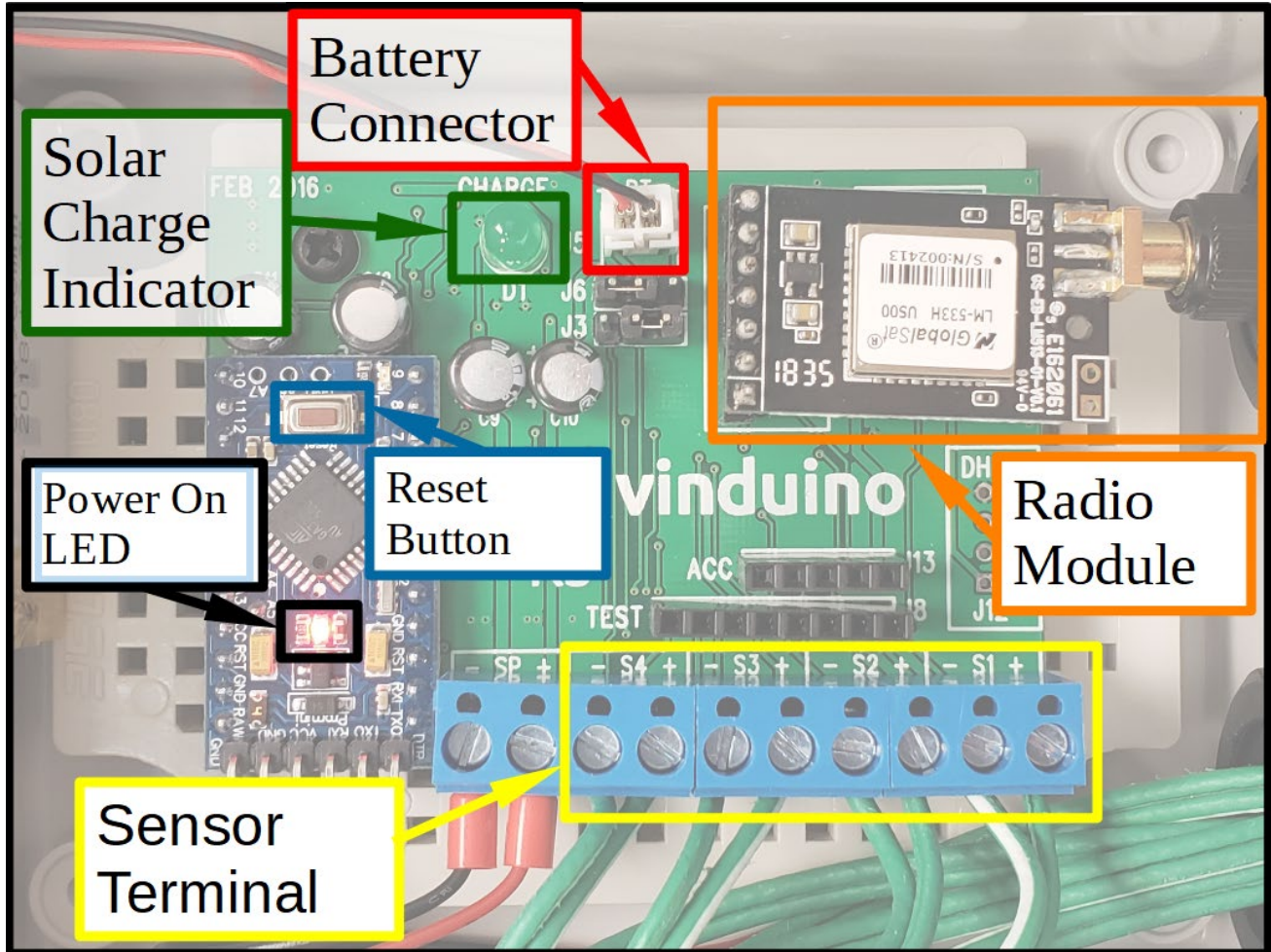# Station Setup

Vinduino R4 Sensor Station:

Inside the R4 Sensor Station:

Step 1 Connect Antenna
First gently connect the antenna to the radio module. Fasten the grommet from the inside

Step 2
Connect the Watermark soil moisture sensors to wire terminals 1-4.
Connect up to 4 soil moisture sensors. The wire terminals are marked S1–S4. The polarity (+) and (-) sign is not important

Step 3
Insert the battery connector to start the system. You should see the power on LED light up
The station is pre-configured and connects to the network automatically via a gateway within range. Pressing the test button resets the system and initiates a sensor measurement and data transmission after 10 seconds. The station is default set to transmit every 15 minutes.

