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Team 3

Daily report

Prepared by :

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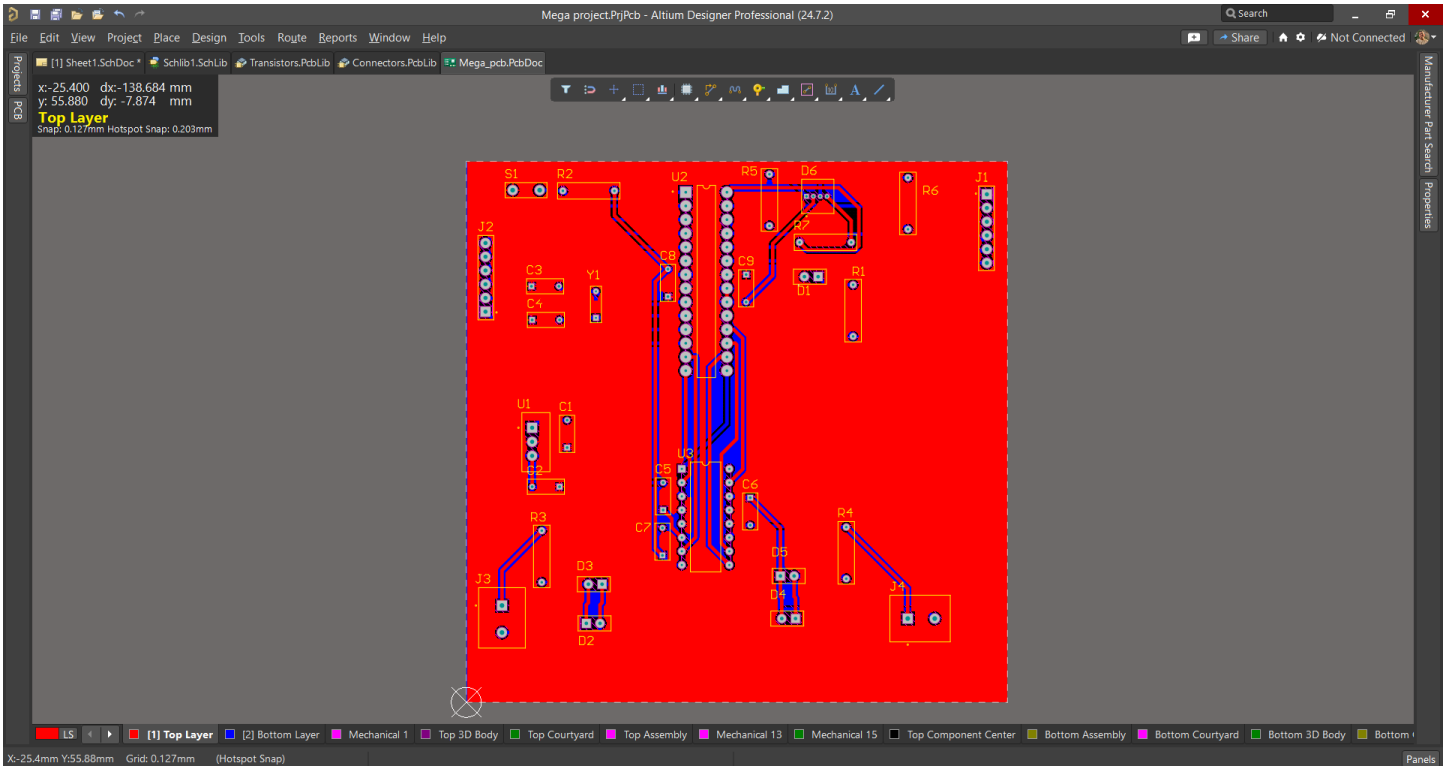
Today's Progress

