

Requirements:

Max Cost= 147\$

Max Weight=200 g

Parts Mode I:

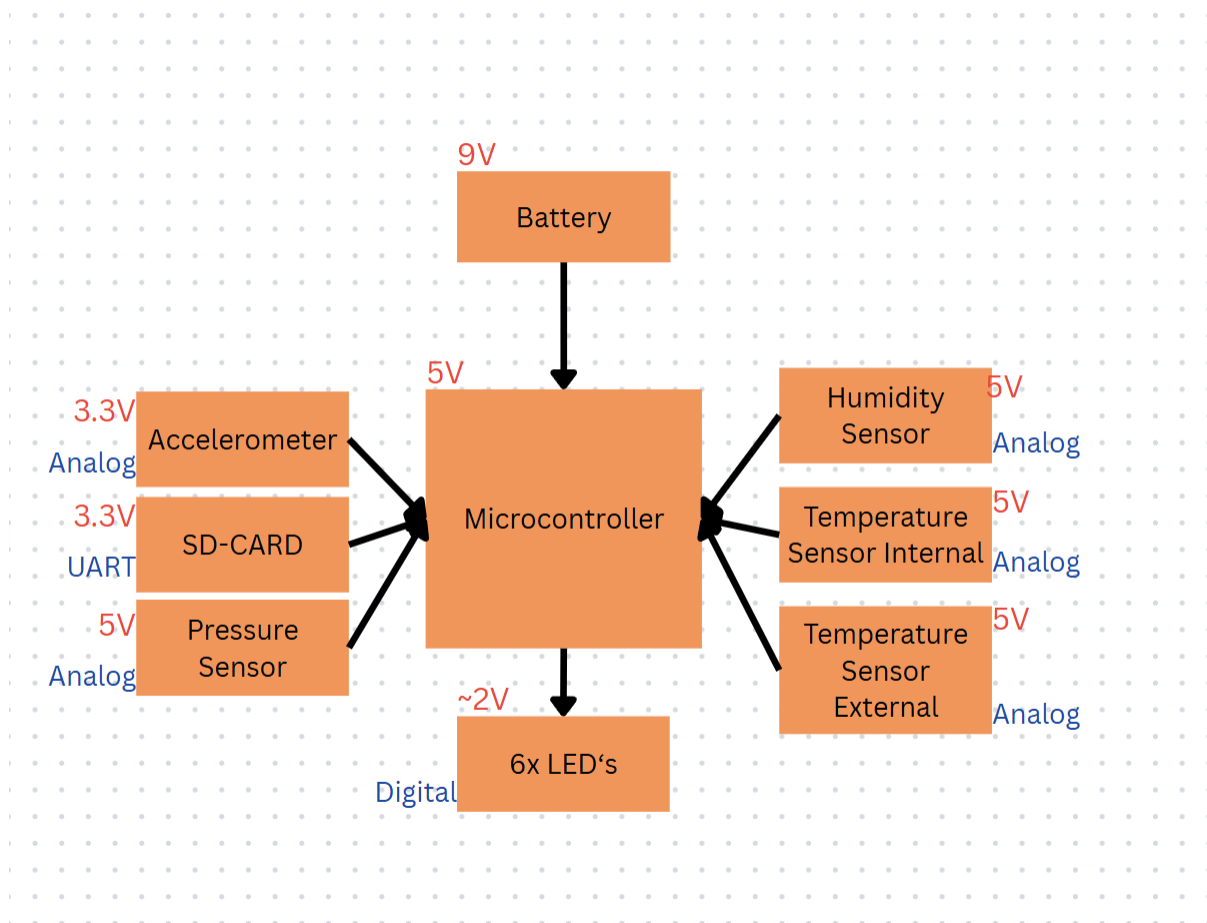
Name of Part	Mass	Price	Power Consumption:
6x LED's	1.2g	.12\$	X
Arduino Shield	~10.82 g	4\$	X
Arduino Uno	25g	25\$	5v, 50mA
6x 330 Ohm Resistor	1.5g	.21\$	~36.36 mA including LED's, ab 2V
Headers for Board	2 g	.29\$	X
Temperature Sensor	1g	2.75\$	2.7-5.5, .3mA during measurement
Humidity	No longer Sold	No longer Sold	No longer Sold
Pressure Sensor	2 g	37.54\$	5V, .12mA
Accelerometer	2.5g	16.95\$	3.3V, .35mA
External Temp Sensor	2g	9.95\$	5V
9V Battery	45 g	4.46\$	X
SD-Card	3g	7.68\$	5V, 75mA during operation
Open-Log	4g	17.50\$	2 mA, 3.3-5V
Total	117g	126,45\$	~165mA 500mAh (battery)/165mA=3.03 hrs of use

