

tinyTILE

Getting Started Guide



tinyTILE has been designed in collaboration with Intel

Getting Started with tinyTILE

tinyTILE is an Intel® Curie™-based board, a miniaturised adaptation of the Arduino/Genuino 101 board with an outline suitable for wearable and IoT applications. tinyTILE features Bluetooth® Low Energy capabilities and on-board 6-axis accelerometer/gyroscope, allowing users to create imaginative projects.

For more details please visit: www.element14.com/tinytile.

There are two software environment options for tinyTILE, the Intel® Curie™ Open Developer Kit and the Arduino IDE.

For the Intel Curie Open Developer Kit (CODK) visit: <https://software.intel.com/en-us/node/674972> to get started.

For the Arduino IDE follow the instructions below.

Installation of the Arduino Software (IDE):

Based on the chosen operating system, step-by-step instructions are available to set-up the Arduino Software (IDE) on user's computer.

The following OS options are compatible with Arduino Software (IDE).

- Windows
- Mac OS X
- Linux
- Portable IDE (Windows and Linux)

Links are available at: <https://www.arduino.cc/en/Guide/HomePage>

The following instructions are for the Windows OS.

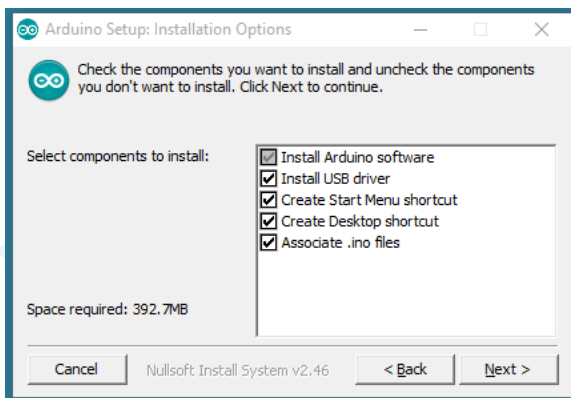
Downloading the Arduino Software (IDE):

Users should visit <https://www.arduino.cc/en/Main/Software> for the latest version. Available options allow users to install an '.exe' file or download the Zip package. The '.exe' installs the IDE and the necessary drivers. The Zip file would require drivers to be installed manually but allows the user to create portable installation, independent of a computer.

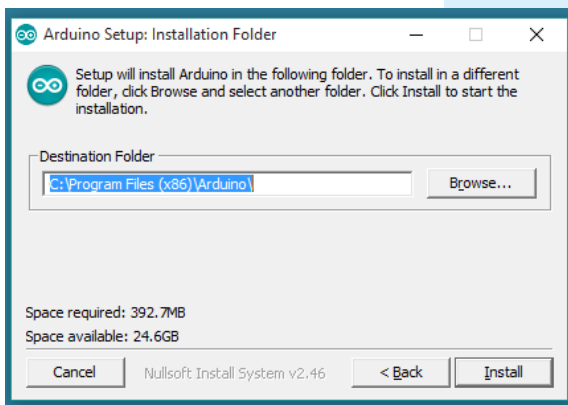
When the download is finished, proceed with the installation, allowing for the driver installation process to run through when warned by the operating system.

Note: if the Arduino IDE is not already installed follow the steps below, otherwise go to Installing Intel Curie boards package section.

Choose the components to install



Choose the installation directory (recommend to keep to the default).



