University of Ottawa

Faculty of Engineering

uOttawa Makerspace

Intel Galileo Supplemental Material

Installing and Configuring Intel Galileo Board Driver

Introduction

The Intel Galileo boards use the USB port to send information to and from connected computers. Unlike an Arduino Uno the Intel Galileo required a power source as well as a USB connection to the computer to function. In order to program the board the Arduino IDE is used to write and upload codes (called sketches) to the board. If the USB driver for the board is not properly installed and configured, the board will not be able to communicate with the connected computer. This material shows how to configure the computer connected to the Intel Galileo board by installing and configuring the USB driver for the board.

Resources

The items to be used are:

- Intel Galileo microcontroller board
- USB Type A male to USB Type micro-B male device cable
- Computer with USB connectivity
- 5V power adapter

Procedure

Download IDE and Driver

- Open an internet browser on your computer and go to the URL: http://arduino.cc/en/Main/Software
- Scroll down to the latest version of the `Arduino IDE for Intel Galileo` and download the `Windows ZIP file` for that version

Install Arduino IDE

- Go to the download location for the Intel Galileo ZIP file and unzip the file
- Open the unzipped file and click on the `arduino.exe` file to open the Arduino IDE

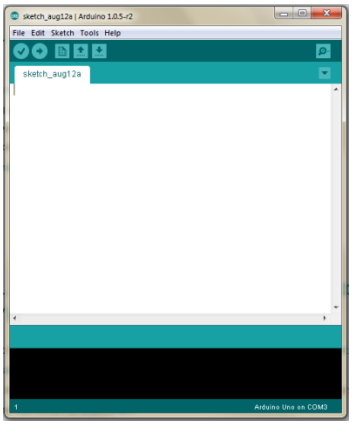

Figure 1: The Arduino IDE window

Install the Drivers

- Plug the power adapter to an external power socket and plug the connector to the power jack on the Intel Galileo board. If the power adapter is working properly the *ON* labelled green LED on the board will power on
- Connect the Type micro-B male end of the USB cable to the Intel Galileo board and the other end to the USB port of the computer. If the computer already has USB driver for the board the green LED with the label *USB* on the board will power on.

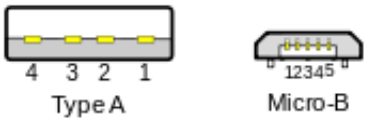

Figure 2: USB connectors for Type A and Type micro-B

Note: With the board connected, your computer will try to find a USB driver for the Intel Galileo but will not be able to activate the driver. Follow the preceding steps to install and activate the USB driver for the board.

- Click on the Start Menu  and open *Control Panel*
- Click on System and on the left menu click on Device Manager
- In the Device Manager window, under the Other devices node right click on Gadget Serial v2.4 and click on Update Driver Software...
- Select the Browse my computer for driver software option
- In the search location browse to the `hardware\arduino\x86\tools` location of the unzipped Intel Galileo driver folder
- Click OK to use the selected folder and click on Next to install the driver
- Once the driver has been successfully installed click on Close to complete the update process

Note: If the driver is successfully installed you will note the Galileo board listed as Galileo under the Ports (COM & LPT) in the Device Manager window.

Check the IDE port

- Open the Arduino IDE and make sure the Intel Galileo board is connected to the computer
- At the bottom right of the Arduino IDE window check the port the IDE is communicating with and take note of the port. It is in the form Intel® Galileo on COM3 meaning the IDE is communicating via port COM3
- Open the Device Manager window again and check the port the Arduino is connected to. This is found in front of the Arduino Uno node the under the Ports (COM & LPT) node. If the port is communication via COM3 the node will have the label Galileo (COM3) .

Note: The port (COM) the IDE is communicating with must be the same port which the Intel Galileo is communicating with so as to make sure the computer can send information to and from the Intel Galileo board.

- **Optional:** If the ports from the Device Manager is the same as that in the Arduino IDE then the device is functioning properly.
- **Optional:** If the ports are not the same then Arduino IDE port must be changed
- To change the Arduino IDE port, open the Arduino IDE window
- Under Tools menu change the Serial Port to that listed in the Ports (COM & LPT) node for the Intel Galileo board. This will force the IDE to communicate with the same port the Intel Galileo board is connected to.