

*****ABSTRACT*****

Project : gesture controlled computer

We plan to build a device which can read our gestures and control the pointing device of the computer.
It acts as a pseudo mouse which is controlled by your finger and hand movements

Our design consists of two main parts: a glove and a base station.
Operation of our device begins with the glove.

A user wearing the glove can use hand tilt orientation and finger presses to operate the glove.

The glove senses these user actions via two types of sensors: accelerometers and finger contact pads.

After the glove's microcontroller processes the input data, it forwards a message a transceiver mounted on the glove unit.

The transceiver then transmits this message wireless to a transceiver on the base station.

The receiving transceiver forwards the the message base station microcontroller.

Finally, the microcontroller converts the message into a computer HID user friendly format and moves the computer cursor appropriately.

Estimated time for completion 20 days

Timeline:

Week 1 : *We will study about computer HID user format

- *learn about sensors

- *bring the required materials.

Week 2 : We will study about the electrical developments that are needed

- * we will make a complete electrical ckt diagram

- * we will have our pseudo code for the coding part completed.

- * we will start building the glove

week 3 : *We will dedicate ourselves in completing and debugging the project.

If time permits we will add more features that can be controlled by using a front camera.....

materials required

Teensy++ 2.0 board

Accelerometer (3 axis)

A microcontroller

Transceiver, contact pad cable etc..

TOTAL ESTIMATE 7000-8000 RS.

