ESP32 Shutter Tester wiring guide V1.4

Wiring of the modules is easily acclompished using Dupont wires. They come in a variety of lengths with terminals being male-male, female-female or male-female.

Using a screw-terminal breakout board, male-female are most suitable. Shorter lengths can be used for the LCD & buttons, to make wiring neater.

There is only one 5V output on the board, one 3.3V and two 0V (or GND). It will not be be possible to fit all of these wires into a single screw terminal. Do not use the GND terminal between pins 19 & 21

One solution is to gather the 3.3V ends together, cut off the connector and remove a small pice of the insulation. Terminate all of the wires into a choc-bloc and then just one wire from the choc-bloc will go to the screw-terminal on the breakout board. The same is then done with the 0V wires.

As an alternate, the power wires can be daisy chained to each module, but this requires soldering directly to the board. Some of the build photos will show this.

Note:- The LCD and/or TFT screens are optional, as output is also sent to the computer screen.
The LCD can only show limited data, where as the TFT screen shows all data.
Touch-screen functionality maybe added in the future, requiring the tft touch screen.

There are three hardware versions.

Legacy. This uses two sensors and a LCD. This is no longer supported, or code available.

Version 2. Three sensors, four input buttons & LCD

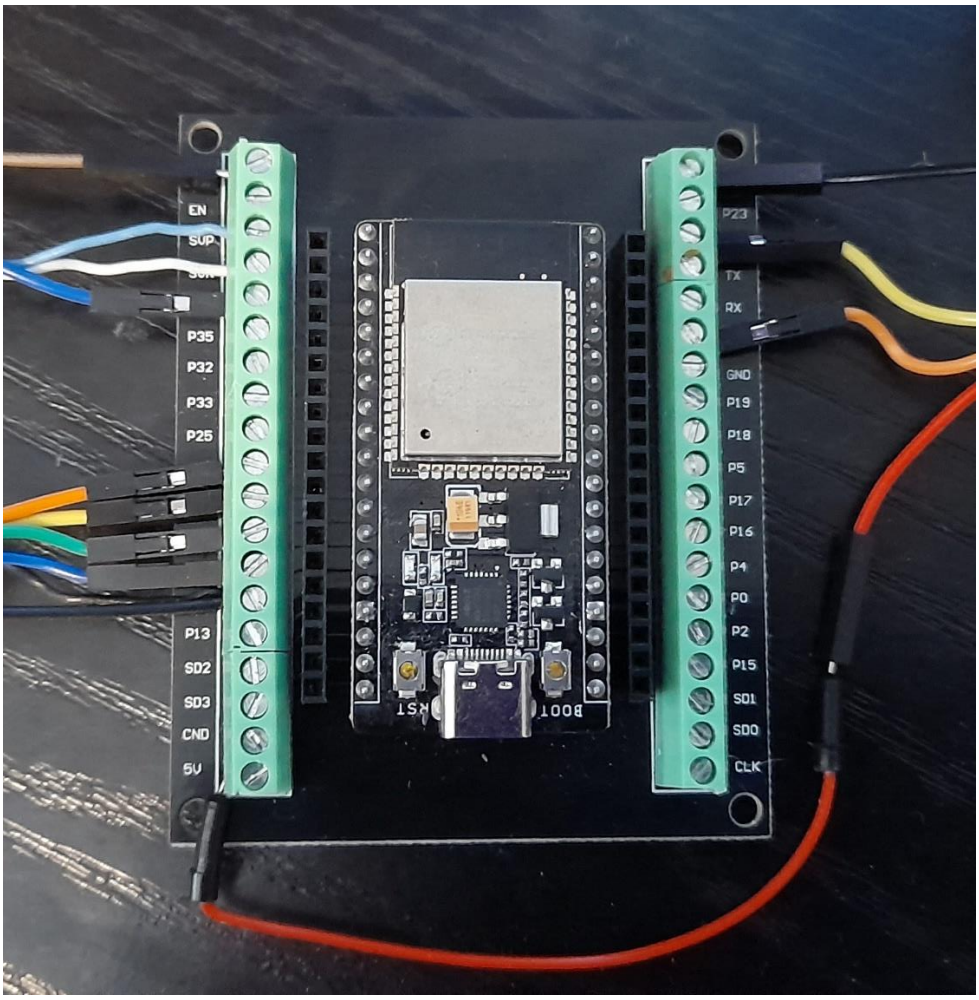
Version 3 As per version 2 but with the addition of a tft display. LCD can also be used.

Note:- Current firmware works with both Version 2 & 3 hardware versions.

