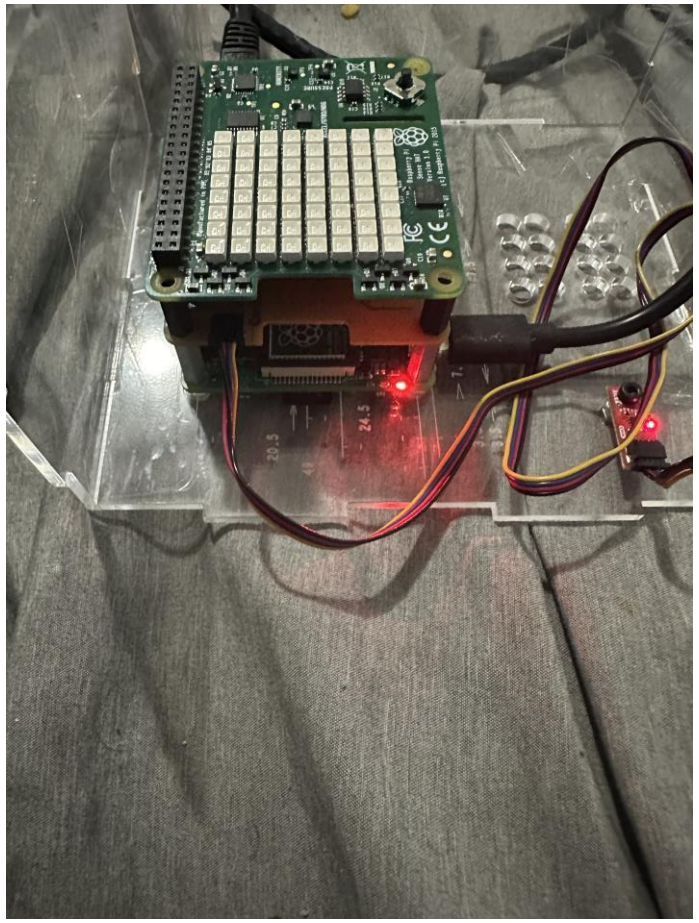
Name: TaksimIslam
Student Number: N01523847
Group Number: 12
Sensor: SparkFun Temperature Sensor - STTS22H (Qwiic)

Enclosed picture and address(0x3c):

Micro Temperature Sensor - STTS22H (Qwiic)



```
pi@raspberrypi:~ $ i2cdetect -y 1
     0  1  2  3  4  5  6  7  8  9  a  b  c  d  e  f
00:          -- -- -- -- -- -- -- -- -- -- -- -- --
10: -- -- -- -- -- -- -- -- -- -- -- -- 1c -- -- --
20: -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
30: -- -- -- -- -- -- -- -- -- -- -- -- 3c -- -- --
40: -- -- -- -- -- -- UU -- -- -- -- -- -- -- -- --
50: -- -- -- -- -- -- -- -- -- -- -- -- 5c -- -- 5f
60: -- -- -- -- -- -- -- -- -- -- 6a -- -- -- -- --
70: -- -- -- -- -- -- -- --
```

Bill of Material:

