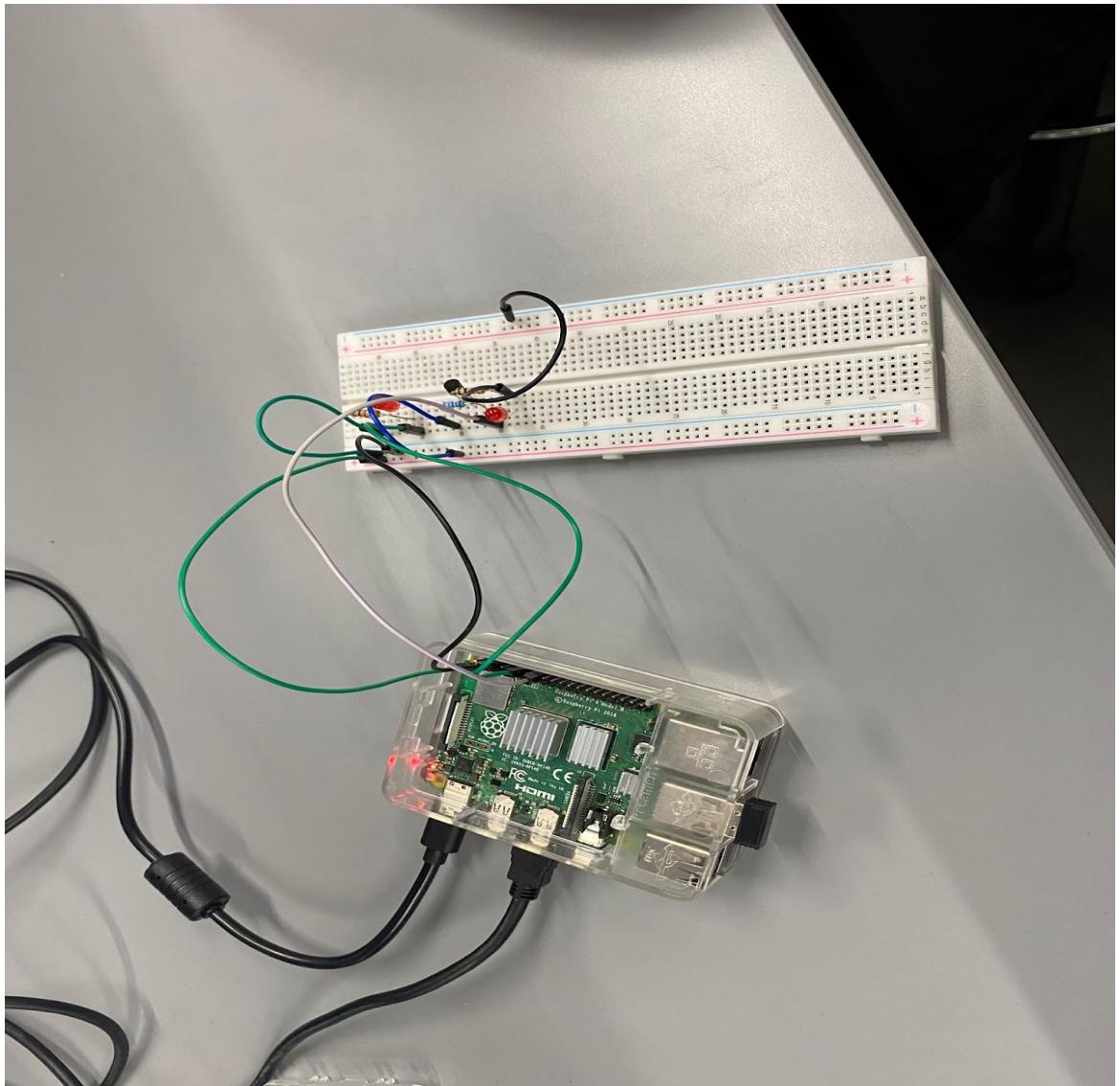


Lab #2 - Basic I/O Operation using C++ Programming Language and WiringPi Library

Roger Bennett & Matt Law

1. Exercise 1



1.1.

