Erebus Labs

# *STEM Sensors*

# System Architecture

Version 1.0

*6/3/2014*

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## System Architecture



**System**

The operational product comprised of base units with attached sensors and a user interface.

**Base Unit**

The central device that manages power, communication, and data storage, and has one or more sensors attached to it.

**Sensor**

The individual data collection devices such as VOC detectors and ambient light detectors that are attached to the base unit.

**User Interface**

The program that will be run on a laptop or desktop computer that allows the user to view and interact with the data collected.



**Power**

Provides 3.3V and 5V power for all peripherals both analog and digital. Sensors are powered from base station.

**Microcontroller**

System control including taking of samples and storing data. Reprogram capability.

**User Control**

User controllability with two buttons, Start and Stop sample collection, and an LED indicator.