

Assignments for Friday, October 13, 2017

1. {Group Assignment} Choose a Mentor for your project. This person must be knowledgeable in the area of your project, willing and able to meet with your group on a regular basis (once a week or so), and must commit to serving as your group's Mentor through the end of the Spring 2018 semester. The Mentor's primary responsibility is to advise you – not to do the work for you, but to help you develop your solution to your problem. **Submit the Mentor Agreement form.**
 - a. You may also wish to find a Sponsor for your project. This would be a person, organization, or group willing to provide funding to help you purchase components, or perhaps even donate components, needed to complete your solution for the problem. **If you do recruit a sponsor, submit the Sponsor Agreement form.**
2. {Group Assignment} Even though we have not yet investigated the use of a Decision Matrix tool to help select your best option, make an attempt to break the design work related to your project into five relatively equal parts, so that each team member will have significant individual design responsibility, and will be able to write a few pages about his/her experience and contribution(s) to the final result for your end-of-semester Project Proposal. **Turn in a single-page typed report with about five sentences describing each part and stating who will be responsible for doing it.**
3. {Group Assignment} Begin holding regular meetings, at least once per week, and keeping minutes. (**Use the Team Meeting Minutes Template.**) Do not turn these in now, but retain them for inclusion as an appendix in your end-of-semester Project Proposal.
4. {Individual Assignment} A self-driving-car version of the well-known runaway trolley problem was described in class:

A group of five passengers is in a self-driving car moving down a two-lane highway with concrete barriers along each side. The car cannot leave the roadway because of these barriers. Suddenly, a truck in the oncoming lane has a flat tire and begins swerving into the car's lane. The car does not have time to stop, and cannot avoid the truck by swerving to the right. There are only two options: (1) continue in the same lane and crash into the truck, killing all passengers in the self-driving car, or (2) swerve onto the left side of the road where a bicyclist happens to be riding inside the barrier. If the second option is chosen, the bicyclist will be killed. It's either the five passengers or the bicyclist. If you were writing the software that controls the self-driving car, which choice should you make?

Search out a few references related to the problem, and then **write a two-to-three-page discussion** describing your view of your options and what you think your final decision would be. What might affect your decision? Does it change depending on the occupants of the car? (maybe your immediate family, relatives, a group of international spies, a newly-arrested serial murderer with four accompanying peace officers, five strangers, five homeless people, five astronauts, five young children, etc.) Does it change based on who is riding the bicycle? (your father, your sister, an escaping bank robber, the local paper boy, a pizza delivery person, etc.).

Consider the IEEE Code of Ethics and the NSPE Code of Ethics in making your decision.

Include a list of references in IEEE format (see [IEEE Citation Style Guide](#) and/or [IEEE Citation Standards Reference](#)).

Your paper must be typed, single-sided, 8½"x11", with 1-inch margins, double-spaced, Times New Roman font and spell-checked. I also recommend taking it to the Writing Center for review and advice about the quality of your writing. This will be good practice for your end-of-semester Project Proposal.

(Please submit everything in hard-copy form, not as an email attachment.)