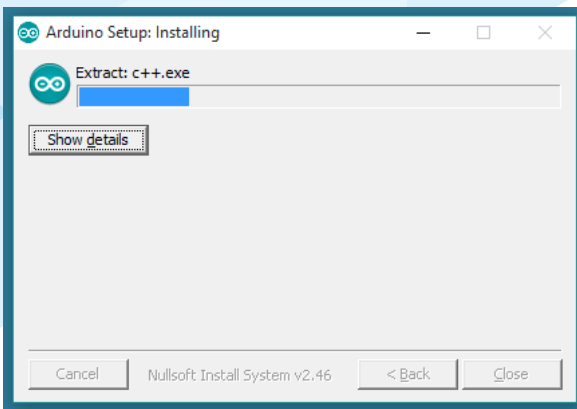
tinyTILE

Getting Started Guide



tinyTILE has been designed in collaboration with Intel

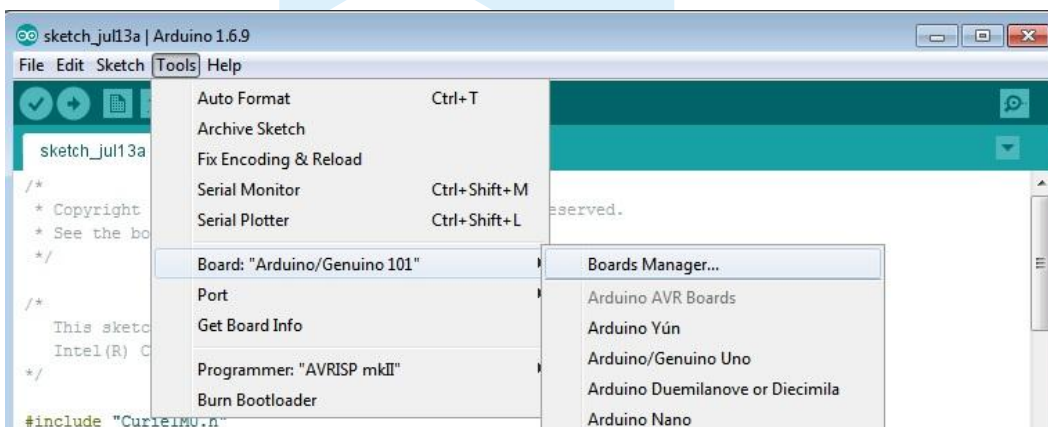
The process will extract and install all the required files to execute Arduino Software (IDE) properly.



Installing Intel Curie boards package:

The Arduino Software (IDE) should now be installed on the user's computer. The next step requires the addition of the Intel Curie boards package to the Arduino Software (IDE).

To do this, select Tools menu, then Boards and lastly Boards Manager, as shown below.



