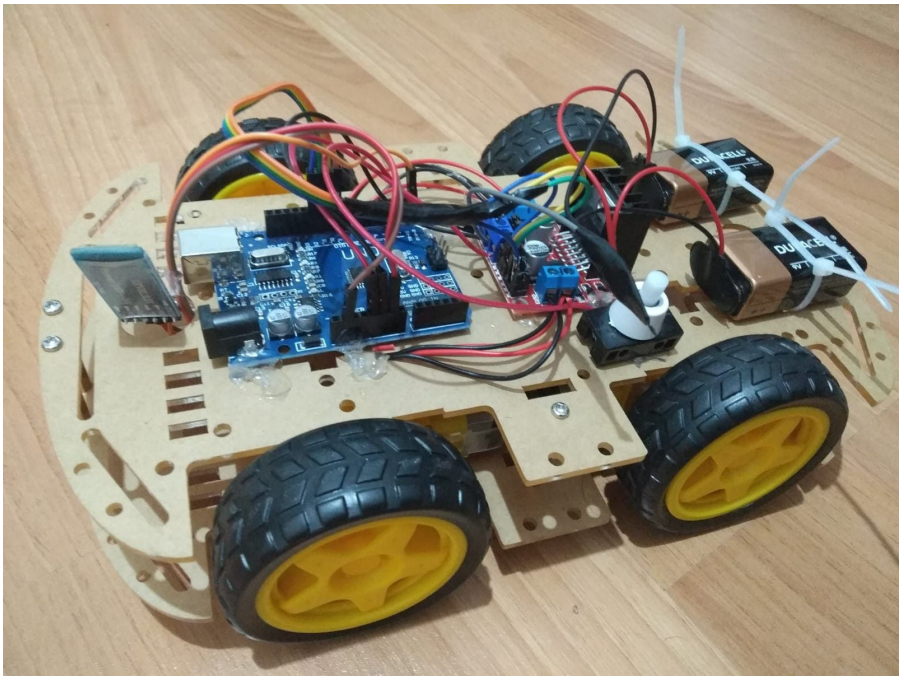
BBM 460 - Wireless & Mobile Networks Lab.

Progress Report - RC Car Using Arduino with Bluetooth

21627428 Muhammed Said Kaya - 21727082 Mert Çökelek



What Have We Done In The Project?

We have done a Remote Car controlled by Arduino Integration Development Environment. During this phase, we've integrated the motor driver, bluetooth modules into the Arduino Uno and completed the wired connections. Finally, the components are placed onto the chassis with the tires. The car is tested by using the Arduino IDE Command Inspector. (And also it is tested on a mobile application for Bluetooth Module connection) The Rx pin of HC-05 is connected to the Tx pin of Arduino. So input is ready on board and according to input , 9,10,11,12 pins give output. These pins go to L298N Driver and the driver controls all motors.

- Commands are 1,2,3,4 and 5.
    - Command "1" gives High voltage to pins 9 and 11 and all motors turn forward.
    - Command "2" gives high voltage to pins 10 and 12 and all motors turn backward.
    - Command "3" gives high voltage to pin 11 and right motors turn forward for the car to turn left.
    - Command "4" gives high voltage to pin 9 and left motors turn forward for the car to turn right.
    - Command "5" gives all pins low voltage for the car to stop.

What Stage Are We In The Project?

We've completed the hardware components of the RC car, without the camera.

What stages of our project have not been done?

The mobile application has not yet been completed.
The camera is not integrated yet.

Are we on schedule?

Yes, we are on schedule. Next week, the mobile app will be completed. Then, the connection and communication of the camera will be handled.

Are there any changes in the project plan?

Due to the busy school schedule (midterms and projects), we have postponed the mobile application development phase for one week.

Are there any changes in our project?

No, we are progressing on the main task.

Are there any problems with our project?

No, we have not encountered any project so far. But the integration part of the camera with bluetooth or wifi, confused us. Bluetooth might not provide analog data and according to our research on the internet FPGA is used for analog data transmission. If you have any advice about using wifi or bluetooth while transmission of analog data, we would appreciate it.