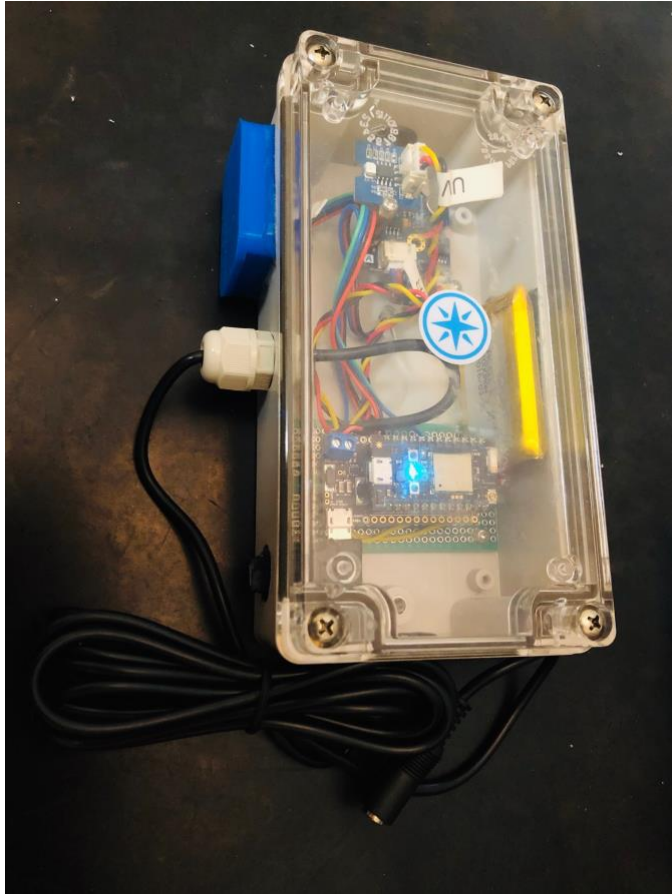
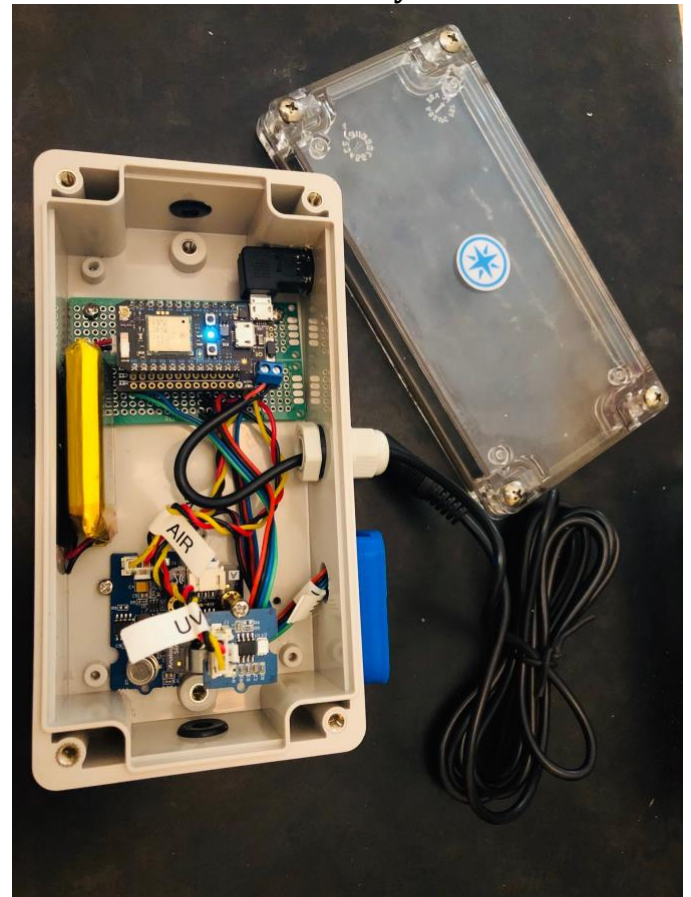


xPhoton version 1



Customizable Sensor Array



The xPhoton system comprises of two stages, collection of data using sensors and logging and interpretation of data for analysis.