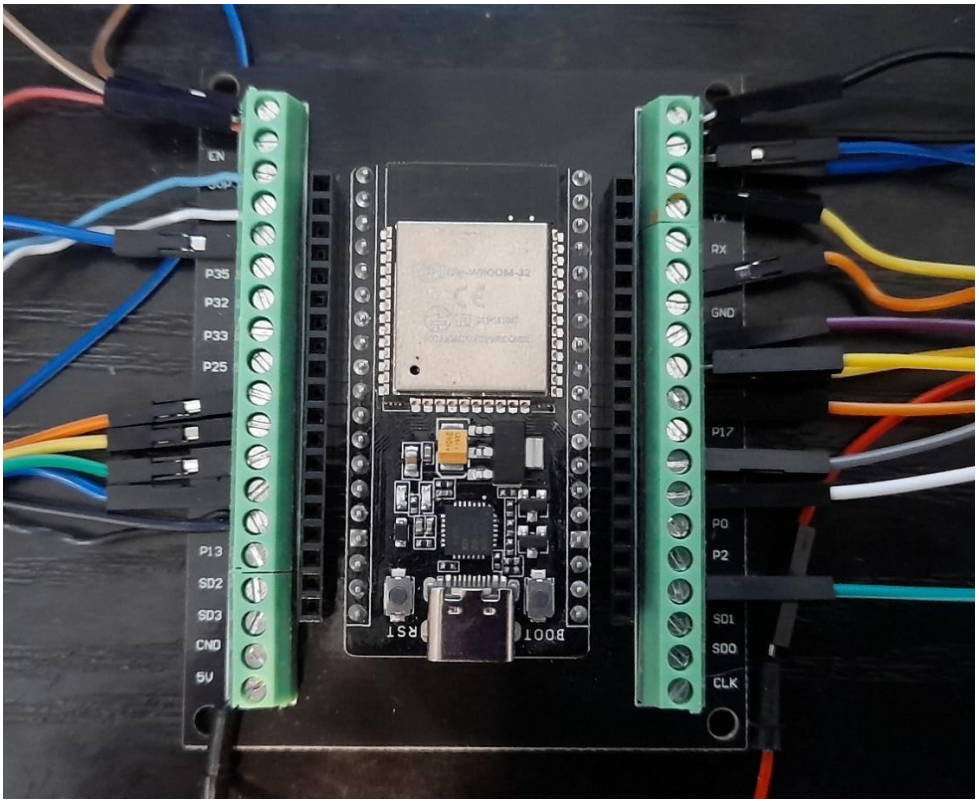
Please refer to the version 2 or 3 schematic PDF for details of all connections

and use them in conjunction with the photographs below.

