

## **SE101-Lab Project Proposal**

### **What will it do?**

We will create an arduino system where the user can draw on a touch screen and then transfer it to their computer (to be displayed?) as an image in an specific format (to be determined).

### **Major Software components**

This project will have two main software components:

1. Tracking the user's input and showing immediately their drawing on the touch screen.
2. Transferring the final image from the arduino to the computer using Serial Communication and converting to a usable format (to be determined).

### **Prototype plan**

Our first prototype will likely be an experimental one. We plan to build up knowledge to create our first prototype. It will require research in implementation of a touch screen in an arduino, serial communication, and how an image is stored. We will start by building the electronic part of the arduino; following by the creation of the drawing software. After that, we will apply our acquired knowledge to transfer the image to the computer. For the prototype we hope to have the touch screen working and be able to have the computer print out something/do something when people draw on it, so that we know we can use the serial communication to transfer the image to the computer.

### **Hardware acquired/required for project**

- Arduino
- TouchScreen
- USB cable

### **Challenges anticipated**

We expect to experience many challenges at first due to our lack of experience with using an arduino and working with images. Currently we have no knowledge on how to use Serial Communication to transfer images, and about the ways images are stored. Also, it may be difficult to interpret the image and to determine which format of images would be better for our purposes.