1. Roles of Team Members

1.1 Hardware Sub-team

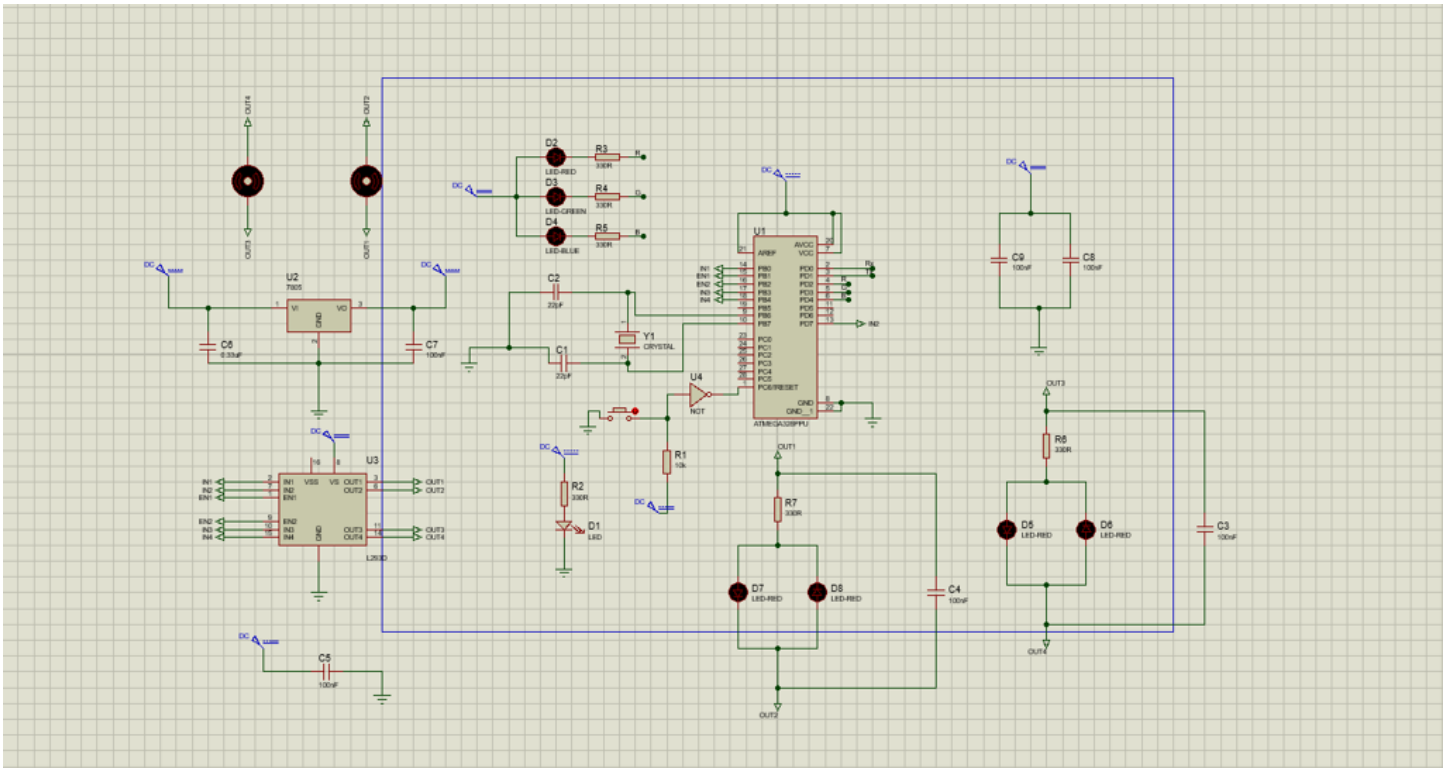
Ezzeldin Fekry Abdelsalam

- Finished the schematic of the circuit.
- Routed a double layer PCB but there are some modifications that will be done for easier fabrication.



Nour Mohamed Ramadan

- Today, I put all the connections of the microcontroller, sensors, regulator and motor driver on proteus.
- And then run the code on proteus by getting the hex file to implement it on proteus to check that the connections and LEDs run well.



1.2 Firmware Sub-team

Omar Mohamed Hafez

- Finished the IDE code
- Added functions for voltage sensor and current sensors

```
void current_sensor(){
  int adcValue = analogRead(C_S_Pin);
  float currentValue = (adcValue / adcResolution * vcc - currentSensorOffset) / currentSensorScale;// Calculate the current value
  Serial.print("Current: ");
  Serial.print(currentValue, 2);
  Serial.println(" A");
}
void volt_sensor(){
  int sensorValue = analogRead(V_S_Pin);

  // Convert the sensor value to voltage
  float voltage = (sensorValue * referenceVoltage) / 1024.0;
  Serial.print("Voltage: ");
  Serial.print(voltage, 2);
  Serial.println(" V");
}
```

- Arranged each function in the code to be called with a number to make it easier to communicate with GUI
- Helped Nour Zeidan in connecting the ide code with the backend code
- Tested the Bluetooth communication to atmega328 directly (without using laptop's serial) but, unfortunately my laptop couldn't connect to Bluetooth module to test GUI with the Bluetooth.

1.3 Software Sub-team

Nour Zeidan

- Successfully connected gui to manual car control but without the bluetooth module with the help of Omar Mohamed.
- Tried to connect video stitching python files to the GUI but still not finished.

Omnia Farouk

- Started connecting camera system with whole Gui with nour Zeidan.
- Started searching on stereo vision algorithm.