

Solar Charge Display

By: John Geb

BOM: (Click on the Item to Purchase)

[16mm Illuminated Pushbutton - Red Momentary](#)

[16mm Illuminated Pushbutton - Green Momentary](#)

[16mm Illuminated Pushbutton - Yellow Momentary](#)

[16mm Illuminated Pushbutton - White Momentary](#)

[NeoPixel Jewel - 7 x 5050 RGB LED with Integrated Drivers](#)

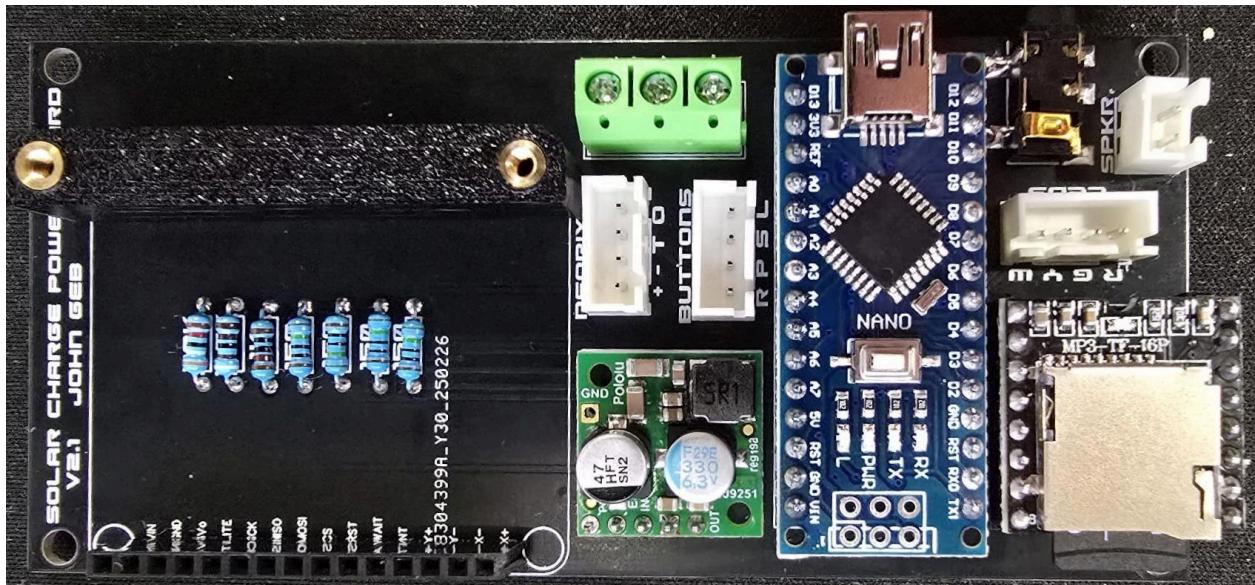
[5.0" 40-pin 800x480 TFT Display without Touchscreen80](#)

(Can be found cheaper on AliExpress/Amazon/eBay)

[RA8875 Driver Board](#)

What Included:

Solar Charge Power Board



Two M2.5 Socket Head Screws for mounting RA8875 Board to Solar Charger Power Board

