

CISC 325 ASSIGNMENT 1

Group 9

Group members:

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Overall idea: We want to create a remote control glove, which can implement a function of a touch screen with just itself. Based on different gestures the user does, the glove will send different instructions to the computer in order to make the computer does different corresponding operations.

Target user: People who need to do presentations and people who would like to use a projector as their screen, such as instructors in universities.

Hardware component:

Gyro sensor, Accelerometer, Speed sensor, Raspberry Pi, and some other sensors to track the finger action

Software component:

A driver which is written by ourselves used by the computer to make the computer respond with the glove and the user.

A program running in the Raspberry pi to gather data from sensors and process them to recognize what users are doing and interact with the computer.

Plans for testing:

The first step of the test will be done with only the glove, and we need to ensure the glove itself can recognize the movement of the hand and the gestures correctly.

The second step of testing will be done with the computer and the glove. As the glove can do the recognize task correctly, we need to ensure that the computer can interact with the glove and can take actions such as click, zoom in, zoom out, drag, etc.

The third step of testing will be done with the glove, computer, and projector. All the reactions should act moderately on the projector with a calibration be done so that the person will be convenient and comfortable to do any operation with the glove during the presentation.

Rough cost: 100-200 dollars