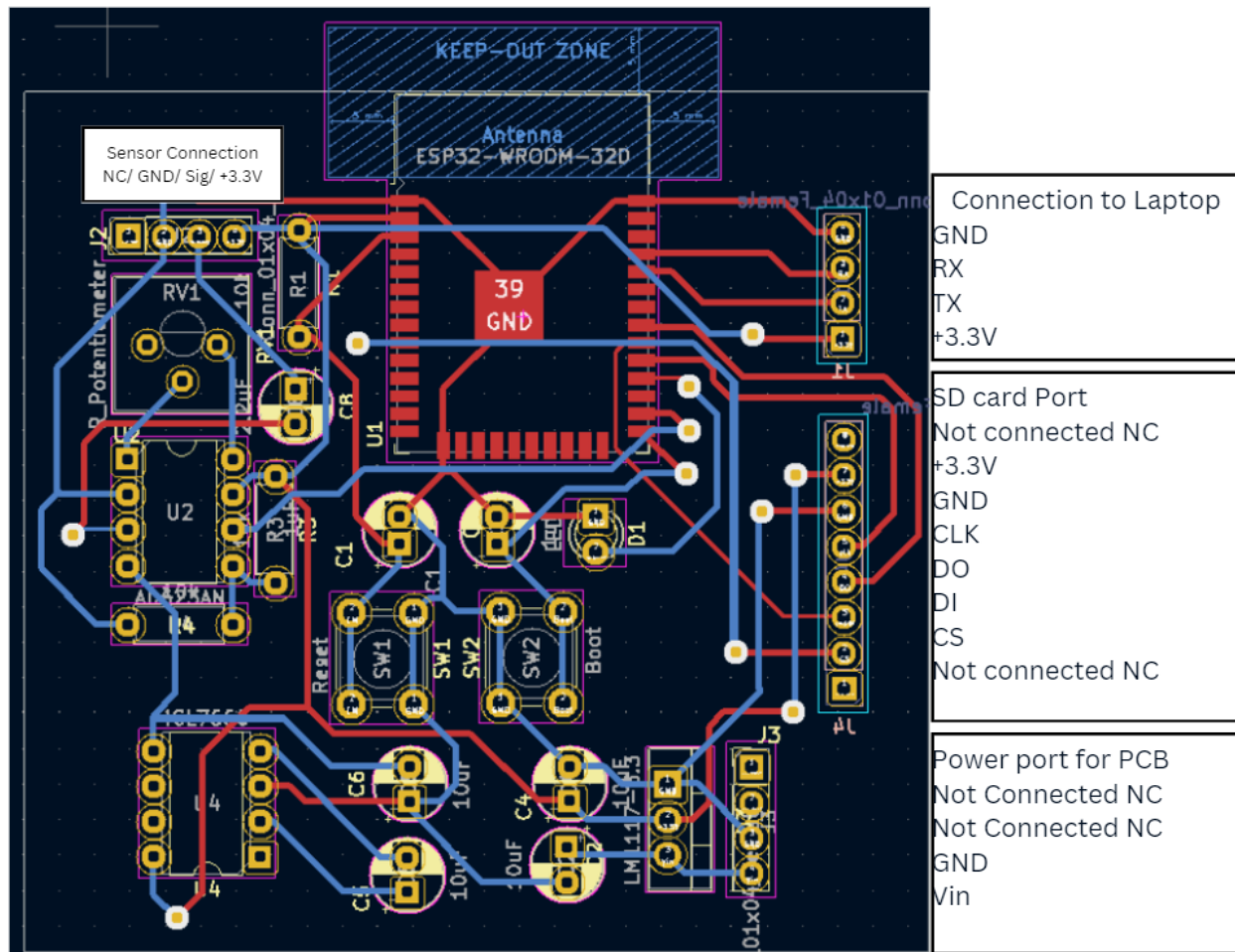


## SD card Procedure

### Pin Diagram:



To upload code:

The boot up sequence goes as follows:

- Press the boot button on the esp32 (GPIO 0/ the button on the right) and keep the button pressed.
- Press the upload button on the computer to upload the code.
- When the term "connecting ....." appears on the screen, press the reset button (the button on the left) to reset and then release both buttons before connecting ends.

After uploading the code:

- Disconnect the board from the computer
- Connect the SD card, the sensor and lastly the input voltage Vin
- The LED should turn on indicating the initialization of the SD card and the beginning of data recording.

To see the recording:

- Disconnect the power vin
- Eject the SD card
- The data is formatted in text files

Turning the potentiometer in front of the sensor connection adjusts the amplification gain. The lower the resistance the higher the gain.

Note that a high pass filter with a cutoff frequency of 253 Hz was added to remove low frequency noise however it was soldered later on and is not labelled on the PCB layout diagram.

To access the output signal on the oscilloscope rather than using an SD card: there are 3 via connections that are on the right of the ESP32 and are very close to each other, so the probe of the oscilloscope should be connected to the middle via and this via is the output signal.