Event: The Robotics Club kick-off

Date: Thursday Sept. 15th

Time: 7pm

Location: 3rd Floor lobby of the engineering building

This is being sent out to our current mailing list. This email details the two projects that we are worked on. Note that the robotic arm has a deadline and working on this project will not be available to everyone; however, inquire if you want to learn about the level of commitment for this project.

So, we have just started up and we have our sights set on a few competitions for 2017. Our goal is to participate in a Mars Rover competition, and the development of projects will depend on the competition in which we participate – of course! Once the robot arm is developed, it will be put onto the robot.

Robotics Club projects

1. Land Robot with robot vision.

* The goal for this robot is to develop autonomy with the aid of sensors and a camera. The project is compartmentalized into three main categories: embedded design, mechanical design, and programming.

1. Embedded design: PCB design for microcontroller, motor driving circuitry, and peripherals.
2. Mechanical design: 3D printing, chassis design, and a whole lot more!
3. Programming: Raspberry Pi platform with Wi-Fi (onboard robot), robot vision.

* Currently, this robot is controlled with an X-Box controller. Plug the X-Box controller into your computer, run the code on your computer (c/c++), and watch the robot move around the room. This is a two-wheeled robot with a castor wheel. Stepper motors drive the wheels.
* On the robot, the Raspberry Pi uses its Wi-Fi to connect to your computer, and it also
* Embedded system uses an Arduino. We will develop our own PCB. We use Altium designer for schematic/PCB design.
* Absolutely everything is to be 3D printed if possible! We have a 3D printer, and we use inventor for CAD models.

1. Robot Arm

* We are developing a robot arm that will be used for CanAssist. This is to be placed on a wheel chair for a young boy who has troubles picking up objects.
* The constraints, deliverables, and objectives are all provided by CanAssist.
* This has a deadline. Information will be provided to the individuals that commit to this project.