ESP32 Shutter Tester Parts V1.1

Below are links to the parts required to make the ESP32 Shutter Tester.

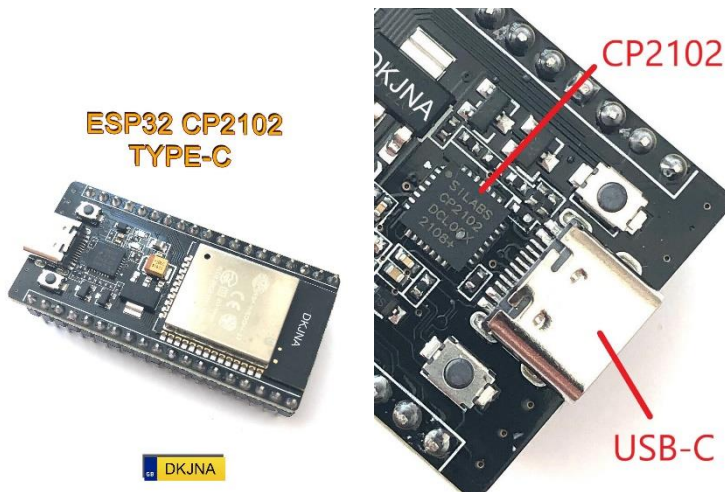Links are valid now, but of course could become dead in the future.

Links are (mainly) for UK suppliers and are a guide only. Use a supplier from your country.

Ordering from China either from eBay sellers or AliExpress, the parts will be much cheaper.

Note, often if buying from AliExpress, there is an express shipping option, if buying parts over a set value.

ESP32 NodeMcu board. 38 pin version. USB-C   CP2102

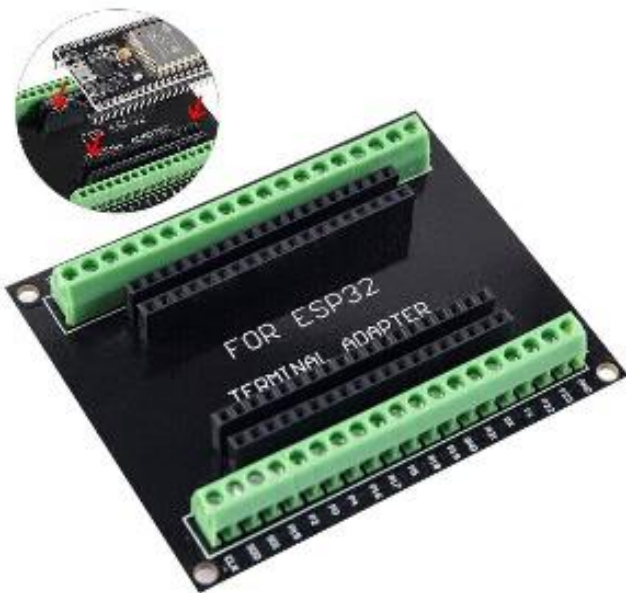[NodeMcu ESP32 WROOM-32 Type C Development Board Dual Core WLAN WiFi Bluetooth | eBay](#)

IMPORTANT. There are multiple variants of this board. Get 38 pin USB-C and CP2102 chip

ESP32 prototype/breakout board (38 pin screw-terminal version)

[38 Pin ESP32 Breakout Board For ESP32 Development Board 2.4 GHz Wifi Dual | eBay](#)
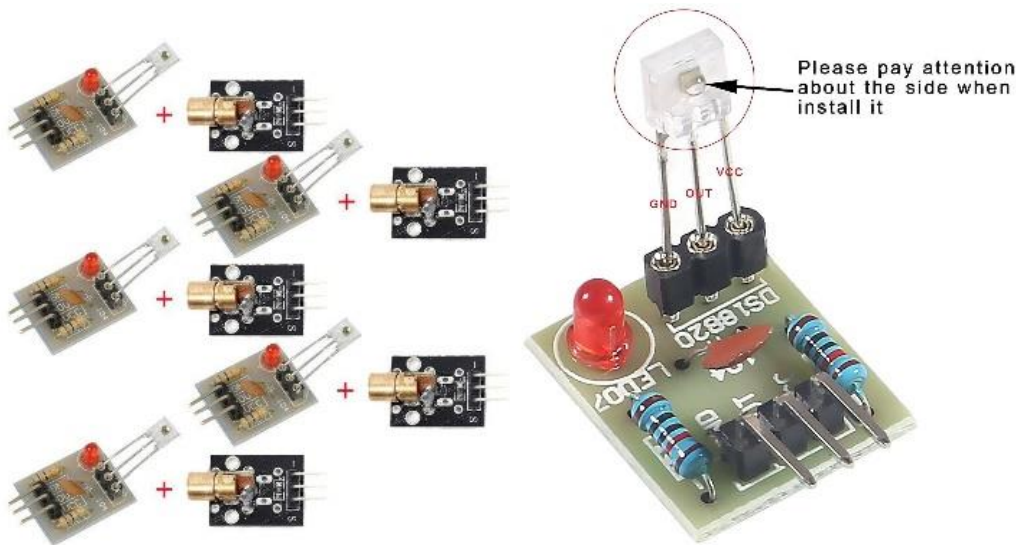
Laser tx & rx module.

