



## **EYE TRACKING SYSTEM**

### **Project Description:**

Eye tracking system is the process of location the point of person's gaze, or the recording the movement of the point of gaze. There are various method are exist to achieve this task, some are the attachments of the eyes with some physical object to record the movement of point of gaze, while others relay on the some images of eyes without any physical contact.

Our software can detect the movement and position of the eyes remotely without any physical attachments. This method is portable and invisible. Application of eye-tracking is to enable access for the disables.

### **Project Scope:**

#### **Included:**

- Track the eyes movement.
- Identify the object within the box.
- Display the location of the point of person's gaze.

#### **Not included:**

- I will not work outside of the given box.
- Can't move any object within box from one position to other position.
- Can't move head while using ITS (eye tracking system).

### **Proposed System:**

#### **Tracking the eyes movement**

We will use OpenCV for capturing the images of the eyes then apply some algorithm for calculating the angle of the eye it will return the current position of the person's gaze.

#### **Identifying the object within the box**

We will draw the box statically where our gaze tracking system work for testing our project we place some object at random place when we look at particular object it will return its name with some specific detail.

#### **Display the location of the point of person's gaze**



To test in more accurate way we also calculate the position within the box when person's gaze move more than  $1^\circ$  it will calculate new position and return it's new position.

## System Data Flow Diagram:

