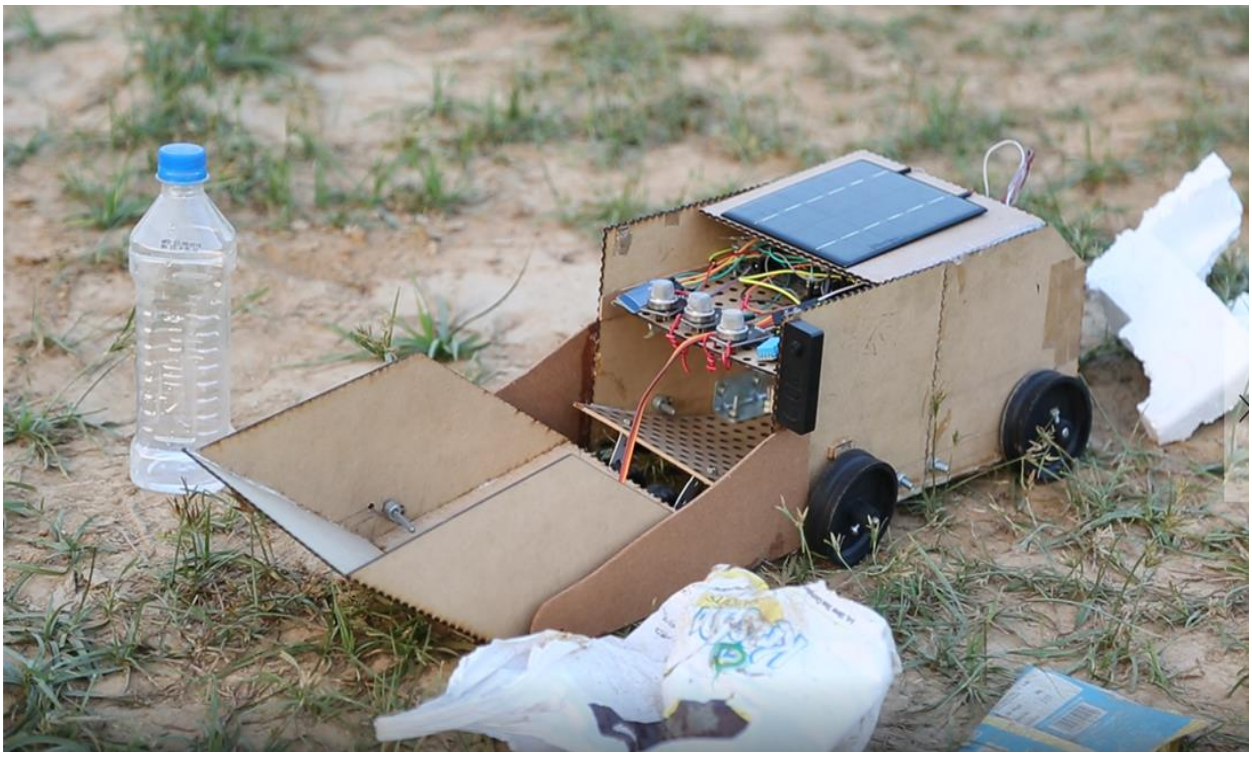

Figure 1

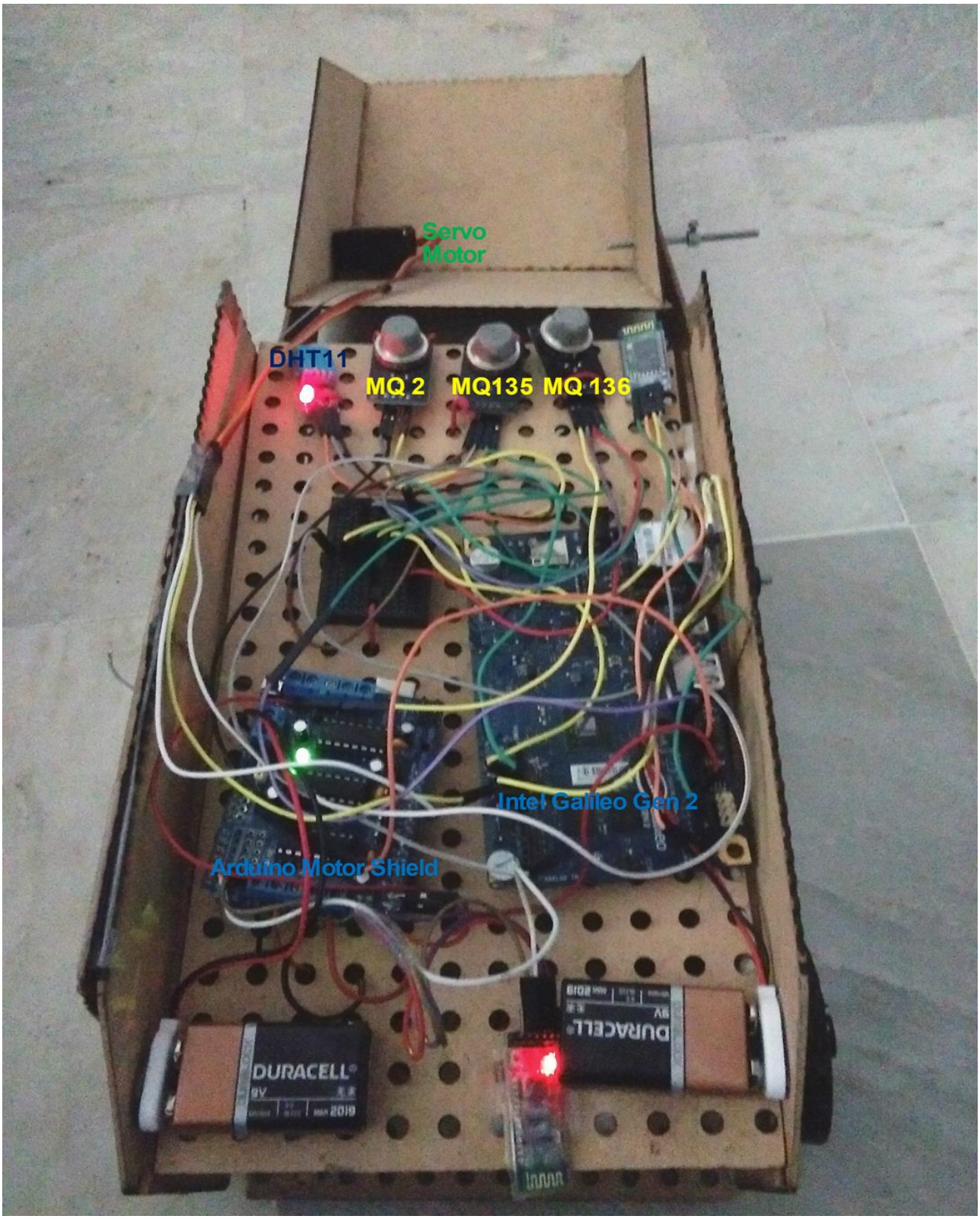
Servo
Motor
DHT11
MQ 2
MQ135
MQ 136
Intel Galileo Gen 2
Arduino Motor Shield
DURACELL
9V
2019

