Hello there!

We are team 2, I am Fabio, controlling the camera is Liam and our artist is Rasmus.

Today, we are going to show you our Arduino / Processing team project - we call it the Etch a Sketch.

The question we asked ourselves was: What can we build with the Arduino and the Processing program that will be able to show our creativity and have a purpose?

Then we reversed the initial question and thought: What if the purpose could be to help developer your creativity and make the process enjoyable?

We believe that the Etch a Sketch answers both these questions fully, because by allowing the user to draw anything that they could think, using the Arduino as a controller, we trust that they will be able to developer their creativity with the device and have fun during the whole process.

The way our project works is by using the Arduino as the input and output device which will allow the user to control 2 potentiometers to control the line tool, one for up and down, the other for left and right. There are then 3 buttons, which the user can use to adjust the line colour and weight and finally clear the screen to start again.

We then use the Processing program as the main output device, outputting on the screen all of the user’s inputs.

Demonstration:

Our artist Rasmus will now demonstrate our project by showing each of our components in action.

As you can see, we will now use the first potentiometer to move the line on screen Up and Down.

Now we will use the second potentiometer to move the line on the screen Left and Right.

As you can see, this allows you to draw in any and all directions allowing the user to be as creative as possible.

Now, we have implemented 3 colour options – Using the colours red, green and blue. The colours can be switched between them by using one of the 3 buttons on the Arduino board, the yellow button. As you can see, we can switch between the 3 colours with ease.

The second feature we have implemented is the multiple line thickness options. This will allow the user to swap between 3 different line thicknesses by pressing the grey button on the Arduino board.

Finally, if you wish to restart or start a new drawing, you have the option to clear the screen with the third button – the blue button. This will clear all of the current drawings on the screen, resetting the colour and line thickness back to the default options.

Using the Arduino board as our output device as well, the user to see which of the colour and thickness options are currently in use. This is done through the use of LED’s on the board. Each LED represents a colour or line thickness option and will also indicate when the screen is clearing or able to ready to use.