

# Getting Start with Ardublock

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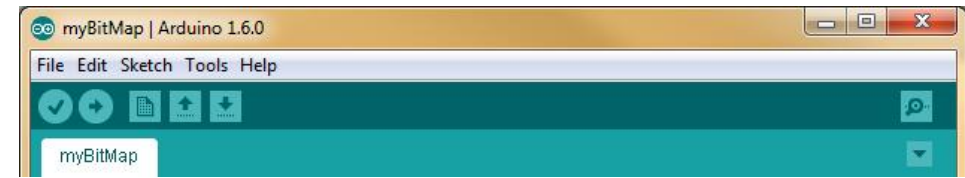
Ardublock is a graphical plug-in for Arduino coding tool. It allows you to build your code in a similar way to Scratch and translate it to Arduino C programming language. When you press the Upload button in Ardublock, the Arduino software will then take over the checking and uploading of your code into the Engduino.

## Ardublock Coding

Ardublok is just an alternative interface to Arduino -C programming. The Blocks you created get translated to Arduino-C program, checked and up-

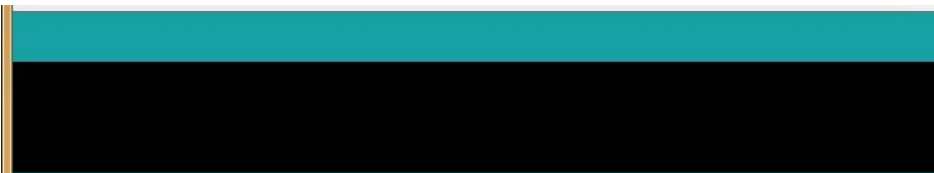
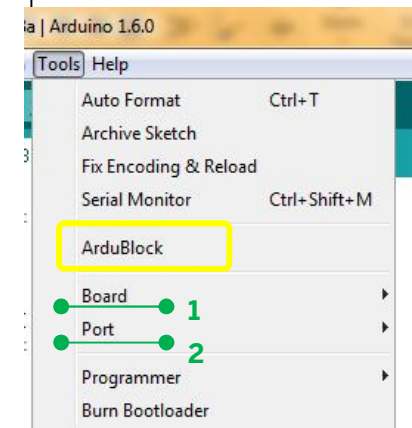


You may also need to install the Engduino cube driver the first time you ever run Ardublock. Go on our website [www.engduino.org](http://www.engduino.org) for more information.



## The Arduino Checklist

- Open Arduino-Engduino IDE
  - Plug in Your Engduino and turn the cube ON
1. Under **Tools-> Board**, choose "Engduino v3"
  2. Under **Tools-> Port**, choose the right serial



Now you can click on **Tools->ArduBlock** to start the **Ardublock** plug-in

# Workspace and Toolbar

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Your position

Categories

## The Ardublock Toolbar

The toolbar provides you with all the tool you would need when you do your coding with Ardublock.



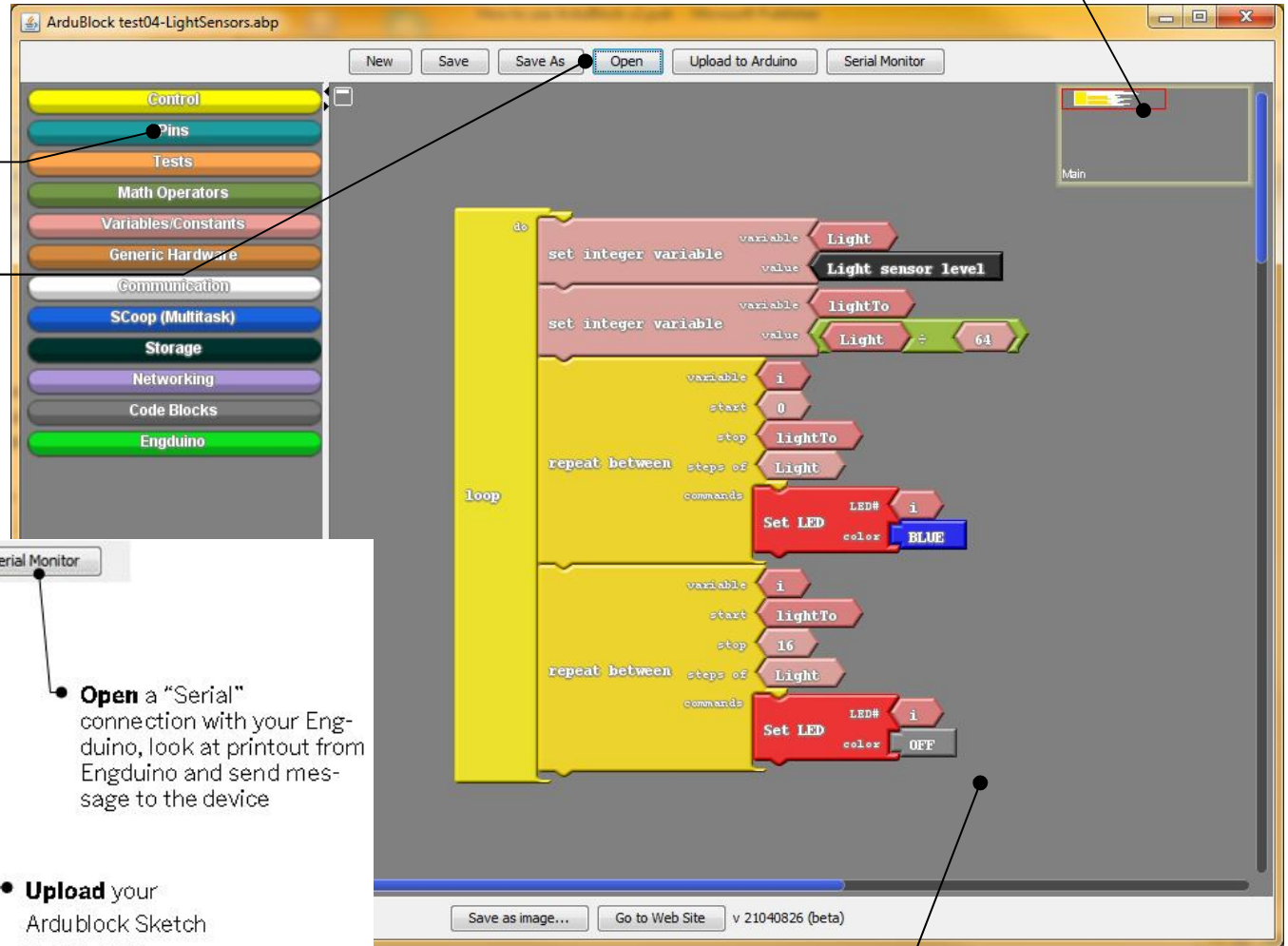
**Start** a new Ardublock sketch

**Save** your Ardublock Sketch

**Open** your Ardublock Sketch

**Open** a "Serial" connection with your Engduino, look at printout from Engduino and send message to the device

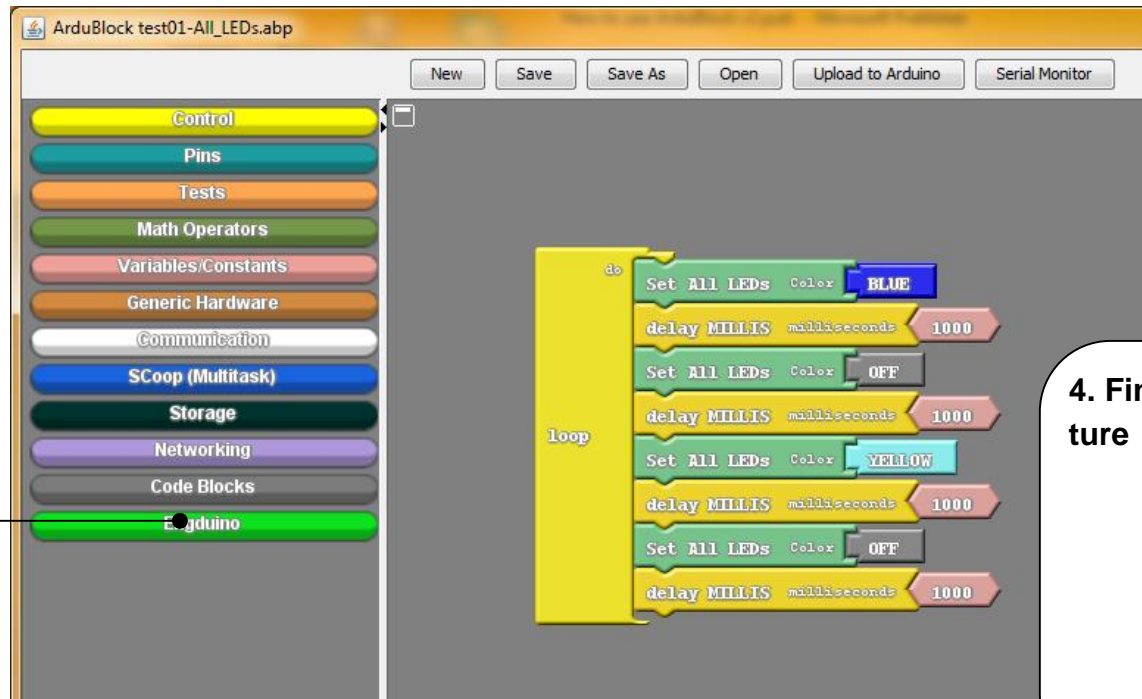
**Upload** your Ardublock Sketch to Engduino



Coding blocks area

# Your First Blinking Code

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1. Click on “Engduino” category to reveal the blocks available.

4. Finish the code as in this picture



2. Drag “Set All LEDs” in “Engduino” category and put it in “loop”. You should hear a “click” sound.












3. Drag “delay MILLIS” in “Control” category and put it under “Set All LEDs”. You should hear a “click” sound.

5. Now press “Upload” to translate your blocks and upload the code to the Engduino. You should see the light blink-

# Blocks and Shapes

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Type	Socket	Plug	Note
Program - Loop			The blocks inside <b>loop</b> will run forever.
Program - Setup and Loop			The blocks inside <b>setup</b> will run once when SenseMe power up. The blocks inside <b>loop</b> will run forever.
Instruction/ command			The <b>instruction</b> block goes inside the <b>program</b> or <b>loop</b> block. It has a little <b>dent</b> at the top and a little <b>nob</b> at the bottom.
Number			The socket block has an inverted <b>triangle</b> shape at the right side of the block to take in a plug block with a <b>triangular</b> shape to the left of the block.
String			The socket block has an inverted <b>square</b> shape at the right side of the block to take in a plug block with a <b>square</b> shape to the left of the block.
Boolean/ Logic			The socket has an inverted <b>curve</b> shape at the right side of the block to take in a plug block with a <b>curve</b> shape to the left of the block.

## Some Notes

- ✦ The blocks have to be inside a block from the **Code Blocks** category e.g. “loop”, “setup” to be translated to Arduino C. Loose blocks will not be translated.
- ✦ There must only be one **Loop** block in your design.
- ✦ A socket connector will only accept plug connector of the same type.
- ✦ When constructing strings (e.g. for Serial print), you can use the **glue** blocks to combine elements of different types together.