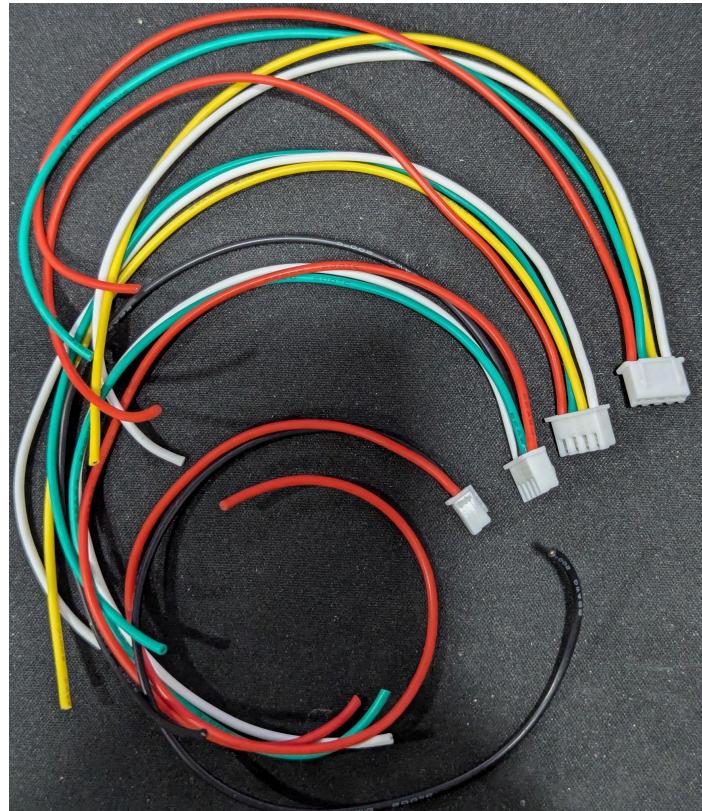


Wire Harness (Speaker 2 Pin)

