MACHINECHAT – A UNIVERSAL SENSOR HUB

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machinechat

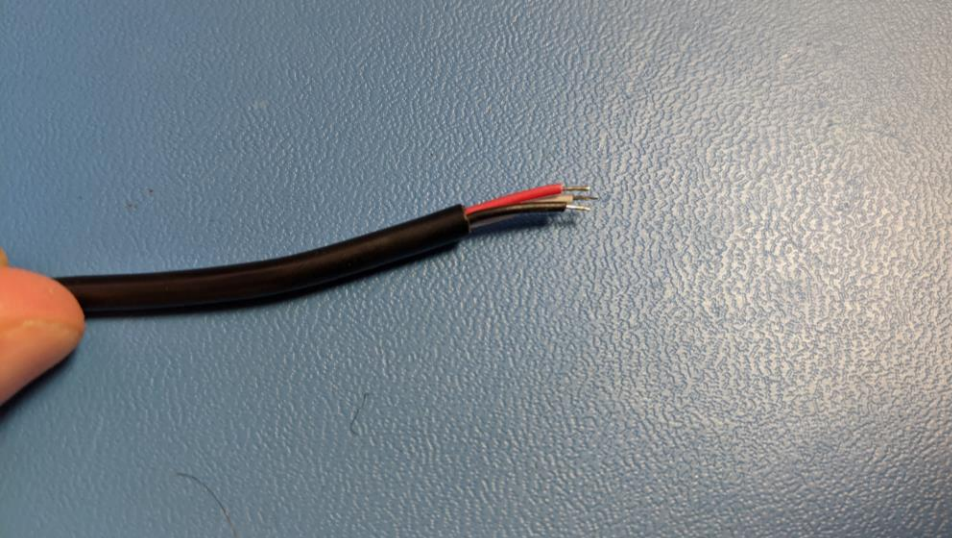
JEDI ONE – KEY FEATURES

- Tiny 14 MB single binary with zero dependencies. Available for Raspberry Pi, BeagleBone, Windows, Mac OS and Linux. Runs locally – no cloud or subscription needed
- Ready-to-deploy with configurable dashboards for real-time and historical data, integrated rules engine, email and SMS alerts
- Easily develop and deploy proof-of-concepts with a beautiful graphical interface in minutes instead of months
- Modern browser-based graphical user interface with multi-user support that allows access to JEDI One from anywhere on your network using a web browser
- Quickly gather data from sensors and machines using integrated HTTP and TCP-based data collectors
- Custom data plug-ins allow developers to ingest data from any source or integrate their existing code or scripts
- Eliminates the time, costs and complexity of developing complex multi-threaded network communications software for communicating with multiple sensors and machines
- On prem, allowing users to eliminate data privacy issues and costly per-device, per-byte cloud-based subscription costs
- Local smart data storage gives users 100% control and ownership over the storage and management of data

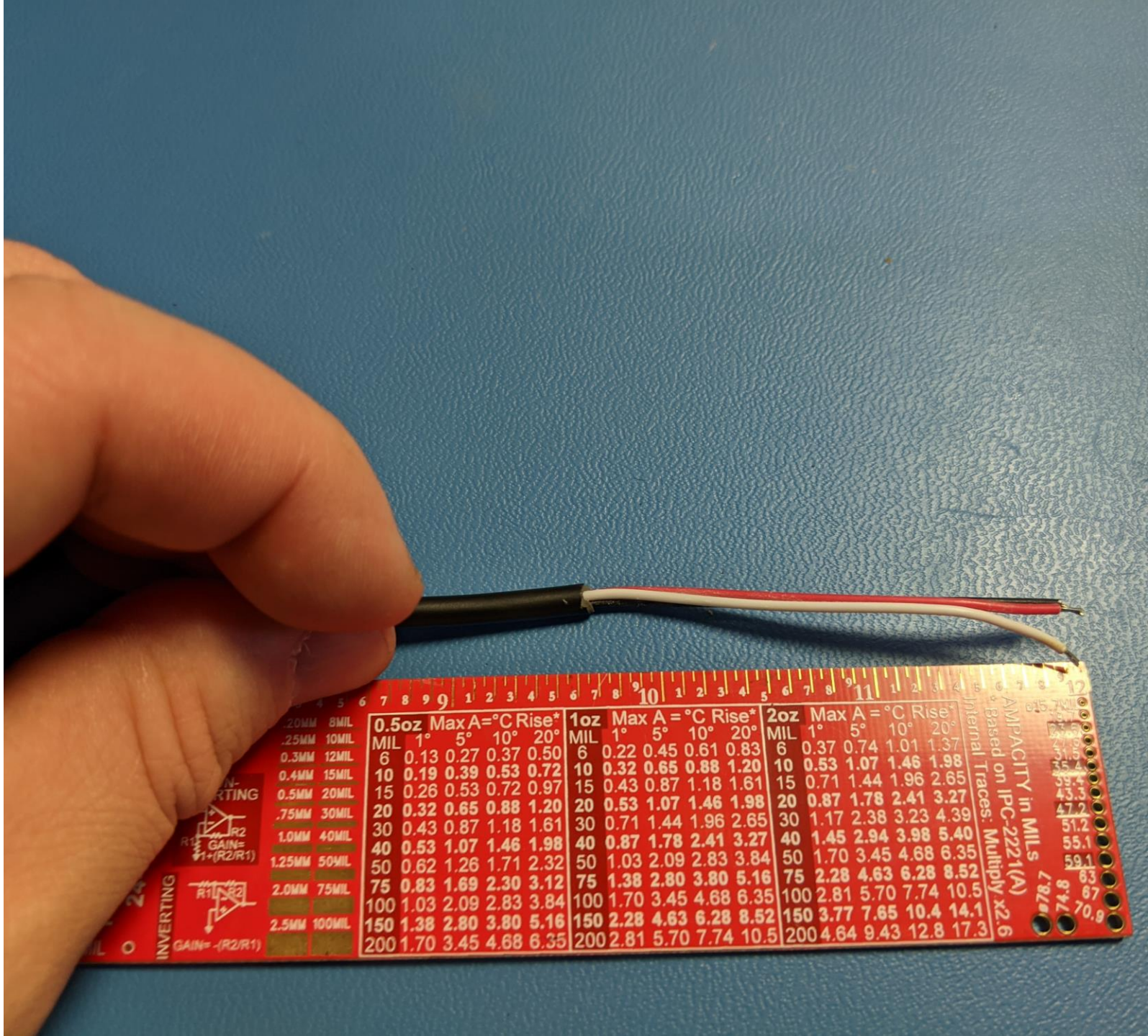
JEDI ONE: THE ALL-IN-ONE READY-TO-USE IOT SOFTWARE