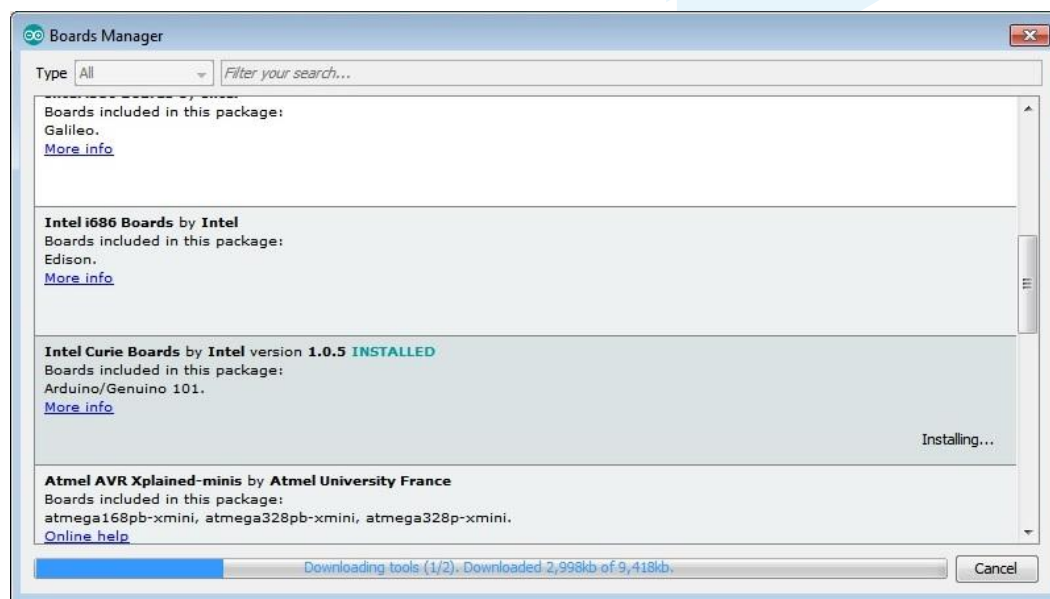
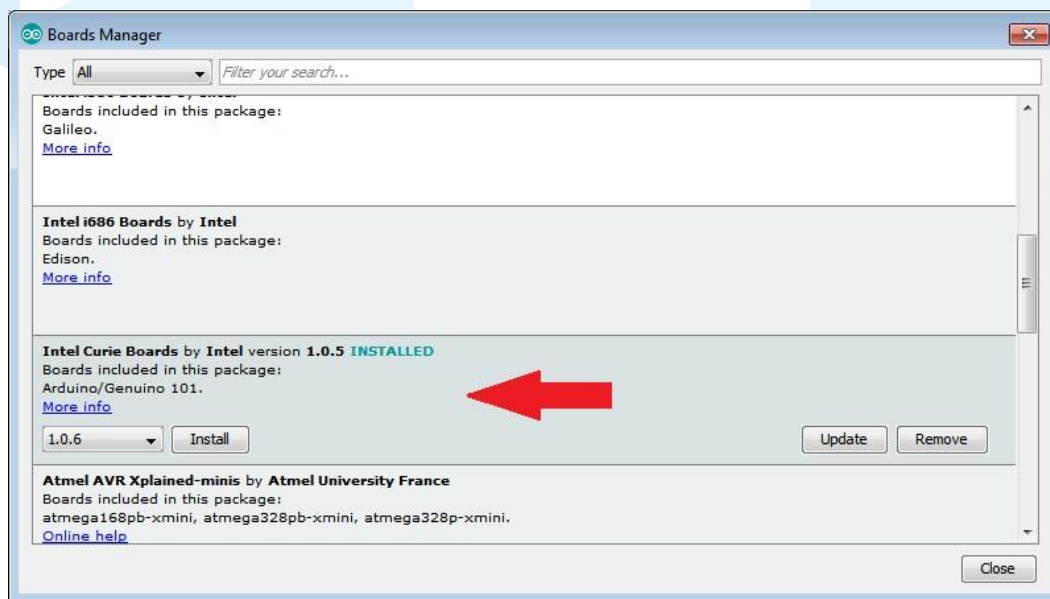
tinyTILE

Getting Started Guide



tinyTILE has been designed in collaboration with Intel

From the Board Manager, scroll and locate Intel Curie Boards by Intel. Select the box and click on the Install button.



