**Conversion of analog voltage to usable data:**

* Temperature(LM35) = sensorValue \* 0.48828125 \* 0.5
* SPO2 sensor (pulse oximetry sensor) = Digital Output (0/1) and calculate proportion of oxygen present in blood using arduino algorithm and without need of blood samples.
* Water level Sensor = Digital Output (0/1)
* Ultrasonic sensor = Measure distance through formula (distance = speed \* time). Time is calculated by using inbuilt function present in arduino and speed of ultrasonic signal is 340m/s.
* Flame Sensor = For detection of fire through digital signals.
* Soil moisture sensor (%)= 100 – ((Analog output/1023) \* 100)
* Current sensor value =

(Analog output / 1024.0) \* 5000; ((Analog output – offsetVoltage) / sensitivity), where

offsetVoltage=2500 ,sensitivity=66

Voltage = (2.5 - (AvgAcs \* (5.0 / 1024.0)) )/0.066;

* IR Sensor = used for transmitting commands over the air on short distances (typically few meters).