Led 4 Pin

Button 4 Pin

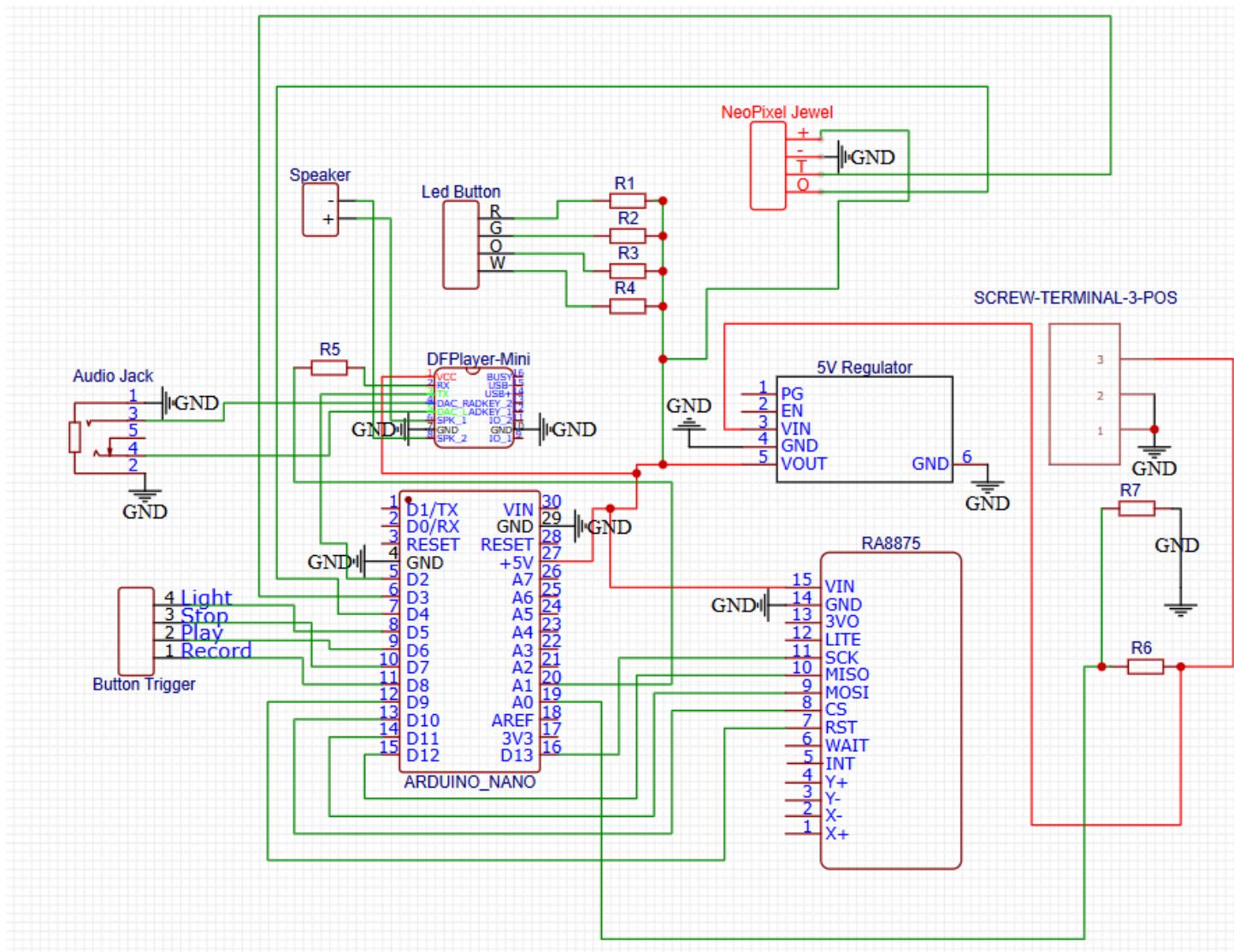
NeoPixel 4 Pin



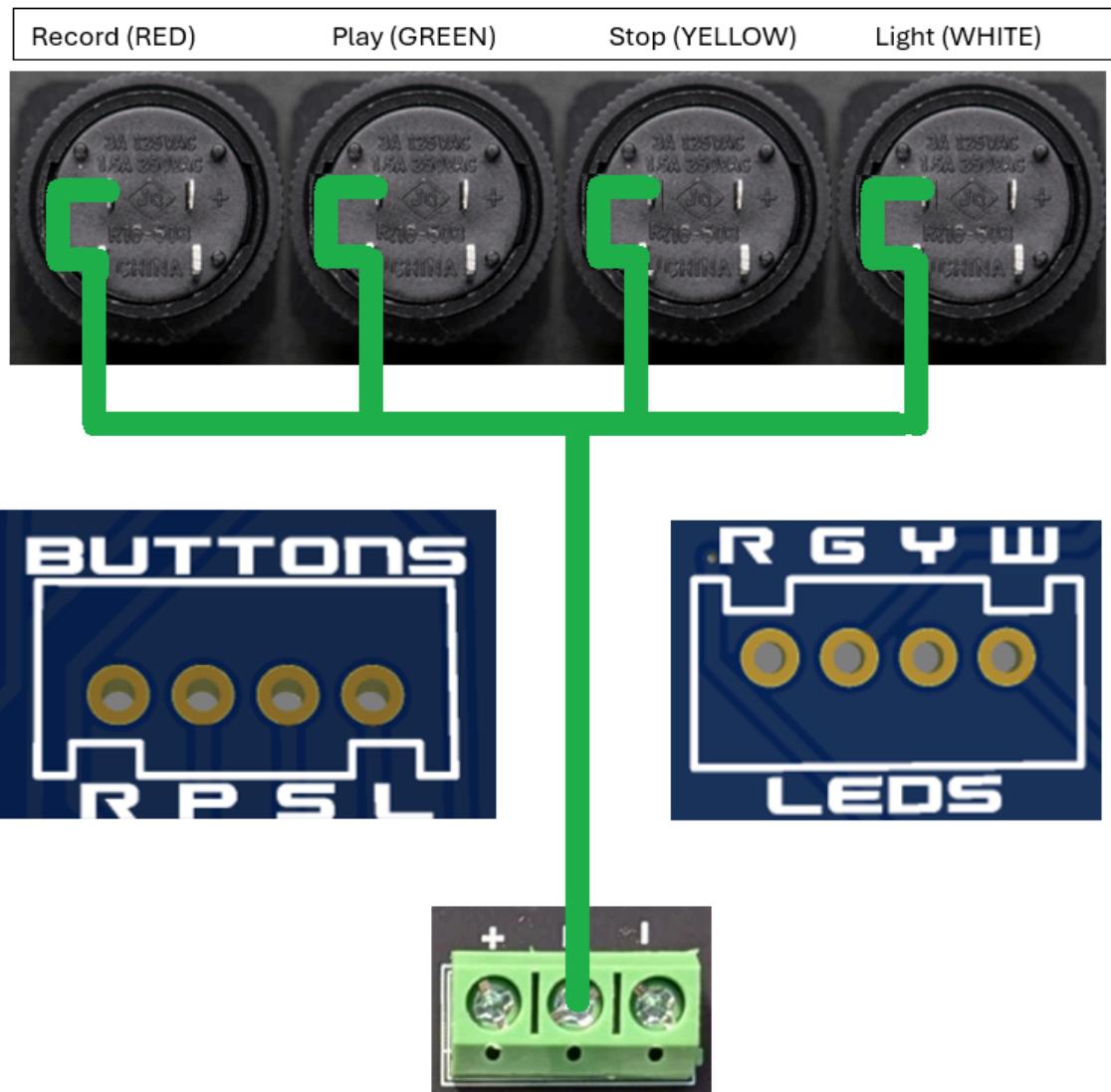
