



## December 10 - 16 Weekly Report

### 1 Progress

- Image processing is improved. The process steps are as follows:
  - Denoise the image
  - Apply color thresholding in HSV color space
  - Detect the edges by Canny edge detector
  - Create possible line point sets with Hough transform
  - Classify the lines as left and right
  - Set lines from the points
  - Predict the turn by comparing the slopes of the right and the left lines
  - Plot the resulting lane vision

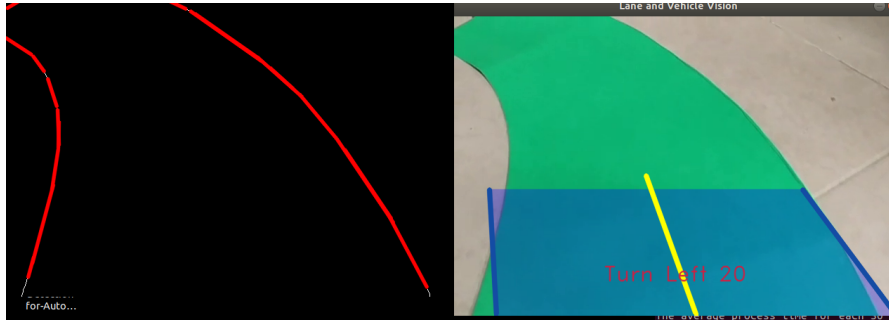


Figure 1: [Left] Output of Our Image Detection Algorithm Under Low Light Conditions, The Red Lines represents the Detected Line Edges and the [Right] Original unprocessed Photo



- Chasis and new camera holding arm is designed and integrated as a single body.

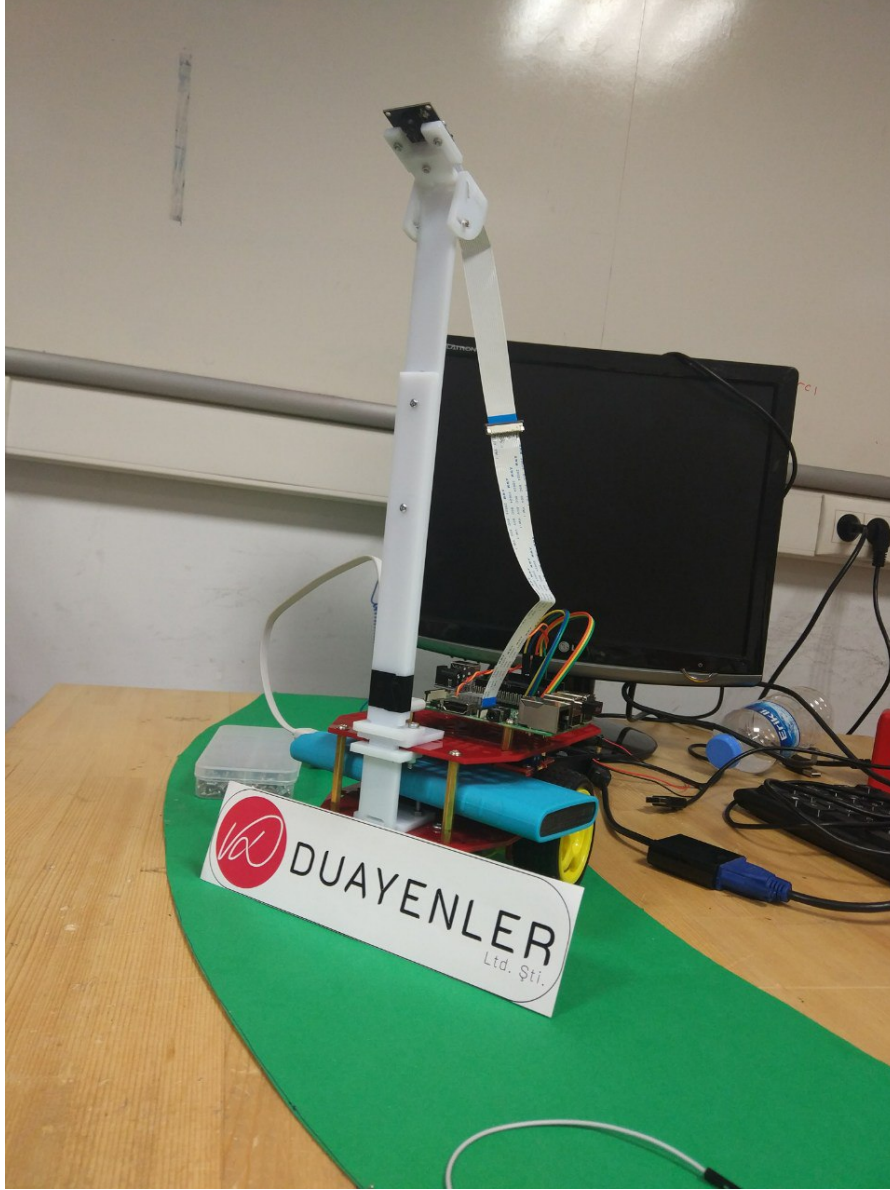


Figure 2: Vehicle Assembly and Camera Holding Arm.

## 2 Plans

- Motor tests will be conducted on new motors.
- The Processing of output data will be discussed.
- OpenCV will be studied further on Raspberry Pi.