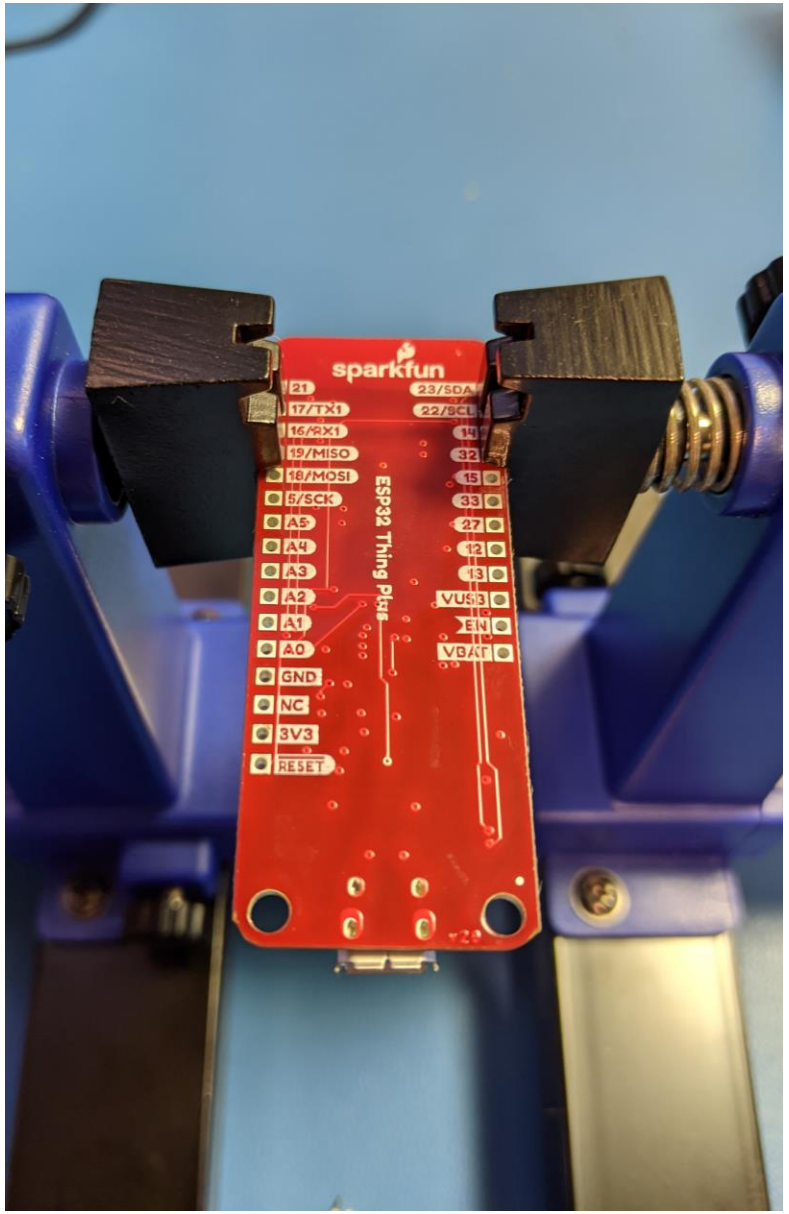
Available exclusively from Digi-Key Electronics at https://www.digikey.com/en/supplier-centers/machinechat

