-*project name :* mobicar project

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*-the purpose:*

- in our project we want to develop a Mobile Controlled Car. The car allow easy driving with obstacles avoidance, accurate movement, line tracking.

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-*project contants:*

\*our project contants from 2 steps:

i.Easy Driving Application:

-Our purpose that user can control car movement (in all directions) using mobile

<Using Bluetooth module> and the car should be able to avoid obstacles <using ultrasonic>.

ii.Line Tracking Application:

-our purpose that can follow the line when it placed over the track

<using line follow sensor>

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*-First step in details:*

We use: Arduino Uno - motor driver - Bluetooth module - body of car –

3 batteries - ultrasonic

-at first meeting : we connect motor driver with motors of the car body and connect it with

arduino according the code of arduino,we connect the Bluetooth module with arduino

,and supply all circuit with batteries . After many tries to make sure our code and our

connections, we use a Bluetooth app to control the car to make sure that it can move in

all direction according the app .

--this picture shows the all connections:

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-at second meeting : we maked sure that the previous step was Successful .and continue

our connections , connect the ultra-sonic with arduino and try to move a car , at this time

we faced our first problem which was that we find two wheel move but the other don't

move we think that was the mistake in code ,we check it step by step to discover the

mistake but we found that the code is completely correct and discovered that problem

happen when we connect all component with each other ,so we found out that problem

of supply so we recharged our batteries and try again ,we found out this problem

disappear.

--this link of the video of the car motion with avoid obstacles:

<https://drive.google.com/folderview?id=14SdS284a--CmgsWrzYH-oOBZbFa_0wmK>

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*second step in details:*

we use : all the previous components +3 line follower sensor

* At first meeting : we connect the 3 sensors with the Arduino according the code , then we make sure that all the connections are right , then we tests the code and fixed it as we found a problems with it and the line follower wasn’t working well .
* At the second meeting : we checked that the the connections and the code are working well , but we found a problem “ the places that we put the sensors on it were not making the car follow the directions well “ – so we tried to fix this and after many tries it works , and we check that the car follows the tracks well as we make tracks for it and it works well.
* At the third meeting : we prepared for the track and draw it on the 2x2m white sheets and the line thickness was 2mm , we started to work on it and put the car to follow the track , but the car went out of the track and we tried to find the problem in the car and after many tries it didn’t work , so we announce the doctor that that track thickness makes problem with the car and he tells us to work on another thickness.
* At the 4th meeting : we made the track on the new thickness and tried to test it with the car and it worked , we shot the video for the car and then we upload it .

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