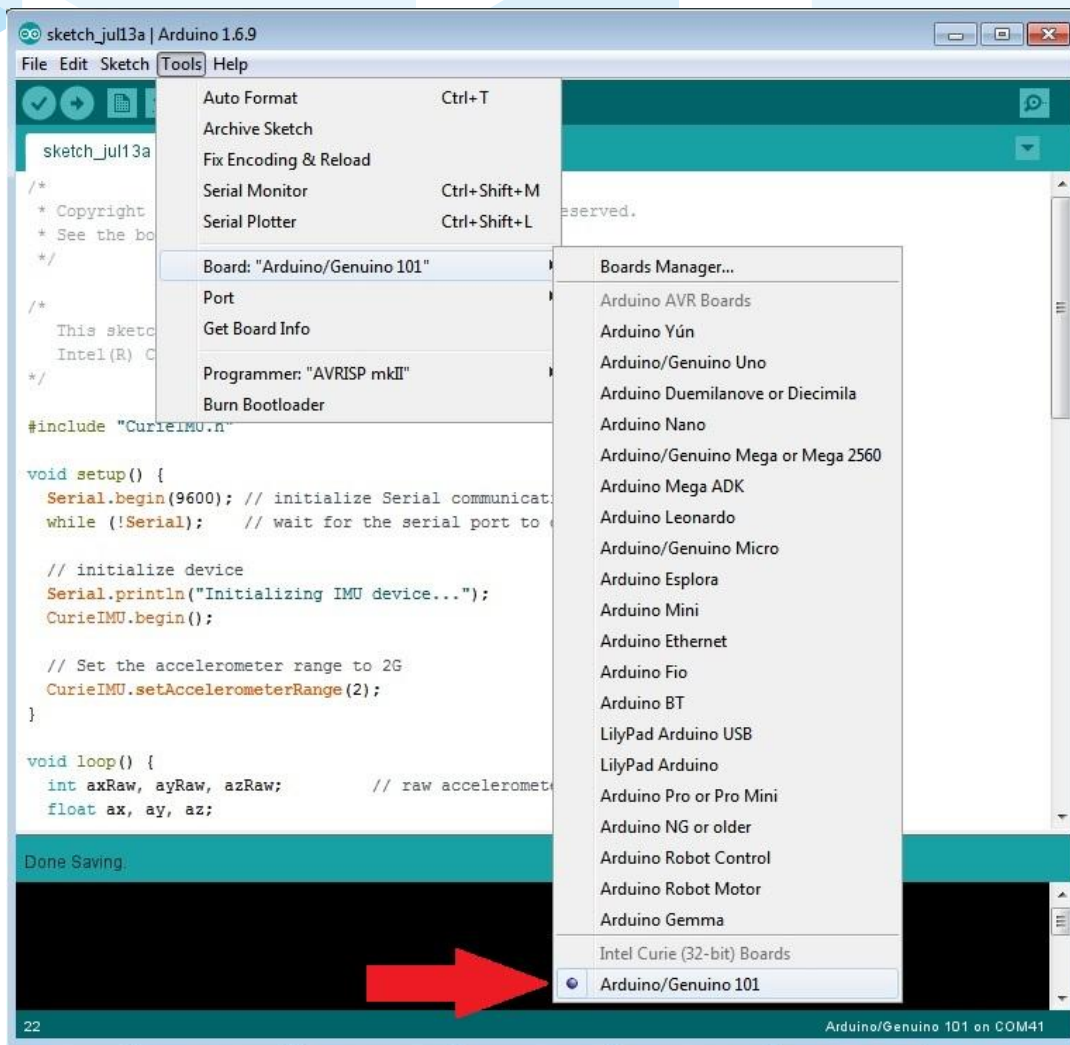
tinyTILE

Getting Started Guide



tinyTILE has been designed in collaboration with Intel

After installation of the package, the new platform (Arduino/Genuino 101) will be listed under the Boards menu as shown below.



