**PROJECT DESIGN**

**ECE198**

**DEMO AGENDA**

Section 003 - Group 36 - Arushi Basu, Bradley Norman and Hengyuan Wang

Date of Implementation Demo: **November 25, 2024 9:20 AM**

Grading TA: Mohammadamin Hosseini

Description: Our project is designing a traffic light color sensor to help colorblind drivers and

pedestrians ensure safety while on the road.

**DESIGN REVISIONS:**

1. Nov 4: System Architect Drawing: rev 1 (lcd → oled)
2. Nov 13: System Architect Drawing rev 2 (laser)
3. Nov 15: Electrical Schematic: OLED - rev 3
4. Nov 15: Electrical Schematic: TCS34725 Color Sensor - rev 4
5. Nov 21: Electrical Schematic: Transistor - rev 5
6. Nov 23: Electrical Schematic: No resistor used- rev 6

**TEST DESCRIPTIONS:**

Test #1: Accuracy. The device should correctly execute 95% of basic tasks, including changing color and producing tactile cues.

Inputs: Objects with various colors( Red, Green, Yellow i.e Red+Green) and beams

Parameters: Various colors / color blends and lighting conditions.

Test #2: Response Time. The device should respond to changes in the environment with sound and vision within 400ms, which can catch the users’ reaction.

Inputs: Objects with various colors and beams

Parameters: Coded text display ensuring design responds in under 400ms

Test #3: Distance. The device should maintain its accuracy with the inputs from a set proximity or distance away that is reasonable for the proposal to have real world function.

Inputs: Objects with various colors and beams

Parameters: Input objects are at minimum one meter away from the TCS34725 rgb color sensor and device maintains its 95% accuracy.