

Weekly Report 01

I-CEE (Group 8)



İlker Danyal Kanatlı (EE / 20300513 / ikanatli@ug)
Oğuzhan Aras Bulut (IE / 20302558 / obulut@ug)
Esra Dokuzođlu (CS / 20302488 / edokuz@ug)
Berk Korkut (EE / 20402864 / korkutb@ug)
Ekin Kartal (IE / 20401946 / kartal@ug)
Ceren Hasançebi (CS / 20400322 / ceren@ug)

VIBRO-I

Due Date:

26.02.2008

Accomplishments throughout the Past Semester:

- ❖ The whole project design was changed during a meeting with Prof. Tarık Reyhan. Instead of one camera, two cameras will be used for detecting the obstacle objects around.
- ❖ The rebuilt design for two cameras has been reviewed and the mathematical calculations necessary for converging the object distances were finished according to the notices of Prof. Tarık Reyhan.
- ❖ The two attachable cameras were ordered.
- ❖ Matlab code for object detection was begun to be written. Ceren and Esra have made enough research on object detection area by consulting to their peers who make their senior projects on object detection field. Our friends also have refreshed their minds by renewing their knowledge about Matlab.
- ❖ Esra and Ceren also found some useful material for the object detection in Matlab. There are some ready to use libraries and already some 'ready to use' code in the Internet. Since we do not know much about object detection, which is a huge research area itself, we tried to capture easiest ways of how object detection is achieved today. One of the most common ways of simple object detection we have found is 'boosting'. To make our learning process about object detection easier, we have been using one of those 'ready to use' libraries. The one we chose is basically a teaching tool and it is written by some MIT researchers.

- ❖ So, we started to write some code and the object detection code we have written in Matlab so far is not capable of detecting objects yet but friends have been working on the code to get it work since the beginning of the semester.

Next Week's Planned Activities:

- ❖ Ordered cameras will be placed on the Linux board, which we had introduced during our presentations last semester using the sensitive equipments in the EE labs as soon as the cameras arrive. The lab will be used to place the cameras on the board with infinitely parallel focal points.
- ❖ Again, as soon as the vibration devices arrive, a narrow scope work on how those devices will be integrated to the rest of the hardware we have developed so far will be conducted by our EE members.

¹ <http://people.csail.mit.edu/torralba/shortCourseRLOC/boosting/boosting.html>