Highlights of the JTWstep

- Low power consumption, depending on load -
    - 2 to 5 watts tracking
    - 6 to 20 watts slewing
- 12 VDC
- 256x microstepping
- Supports absolute encoders
    - BiSS-C, SSI
    - Up to 32 bit
    - 250 kHz readout speed
- Trinamic motor drivers
    - StealthChop - Silent running
    - Missed step detection
    - CoolStep - Saves energy
    - On-the-fly microstep reduction for fast slewing and fine tracking
    - Plugged into headers & can be easily replaced in the future
- WeAct BlackPill microcontroller
    - Powerful
    - Cost effective
    - Plugged into headers
- LOLIN Pro WiFi module
    - Smart web server for tuning parameters without reflashing the controller
    - Plugged into headers
- On board high precision real time clock & backup battery
- ST4 Guide Port
- USB and WiFi connectivity to computer
- ASCOM and INDI Driver
- App that turns mobile device into a highly featured hand controller
- Additional features not relevant to the Trident
    - Can be used with direct drive motors
    - Ra+/Ra-/De+/De-/Ra home & De home sensor inputs

Controller Layout
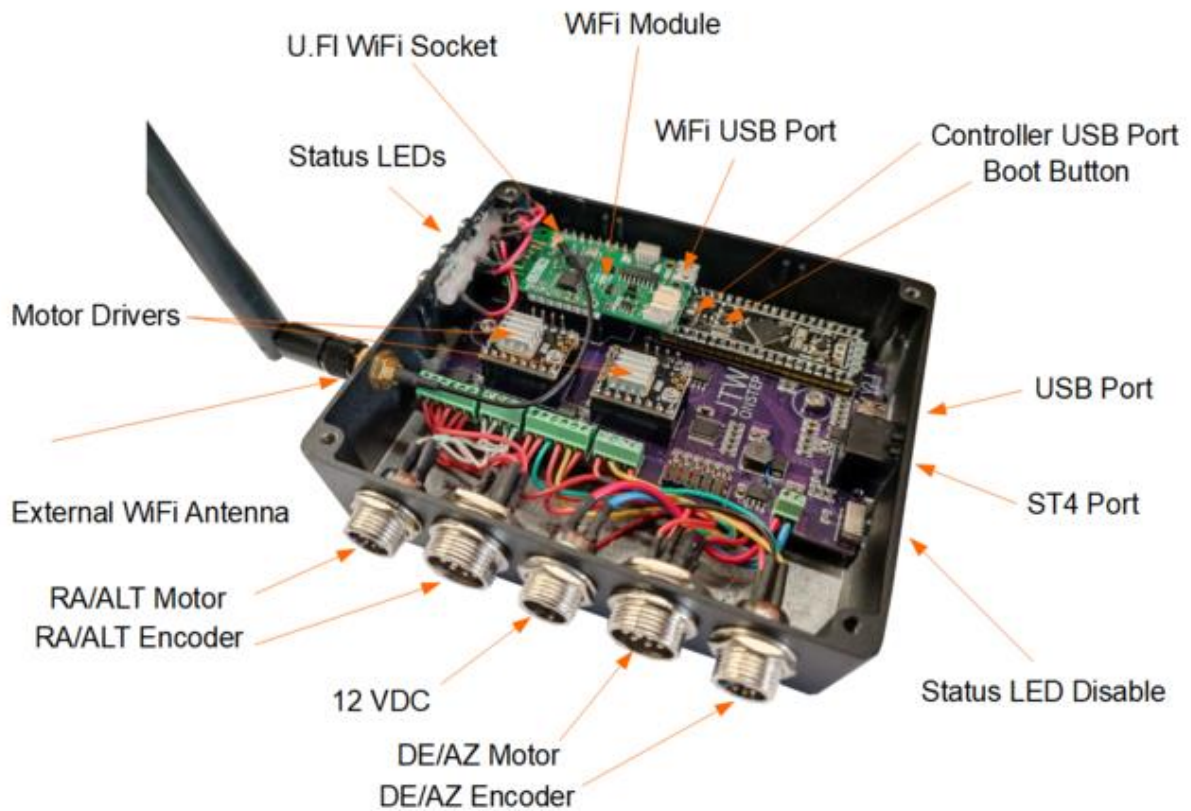
Connectivity to your computer is best achieved via the USB port but to access the parameter tuning and smart web server you will have to connect via WiFi (also applies to using the mobile app). It should be noted that the controller takes only a few seconds to boot up, you'll hear the motors locking up but the WiFi SSID can take 20-30 seconds to appear in your list of available networks.

Alarm

Tracking

Power

The LEDs are pretty self explanatory. Power will illuminate when you plug the mount in (ground breaking stuff!). The tracking LED is a good confirmation that the controller is working properly as the mount starts tracking when powered on & this LED will flash. If you have modified the firmware or applied one of our software updates and this LED is not flashing after a restart you have a clear indication that something went wrong. The alarm LED

will illuminate if something is wrong such as a motor overloading or limit is hit.