Board Mounting Plate



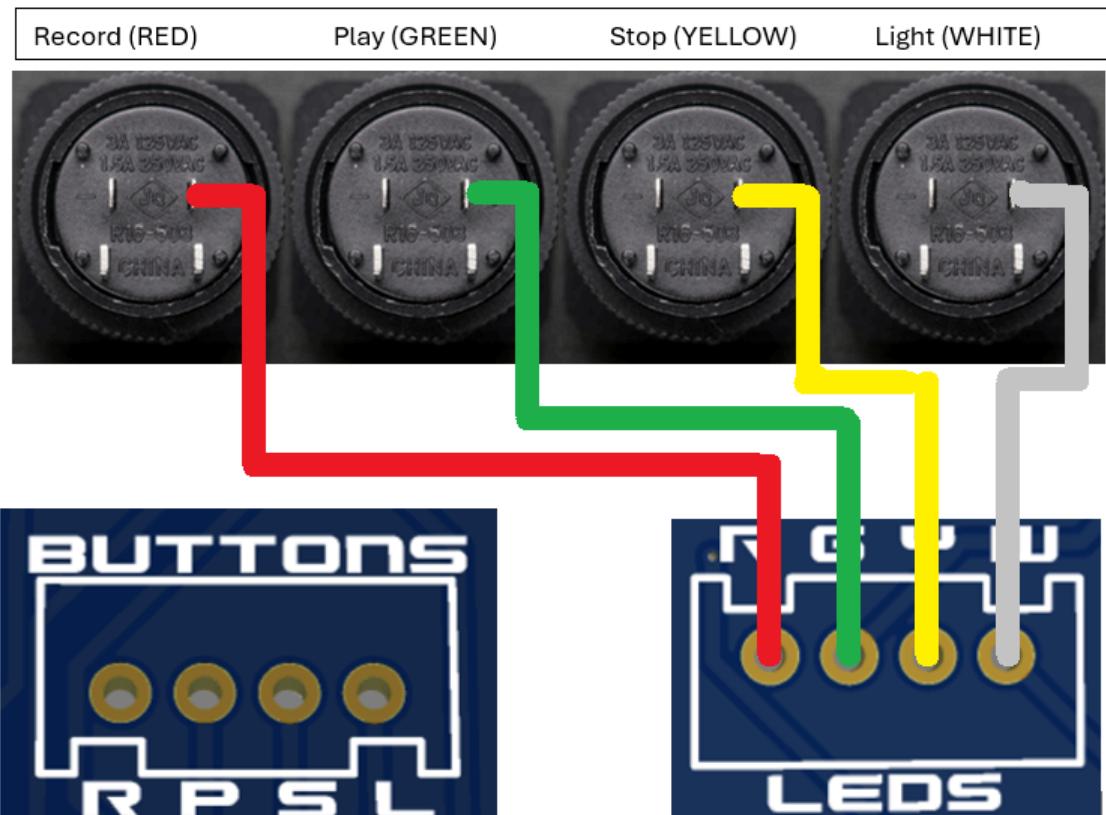
Board Schematic



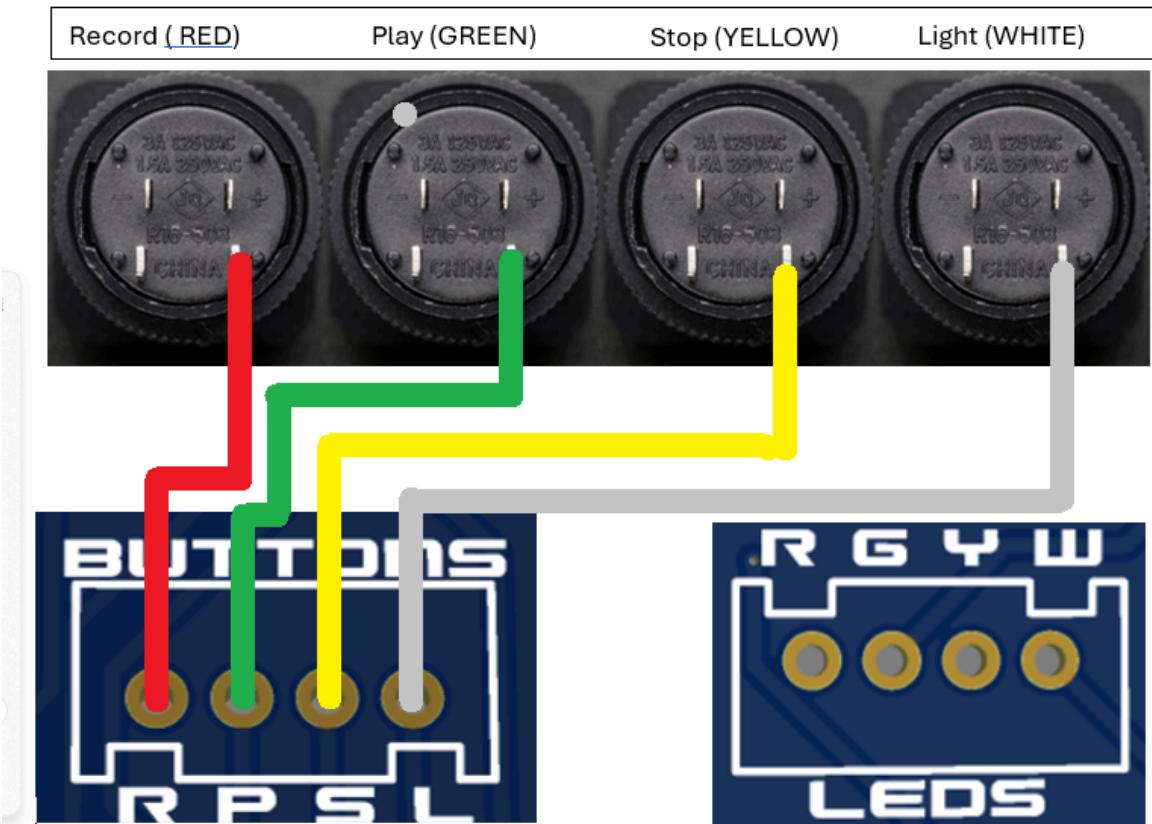
Connect wires from negative terminal on the board to the Buttons, install jumper (Small Wire) between the two terminals as shown.



