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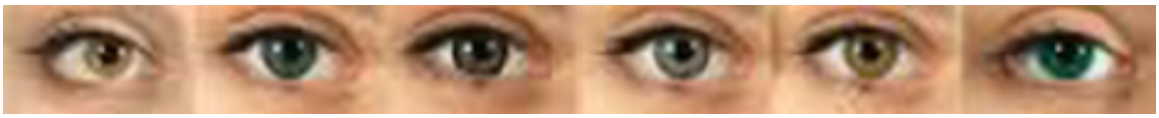
Interdisciplinary Art + Participatory Culture



What is the research project?

In the Public Eye is the working title for a Public Art Project commissioned by The City of Minneapolis for the Downtown Commons. This two block city park is bounded by Park Avenue and 5th Avenue in between 4th St. and 5th St. This new public artwork will be installed in 2017-8 during phase 2, when the park buildings are constructed.

Light is the medium specified in the call to artists. *In the Public Eye* is a concept that utilizes programmable LEDs that form an outdoor video display, surfacing the edges of the Program Building in the park. This one level structure faces the great lawn area within the park, with its opposite side oriented towards the new Vikings Stadium. Presented as an interactive LED frieze, *In the Public Eye* displays the real-time video capture of *moving eye portraits* made by people interacting with a custom designed eye-camera input device in the park. In the final installation, these real-time *moving eye portraits* will be displayed on a LED frieze that is also presenting a continuous display of archived video of people's eyes that were previously recorded in the neighborhoods of Minneapolis. Moving images of eyes as they visually gaze, blink, exclaim, avert and focus will move across the building façade, tracing the upper perimeter or marking the edges that traverse a corner of the building.

Who is Diane Willow?
I am a professor in the Department of Art, a multi-modal artist with a focus on emerging genres, interactive art, sound art, and interdisciplinary collaborations. By any medium necessary best describes my process. My artistic practice is centered on participatory and experiential art and I frequently initiate and participate in collaborations with engineers, computer scientists, architects, designers, biologists, musicians, and composers. I have spent many years at MIT, first as a graduate student, later as an artist in residence, and more recently as a visiting professor. I mention this because generally people do not think of art, science, and technology in the same context. I enjoy the mix and look forward to working with you this semester.

What will we be doing?
This project is focused on a public artwork that will be built in downtown Minneapolis. The working prototype that is developed this semester will inform the design of the final installation and serve as a proof of concept and means of communicating the interactive nature of the project concept to architects, landscape architects, city planners, citizens, etc.

This Senior Design Project builds on our accomplishments over the past two semesters. We now have a set of LED panel displays and an algorithm for the initial propotype. This algorithm is designed to direct the camera input of the new "moving eye portrait" movie files that will be recorded from a camera located on site with the series of pre-recorded "moving eye portrait" movie files that are randomly accessed via a static archive. These new movie files temporarily interrupt the flow of this archive of movie files that loop on the LED displays. This semester we will focus on developing fluid communication between the camera, the video capture routine, and the display of the real-time *moving eye portraits* that are temporarily inserted into the continuous display of an archive of pre-recorded video clips. This process will also involve identifying a compatible industrial camera and lens and refining the sensor interface that controls the recording of the new movies. The prototype that we created over the last two semesters was developed with Processing and Arduino on Linux Ubuntu, with some iterations utilizing OpenCV,

The group this semester will be asked to review past work and determine if there is a need to develop a new approach or to refine the current approach. The goal is to accomplish the tasks of: creating a database of the archived video clips, continuously displaying these on the LED frieze, determining the feasibility of utilizing eye recognition when recording *moving eye portrait*s with the eye-camera input device in the park, interrupting the flow to insert the new input of real-time *moving eye portraits* from the eye-camera, and looping them five times along the LED video frieze before they are removed from the continuous loop of the *moving eye portraits* that comprise the video archive.

How will we do this?
We will develop a schedule that is feasible for the group. There is ample space and access to electronic and fabrication equipment in the Department of Art. The combination of Sr. Design Project funds and my project funds will enable us to purchase additional supplies needed to further develop the working prototype.

Why?
I think that every project benefits from multiple iterations, discussions, and perspectives. My work with past Sr. Design groups has always been interesting and fruitful. We have worked with bioluminescent plankton, capacitance sensing, wireless communication, arduinos, and more. Most of the students that I have worked with are highly motivated, are looking for a creative context in which to use their skills, and are interested in the participatory nature of the projects.