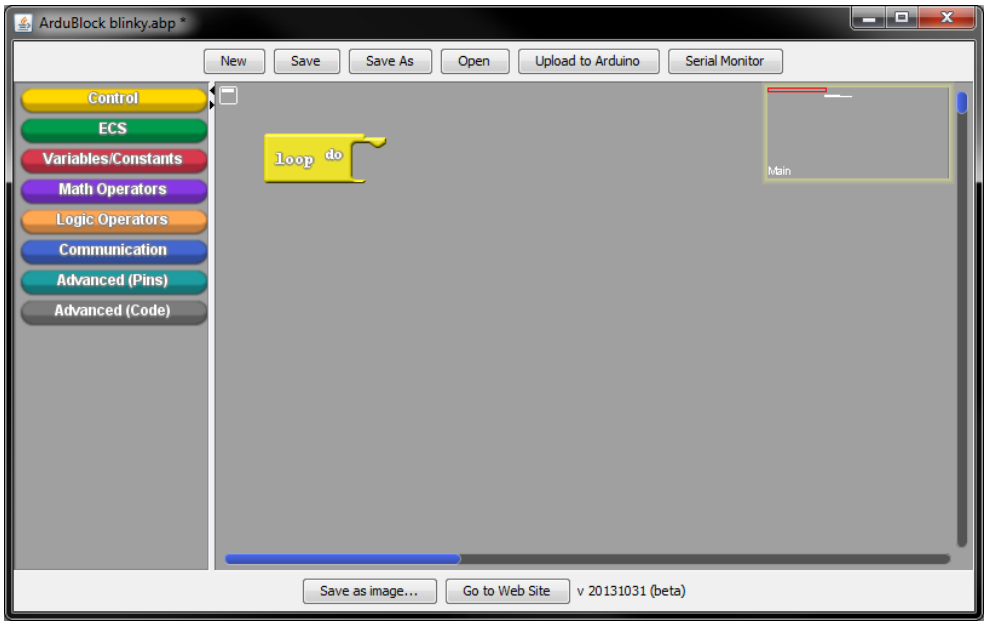
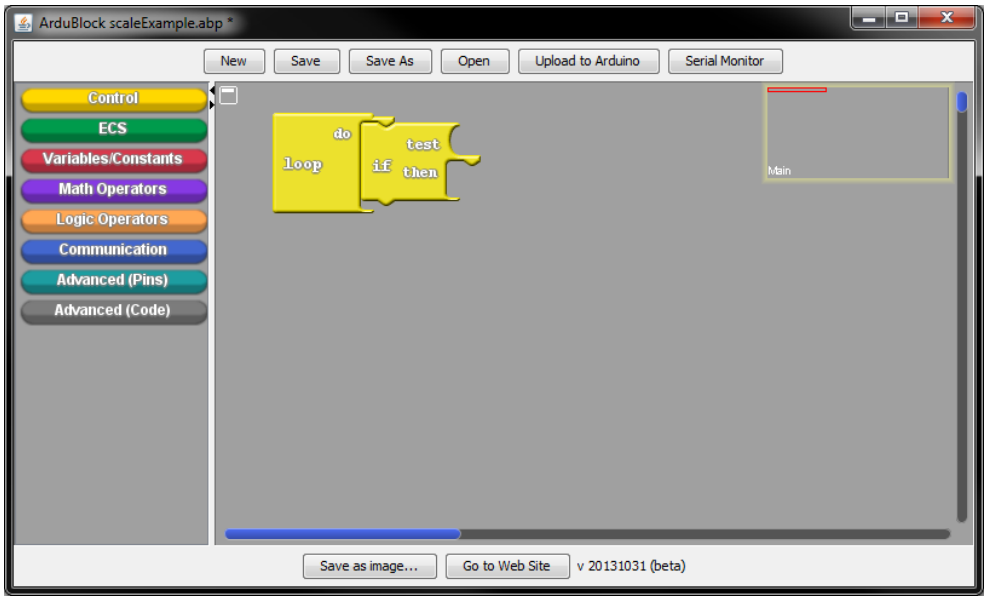
Using the Buttons

