PROJECT HANDOVER REPORT

1. **Technical schemas**

   The customer's requirement was to monitor in real time the positions of the driver's eyes and where they were looking while driving. So, I used an open source project and added some new features to make it work.

2. **Product status**

   Now the eye tracking system is working and can get the eye position in the real time. Also, can save the position to the text file that will allow the engineer can analysing later on.

3. **Any outstanding requirements/feature**

   This eye tracking can work for webcam and deep cam either way.

4. **Administrative information, e.g., admin passwords, hosting details, licenses**

   This is an open soured project. I have reference to the code of the open-source project. Please see GitHub for details.

5. **Quality and testing standards used**

   Use in a well-lit area and keep only one person on the screen. Otherwise the eye cannot be accurately positioned.

6. **Bugs or issues to be resolved**

   Nothing.

7. **Future development ideas**

   For now only the x,y coordinates of the eye can be detected. In the future it will be possible add some feature that can read out the depth coordinates as well. The distance between the driver and the screen can be monitored in real time. This would be more useful for analysis. There is also the possibility to add a feature that use of VR goggles to read the positions of the eyes.

8. **Training where applicable**

   Clone the project from Github.

   Environment set up:

   Python 3.10.0

   Cmake 3.24.2

   Numpy 1.23.4

   Opencv-python 4.6.0.66

   Dlib 19.24.0

After the set up go to the main.py and run the file. If want to use external camera, find the code below in main.py and changing the number of 0 to 1 or 2 depend on the PC setup.

```
webcam = cv2.VideoCapture(0)
```