

CSCE 274 Fall 2021

Homework 1 (3% over the final grade)

Assigned: August 24, 2021

Due: August 29, 2021

Instructions

Please read carefully the following questions and make sure to give the answers asked for. Don't give a beautiful answer to the wrong question. If you have any doubts, please let me know.

The document containing the answers should be uploaded on the CSE Moodle (<http://dropbox.cse.sc.edu>) and should have the following characteristics:

1. Header with the code of the class, the semester and year, the homework number, and your name.
e.g., CSCE 274 Section 1 Fall 2021 – Homework 1 – Ibrahim Salman
2. Your answers, clearly identifying the answered assignments.
3. The name of the file should be in the following format:
csce274_fall2021_<hw#>_<last_name>.pdf
e.g., csce274_fall2021_hw1_salman.pdf

Questions

Question 1. Search on the web about a robot and choose one*. Describe its major components (sensors, effectors, actuators, controller) of it and characterize it in terms of degrees of freedom and sensor space.

Question 2. Search on the web about a sensor and choose one*. Describe its characteristics and the way it operates. For example, power requirements, interface, what it measures, what data it returns.

* Bonus 10% (in total) for the most unusual entries.