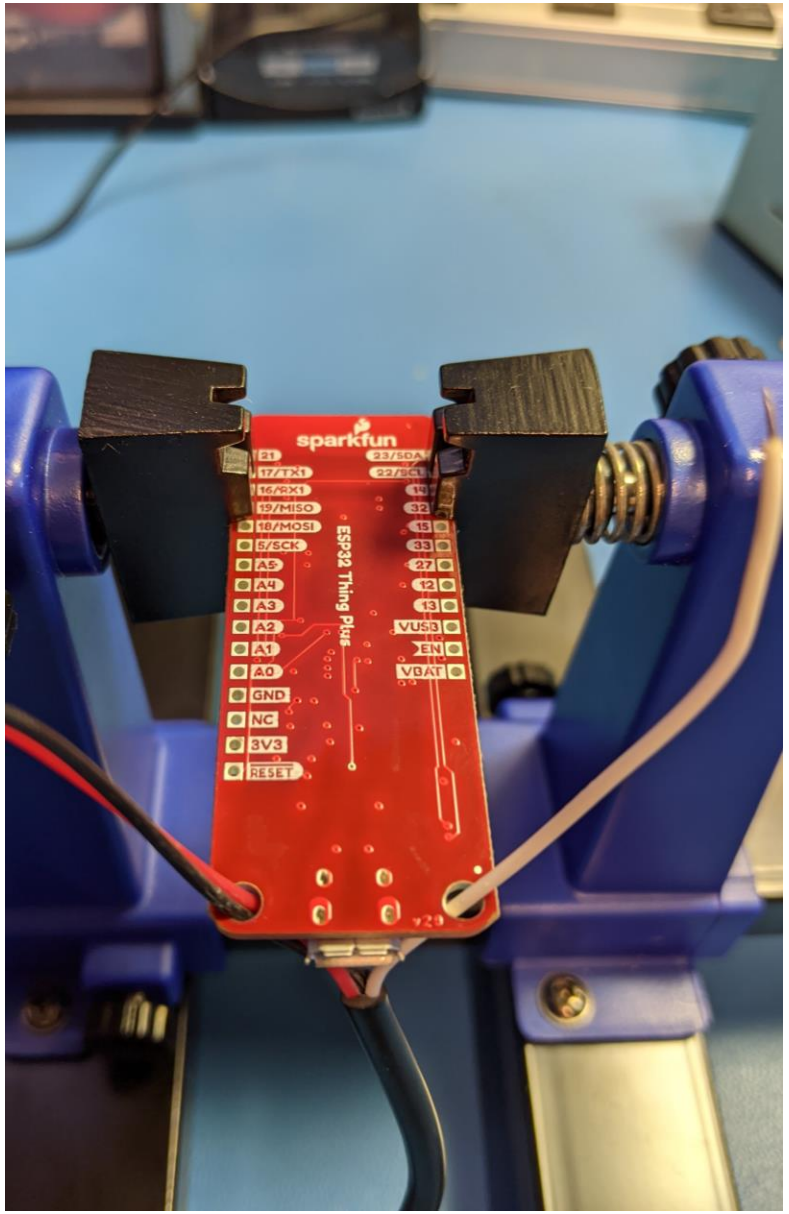
HARDWARE SETUP



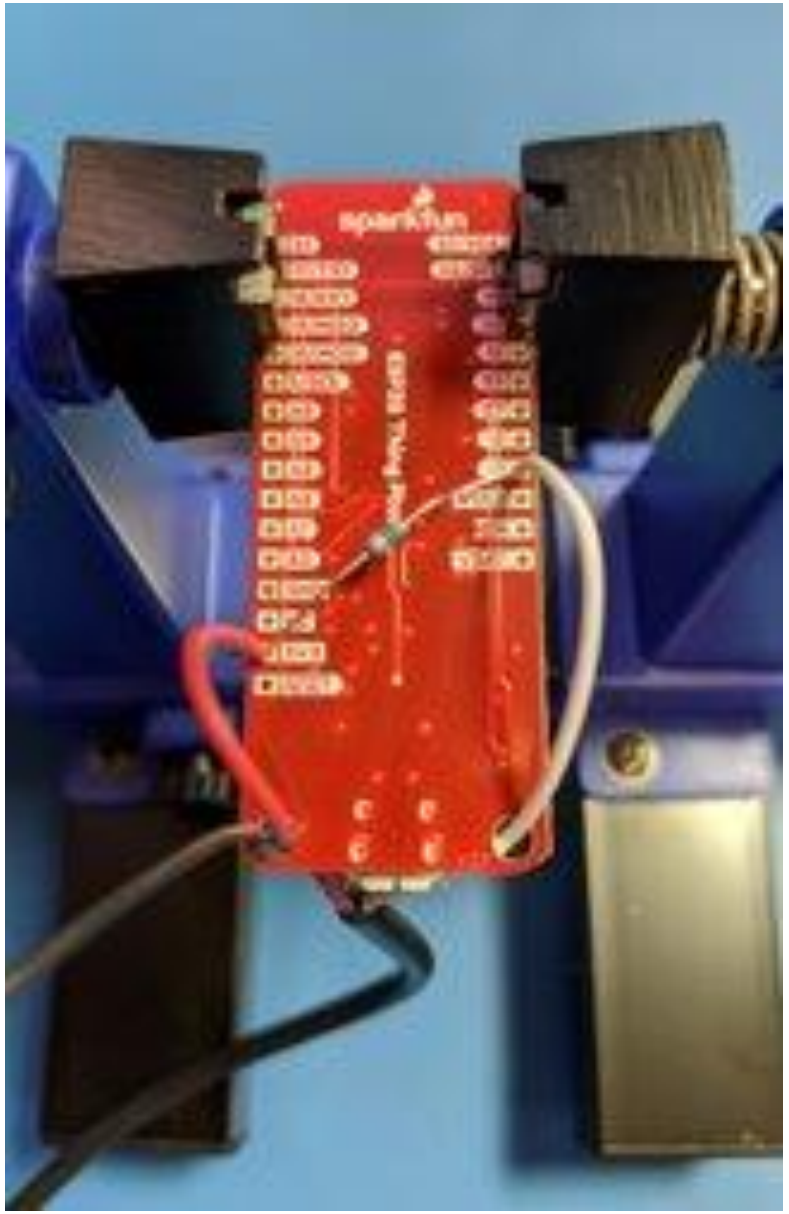
STRIP ABOUT 2 INCHES

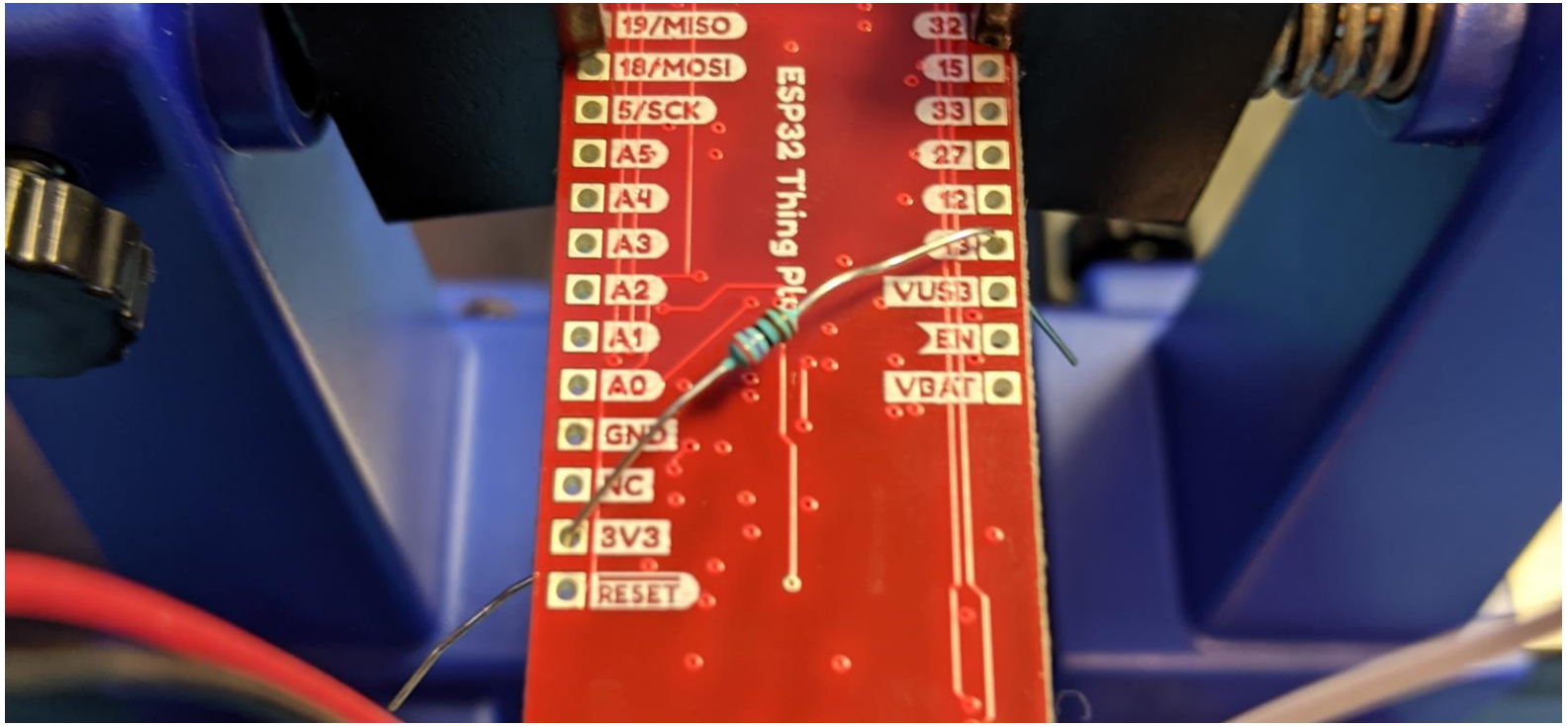






LOOP WIRES THRU HOLES

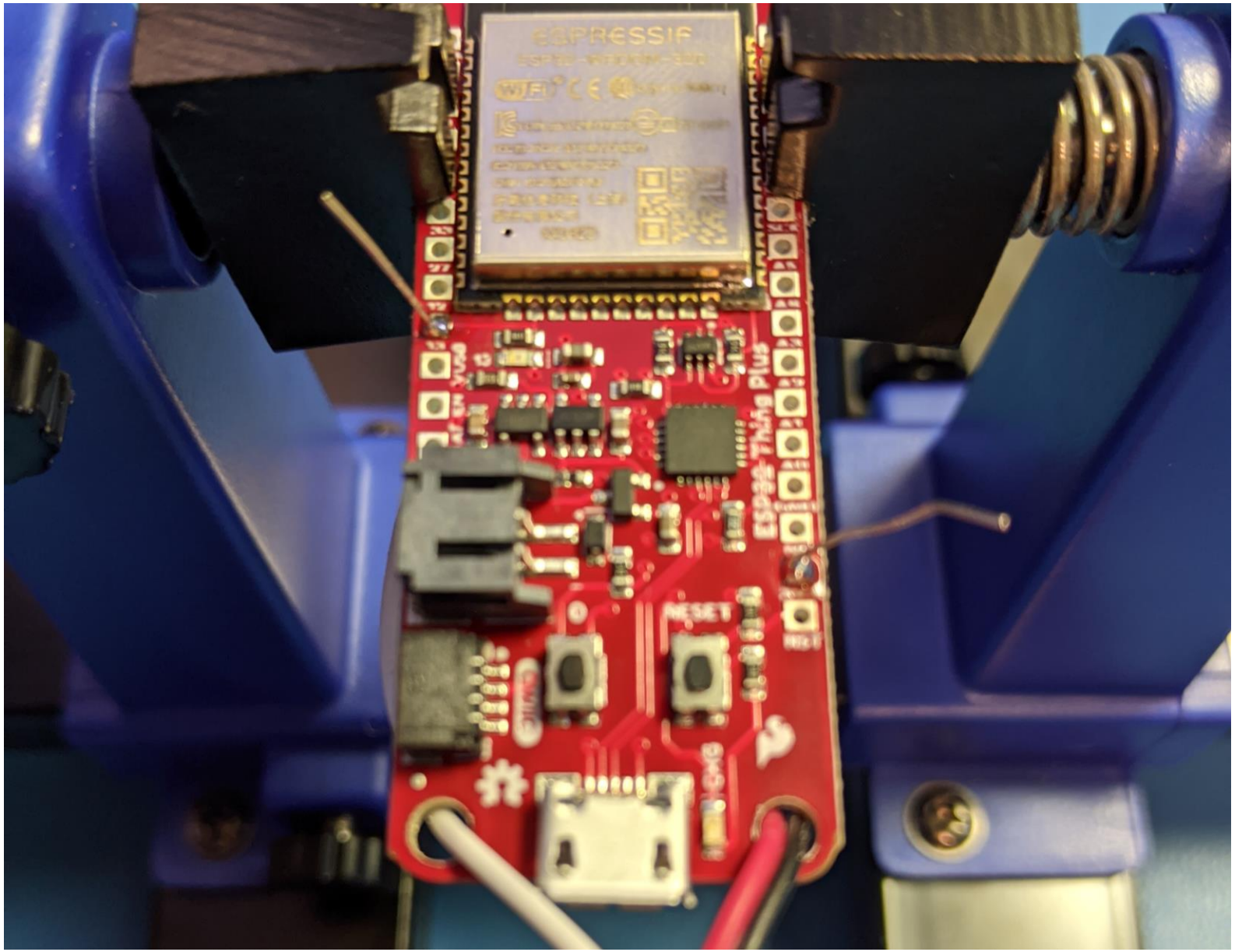


