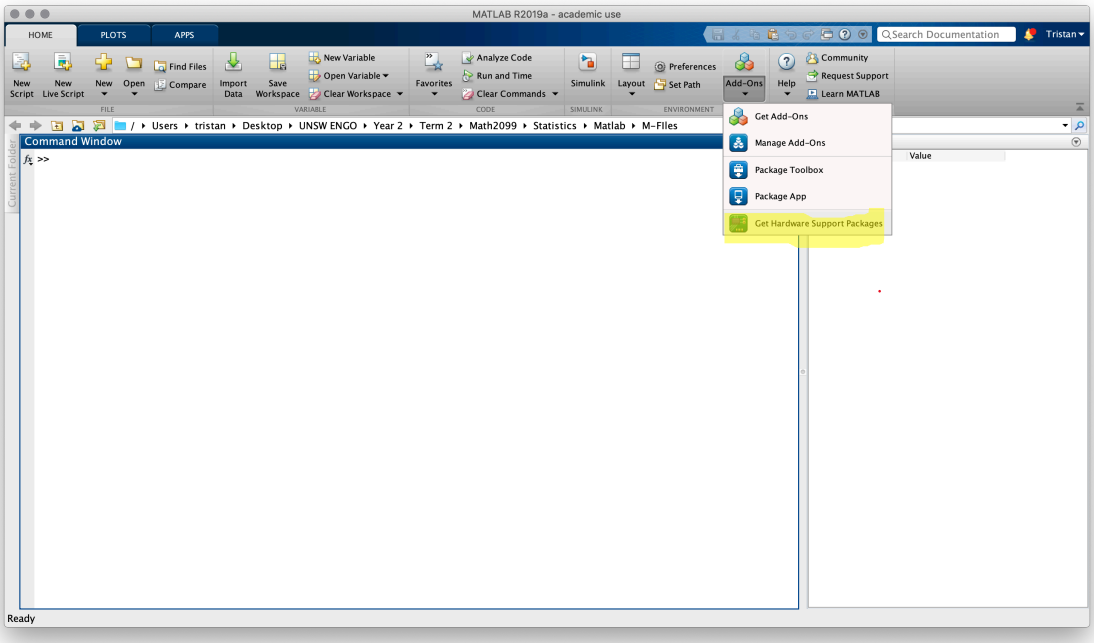
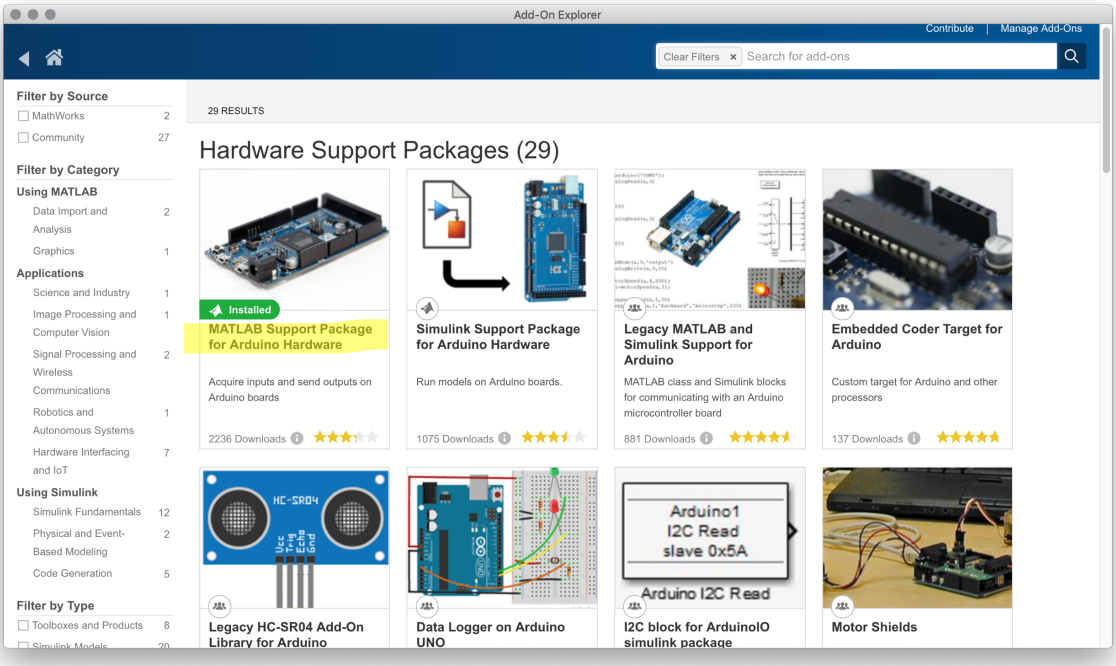
EXTENDER DONGLE INSTRUCTION MANUAL