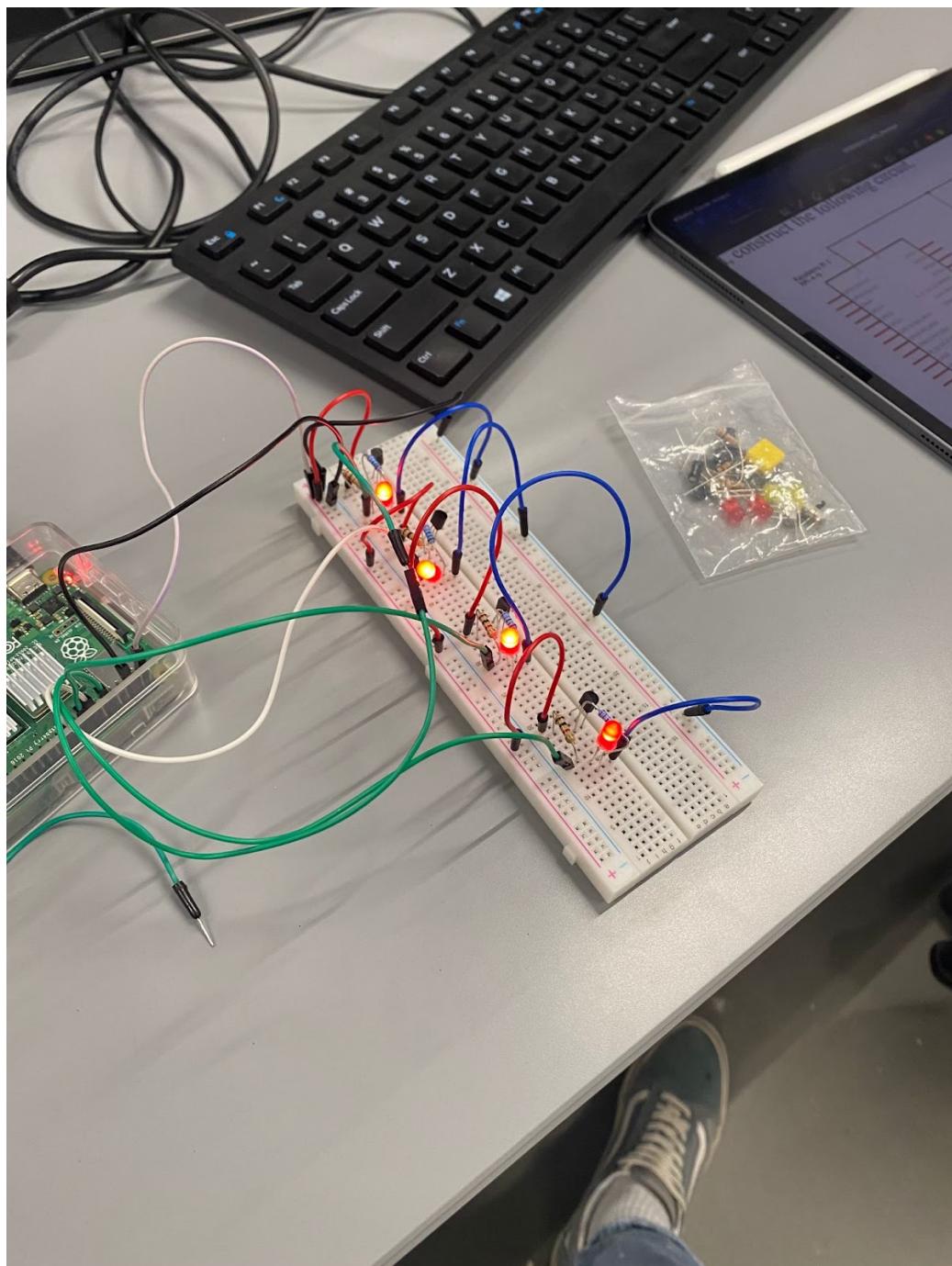
1.2.

	R1	R2	R3	GPIO 18	3V3 Power Source
Voltage (R2&R3 w/ 220Ω)	2.42V	1.34V	1.18V	3.3V	3.3V
Voltage (R2&R3 w/ 110Ω)	2.42V	1.27V	0.90V	3.3V	3.3V

1.3.