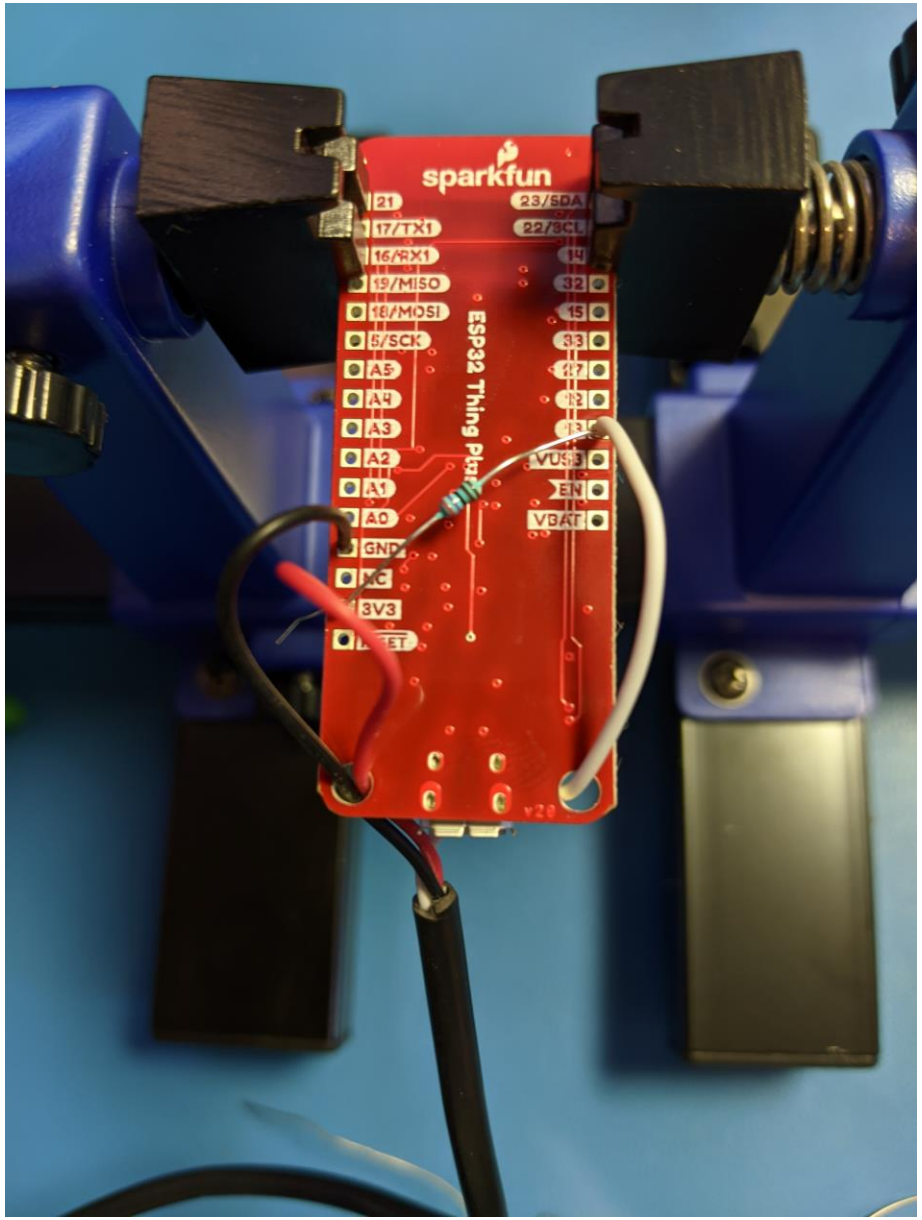


CONNECT RESISTOR TO PINS 13 & 3V3

FORCE RED AND WHITE CABLES IN SAME HOLES

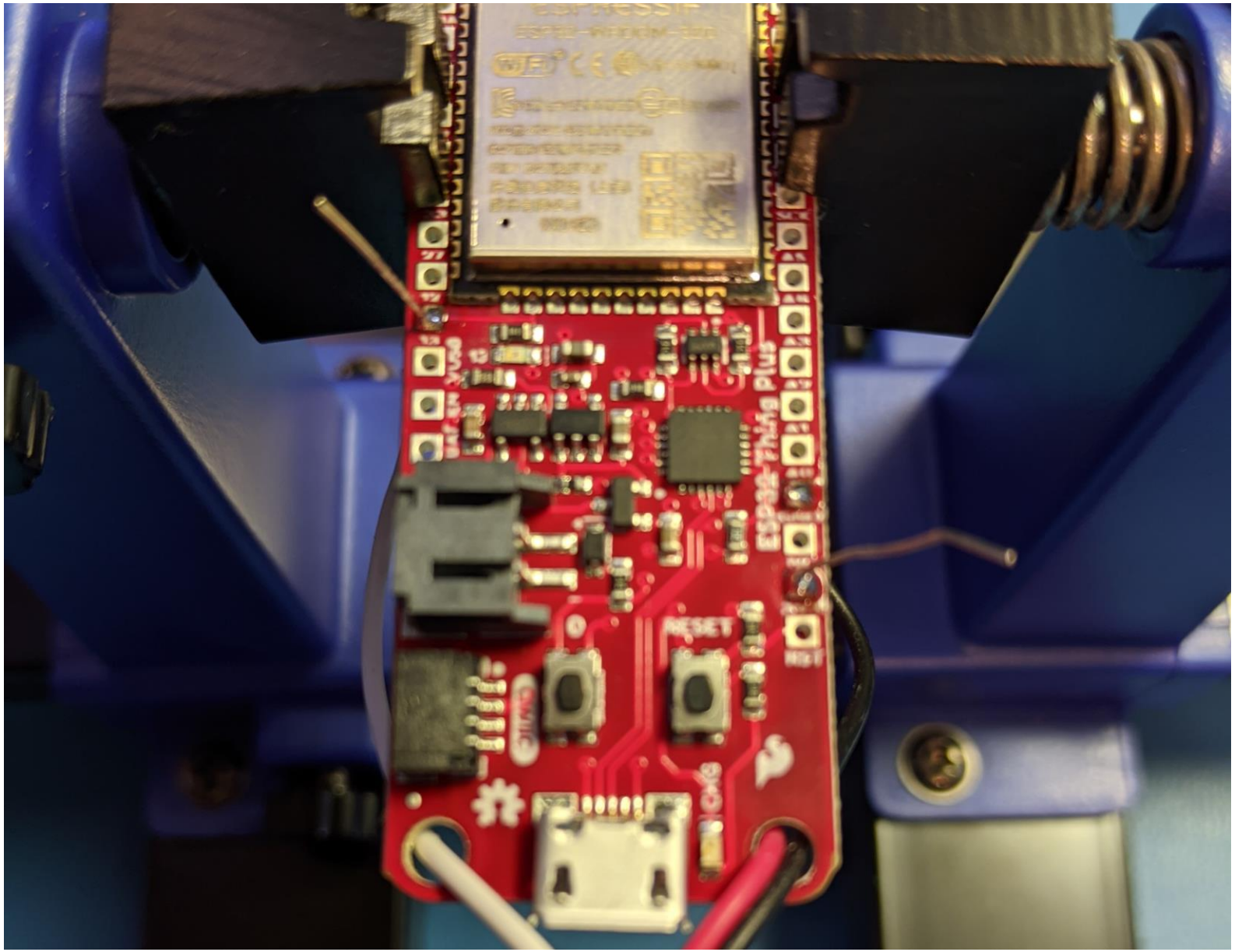
FLIP AND SOLDER

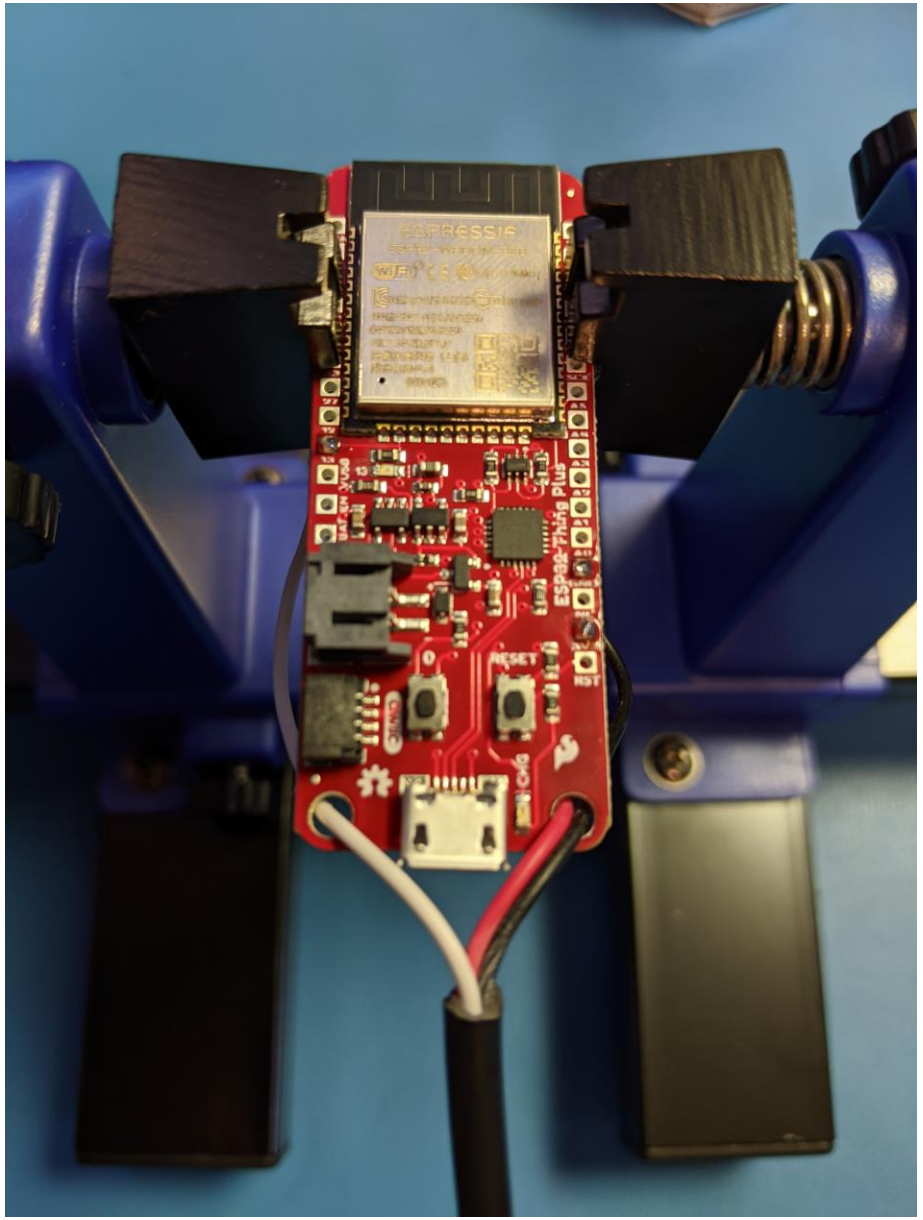




FLIP AND ADD BLACK WIRE TO GND

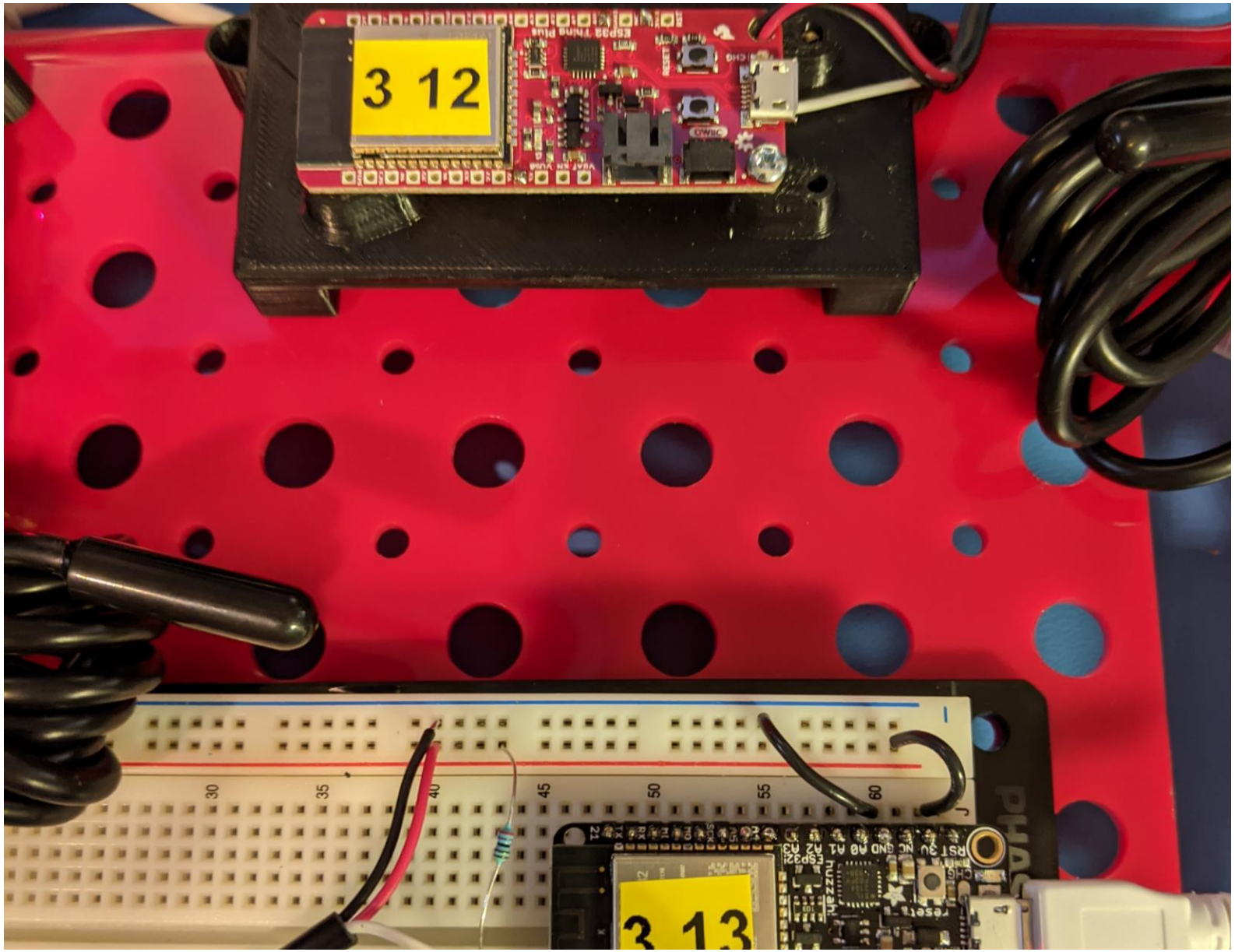
FLIP AND SOLDER



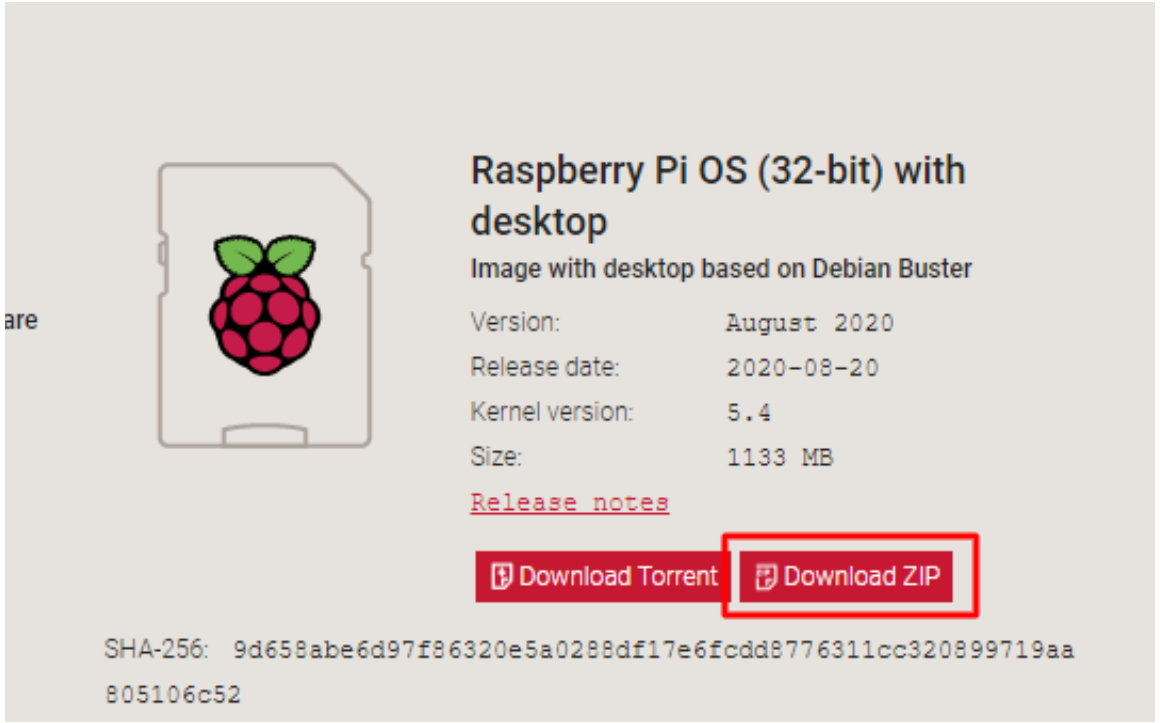


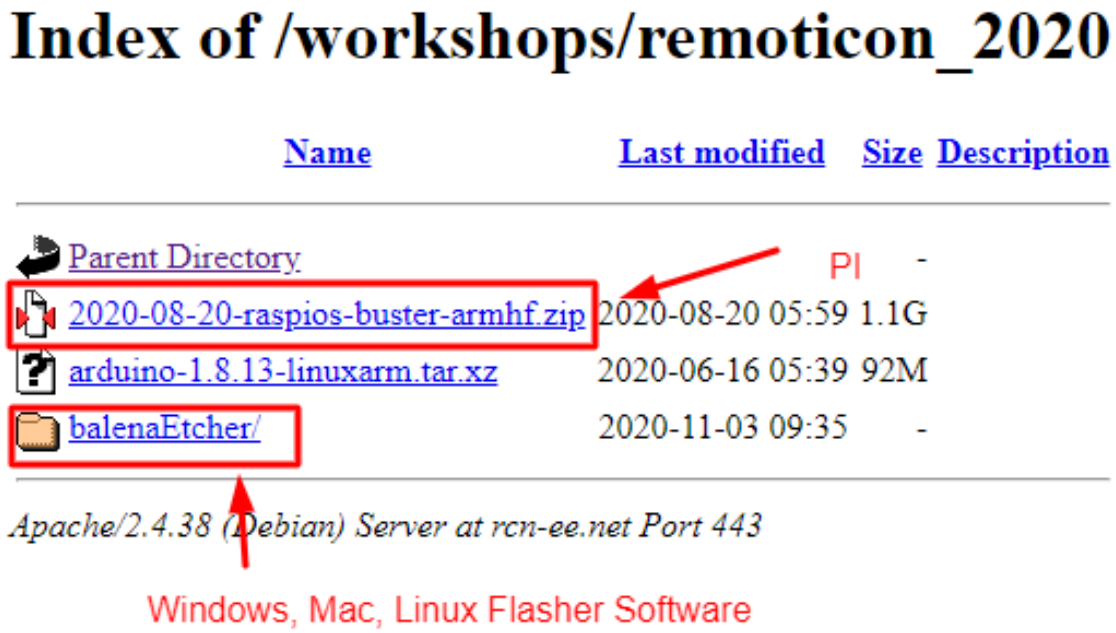
TRIM