tinyTILE

Getting Started Guide

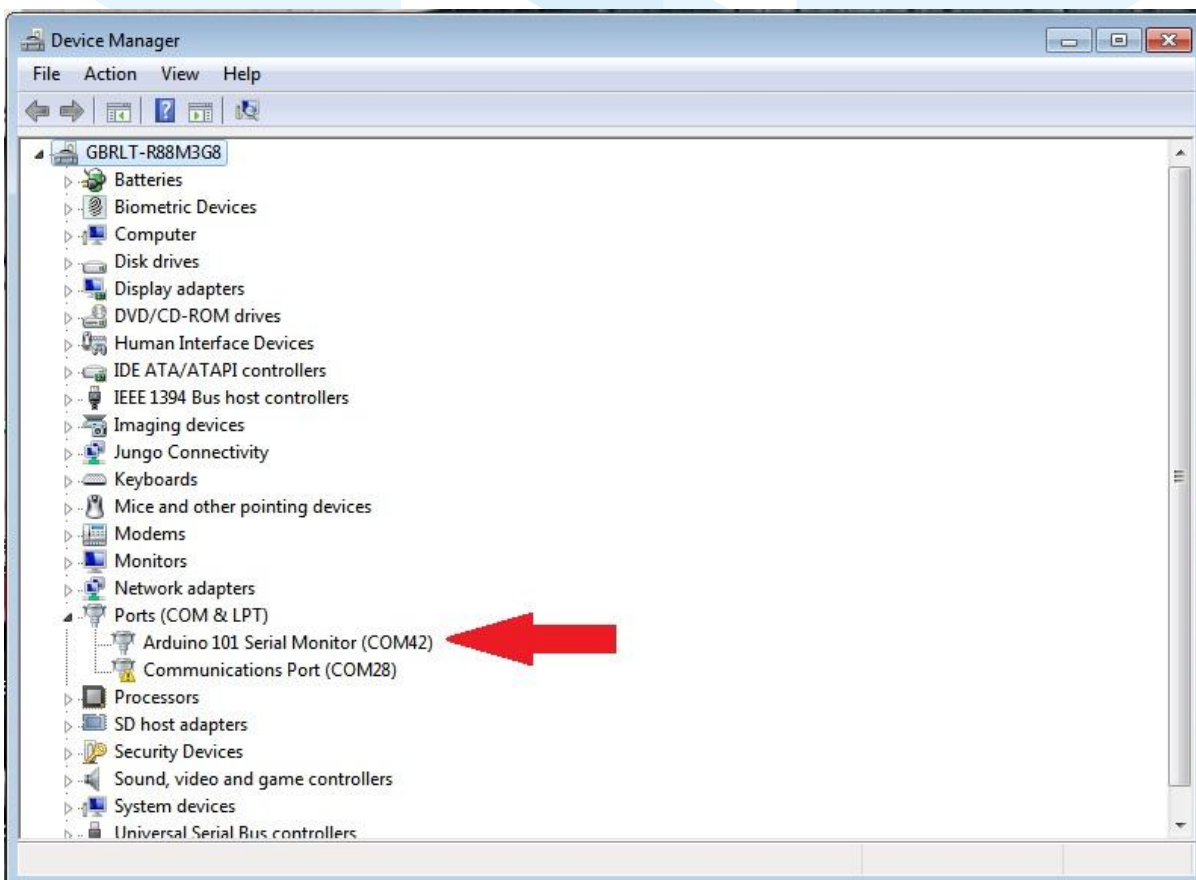


tinyTILE has been designed in collaboration with Intel

tinyTILE can now be connected to the computer.

At the first time of connecting, the computer may go through the new hardware installation process and load appropriate drivers.

Check Windows Device Manager to ensure the board is detected.



tinyTILE

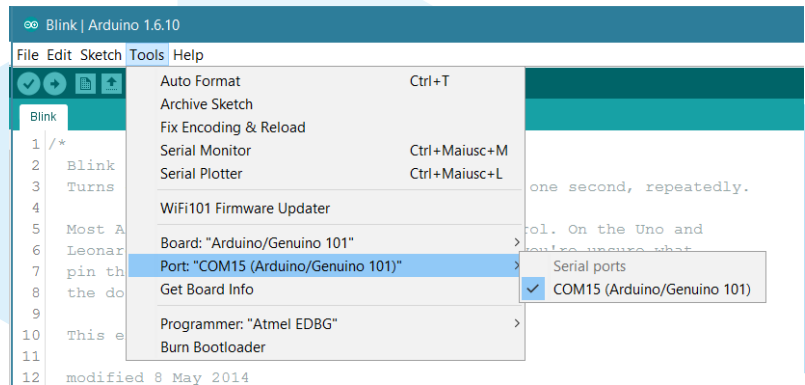
Getting Started Guide



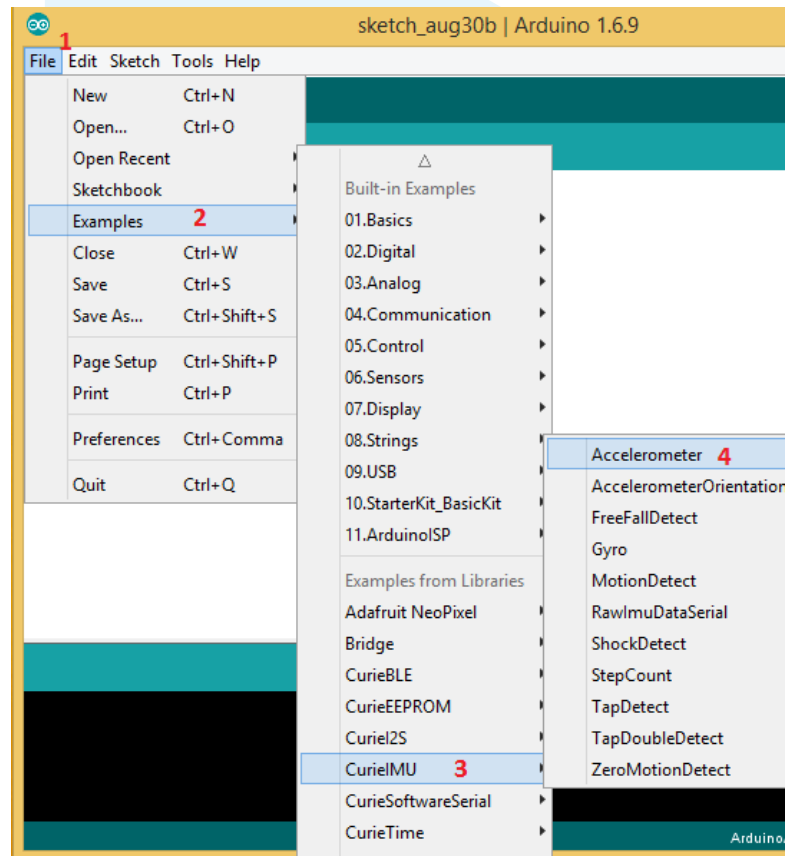
tinyTILE has been designed in collaboration with Intel

