CMPE-110
Intro to Computer Engineering
Fall
Energia Initial Setup

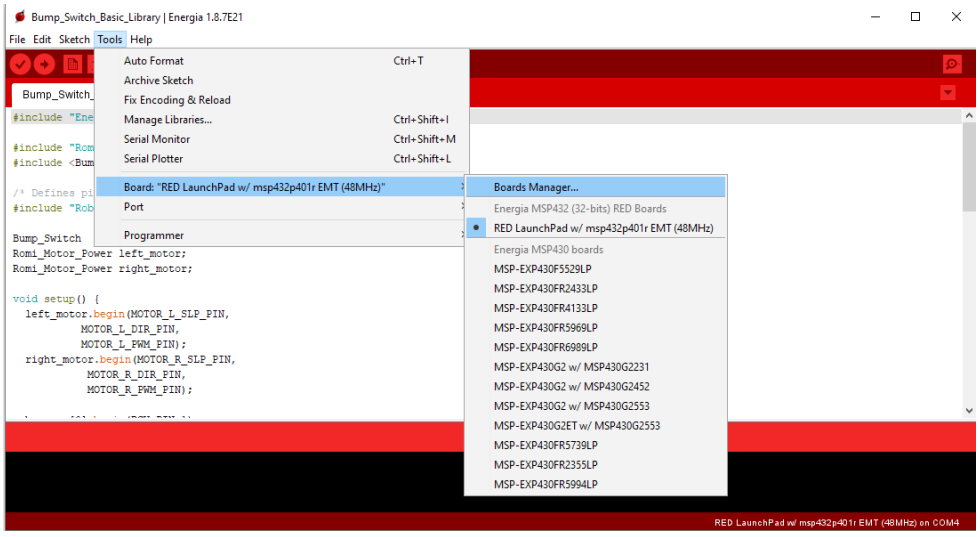
This laboratory exercise covers the process of setting up the Energia Integrated Development Environment (IDE) to create, build, load, and run a program on the Microcontroller. The Microcontroller is the printed circuit board (PCB) that sits on the robot chassis.

In order to use the Energia IDE with the MSP432 microcontroller you must install the required libraries. This installation is **machine and user specific.** This means that if you switch computers between lab exercises you will need to repeat these instructions. From this exercise onwards it is recommended that each student use the same computer as the board installation can take upwards of 10 minutes. Both partners should follow these steps on their computer during this exercise in the event that one partner cannot make it to future labs.

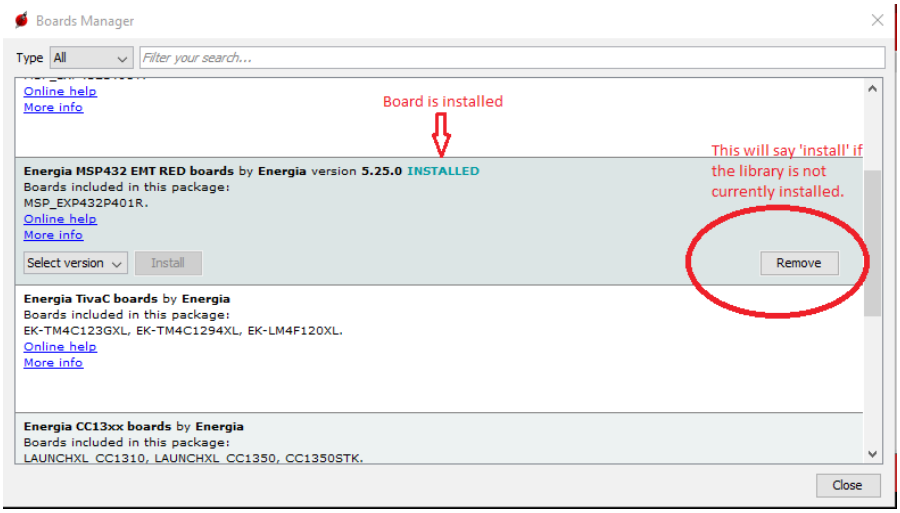
Energia Configuration

1. Energia software is already installed on the lab computers (PCs). Launch the software using the start menu or desktop shortcut.

2. Navigate to the Boards Manager dialog: Go to Tools->Board "[Currently Selected Board]"->Boards Manager.



3. Scroll down the list and select "Energia MSP432 EMT RED boards by Energia". Click the 'install' button in the lower right corner. If the button says 'Remove' the library is already installed and no further steps need to be taken.



4. After clicking ‘Install’ a blue progress bar will appear at the bottom of the dialog. This process may take upwards of 10 minutes – wait until it is finished. The blue “INSTALLED” text will appear next to the board in this dialog once the process is complete.

5. Close the Boards manager dialog and open the Library Manager by selecting Tools → Manage Libraries…

6. Scroll to the bottom of the dialog and select TI-Robot-Lib and click ‘Install’

7. Download the ‘Robot_Pins_v1.h’ file from myCourses and place it in the following directory: ‘C:\Users\<username>\Documents\Energia\Libraries\TI-Robot-Lib\src

After completing all the steps above you will be able to use the MSP432 libraries and load your code onto the board.

NOTE: If you switch computers or users this process will need to be repeated