Elijah Olsson, Jake Wantz Programming Art Dr. Sierra-Sosa April 16, 2024

Project 1: Review 2

## 1. Review the calendar activities.

ID	Task	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
1	Set up Capture Video and Canvas							
2	Set up OpenCV Library							
3	Display both video and black canvas to user							
4	Set up Draw function and threshold for ambient light							
5	Work with keystrokes to change color							
6	Work with keystrokes to change size of brush							
7	Work with keystrokes to use shapes							
8	Work with keystrokes to partial erase (different from resetting canvas)							
9	Identifier at bottom of canvas notifying user what they are currently using							
10	Save picture of current canvas							

We are ~80% finished. Working on the keystrokes, allowing users to choose the brush type (shape). Will also work on creating a status bar at the bottom so users know the color, shape, size, etc.

## 2. Proposed Work vs. Current Work & Advancements

The work proposed in the first report still follows what the project is today. Project is in a good state. We are on schedule for project delivery. We have added two user windows, one for canvas and the other for video feed. System detects lasers with ease. User has the ability to change brush properties as well as reset and save the canvas. System works with both built-in webcam and external USB camera.

## 3. Project Difficulties

- Laser must move slowly for accurate capture to the paint canvas.
- Toolbar for different functionality of brushes (ex. Color, Brush size, Shape) instead we will create a status bar that shows the user based on the keystroke they choose what brush they are currently using.
- Area must be dark for light detection to be accurate.
- Current laser pointer is not that bright.

## 4. Code

Please review our code via the GitHub Repository found here:

<u>OpenCV-Processing-Laser-Pointer/LaserPointerWebCamera/LaserPointerWebCamera.</u> <u>pde at main · olssone/OpenCV-Processing-Laser-Pointer (github.com)</u>