From the menu on the IDE, go to Tools, select the Board as Arduino 101.

Select the appropriate board and then select the COM Port that is labelled with the same name as the board.



Next, select File → Examples → CurieIMU → Accelerometer



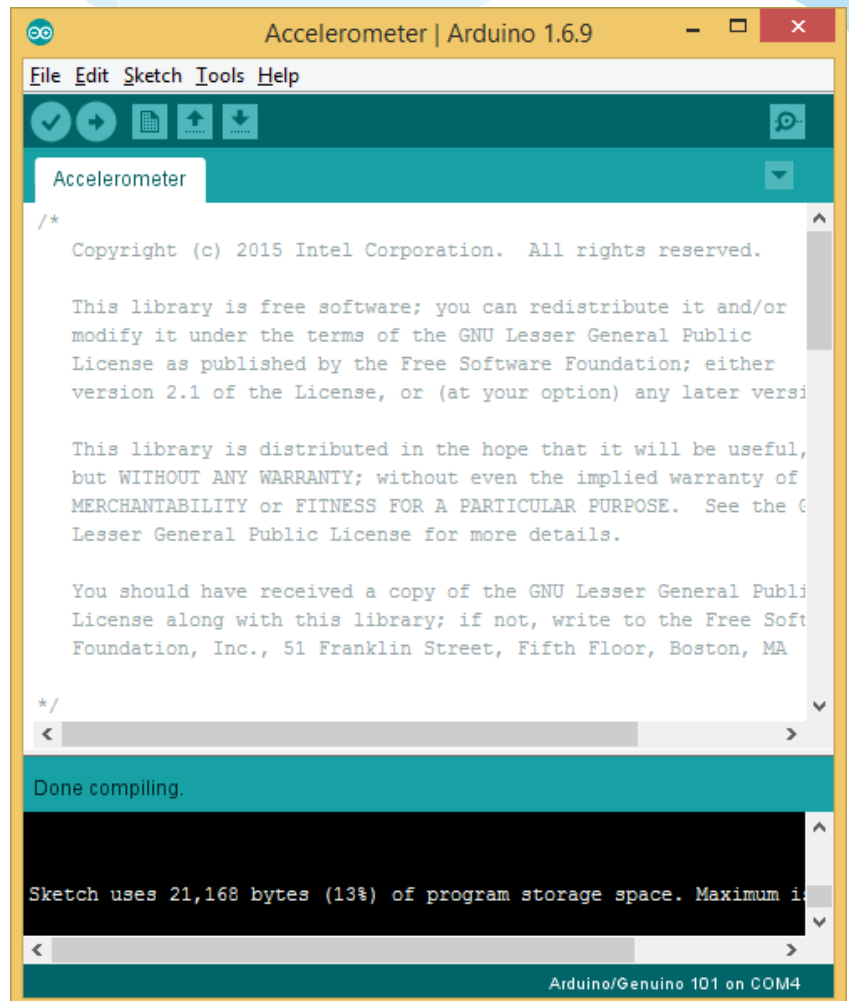
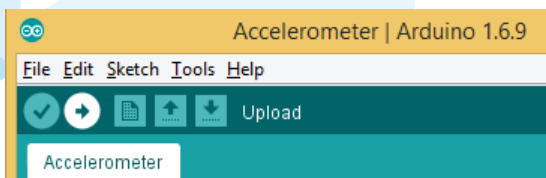
tinyTILE

