



MTU

Ollscoil Teicneolaíochta na Mumhan
Munster Technological University

Lab 9

COMP6043: Physical Computing

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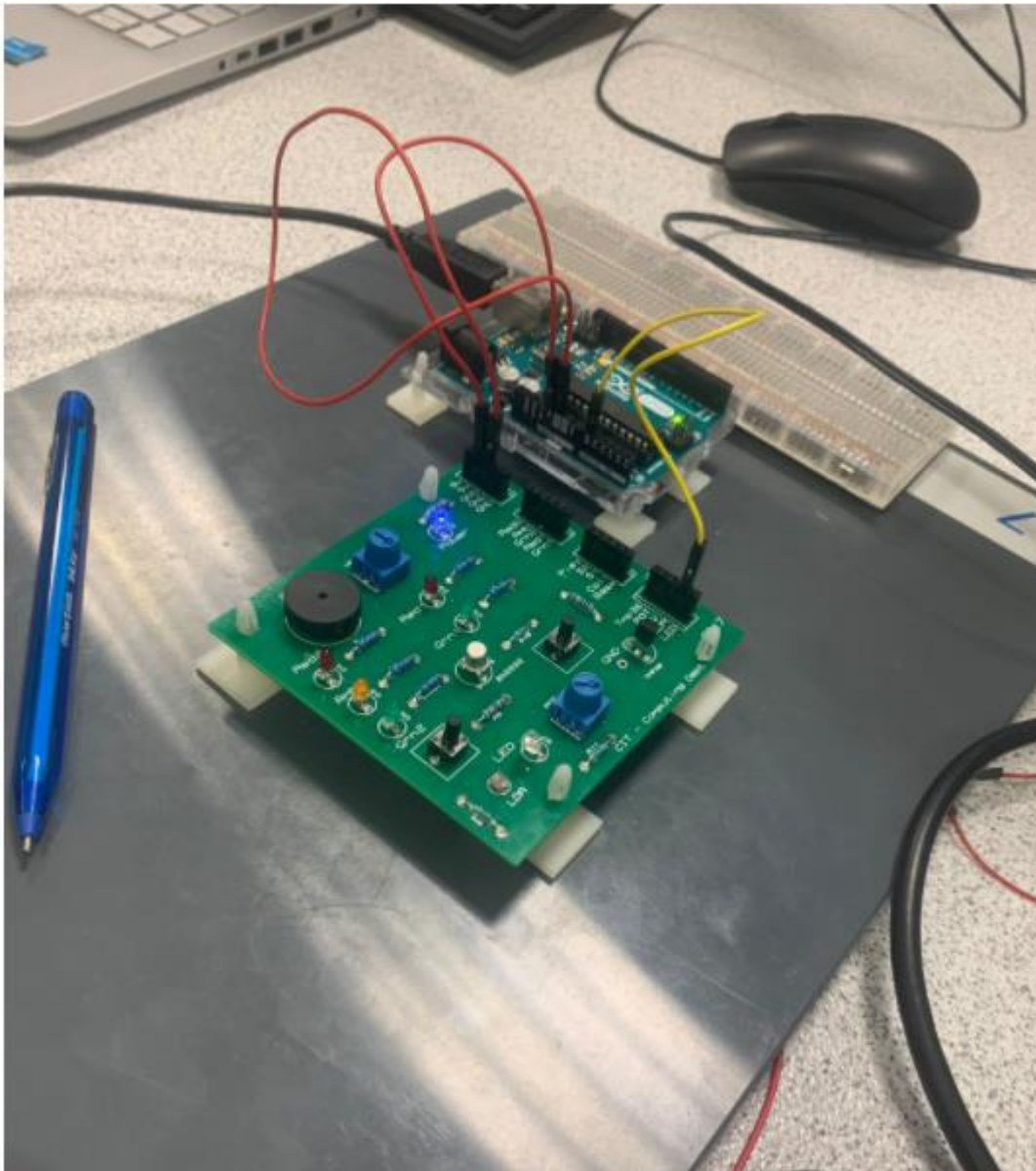
Date: 04.04.2022