Three Laser tx modules and three rx modules are required. Whilst the third (centre) Laser is not currently in use, omitting now will stop future firmware updates, so it is best to build it into the hardware now.

Note:- Development of the project may include five Laser tx and five rx modules. This will allow the current 32mm spacing for horizontal shutters and additionally 20mm spacing for vertical shutters.

The sensor is supplied loose. ENSURE YOU INSERT IT THE CORRECT WAY ROUND!!!. Little bubble lens points towards the header pins.
Note:- link is for a China supplied pack of 5 pairs. UK prices are far too high, I could not find a reasonably priced tx & rx pair in the UK when compiling this list.
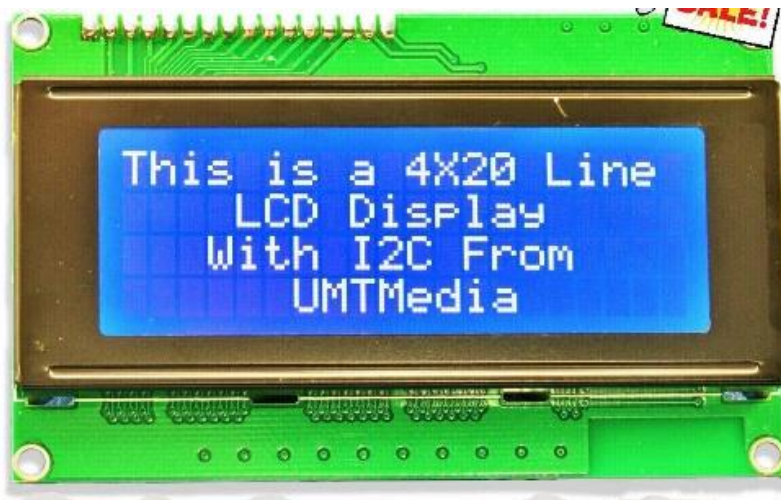Laser Receiver Sensor and KY-008 Transmitter Module Pair Set 10pcs for Arduino | eBay

LCD Module 2004 with IIC (optional)

Ensure you get a module that includes the IIC or i2C module. You can save money and not buy the LCD. The code also prints the results to the PC screen.
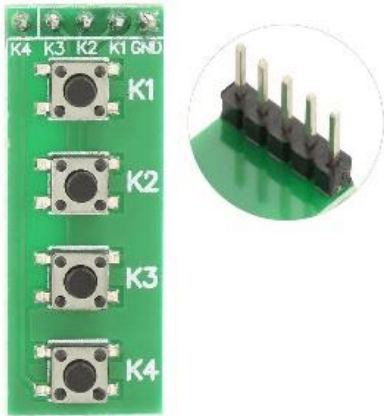IIC/I2C/TWI 2004 20X4 Character LCD Module Display For Arduino Blue Serial 5056517066560 | eBay

Button Module.

There are all sorts of buttons available, feel free to choose different ones depending on your final design. This module has the advantage of header pins for use with Dupont jumper wires. Whilst not all buttons are currently in use, having this options allows future firmware updates without hardware change.

4 Button Key Module Switch Keyboard Push Button Switch Board 7018965086109 | eBay

Dupont wires.
Get male to female ones if using the screw terminal prototype board.
Different lengths are available. It is suggested 30 or 40cm ones for the Laser tx & rx connections. 20cm for connection to buttons, LCD etc.
40PCS DUPONT JUMP WIRES M-F M-M F-F JUMPER BREADBOARD CABLES FOR DIY ARDUINO | eBay

TFT display. (optional)
4" SPI Module ILI 9488 14 pin TFT LCD Display Screen with Touch. 480 * 320 resolution

[4.0 inch SPI module 3.95 inch ILI9488 14 pin TFT LCD display scree Resistance touch panel PCB adapter base board 2.54 mm spacing - AliExpress](#)