1. Download and install Arduino Hardware support package on MATLAB.
2. Connect the Arduino board to the PC. To establish a connection between MATLAB and Arduino boards, the following command can be used from MATLAB:

```
>> a = arduino
```





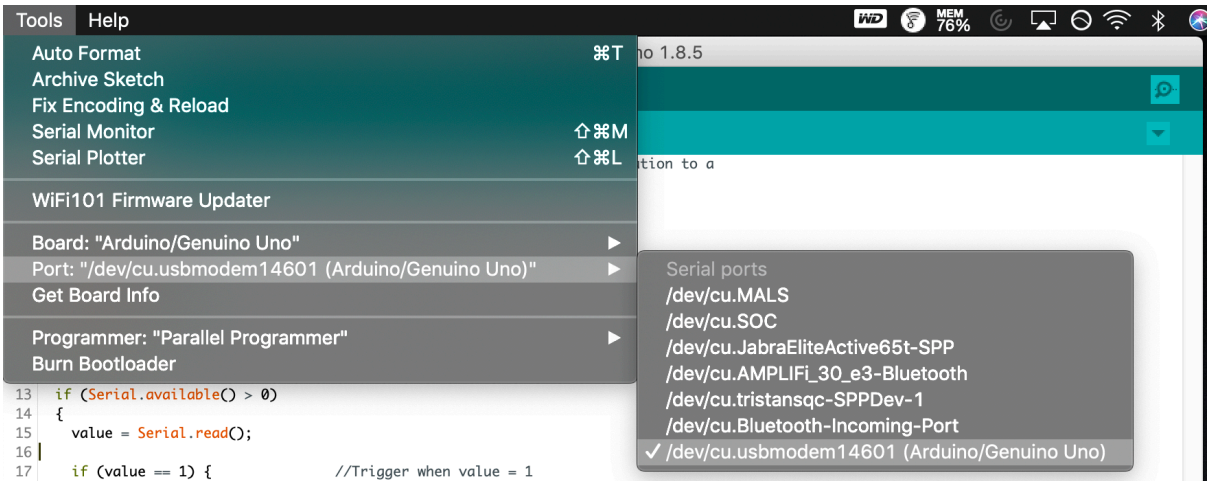
3. Copy and upload one of the supplied Arduino sketches into the Arduino application. A summary of the sketches is as follows:

   - Trigger1: This sample trigger sketch turns a digital pin on and writes to the serial port when the input is 1. Useful for manual triggering.
   - Trigger2: This sample trigger sketch triggers a single pulse of a specified duration to a digital pin then writes to the serial monitor when the input is 1.

4. Copy and paste the following sample script into MATLAB as an m-file:

```
x = serial('InsertPortHere','BAUD', 9600);

fopen(x);
go = true;

while go

      a= input('Press 1 to turn ON pin signal & 0 to turn OFF:');
      fprintf(x,a);

      /*if (Insert your own condition/loop here){
            a= input();
      end */

      if (a == 2)        //Press 2 to exit program
            go=false;
            fclose(x)
      end
end
```

   Change 'InsertPortHere' to the specified port the Arduino is connected to. This can be found in the Arduino application: In this case- `'dev/cu.usbmodem14601'`



5. Run the MATLAB script. Quit MATLAB and the Arduino application to change m-files or sketch files.