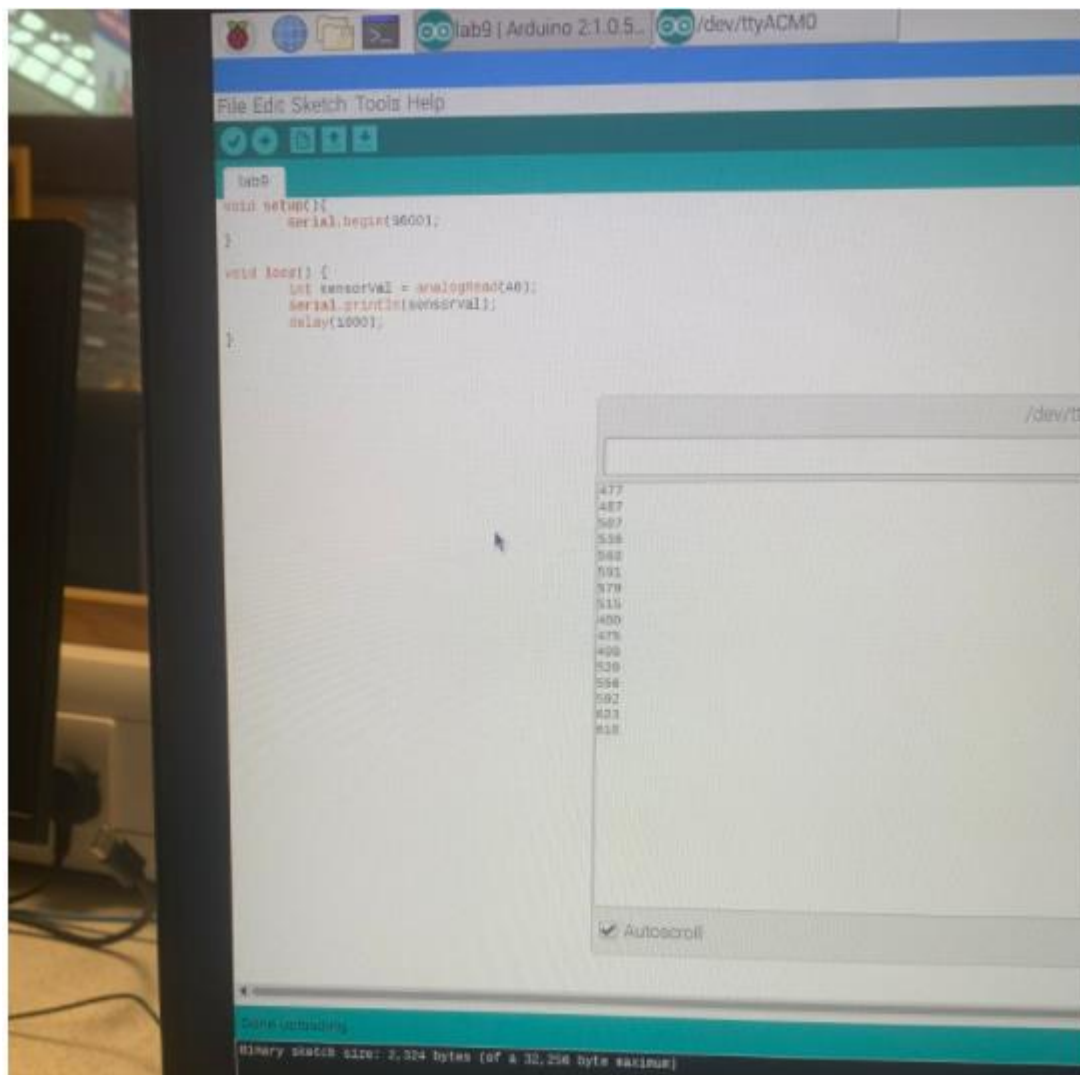
Group: COMP1D-Y

Task2:

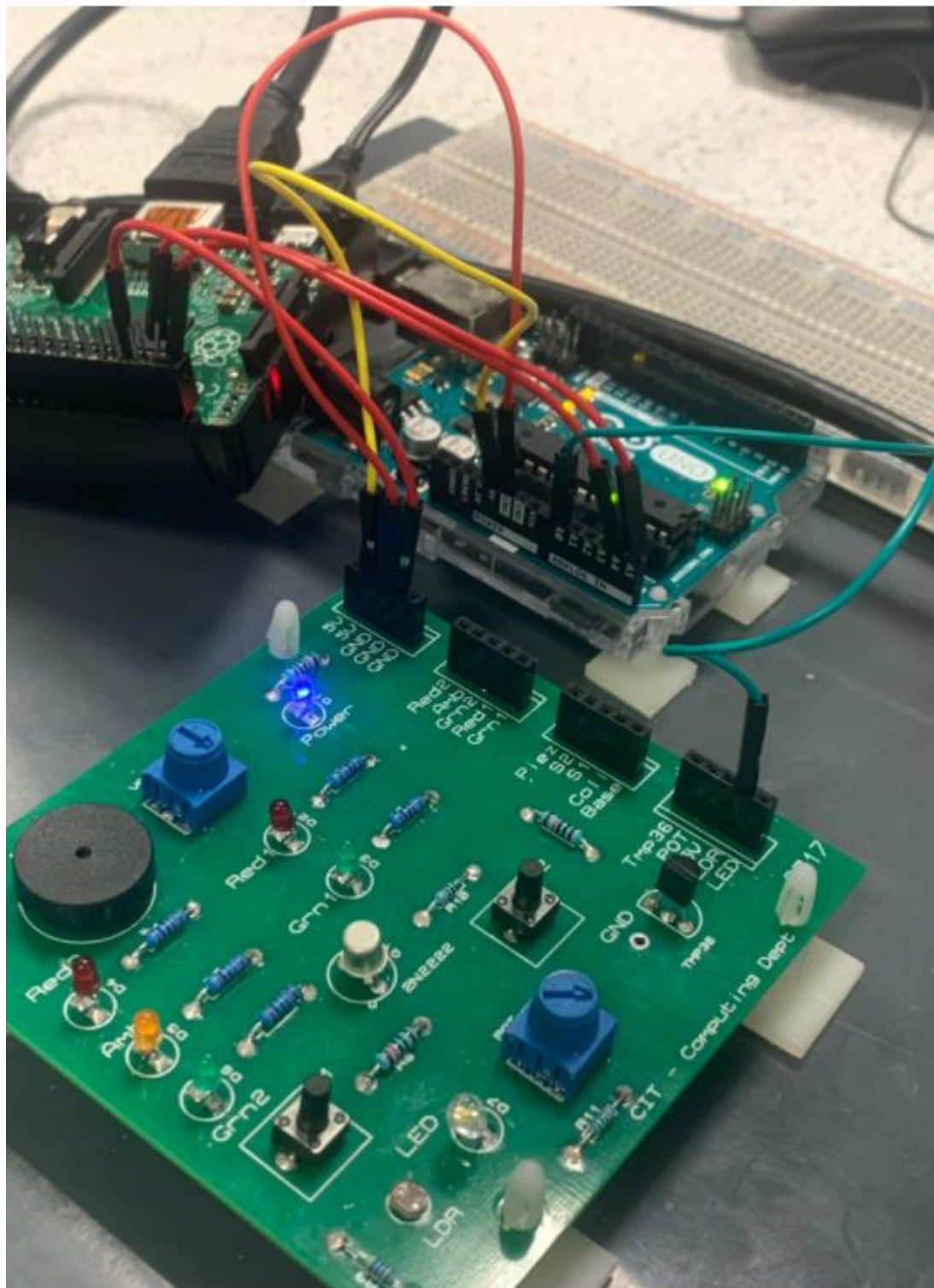
```
pi@raspberrypi:~$ sudo apt-get update
Err:1 http://archive.raspberrypi.org/debian stretch InRelease
  Temporary failure resolving 'archive.raspberrypi.org'
Err:2 http://raspbian.raspberrypi.org/raspbian stretch InRelease
  Temporary failure resolving 'raspbian.raspberrypi.org'
Reading package lists... Done
W: Failed to fetch http://raspbian.raspberrypi.org/raspbian/dists/stretch/InRelease
  Temporary failure resolving 'raspbian.raspberrypi.org'
W: Failed to fetch http://archive.raspberrypi.org/debian/dists/stretch/InRelease
  Temporary failure resolving 'archive.raspberrypi.org'
W: Some index files failed to download. They have been ignored, or old ones used instead.
pi@raspberrypi:~$ sudo apt-get install arduino
Reading package lists... Done
Building dependency tree
Reading state information... Done
arduino is already the newest version (2:1.0.5+dfsg2-4.1).
0 upgraded, 0 newly installed, 0 to remove and 165 not upgraded.
pi@raspberrypi:~$ sudo nano /etc/udev/rules.d/80-arduino.rules
pi@raspberrypi:~$
```

