

Contact Details

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Project Name: Just about Write

Project Details

We were thinking about what project we could take up and decided that gesture recognition would be a very interesting project. We thought about that for a while and decided on finalizing our idea. We have decided to use an accelerometer to convert a gesture of our hand holding a pen into the corresponding pattern on the screen. And if possible we will carry out an extension in-sem next sem to use OCR to convert our patterns into digital characters which can be printed out too.

We plan on making a pen which has an accelerometer in it which is further attached to a sensor and thus can detect and interpret the motions of our hand and store the data. We will use serial communication to do so.

We will obtain our data using sensor interfacing. Then we will do the main coding part using MATLAB. We will integrate the trajectory and convert our data into a path which can be seen on the screen. This is done using coding in MATLAB.

For the in-sem part we can use OCR to convert the patterns into characters which can later on even be printed.

We would require: 2 sensors-accelerometer and gyroscope. And an arduino chip too.

Approx budget for that: Around-2.5 K

Timeline-

Serial Communication- 7-8 days

Sensor Interfacing- 8-9 days

Integrating trajectory using MATLAB- 15-20 days

OCR (Optical Character Recognition)-Probably would be in-sem

This will help us to learn coding of arduino chips and using MATLAB interface.