EN1-06: Simple Robotics

September 14th, 2016

Schedule

- 5 wires for 5 groups
- In the News
- Tufts Robotics Club
- Assignment 1: Robotic Animal
- Partners
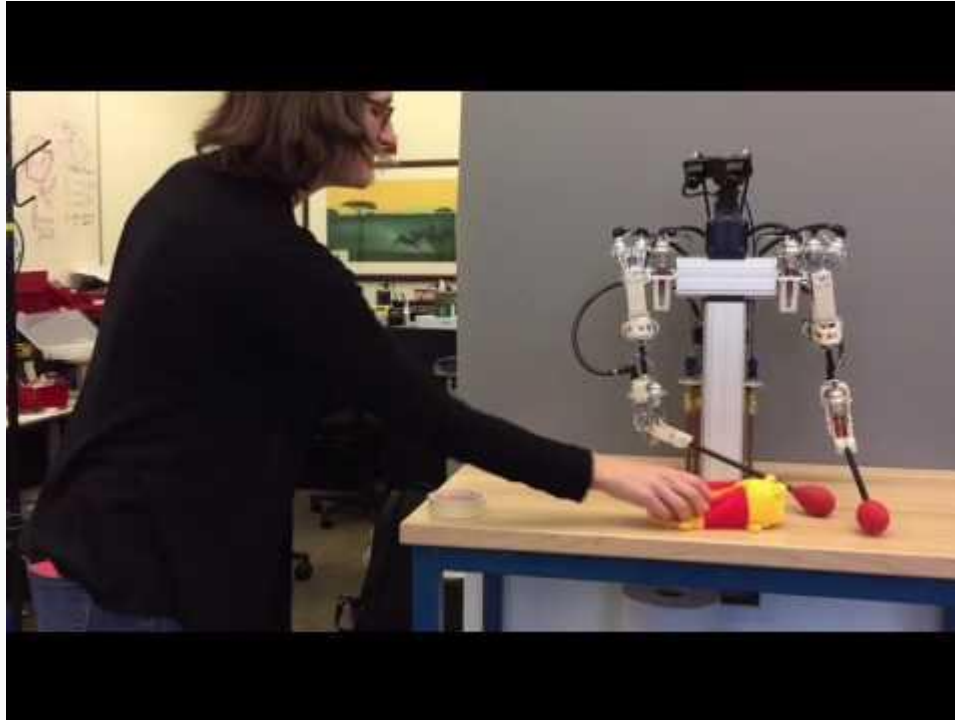- Today's Activity
- Installing LabVIEW check-in...

Hackers found 47 new vulnerabilities in 23 IoT devices at DEF CON

Disney Robot With Air-Water Actuators Shows Off "Very Fluid" Motions

Tufts Robotics Club

Activities Fair: **Thursday**, from 5pm to 7pm

GIM: Friday, 3pm to 4pm, in 574 Boston Ave (CLIC) room 404

More information about the club:

http://sites.tufts.edu/robotics/

Ryan Stocking: Ryan.Stocking@tufts.edu

"You can let them know that although your class overlaps with part of our meeting from 3-4:15 that we continue to be there until at least 5:00 and often until closer to 5:30 to 6:00."

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**

Assignment 1: Robotic Animal

Online Documentation:

Identify teammates (give credit)

Multiple forms of representation: written/text, pictures, video, code, data, etc

Written description: covers basics (and uniqueness) in clear *and concise* manner

Pictures: good lighting, clear/clean background, highlight qualities of robot

Video: HORIZONTAL, clear, visible, can duplicate text/pictures/etc.

In-Class Presentation:

Introduce yourselves ("hello my name is…")

Share the presentation between group members

Start/be positive, but also explain difficulties or shortcomings

Identify unique attributes that would be useful to others

Demonstrate functionality

Partners

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

Activity 1: Conflict Resolution

Scenario 1: Partner A is always on time. Partner B tries, but is always running a little late. Partner B stores the kit in their room, which means Partner A is always waiting for Partner B to show up to group meetings to start working. Partner B promises to do better, and will show up on time from now on.

Scenario 2: Partner A is an enthusiastic builder and is always experimenting on new, interesting designs. The ideas that Partner B suggests aren't always incorporated (or, Partner B feels, even considered). Plus, Partner B worries that their solution is too risky and won't actually work in class during the presentation.

Activity 1: Conflict Resolution

Scenario 3: Partner A is really good at programming, and has implemented all the code for each and every project. Partner B is just learning, which slows down the progress of the group towards completing the projects. But Partner B wants to learn to code (and should, for the midterm!).

Scenario 4: During brainstorming, Partner A and Partner B have both come up with really good ideas for achieving the challenge, but they are drastically different in design, construction, programming, etc. And there certainly isn't enough time to complete both before the project is due.

Activity 2: Partner Contracts

Activity 3: Project Management Software

Screensharing via video chat (Skype, Google Hangouts, everything)

Google Docs: collaborative, see each typing (Google Drive folder)

Task tracking & idea boards: Trello, Asana, Pivotal Tracker, ….
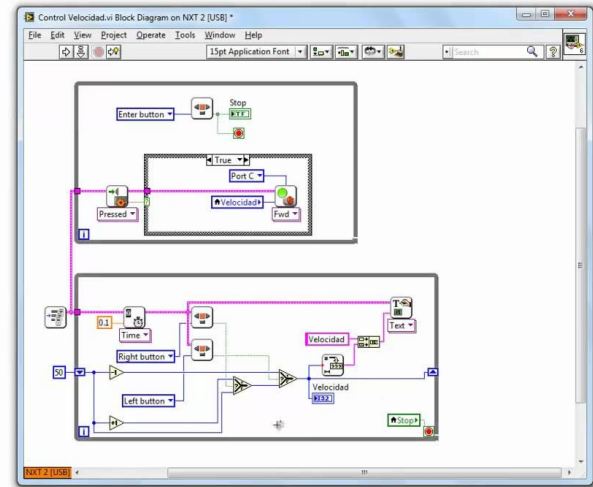
Code Management: Github, Bitbucket, …

Shared files: Dropbox, Box (Tufts), OwnCloud, Google Drive, iCloud

LabVIEW Purchase, Download, Install...

Problems purchasing?

Problems downloading?

Problems installing?