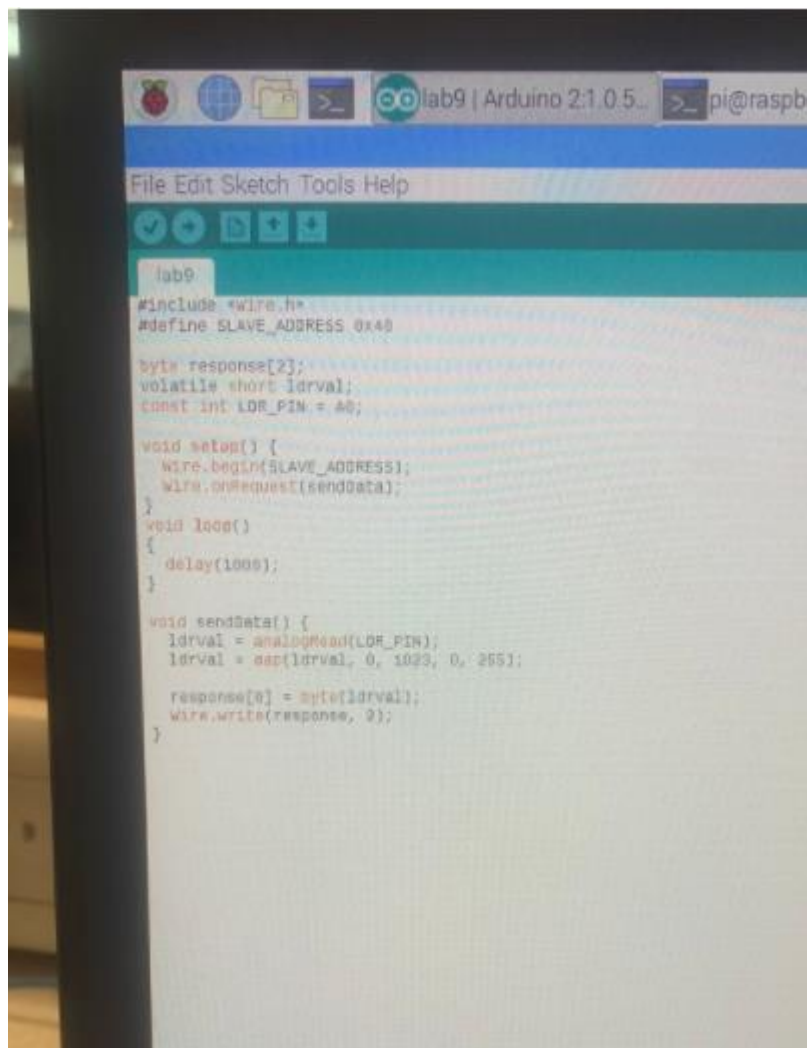
```
20 except KeyboardInterrupt:
21     sense.clear()
22
```





