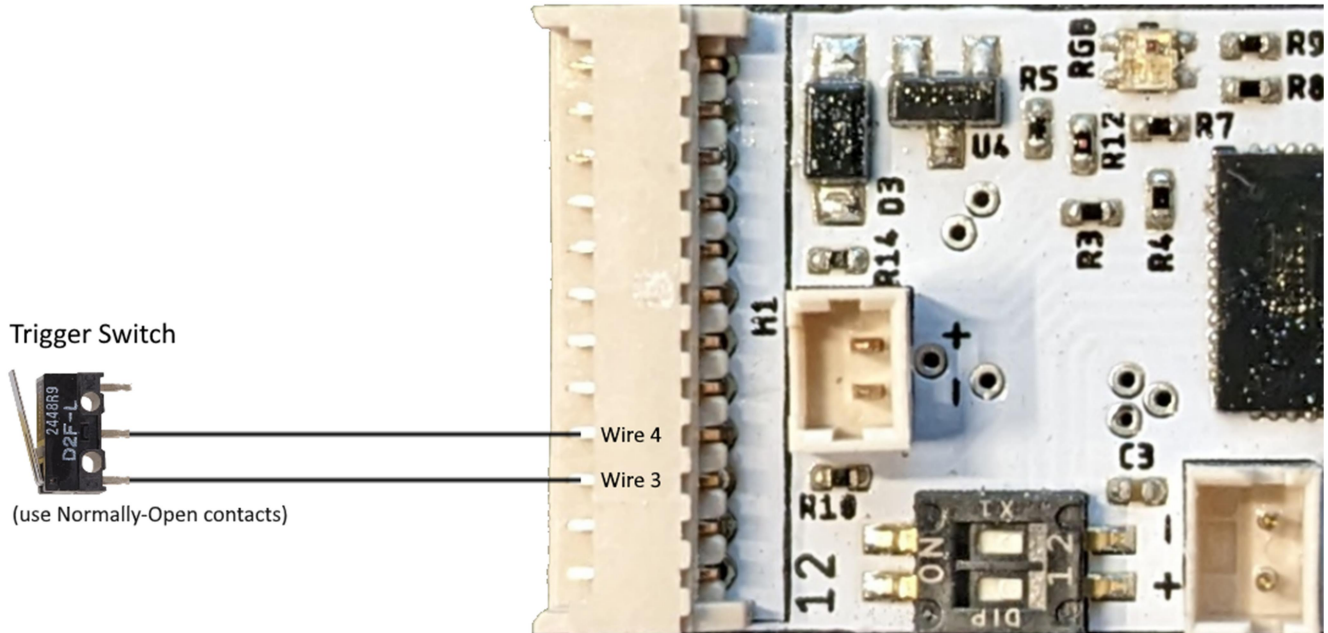
Optional External LED:

This circuit board has the standard RGB-LED common to all Sci-Fi Boards; however it will not be visible if the board is enclosed inside the marker. Wire 1 and Wire 2 allow the use to install an optional single-color LED to be used for external indicator. A 1K Ohm current-limiting resistor is already installed on the board, in series with Wire 1. Wire 2 is tied to board common.



Trigger Switch:

Wire 3 and Wire 4 should connect to a Normally-Open switch or pushbutton to be used for the trigger. Wire 3 is the active-low trigger input, and Wire 4 is tied to board common.