SOLDERING DONE



SOFTWARE SETUP

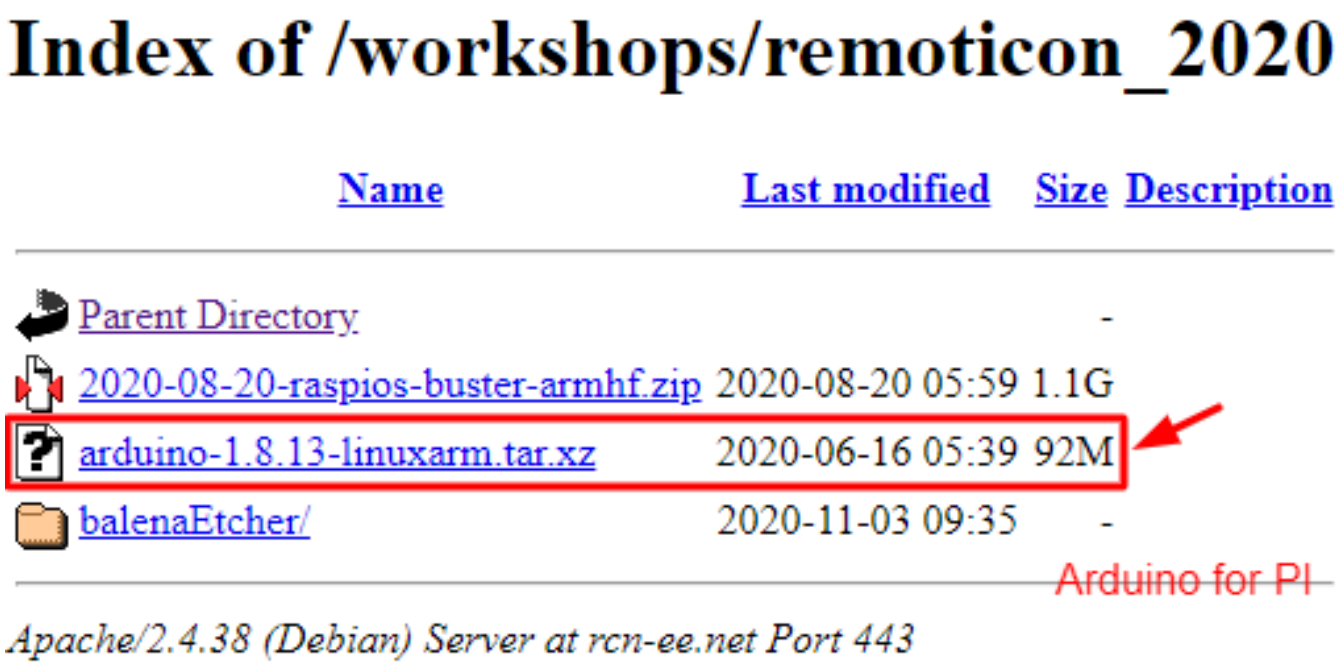




GRAB PROJECT FILES:

https://rcn-ee.net/workshops/remoticon_2020/

BOOTING PI

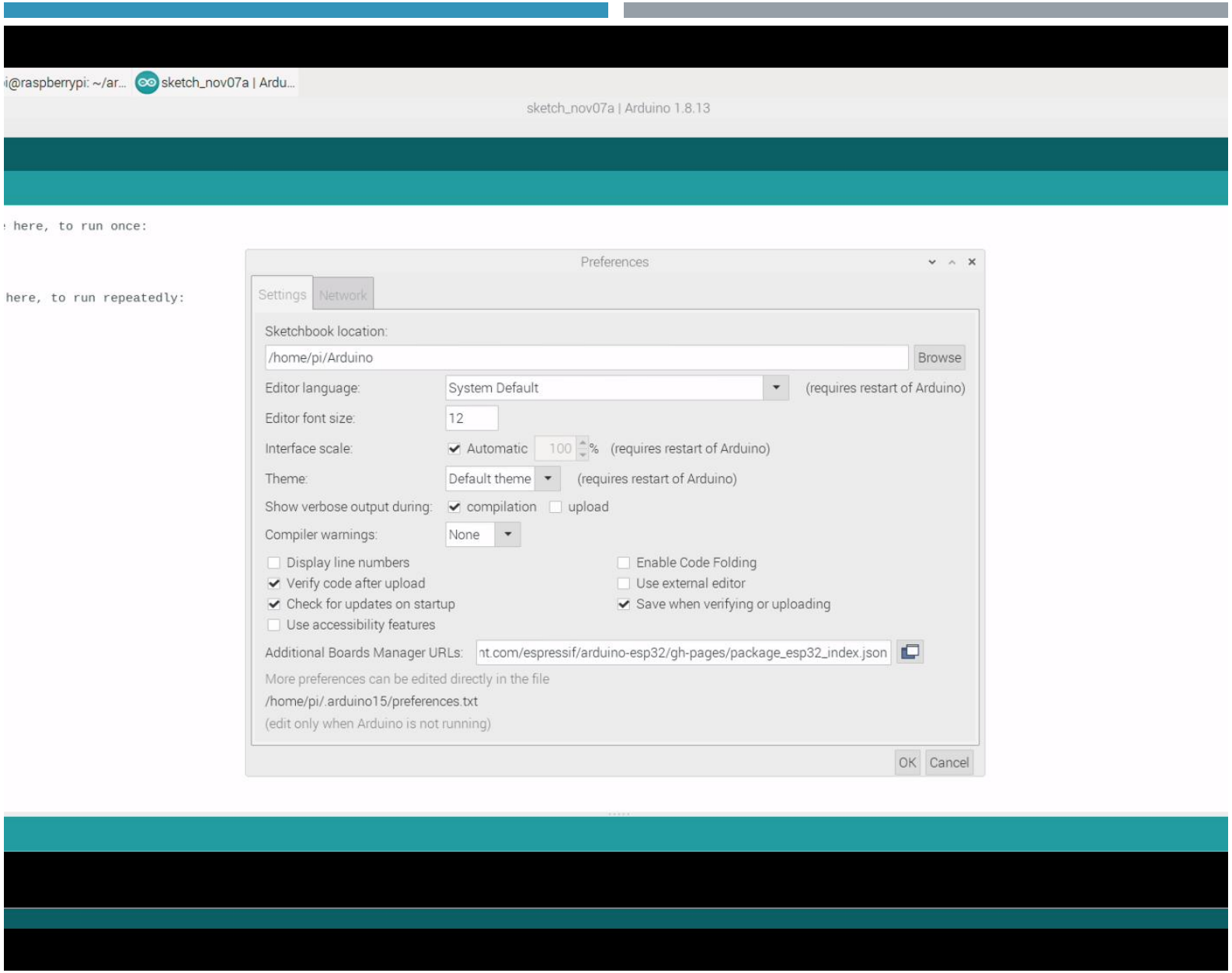


GRAB PROJECT FILES:

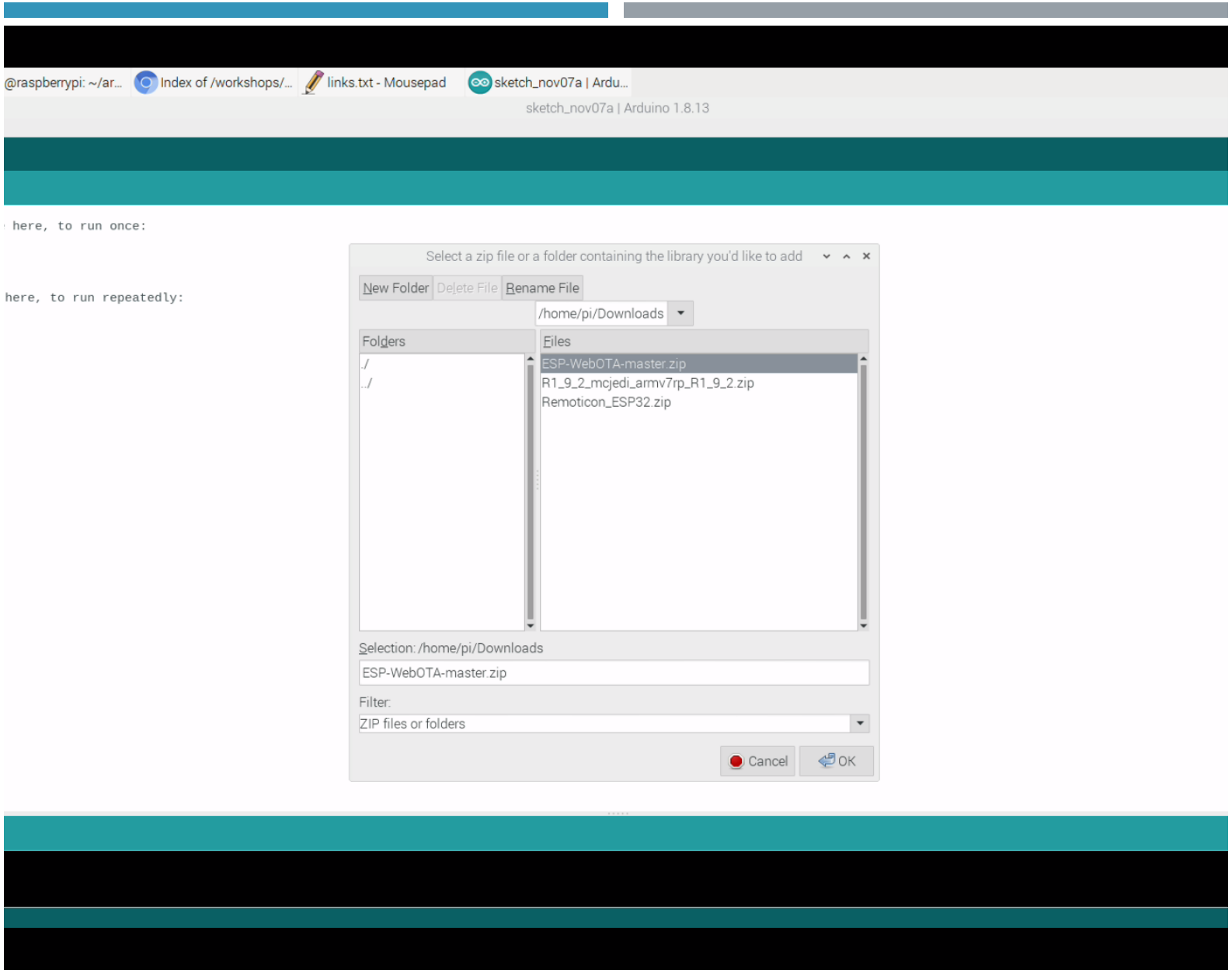
HTTPS://RCN-EE.NET/WORKSHOPS/REMOTICON_2020/

ADD ESP32 SUPPORT:

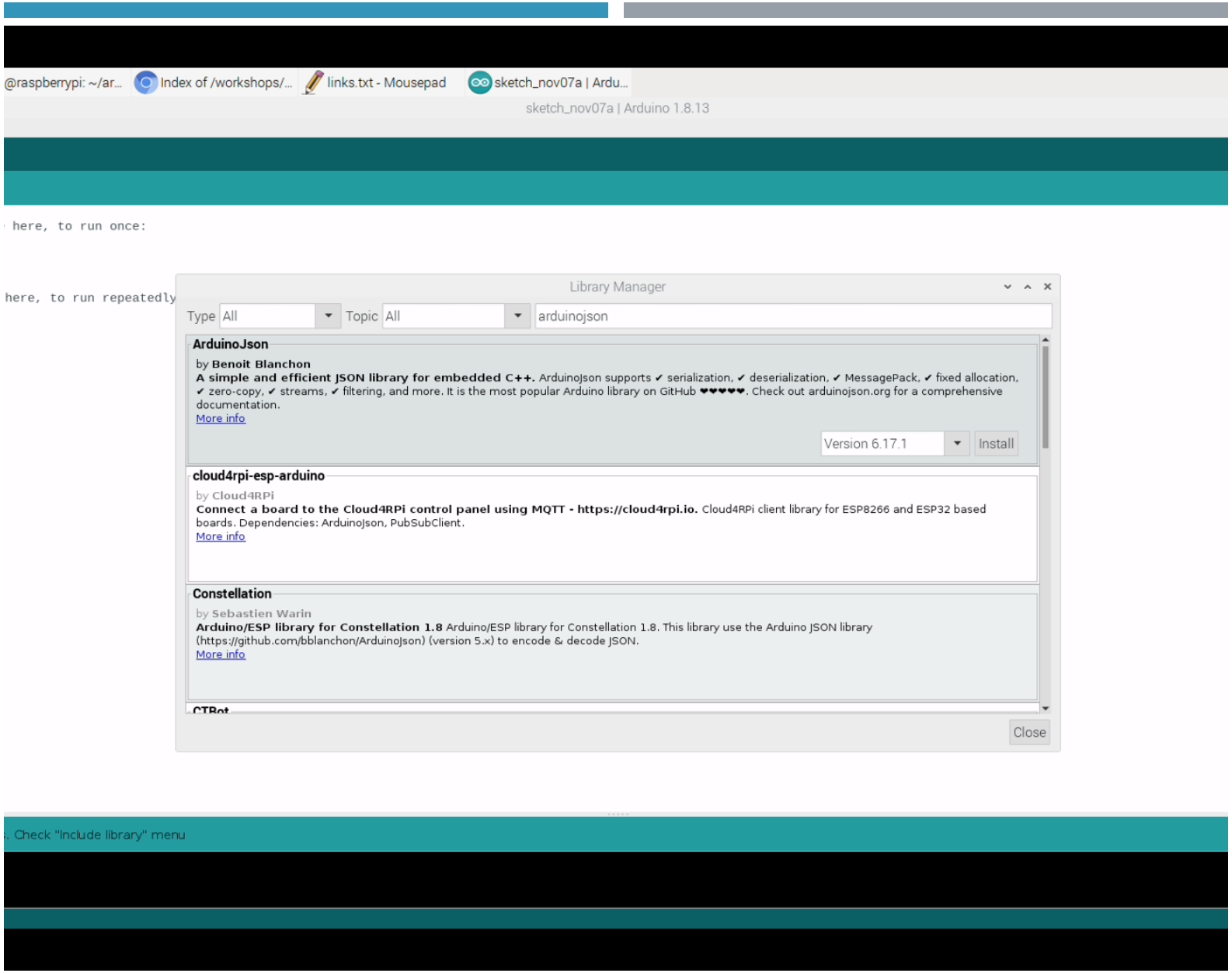
[ARDUINO-ESP32]



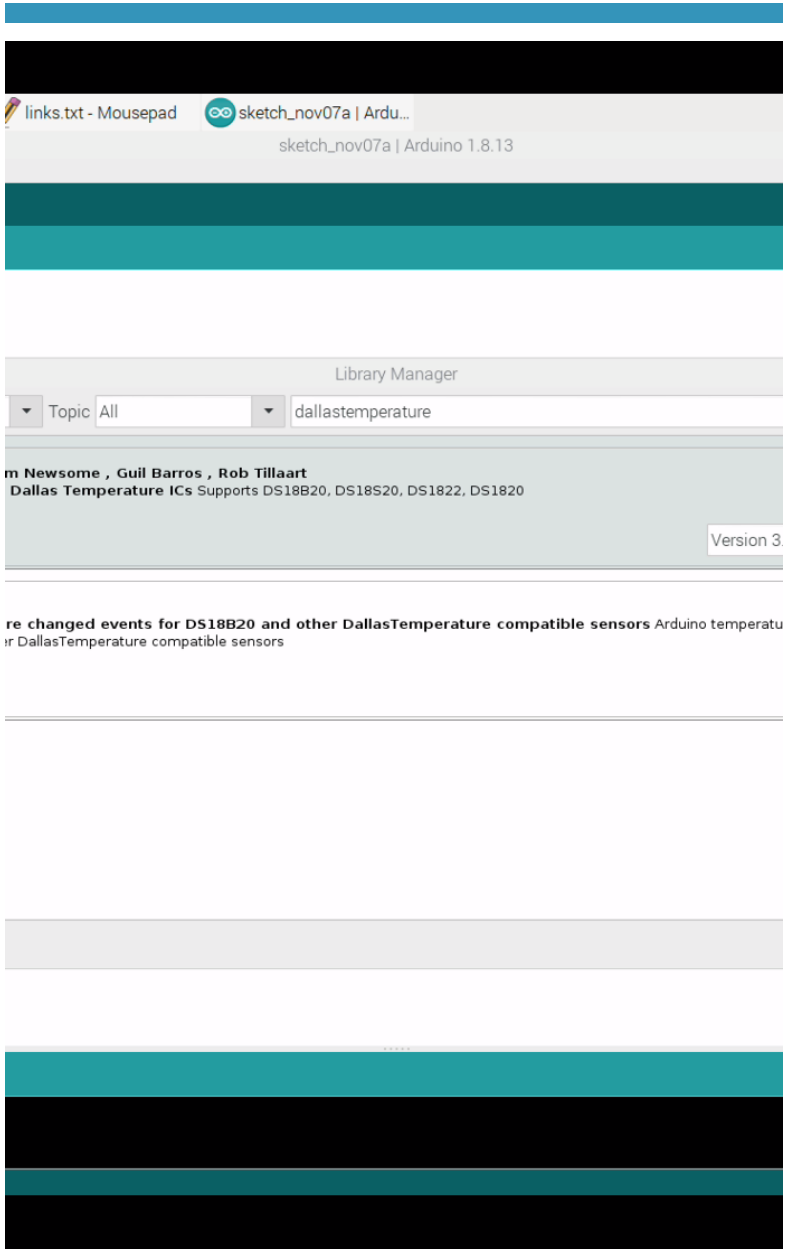
ADD ESP OTA SUPPORT:

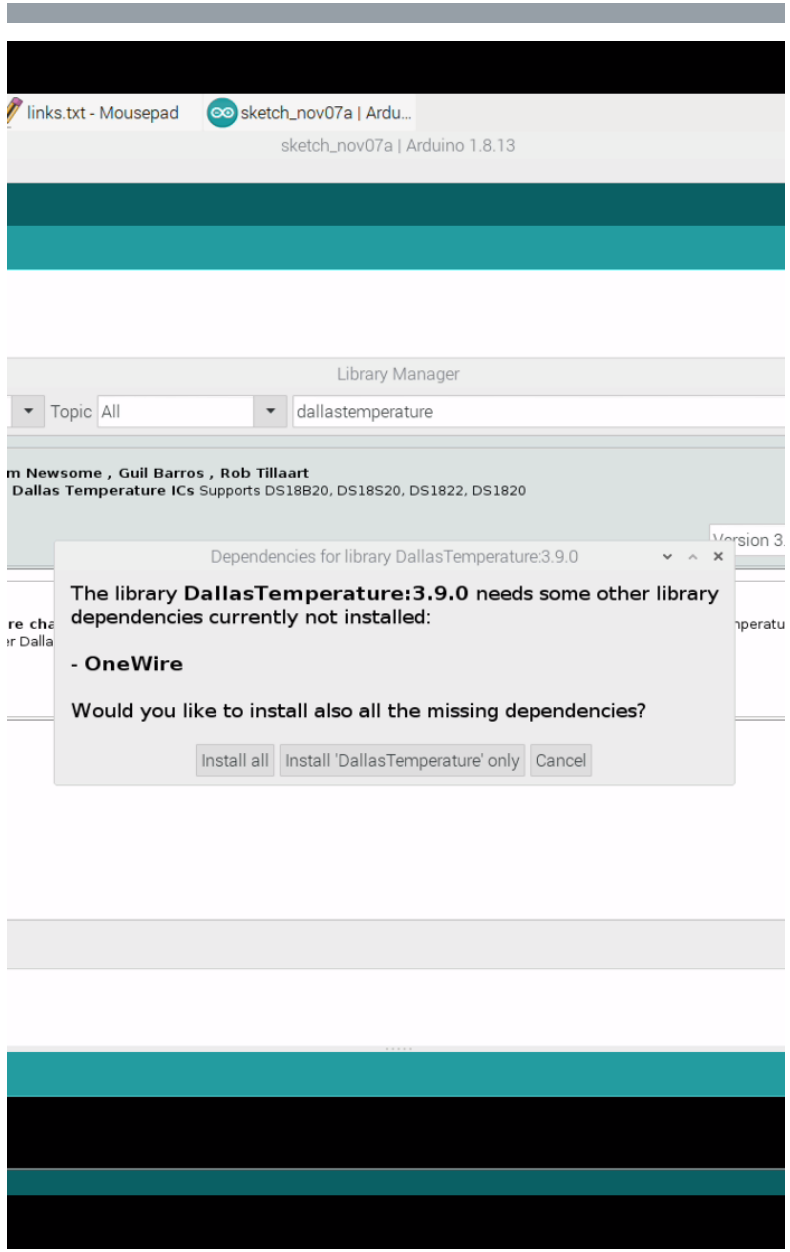


ADD ARDUINOJSON



ADD DALLAS TEMPERATURE 3.9.0 AND ONEWIRE





SETUP MACHINECHAT

Setup Machinechat

wget https://cdn.hackaday.io/files/1750857490836640/R1_9_2_mcjedi_armv7rp_R1_9_2.zip

unzip R1_9_2_mcjedi_armv7rp_R1_9_2.zip

sudo ./mcjedi.bin -service install

sudo ./mcjedi.bin -service start

http://localhost:9123/login

MACHINECHAT
CREATE FIRST USER

DOWNLOAD LABS

LAB1

- OTA Update

LAB2

- OTA Update
- Internal Temperature

LAB1

- OTA Update

LAB3

- OTA Update
- Internal Temperature
- OneWire Temperature

LAB4

- OTA Update
- Internal Temperature
- OneWire Temperature
- Generate JSON

LAB5

- OTA Update
- Internal Temperature
- OneWire Temperature
- Generate JSON
- Send JSON to machinechat

WORKING THRU MACHINECHAT GUI….

- robert.nelson@digikey.com
- https://forum.digikey.com
- https://eewiki.net
- Today's Labs on GitHub

QUESTIONS?

THANKYOU