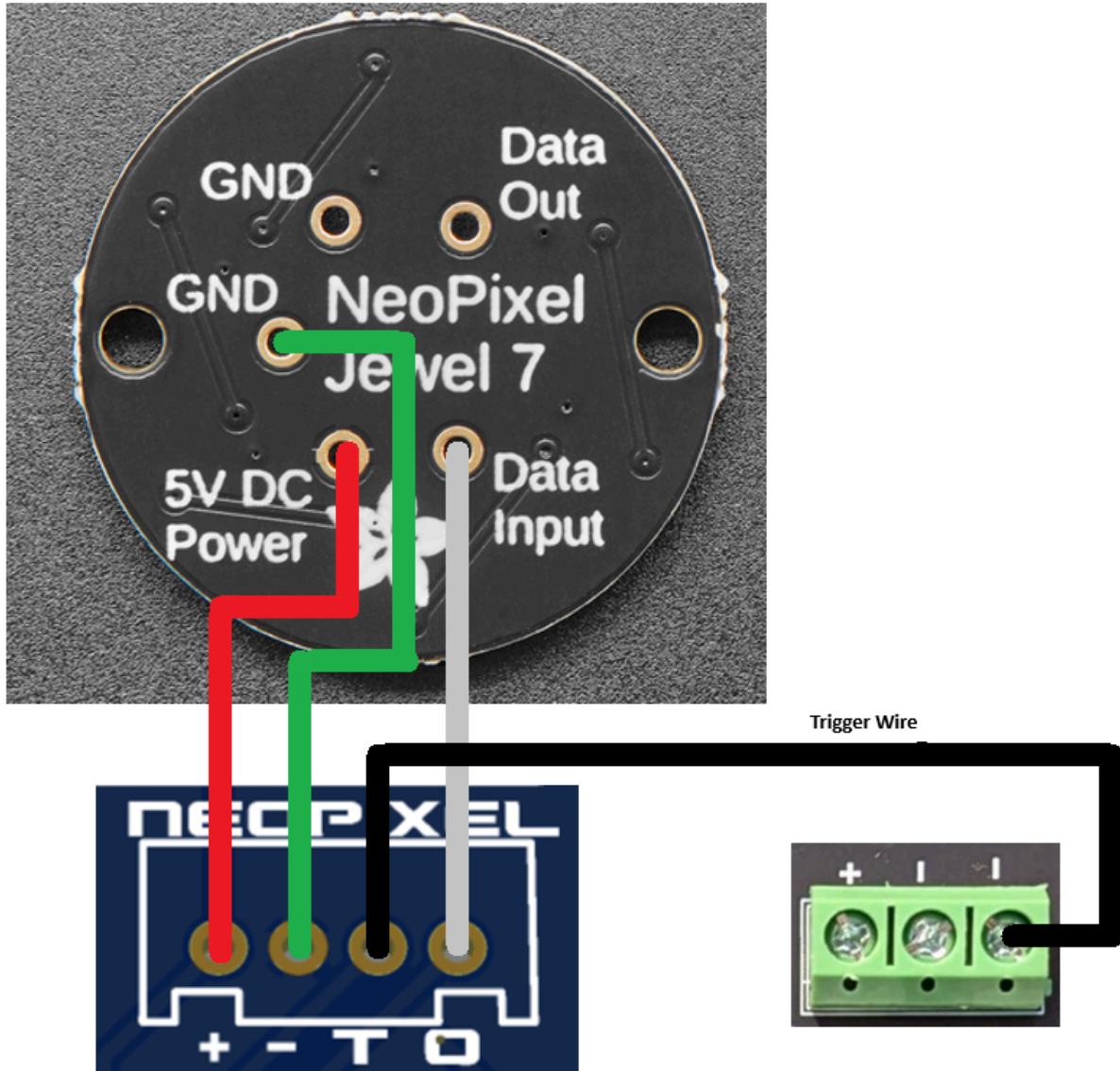
Connect wires from LEDS connector on the board to the terminals on top right of the push buttons (Connectors with harness are provided, either harness with yellow wire as they are the same. cut to length)



Connect wires from BUTTONS connector on the board to the terminals on bottom right of the push buttons (Connectors with harness are provided, either harness with yellow wire as they are the same. cut to length)

