



Universiteit Antwerpen

Scientific Project

## ONTWERPVERSLAG VAN DE 8<sup>STE</sup> VERGADERING

Datum: 2 mei 2018, 14u00

Plaats: CGB- US213

Aanwezig:

**CEO:**

**Satish**

**Reporter:**

**Daniel**

*Present groupmembers:*

Mohammed Amir , Gauthier De Borrekens , Asif Wasefi , Satish Singh , Daniel Smetankin

*Absent groupmembers:*

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### Agenda

1. Stabilizing the cars front wheels
2. Setting up the Ubunutu server
3. Setting up and testing the sensor
4. Designing and printing out the cars mainframe
5. Testing the whole rc car setup
6. Agreements for next week
7. Agreements for next meeting : (date , president secretary)

#### **1. Stabilizing the cars front wheels**

We needed to stabilize the cars front wheels , because we need to the car to keep going straight without the car moving a little bit to the right or left. To realise this we used something called "shrinking paper", this is a sort of plastic that shrinks when u heat it and adjust to the form of the object you applied it to. We used a soldering iron to heat the "shrinking paper".

Done by : Daniel

#### **2. Setting up the Ubunutu Server**

The server established a successful connection with the nodemcu. The nodemcu is able to send packages to the ubuntu server without any delay, witch is what we were hoping for because we chose UDP as our connection type.

Done by : Asif



#### 4. Designing and printing out the cars mainframe

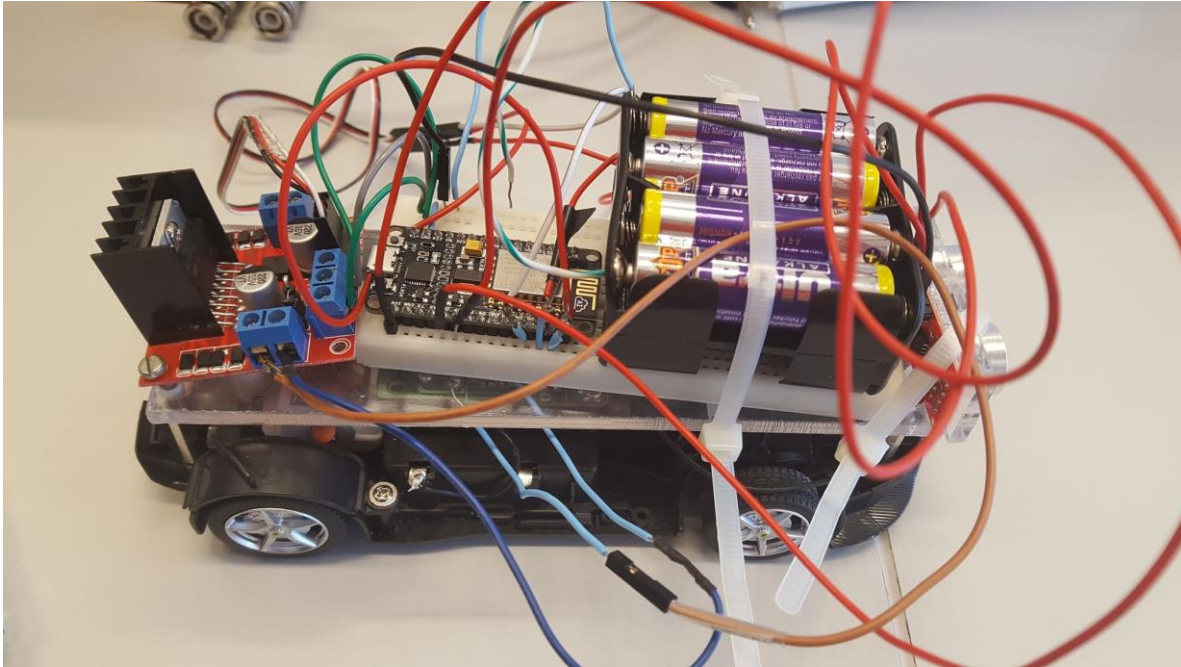
We designed a simple mainframe for the car and sort of glasses to go over the “eyes” of the distance sensor. We used a lasercutter to cut out the mainframe and sensor glasses out of Plexiglas.