Stage 1 – Data collection

This stage uses Particle Photon and sensors to measure, Ambient Temperature, Humidity, Air Quality and Light Intensity, noise and UV index. The data is sampled every 10 minutes and sent to Particle Cloud via WIFI connection.

Stage 2 – Data logging

The data logging stage uses Google Cloud service running LAMP. The Google Cloud Virtual Machine receives data from the Particle Photon variable on Particle Cloud and logs the rows of data to the MySQL database. Grafana is used for charting to provide visualization of the collected data using a web browser.





- **Ambient Light**
 - This module help you to detect the light density and reflect the analog voltage signal back to Arduino controller.
- **UV Sensor**
 - DFRobot Analog UV sensor
- **Analog Sound Sensor**
 - DFRobot Analog Sound Sensor V2.2
- **Air Quality Sensor**
 - Grove Air Quality Sensor V1.3
 - Main gas detected is carbon monoxide, alcohol, acetone, thinner, formaldehyde and other slightly toxic gases

xFarm ® is founded on 2018, committed on adopting new technologies to innovate sustainable farming. We have engineered an array of environmental sensors with historical logging to help visualize and analyze data – accessible online or from a cloud service.

Data Visualization

Grafana is used to provide the chart visualization of the data collected and it is preseted via a web browser, xFarm Analytics © 2018.

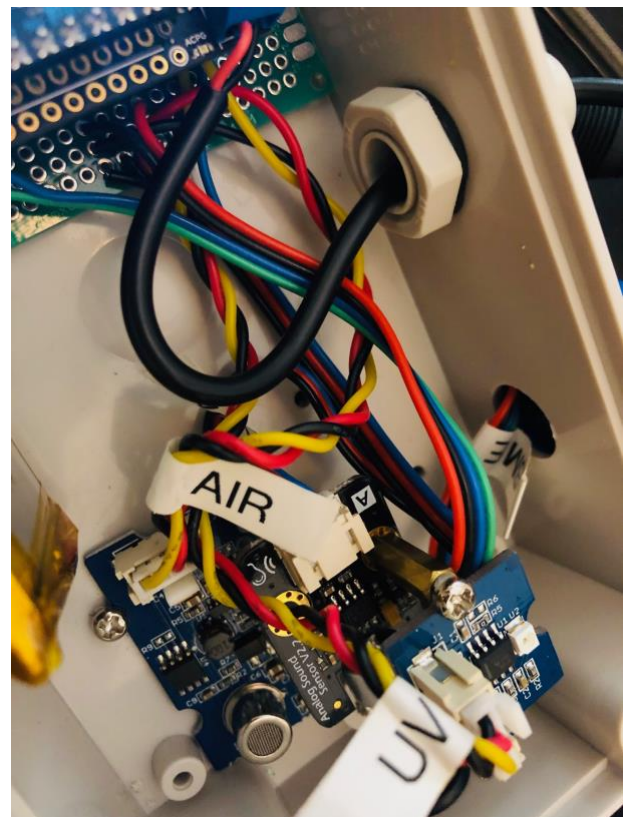


To check on the visualization tool, please visit <http://bit.ly/xFarmTheFuture>

Please browse this link for the xElectron Dashboard: <http://bit.ly/xPhoton>

xPhyton Array

- **BME680 Environmental Sensor**
 - DFRobot BME680 Environmental Sensor is a low power gas, pressure, temperature & humidity sensor based on BOSCH BME680 sensor. It is a 4-in-1 multi-functional MEMS environmental sensor which integrates VOC (Volatile Organic Compounds) sensor, temperature sensor.



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