Figure 2

Figure 3

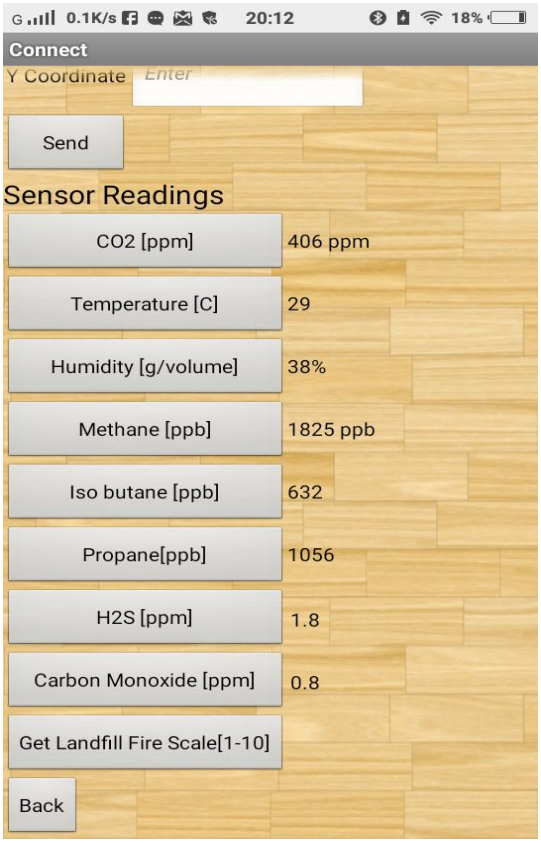

Figure 4

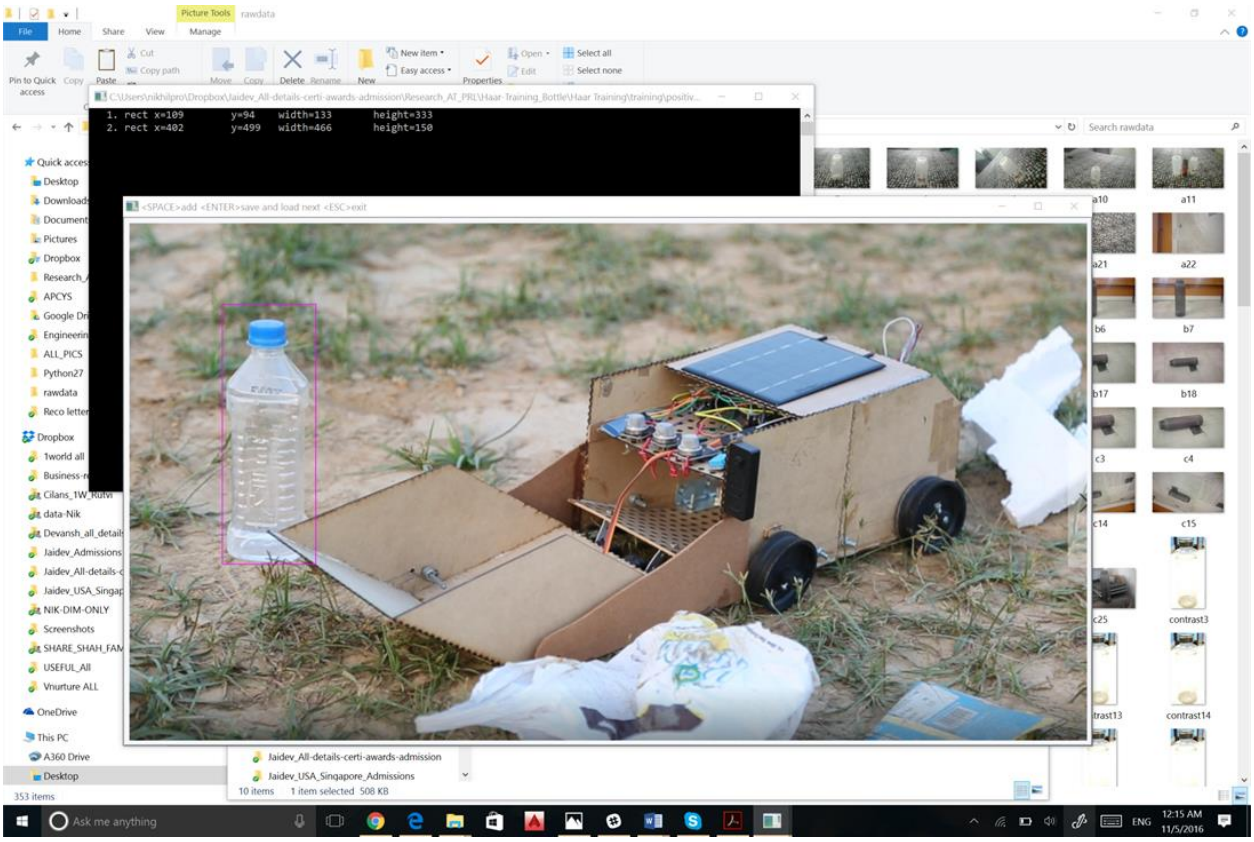

Figure 5

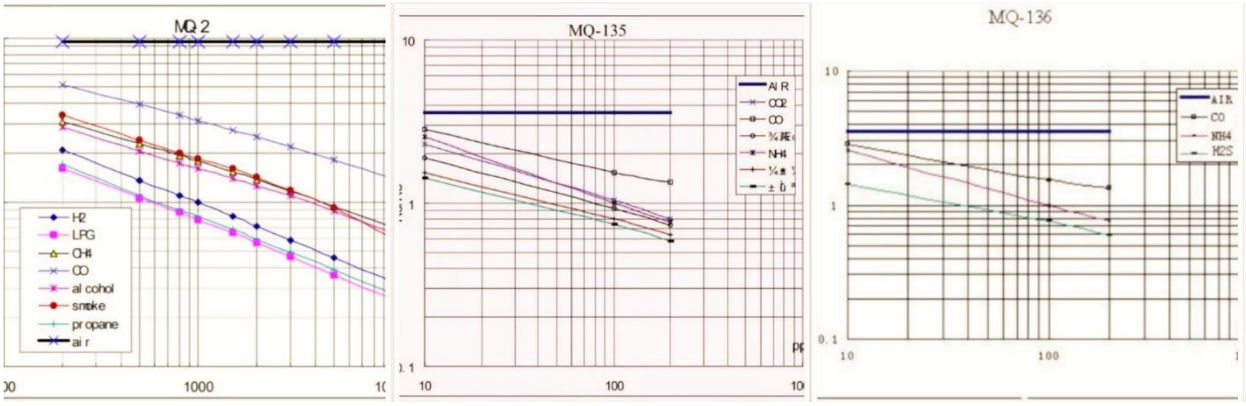

Figure 6

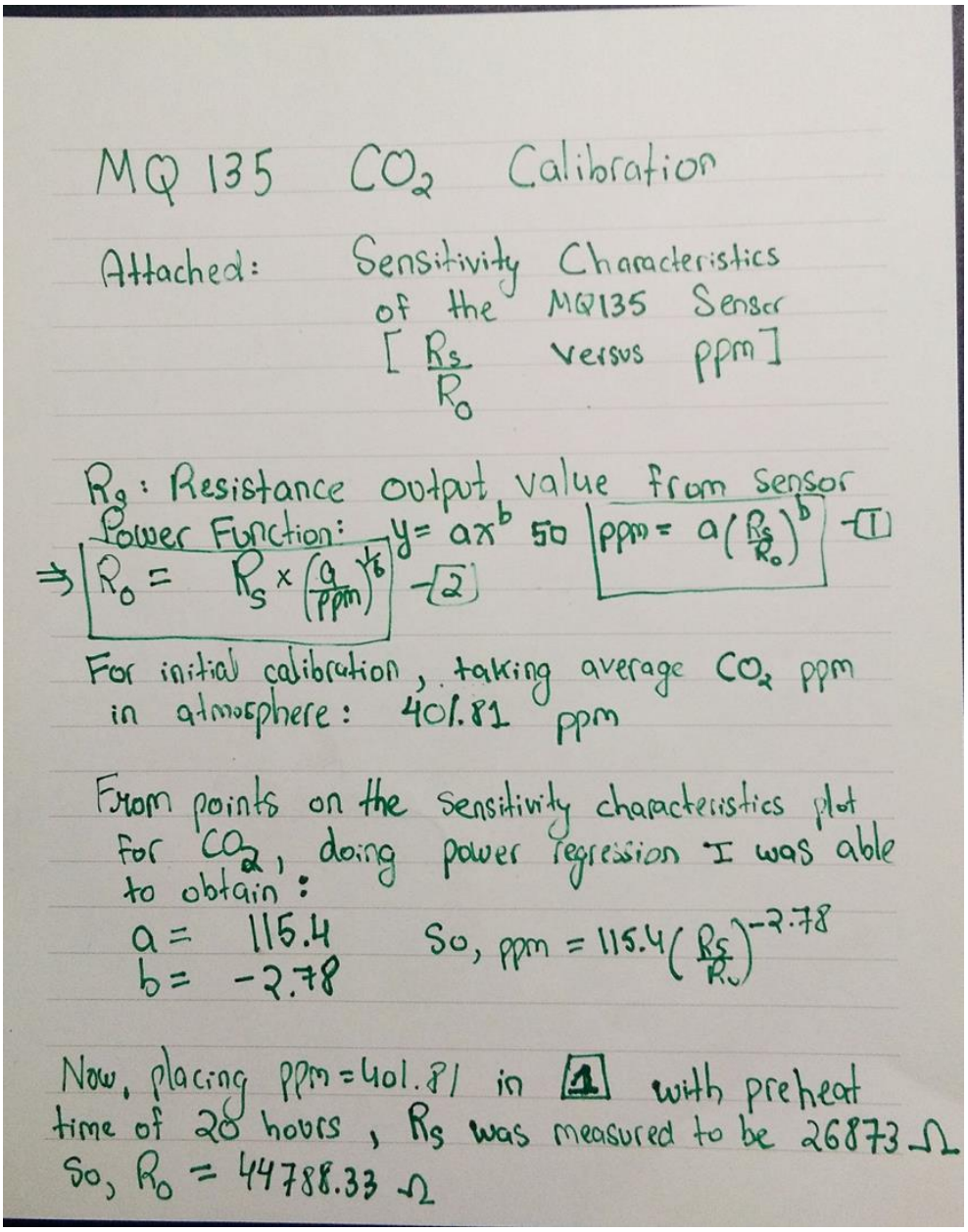
MQ 135 CO_2 Calibration
Attached: Sensitivity Characteristics of the MQ135 Sensor [$\frac{R_s}{R_0}$ versus ppm]
R_s: Resistance output value from sensor
Power Function: $y = ax^b$ so $ppm = a\left(\frac{R_s}{R_0}\right)^b$ -(1)
$\Rightarrow R_0 = R_s \times \left(\frac{a}{ppm}\right)^{\frac{1}{b}}$ -(2)
For initial calibration, taking average CO_2 ppm in atmosphere: 401.81 ppm
From points on the sensitivity characteristics plot for CO_2, doing power regression I was able to obtain:
$a = 115.4$
$b = -2.78$
So, $ppm = 115.4\left(\frac{R_s}{R_0}\right)^{-2.78}$
Now, placing ppm = 401.81 in (1) with preheat time of 20 hours, R_s was measured to be 26873 Ω
So, $R_0 = 44788.33$ Ω

Figure 7