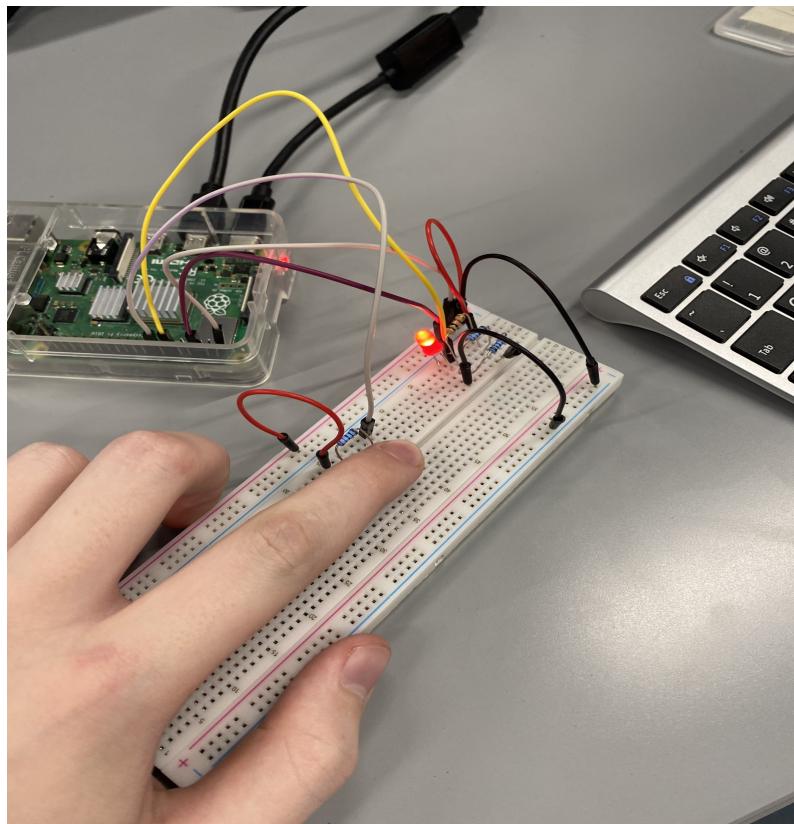
	LED 1	LED 2	R1
Current (mA) (R2&R3 w/ 220Ω)	0.0127A	0.0147A	0.0344A
Current (mA) (R2&R3 w/ 110Ω)	0.0218A	0.0281A	0.0344A

2. Exercise 2

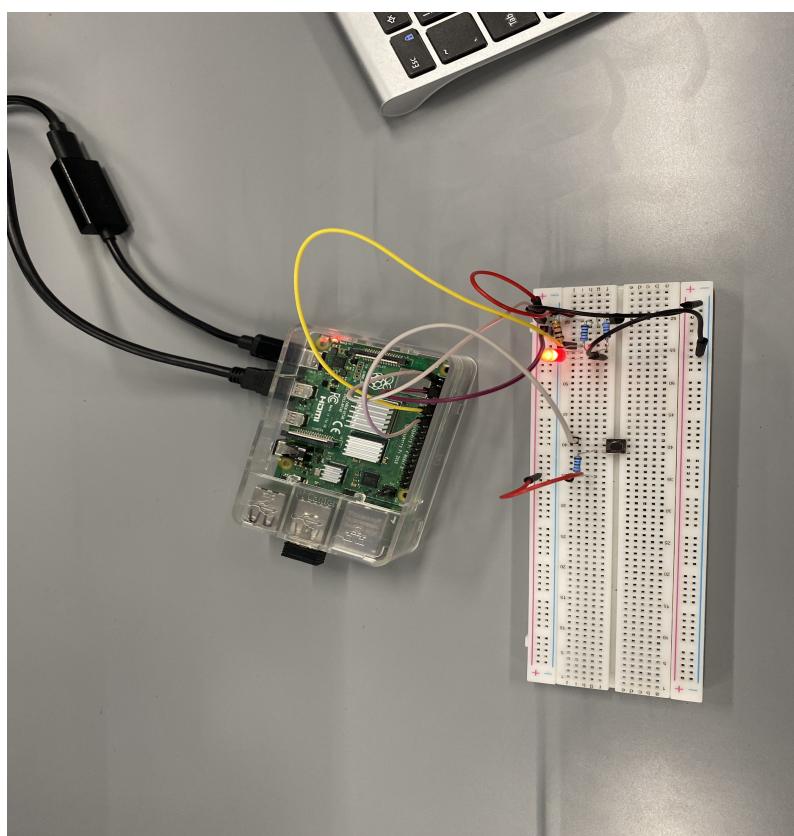


2.1.

3. Exercise 3



3.1.



3.2.

4. Supplemental Questions

- 4.1. In this lab we learned how to create a circuit that properly communicates with LEDs as well as learning how to write C/C++ code that communicates with multiple pins on the Raspberry Pi at once. We also learned how an external Switch or I/O Device can interact with the Raspberry Pi
- 4.2. The transistor allows more current to flow making the LED brighter.
- 4.3. The advantage to using a language like C/C++ is that it is easier to read and understand as well as increasing programming productivity due to it being a high level language.