Important: disconnect the battery when the station is not used outside. Battery life may be reduced when the battery is fully discharged. When station is not used and stored, the batteries will need to be solar charged every 3 months, then you can proceed to disconnecting battery and storing.

The built-in solar charger on the back of station maintains the battery charge after installation in the field. There is a green LED that turns on when station is charging.
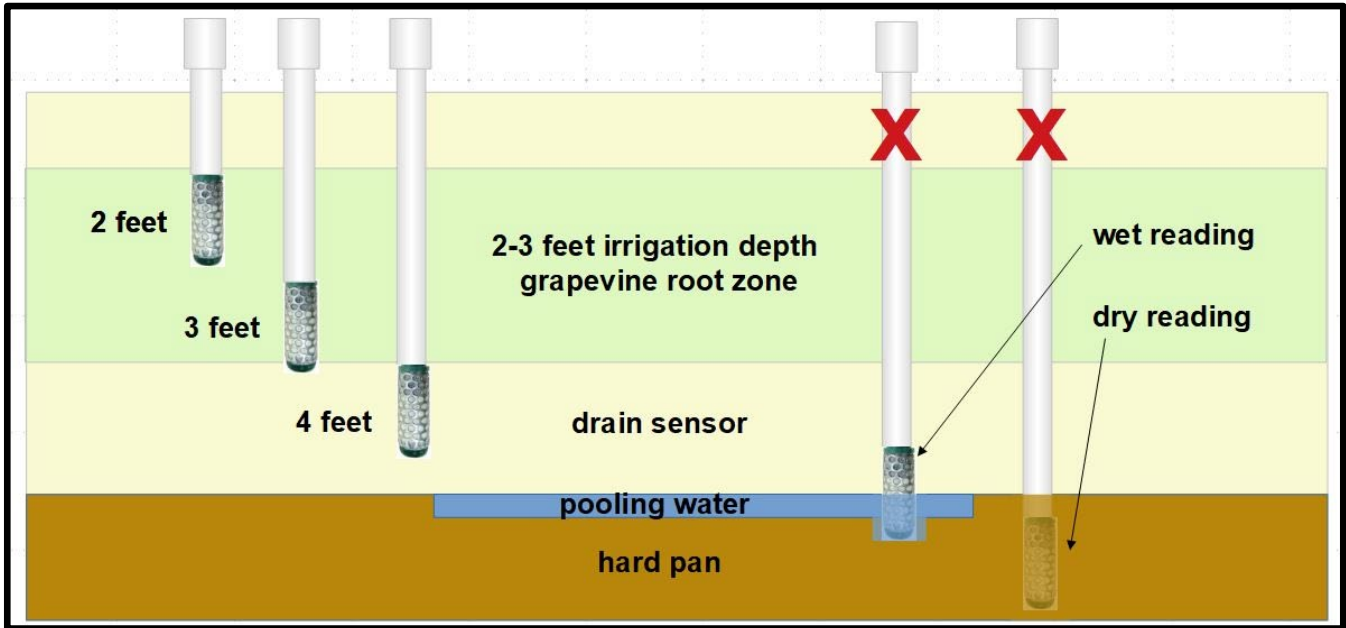
Station Placement:
The idea with placing the station is to choose a location that enables line-of-sight to the gateway for good data communication and solar panel should be facing south or where it would get the most sun exposure.

Some suggested sensor station installation methods:
1) Use zip ties to attach the sensor station to the vine cordon wire.

2) You can hang it in a frame that allows the station's solar panel to be exposed to the sun and give you access to opening it.

3) You can screw it straight to a post or a 3/4" PVC pipe tied to a post. The station can be fixed to the pipe with two self-tapping screws.

Sensor Placement:

Here are also a couple of videos of the Watermark Sensors being installed:

WATERMARK Sensor Install with PVC Pipe:

https://youtu.be/uZw-cKPheMk

WATERMARK Sensor Installation on (½" SDR 315 or CL 200) PVC Pipe:
https://youtu.be/a6Lxhd8PD2A

WATERMARK Sensor Install Direct Burial with Installing Tool:

https://youtu.be/7Ak2VJvpzyY