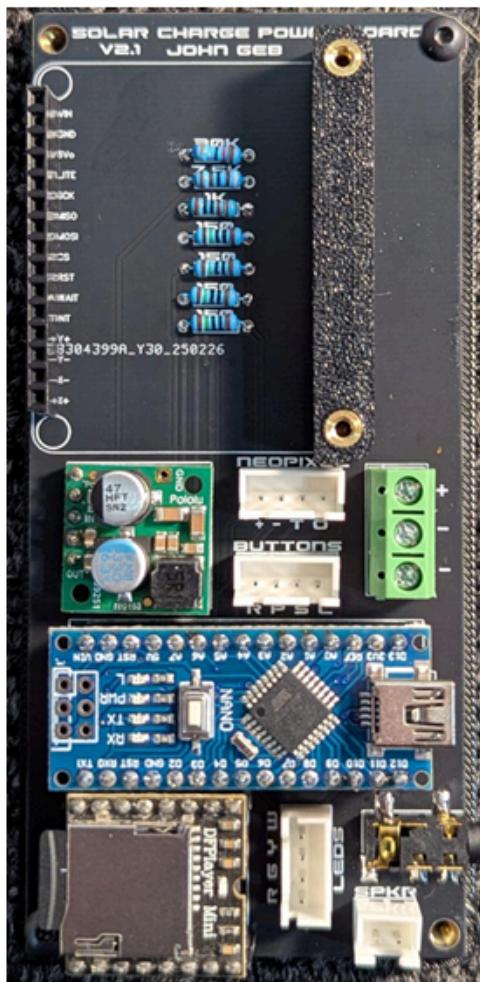


Connect wires from NEOPIXEL connector on board to the NeoPixel Jewel (Connectors with harness are provided, wire harness with the white. cut to length). The trigger wire needs to go LOW have the NeoPixel turn on, the trigger wire can be grounded on the green terminal either one of the negative ports to have NeoPixel turn on full time after bootup.