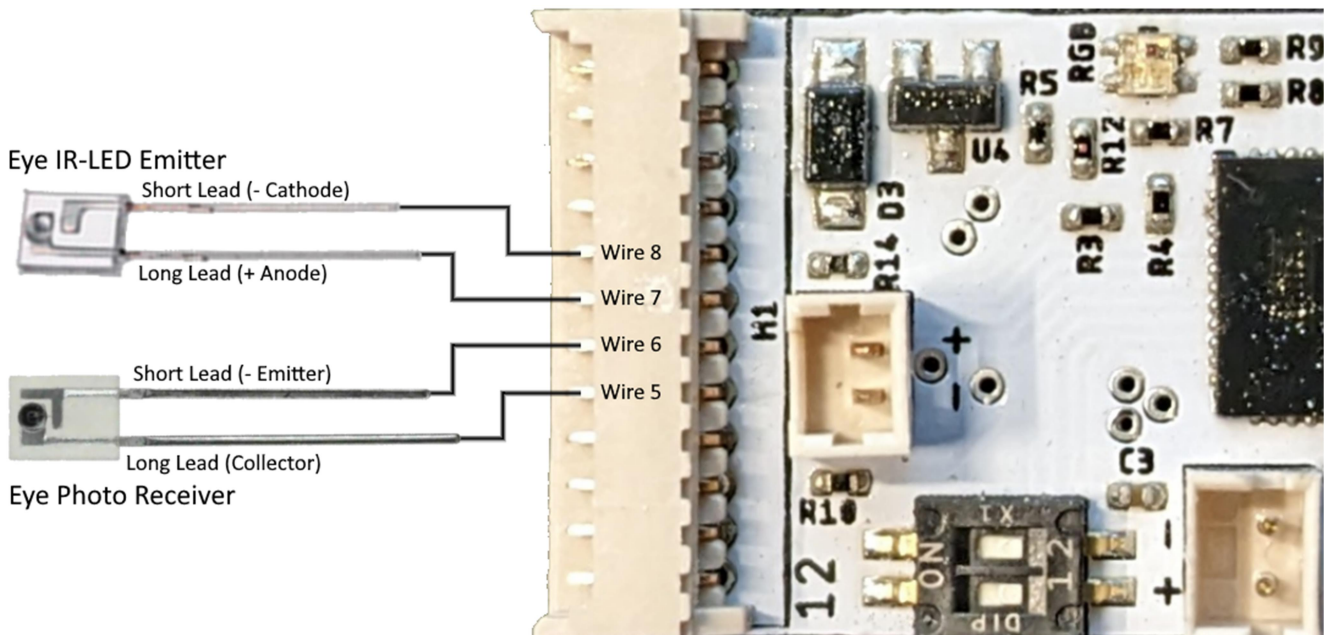


Optional Eye Sensor Photo-Transistor:

Wire 5 and Wire 6 are for the Eye Sensor Photo-Transistor. Wire 5 is the analog eye input, and is tied high with a 4.7K Ohm pull-up resistor. Wire 6 is for the transistor emitter, and is tied to board common.

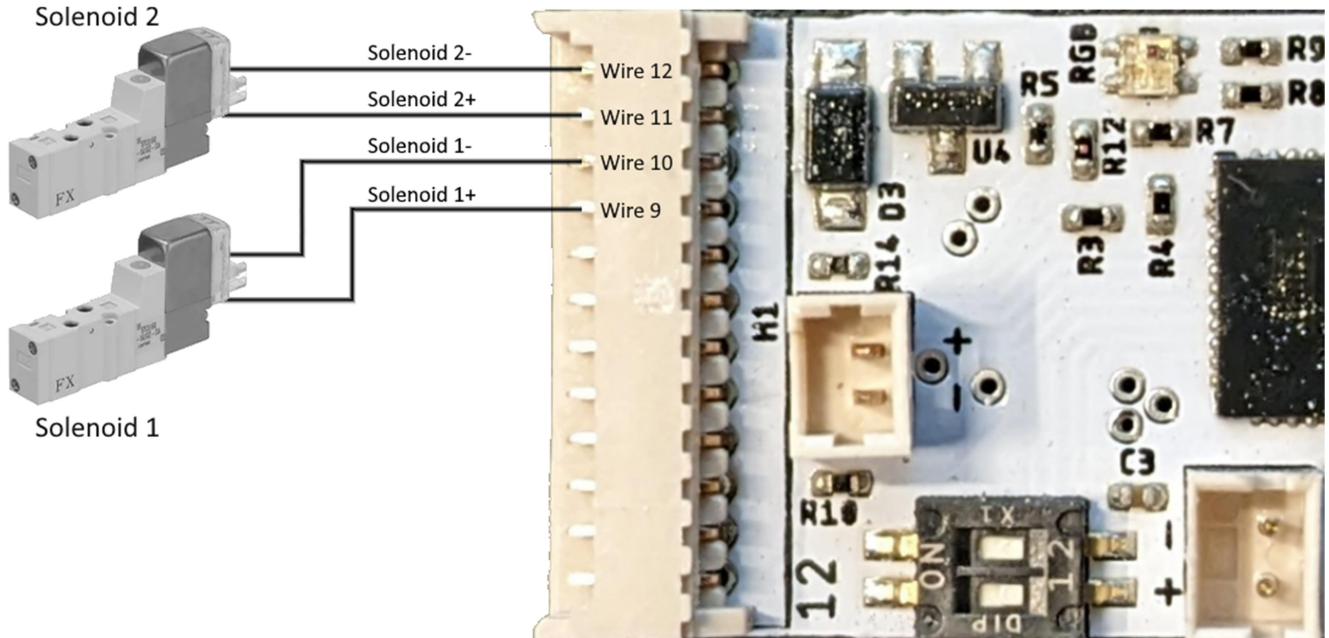
Optional Eye Sensor IR-Emitter LED:

Wire 7 and Wire 8 are for the Eye Sensor IR-Emitter LED. A 270 Ohm current-limiting resistor is already installed on the board, in series with Wire 7. Wire 8 is tied to board common.



