1. Hardware Setup

Pin Connections:
Connect 3.3V of ESP 32 to VCC pin on soil moisture sensor.
Connect GND pin of ESP 32 to GND pin on soil moisture sensor.
Connect any of the following pins to the SIG pin on the soil moisture sensor: D33, D32, D35, D34, VN, VP (listed in order shown on ESP 32).

- Note! You will have to change which channel the code interfaces with in software setup depending on the pin selected in this step.

2. Software Setup

In the following line of code, the specific ADC channel may be modified:

```
#define SOIL_MOISTURE_ADC_CHAN ADC1_CHANNEL_6
```

The following table demonstrates which channel to change to according to which pin/GPIO is used:

ADC1 Channel	**GPIO**
ADC1_CHANNEL_0	GPIO36 (VP)
ADC1_CHANNEL_1	GPIO37 (VN)
ADC1_CHANNEL_4	GPIO32
ADC1_CHANNEL_5	GPIO33
ADC1_CHANNEL_6	GPIO34
ADC1_CHANNEL_7	GPIO35

3. Units

Because this sensor gives an analog reading that ranges from 0 - 4095 a new unit that scaled that raw value from 0 to 10 is used, called the “Soil Moisture Index” (SMI).

< 3 SMI: Likely something has broken
3 - 4 SMI: Submerged in water/“Complete Saturation”
4 - 4.5 SMI: “Very wet soil”
4.5 - 5 SMI: “Medium moisture soil”
5 - 5.5 SMI: “Fairly dry soil”
5.5 - 6.5 SMI: “Bone dry soil”
> 6.5 SMI: Likely something has broken