Getting Started Guide



tinyTILE has been designed in collaboration with Intel

To upload the sketch to the board, click the upload button. This is the icon with arrow next to the tick icon.



When the sketch is compiled and uploaded, the bottom bar will show Done compiling.

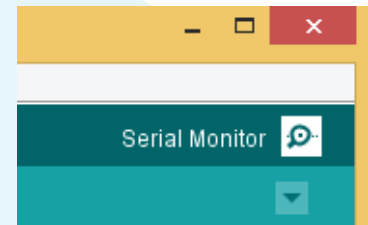
tinyTILE

Getting Started Guide

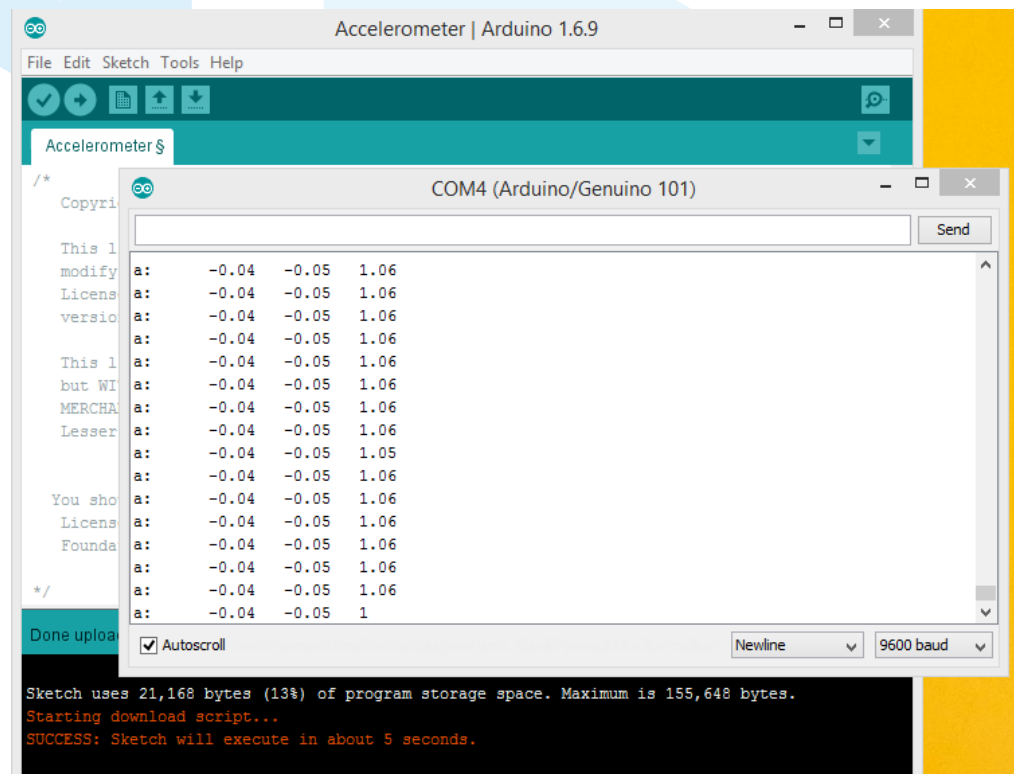


tinyTILE has been designed in collaboration with Intel

Now the user needs to go back to the IDE to open Serial Monitor under the Tools menu.



The user can now observe the output on the Serial Monitor. For the example used in this instance, the output is for accelerometer example.



tinyTILE board has now been set up successfully with a sketch illustrating the application. For more tutorials and examples refer to the Arduino.cc at <https://www.arduino.cc/en/Tutorial/HomePage>.