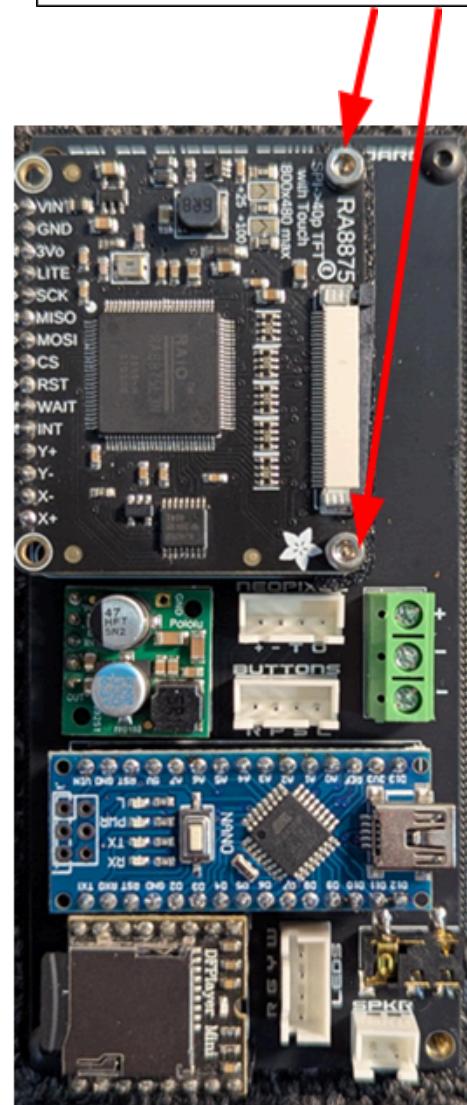


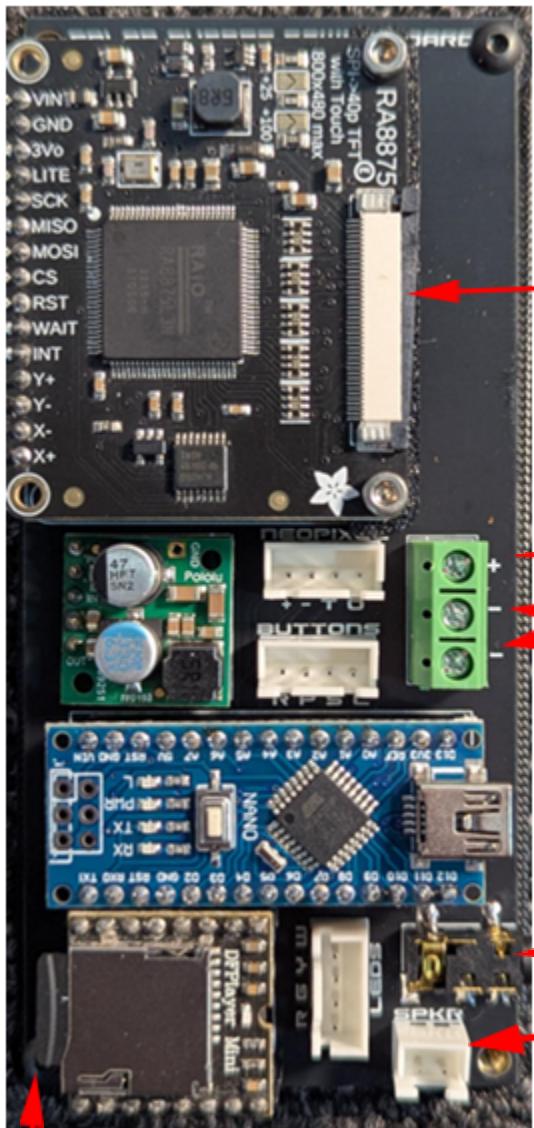
RA8875 Driver Board

(Not Provided)



Install 2 screws to secure
RA8875 Board in place.





Ribbon Cable From 5" TFT Screen

Input Voltage 12v-24v

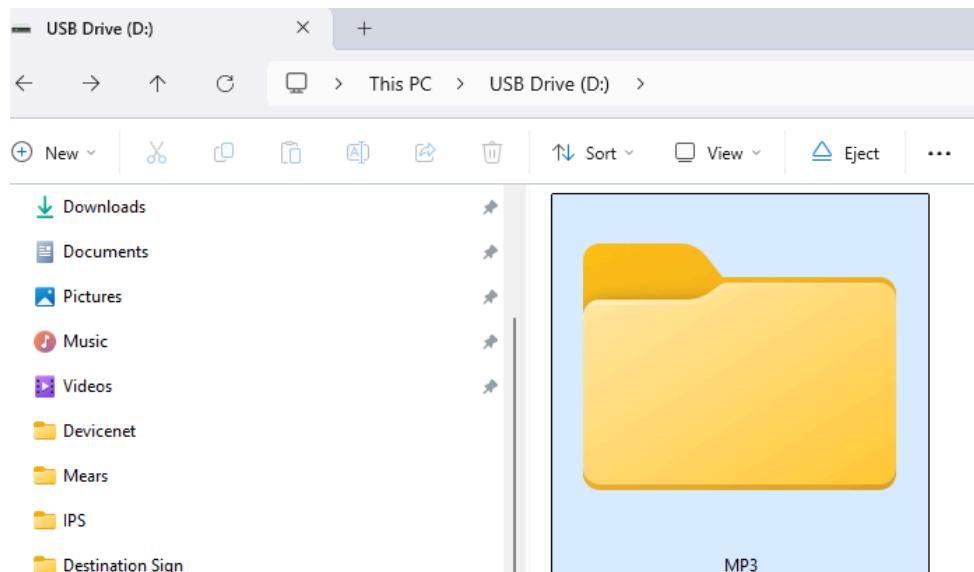
Ground (Negative to Battery)

AUX Out (3.5mm Audio Jack)

Speaker Out

SD Card For Audio Files

Audio Setup



Name	Date modified	Type	Size
0001_Bootup	4/1/2024 12:22 AM	MP3 File	107 KB
0002	4/1/2024 12:22 AM	MP3 File	107 KB
0003	4/1/2024 12:22 AM	MP3 File	107 KB
0004_Warning	4/1/2024 12:22 AM	MP3 File	107 KB

All Audio Files must be in Folder Called MP3 on SD Card

All Audio files need to be in MP3 format.

Audio Files are named 0001 through 0255. (Can have Identifying name after numbers)

All Audio Files must be in Folder Called MP3 on SD Card

Example

001StartUp Boot Audio (Pre-Installed on SD Card)

002 Play Button Audio

003 Record Button Audio

004 Low Battery Warning Audio (Pre-Installed on SD Card)