Parts Model II:

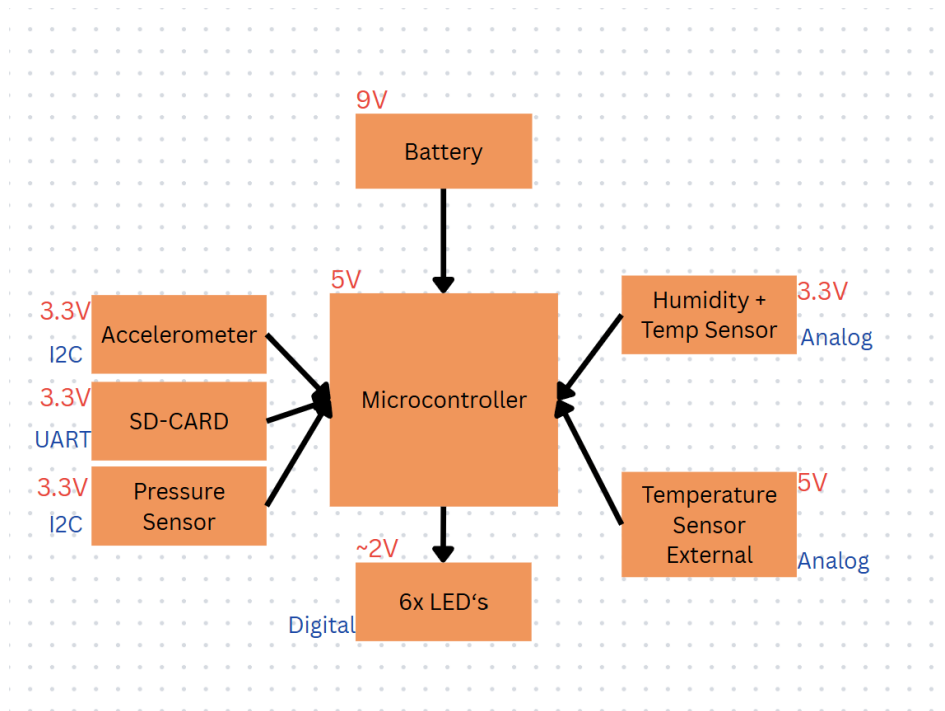
Name of Part	Mass	Price	Power Consumption	Link:
6x LED's	1.2g	.12\$	X	X
Arduino Shield	~10.82g	4\$	X	X
Knockoff Arduino Uno	25g	8.98	5V, 50mA	Link
6x 330 Ohm Resistor	1.5g	.21\$	~36.36 mA including LED's, ab 2V	X
Headers for Board	2 g	.29\$	X	X
Humidity + Temp Sensor	2.5g	2.25\$	3.3V, 2.5mA MAX	Link

Pressure Sensor	1g	5.65\$	3.3V, 5microA	Link
Accelerometer	3g	14.95\$	5V, 350micoA	Link
External Temp Sensor	3g	2.50\$	5V,1mA	Link
9V Battery	45 g	4.46\$	X	X
SD-Card	3g	7.68\$	5V, 75mA during operation	X
Open-Log	4g	17.50\$	2 mA, 3.3-5V	X(same as fr
Total	102g	\$66.44\$	166mA 3.0hrs of use	

Initial Block Diagram:



Final Design Block Diagram:



Code Block Diagram:

