EN1-06: Simple Robotics

September 19th, 2016

Schedule

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Everything Is Metal With This Awesome Cover Of The LEGO Movie Song

Tufts MAKE Update

As a recap of the meeting, we were able to come up with almost 15 great project ideas, ranging from a DIY Batmobile to a Bio-Energy Generator. We narrowed these ideas down to three popular topics: an app that centralizes a user's messaging-app activity, a robot that plays preprogramed songs on an instrument, and an iteration-based go-kart project that would go through prototype stages and grow with each step.

After researching and discussing these three main topics in small groups, we first decided that the messaging app would be a great start-up app idea (I'm looking forward to seeing this idea pursued further at the 3-Day-Startup event next weekend) but a tougher MAKE project. The musical robot and go-kart projects both got great support and are viable MAKE projects for this coming semester. In the end, we decided to pursue the go-kart project as its iterative process would allow us to shift our focus throughout the project. With each prototype, we could switch from a mechanical focus by making a smaller, wooden kart to a software focus by making the self-driving or controlled wirelessly by an iPhone app, thus allowing us to branch out with each prototype that we build.

Despite focusing on the go-kart project, I think that also pursuing the musical robot project through MAKE is very possible. With the only contingency being budget and member commitment, I think it would be very exciting to have two project teams working side by side this semester. On that note, we will most likely be meeting on Friday, September 23rd in the afternoon. I'll get back to you all on a meeting place and exact time, so look for another email later in the week. At this meeting, we will work out the details of these projects by focusing our designs, making supply lists, and finalizing the teams/groups. If everyone comes with the same enthusiasm and creativity as we did today, I think we'll be off to a great start this semester.

[...]

P.S. Sorry for such a long email, but if you or anyone you know would like to teach a brief workshop on any of the topics listed below, please let me know!

WORKSHOP IDEAS:
Welding, Raspberry Pi/Python, CAD/Solidworks, html/web programming, LaTek, 3D Printing, Laser Cutting.

Batteries

Today: I have some fresh/charged batteries for "swapping"

Setting up: Battery Charging Station

- Swap in/out your batteries
- Please don't take w/out leaving
- Note: hours limited to that of Bray

Assignment 1: Robotic Animal

For this project, you are to create a robotic animal that includes "inputs" (sensors) and "outputs" (motors, or other). Try and capture the look, feel, and movements of the animal you choose. Your animal must also react appropriately to some set of inputs.

Project (in-class presentation) due on **Monday, September 19th, 2016**

Documentation (description, images, video, code, etc) due to website by ~~**Mon (9/19) at 9pm**~~ **Wed (9/21) at 9pm**.

Presentation Order

Group 01: Nick Bowers & Handy Dorceus

Group 02: Christopher Camacho & Justin Reyes

Group 03: Thu Cao & Jennifer Gray

Group 04: David Carratu & Paul Gelhaus

Group 05: Kevin Destin & Lucy Pavlovich

Group 06: Liam Durant & Yekwon Park

Group 07: Maxwell Ekechukwu & Ashwin Swar

Group 08: Katie Elliott & Taswar Mahbub

Group 09: Julia Ferreira & Duc Nguyen

Group 10: Jason Figueroa & Daniel Geary

Group 11: Ahmed Gado & David Janowsky

Group 12: Mateo Guaman & Chris Reik

Group 13: Adan Leos & Faizan Muhammad

Group 14: Chris Mitsopoulos & Kevin Naranjo

Website

From Trunk, click "Dr. E's Lab" in the left menu.

This should create an account and sign-you-in automatically. Note that you should use this link from Trunk to access the site in the future (e.g. if you get signed out).

Website will hold Lectures, In the News, Projects (details and your documentation), and links to Help Videos.