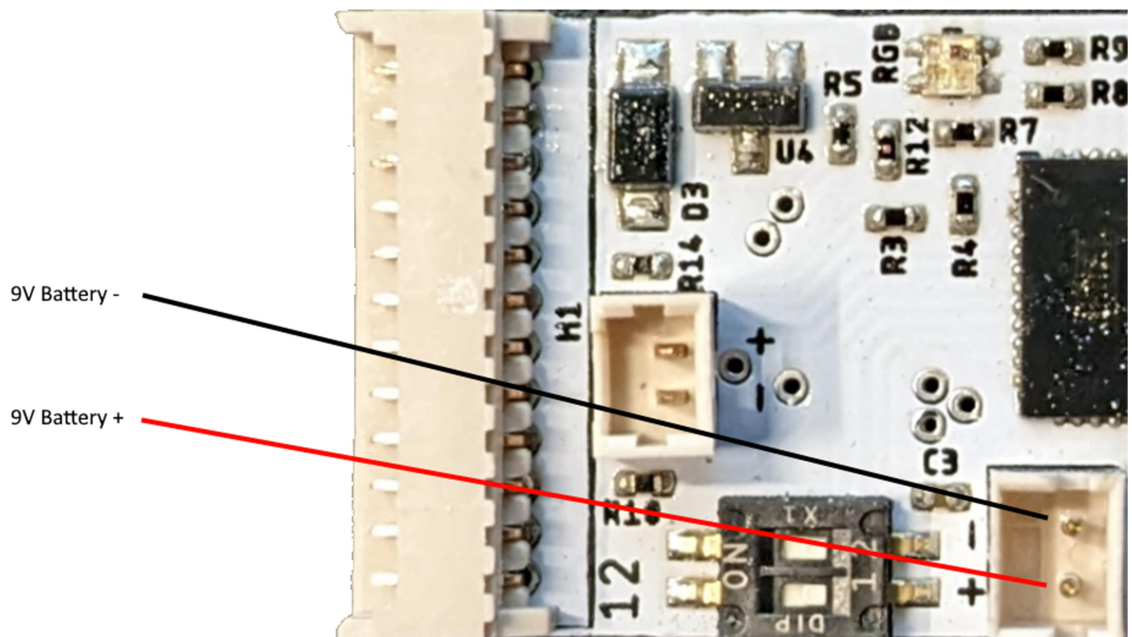
Solenoids:

For **Closed-Bolt markers**, like Autocockers, Solenoid 1 is the Firing solenoid and Solenoid 2 is the Cocking solenoid. For **Open-Bolt markers**, like Intimidators, use only Solenoid 2. Wire 9 and Wire 11 and connected to VCC (same as Battery +). Wire 10 and Wire 12 are Switched-Common (not the same as board common). Voltage polarity normally does not matter for solenoids.



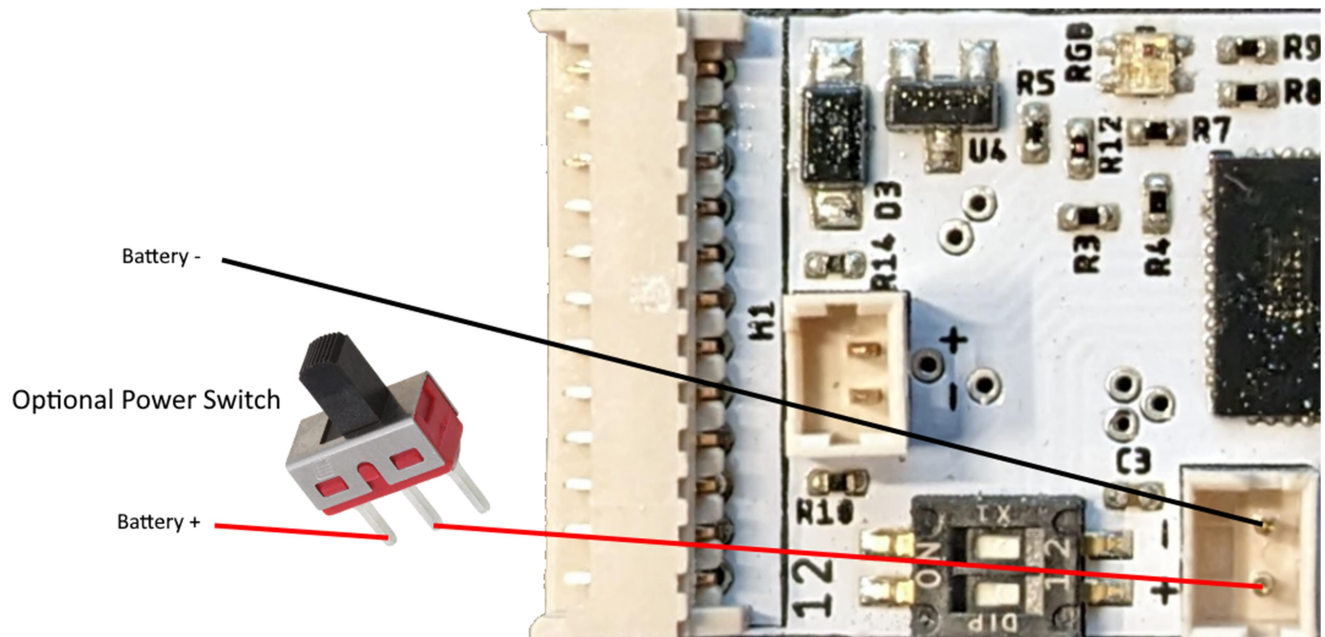
Battery Connector:

The positive wire is connected to board VCC, and the negative wire is connected to board common.



Optional Power Switch:

An optional power switch can be installed in series with one of the battery wires.



External Capacitor:

The external capacitor is only needed for large power hungry solenoids. Generally these are large clapper solenoids like the one used in Autococker or Spyder "clapper" solenoids.