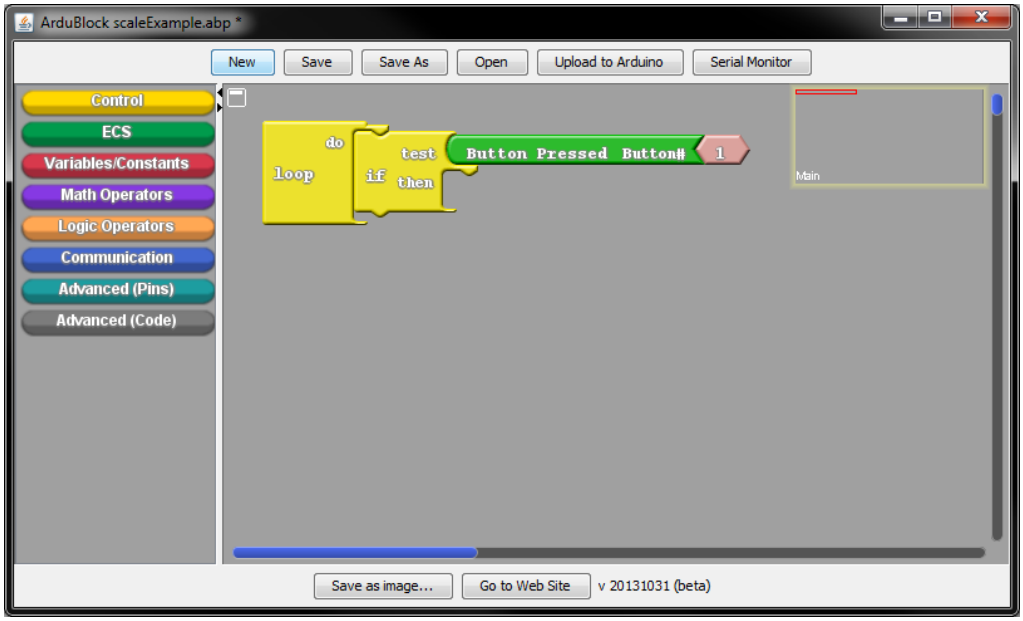
1. In this tutorial, we will learn to use the board's buttons to control what our programs do. As in the other tutorials, begin by placing a **loop** block, found in the **Control** drawer.



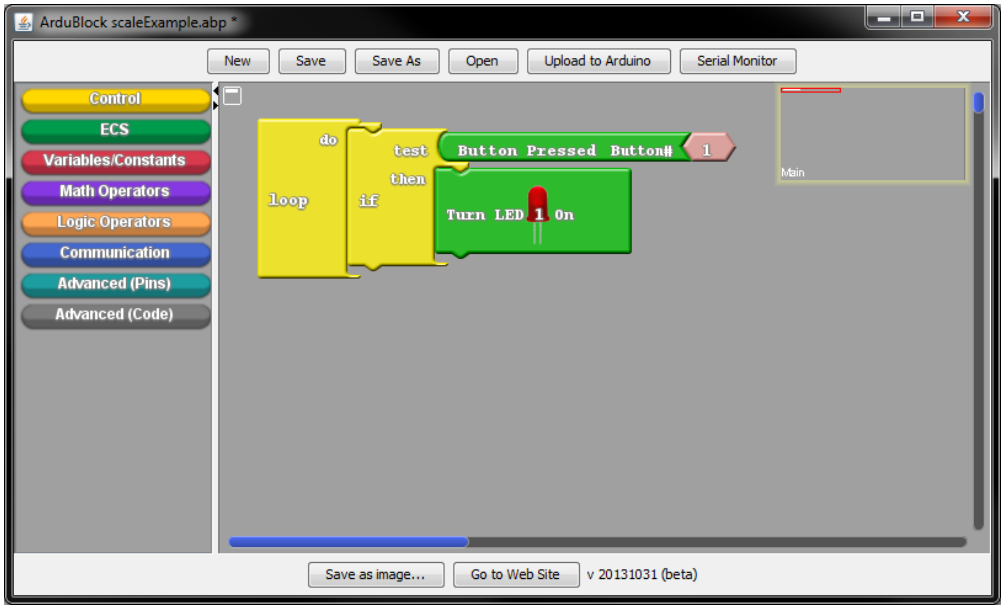
2. Place an **if** block, found in the **Control** drawer into the **loop**. This will determine whether the *test* in the top of the block is true and execute the blocks in the *then* socket if it is.



