

CENG 6533 Robotics

Homework I Spring 2015

Due January 28, 2015

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Put your name, Student ID, HW number, date, and the Course Number on your homework. Please submit a paper copy at the beginning of class. The assignment should be typed.

Research:

Look up **two** different applications of robots that are current. Each application is worth 50 points with the description (35), the sensing, processing and Control (10), and the references (5). Follow the guidelines below.

Write a short report for next week to hand in on the applications as follows:

Describe the operation of the robots in each of the two applications. First, a paragraph describing the application (25). Then, just a paragraph or two about the robot in the application. (35 Points for each application)

In the report, discuss the sensing, processing, and control that is needed for each robot to satisfy the requirements of the application.
(10 Points each)

For example, a mobile robot must avoid obstacles. What sensing could be used for this?
A flying robot must have remote control or use GPS guidance.

****You may cut and paste from the WEB- but please include a paragraph of introduction to each application in your own words- 10 points in each of the 35 points.**

(5 Points each)

NOTE: List all references - the web URL, books, etc. Also, list the date of the reference and a brief summary of the reference.

*** If you use acronyms and abbreviations- DEFINE them when used or include a glossary.**

Start with the wiki article:

http://en.wikipedia.org/wiki/Industrial_robot [HW1](#)

Another Example – view this article about robots in the BMW car plants

<http://www.technologyreview.com/news/530696/how-human-robot-teamwork-will-upend-manufacturing/> By [Will Knight](#) on September 16, 2014- Our robot Baxter is mentioned.