Bill Of Materials

Link to rubric

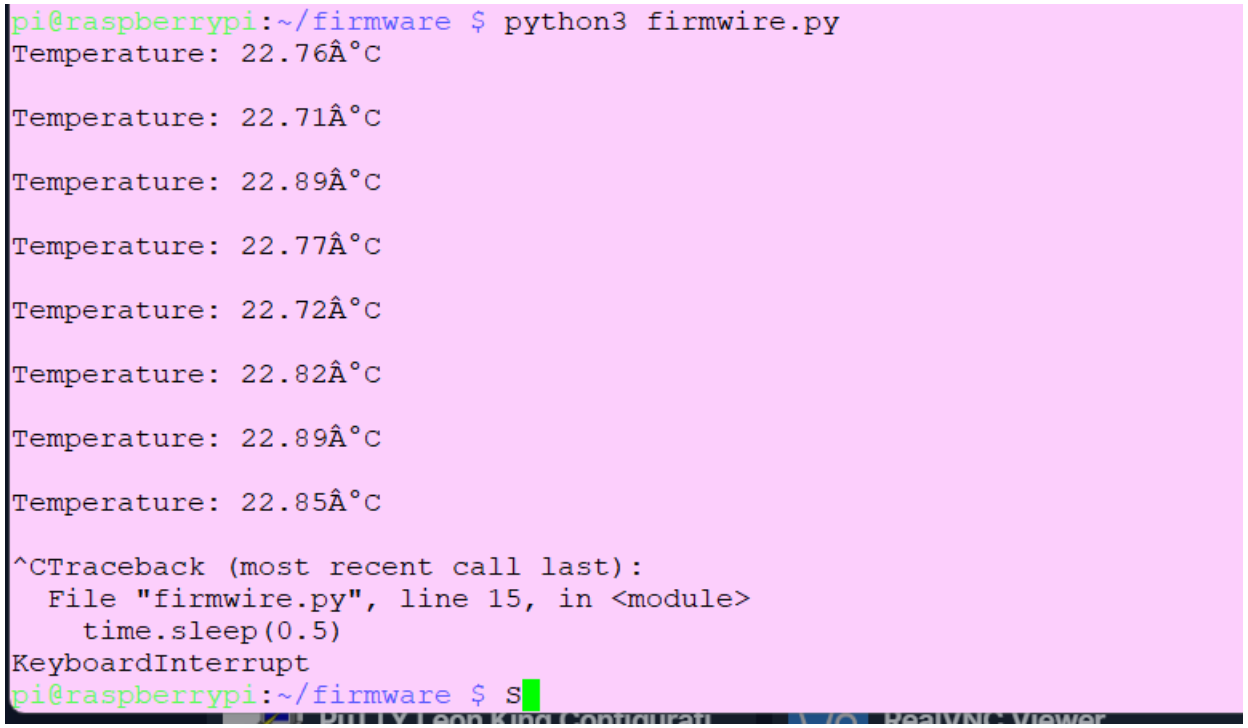
Clicking on the part should take the reader to the item on the intended vendor's website.

Part	Price in CAD	Quantity	Shipping Cost	Duty	Tax	Subtotal Paid	Subtotal propose to order	Expected Arrival Date
2N4124 PNP Transistor from Parts kit	0.70	1				0.70		Semester 1
5mm Red LED from Parts kit	0.26	1				0.26		Semester 1
220 Ohm Resistor from Parts kit	0.02	1				0.02		Semester 1
2.2 kOhm Resistor from Parts kit	0.02	1				0.02		Semester 1
Raspberry Pi Extreme Kit	164.95	1				164.95		Semester 2
SD card reader	7.91	1				7.91		Semester 2
SenseHat	43.16	1				43.16		Semester 2
Network adapter	20.00	1				20.00		Semester 2
Ethernet cable	9.49	1				9.49		Semester 2
SparkFun Temperature Sensor - STTS22H (Qwiic)	5.95	1	27.00		0.8925		6.8425	Reading Week
Stacking Header	4.24	1			0.55		4.79	Reading Week
Qwiic socket	0.81	1			0.11		0.92	Reading Week
Qwiic Cables	12.88	1			1.67		14.55	Reading Week
16mm Standoff	1.91	4			0.58		5.02	Reading Week
M2.5 Screw	0.26	4			0.14		1.18	Reading Week
Leadfree Solder	96.11	0.02				1.92		Reading Week
PCB	6.62	1				6.62		Reading Week
3mm Acrylic 12"x24"	7.18	1				7.18		Reading Week
Laser Cutting	1/min	TBD				1/min		Reading Week
3D Printing	0.15/gram	TBD				0.15/gram		Reading Week
Assembly	20/hour	TBD				20/hour		Reading Week
Totals						243.22+	33.3025	

Project schedule:

Activity	Date
Select sensor	9/18/23
Bill of Material	9/25/23
Make roadmap	10/2/23
Purchasing	10/30/23
Case	11/5/23
Solder, Laser cutting	11/6/23
PCB Assembly and testing	11/8/23
Coding	11/15/23
Troubleshooting	11/22/23
Demonstration	11/29/23
Final Presentation	12/06/23
Build instructions (Hardware report)	12/13/23

Image of sensor reading:



Course knowledge utilized from previous courses:

- Electric Circuits: Basic electric circuit
- Programming Fundamentals: Learn Basic programming
- Programming in C: Get Rasberry pi and programing in C
- Software engineering: Problem solving skill