README

NOTE: We are currently keeping up-to-date supplementary material at: https://github.com/spenceraxani/Desktop-Muon-Detector.

This DSpace submission will remain active but no longer be updated.

The following describes the files contained in the supplementary material.

/Purchasing_list.xml

- This excel file lists all the components used in the project, as well as provides url locations for where they can be purchased and the price.

/Arduino/ImportingData.py

- A simple python script to read data from the Arduino. Requires the user to input the name of the ComPort that the USB connection is plugged in to. Requires user to install pyserial.

/Arduino/ArduinoCode/ArduinoCode.ino.

- Code to upload to the Arduino Nano micro-controller. Requires libraries. Most of them come from the library manager in the Arduino IDE. OzOLED can be found in **/Arduino/ArduinoCode/Libraries,** or on github.

/Arduino/Library_list

- A list of all the required libraries. These can be installed in the Arduino IDE. OzOLED can be found in **/Arduino/ArduinoCode/Libraries.**

/Machining/light-tight box.pdf/ipt/stp

- Light-tight enclosure box CAD drawing. Stp file used for CNC.

/Machining/light-tight top.pdf/ipt/stp

- Light-tight enclosure lid CAD drawing

/Machining/OLED_Case.stp

- File for programing the 3D printer to print the OLED screen protective case.

/PCB/SMT_reference.xlxs

- The component reference numbers for the full circuit. Tells you what values of components to put where.

/PCB/MAIN_PCB.zip

- This zip file contains the Gerber files to print the MAIN PCB. This board requires a 5x5 cm PCB. You can simply upload this to a website like elecrow.com and they will send the PCBs to you.

/PCB/SIPM_PCB.zip

- This zip file contains the Gerber files to print the SiPM PCB. This board requires a 1.1x5.0 cm PCB.