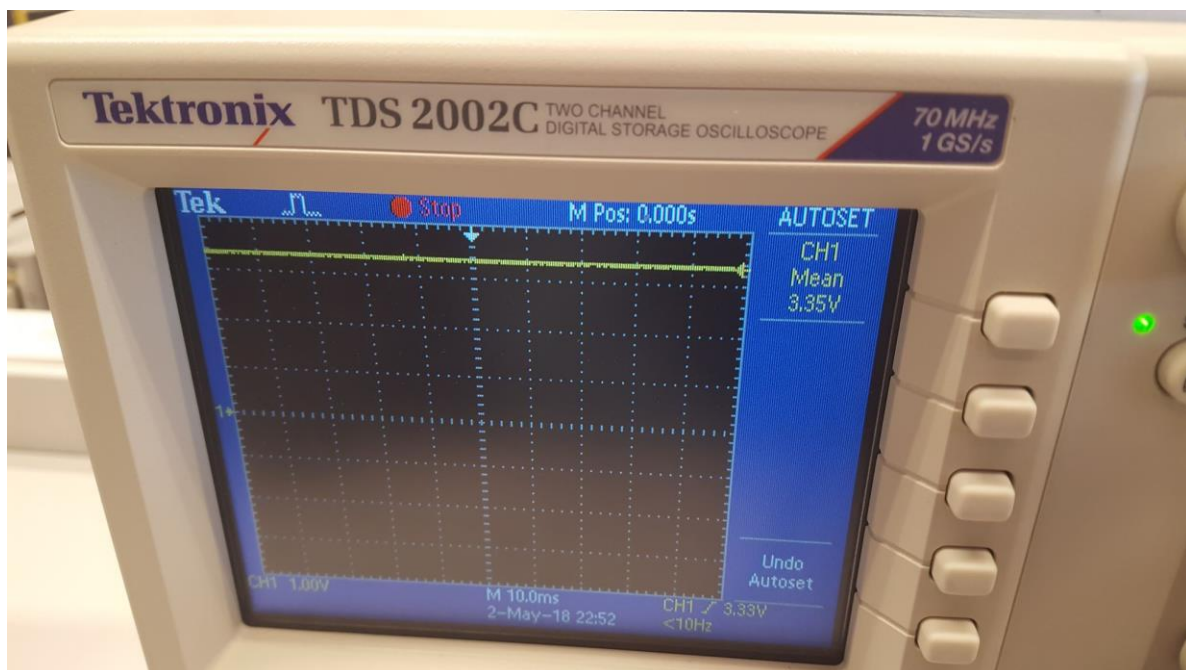
Done by : Daniel , Ali

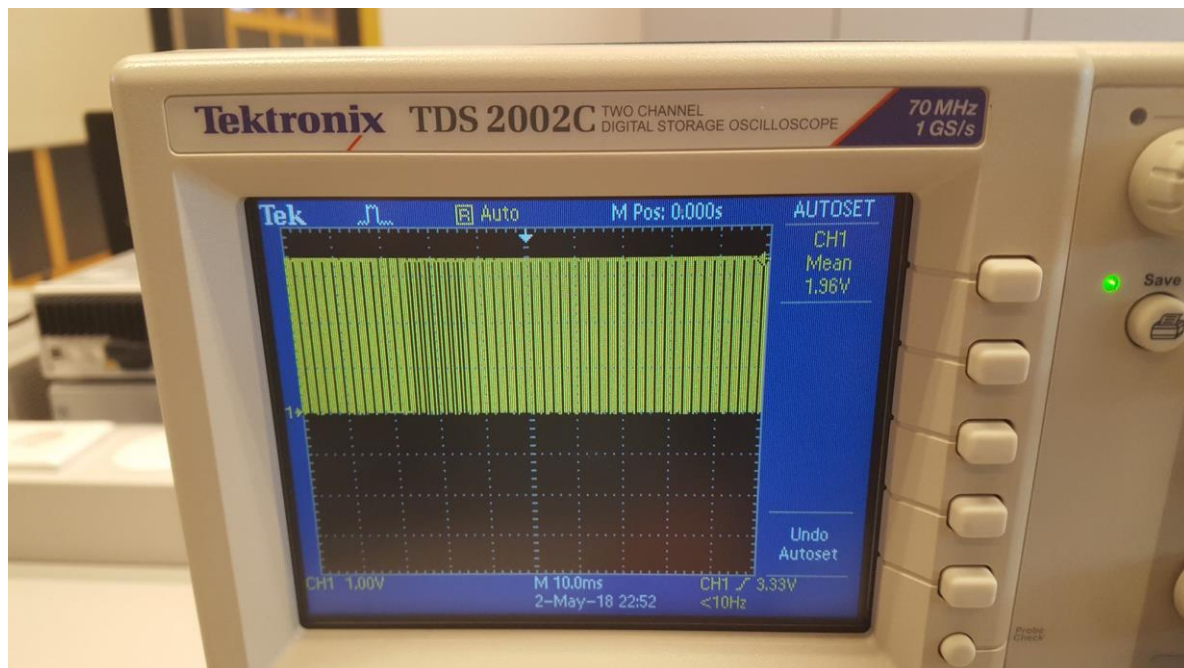
## 5. Testing the whole rc car setup.

We connected 4 ,1.5V battery's to the H-bridge to function as a new power supply that supplies a sufficient amount of power to make the dc motor work.



Every time the distance becomes bigger the pwm signal increase in dutycycle as u can see on the pictures below.





Done by Ali , Daniel , Gauthier , Satish