Task3:





```
void setup() {  
  wire.begin(SLAVE_ADDRESS);  
  wire.onRequest(sendData);  
}  
void loop() {  
  delay(1000);  
}  
  
void sendData() {  
  int val = analogRead(LDR_PIN);  
  int val = map(val, 0, 1023, 0, 255);  
  
  response[0] = byte(val);  
  wire.write(response, 2);  
}
```

pi@raspberrypi ~

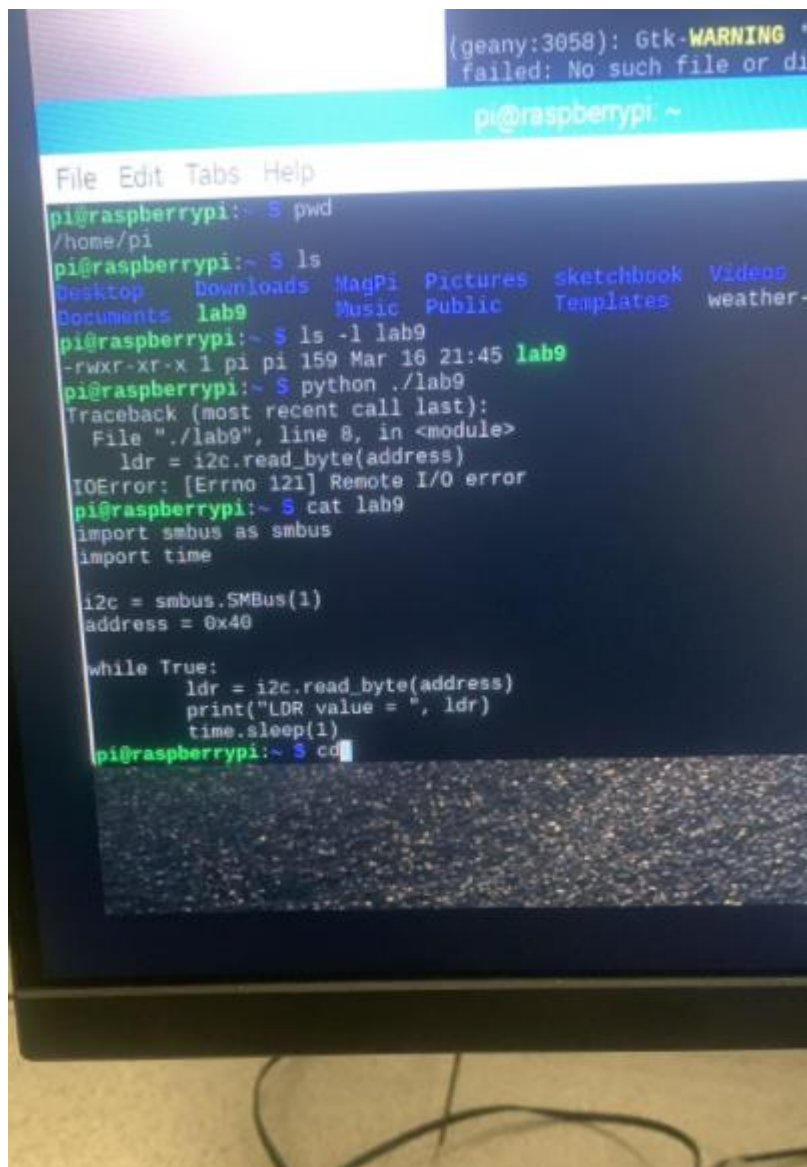
File Edit Tabs Help

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

Done uploading.

Binary sketch size: 2,758 bytes (of a 32,256 byte maximum)

21



Task4&5: hardware problem, error occurred