Visual Programming with the Genuino 101* board using Ardublock

intel
experience
what's inside™

For many students and teachers making the transition from visual programming languages like Scratch to text based programming languages like Arduino* can be challenging! Ardublock a visual program builder for Arduino might be just the tool you and your students need to bridge the void!

Quick Check

STEP 01

1. You will need an Arduino board such as a Genuino 101 board.
2. You will need to have installed the Arduino IDE, visit **http://bit.ly/101-101** for all the instructions.

Download Ardublock
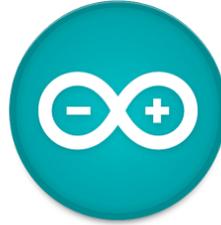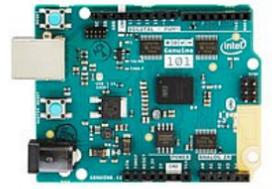
STEP 02

1. Visit **http://bit.ly/Ardublock** and download the latest version of Ardublock. (It should begin automatically.)
2. Open **Arduino** and click on **File >> Preferences** and open the 'Sketchbook location' by clicking on **Browse**.
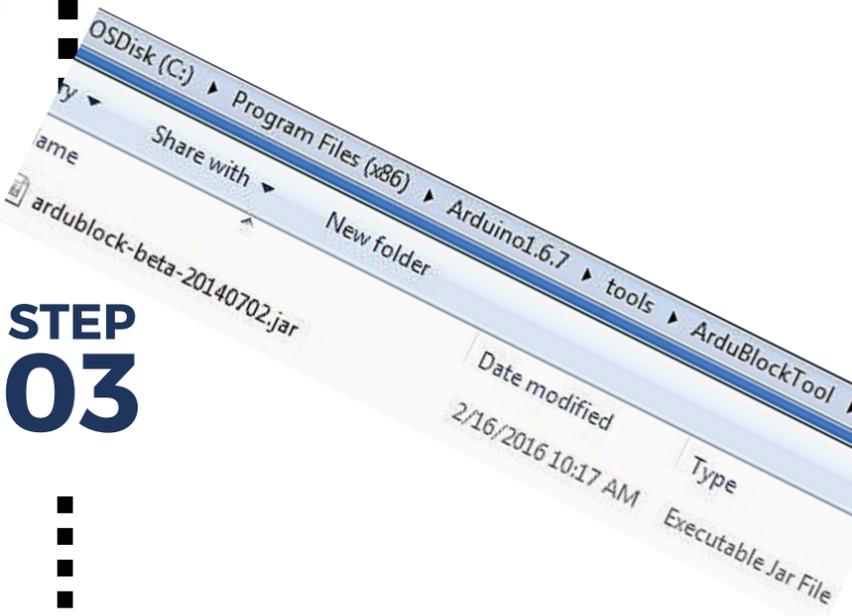
Install Ardublock

STEP 03

Within the folder you have opened:
1. Click on **Arduino.**
2. Create a folder called **tools.** (lower case.)
3. Within the tools folder create a new folder called **ArduBlockTool.** (case sensitive.)
4. Within the ArduBlockTool folder create a new folder called **tool.**
5. Paste the Ardublock file (ardublock-xxxxx.jar) you have downloaded into the final folder (tool) you created.
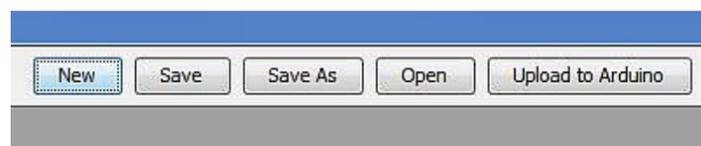
Beginning with ArduBlock

STEP 04

Now that you have installed the program you are all set!
1. Open Arduino.
2. Click on **Tools >> Ardublock**
Now you are set to create your first sketch, let's make your board blink!
3. Click on **Control** and then drag the **Program** block as the base for your code.
4. Using blocks in the **Control** and **Pin** sections replicate the block structure to your left.

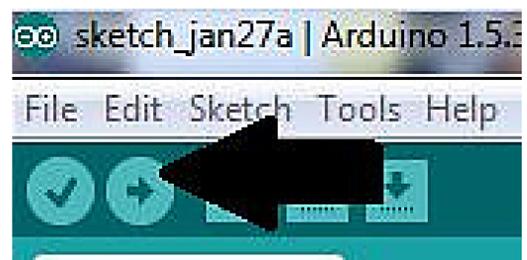## Uploading your code

STEP 05

You have now completed your first lines of block Arduino code!
1. Click on **Upload.** (The Arduino IDE should open.)
2. Make sure your Arduino Board is connected and both your board and port is selected in the **tools** menu.
3. Click **Upload** and you should be blinking.

Bridging the Gap

You will have noticed that when you click upload in Ardublock and Arduino opens the block code has been transformed in to text based code. This is a great intervention point to help students see how their block based coding translates.
Now:
1. Learn more about Arduino Code with this Tutorial **http://bit.ly/Arduinocode**
2. Take a look at **http://innovationtoolbox.intel.com.au**

This guide was produced with information from:
https://learn.sparkfun.com/tutorials/alternative-arduino-interfaces/ardublock