3. Let's start by making the **if** check to see if the button is pressed. Place a **Button Pressed** block, found in the **ECS** drawer, inside the *test* socket of the **if** block. This block will return a true value only while the button is pressed, so whatever we place in the *then* socket will execute when we press button 1.

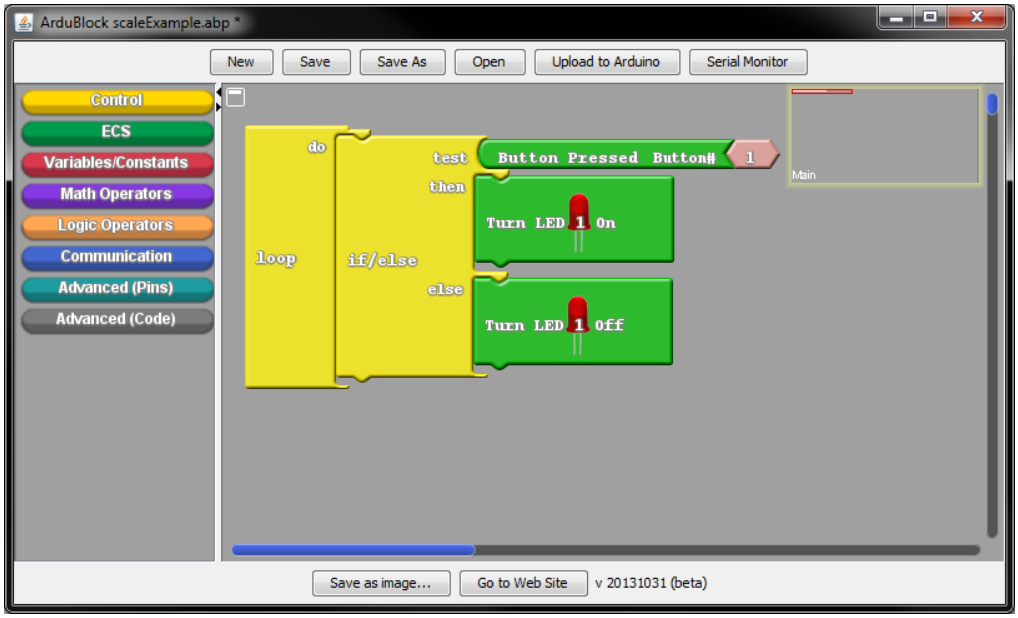


4. Place a **Turn LED 1 On** block into the *then* socket.



5. Run the program to test how it works. When you press button 1, you will see the LED light up. The main problem with this program right now is that the LED stays on forever, so we can only test it out once without resetting.

6. Replace the **if** block with an **if/else** block and place a **Turn LED 1 Off** block in the *else* socket. This will execute if the button isn't being pushed, so our new program will only light the LED while the button is pushed.



7. Run the program again to test this. Now that you have a program which executes one set of blocks if the button is pushed and another set if it isn't, you can use the other available blocks to make your own variation on this program. Consider using multiple **if/else** blocks to use the multiple buttons available on the board. Have fun!