

## MIDDLE EAST TECHNICAL UNIVERSITY

# DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

#### **EE 494-DESIGN STUDIO 1**

#### **WEEKLY REPORT II**



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#### 1. SUMMARY OF THIS WEEK'S PROGRESS

In this week, we have concentrated more on the transportation part of the project. In addition to that, the UART protocol has been established on Raspberry Pi.

#### 2. THE TESTS FOR TRANSPORTATION PART

This week we have moved our car for the first time using Arduino Uno and L298N motor driver. Now we are able to drive the car back and forth in both directions. We apply full voltage for the take off and we can achieve a soft stop by using the H-bridge in braking mode. The next step would be to use the sensor measurement(distance) for the control of the car. By doing so, we will test if the car comes to a stop at least 5cm away from the terminals and we will also check if the average speed of the car is satisfactory for our application or not.

#### 3. THE APPLICATIONS FOR COMMUNICATION PART

We have utilized the UART protocol in the Raspberry Pi. By using the UART chip inside it, we have managed to send and print out some lines of text on the screen. The next step is to divide a photo into bit a bit stream and send it across the terminals.

### 4. CONCLUSION

Progress has been made for the transportation and the communication submodules and next week, work on these submodules will continue along with image acquisition and image reconstruction submodules.