**Info on MATLAB Create Toolbox and BAM**

For using the MATLAB Create Toolbox with the BAM here is some useful information:

* First you need to set up the Bluetooth, this is fairly easy, you can do it the same way you pair any normal Bluetooth device. The BAM will be named ElementSerial
* For Mac OS X you need to find the address of the bluetooth serial port with the terminal, it will look something like “/dev/tty.ElementSerial-ElementSe”. This string will be your port, you need to hardcode this into the RoombaInit function so that it always connects to the appropriate port
* It is useful to have an initialize function that will call RoombaInit and save the serial port in a conveniently named variable as you will need to the pass the serial port to pretty much every function. It is also nice to have it beep or show some sign of life so you know it went smoothly.
* Inside RoombaInit you will want to make sure the robot is starting in safe mode rather than full mode, so that it does not go off cliffs and will stop when lifted and such things (assuming that is what you want), you do this by assigning the correct value to the Contrl variable. (see IRobot Open Interface manual for more info/ specific opcodes) You also want to assign a value to the global variable td which is a time delay, 15ms is recommended. This creates a small delay between commands you send to the robot so it has time to process them (This is a MUST, your robot will almost always crash during the program unless you keep some delay)
* You will want a power cycling function that resets the robot remotely, this is very useful and can be done by sending the opcode ‘7’ to the robot. (This info is NOT in the manual and is very very useful, because you will need to power cycle and initialize pretty much between every run of the robot).