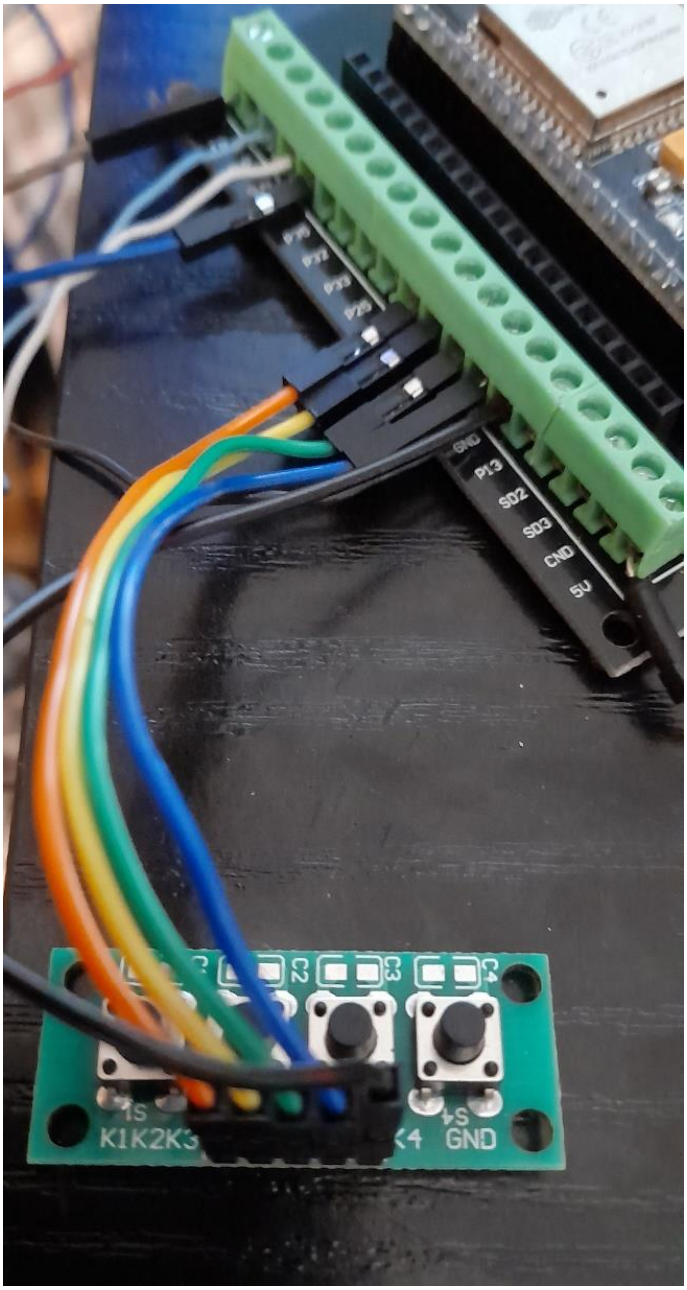
Version 2 with LCD



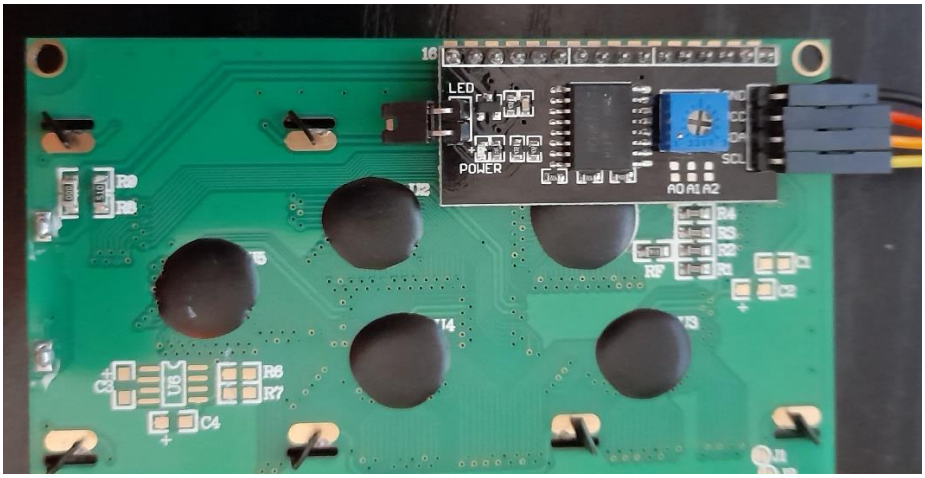
Version 3 with TFT and LCD connected. Note Lightmeter wiring not shown.



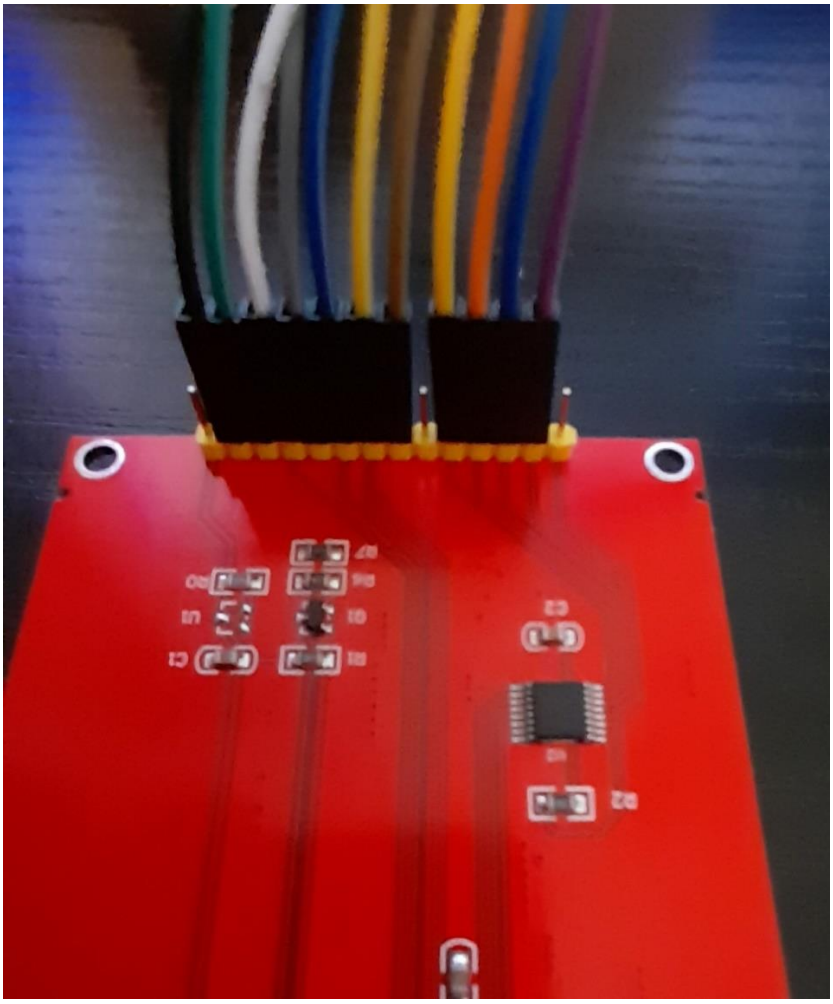
Button wiring



LCD connections. Note blue contrast adjuster



Tft connections.



Rear of tft screen 320 x 480 ili9488 Touch. Note U1 is not populated on board, as it is a 3.3V board