

Progress Presentation-I

e-Yantra Summer Internship-2016
Sign – LanguageInterpreter(LeapMotionSensor)

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Sign-Language Interpreter (Leap Motion Sensor)

■ Objective

- This project will help deaf and dumb people to communicate with normal person who don't know sign language.

■ Deliverable

- Map words with pre-recorded speech.
- Design Tutorial and Documentation of project with video demonstration.

Overview of Task

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Overview of Project

Overview of Task

Task Accomplished

Task Accomplished

Task Accomplished

Task Accomplished

Challenges Faced

Future Plans

Thank You

Task No.	Task	Deadline
1	Get Familiar with Leap Motion Sensor and Galileo Board	4 days
2	Interfacing and Testing of Leap Motion Sensor. Generation of data for different hands/fingers used	4 days
3	Individual hand gesture for the alphabets should be recorded	4 days
4	Record gesture for words and calibration of leap motion sensor for sign language recognition	8 days
5	Communication the data between Leap Motion Sensor and Galileo board via zig-bee	2 days
6	Interface mp3 module with Galileo Board and map recognized words to pre-recorded speech.	8 days
7	Design Tutorial and Documentation of project with video demonstration.	5 days

Task Accomplished

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Challenges Faced

Future Plans

Thank You

- Task 1 (Get familiar with sensor and board)
 - In this task I have installed Linux in Galileo board. And run some basic programme on board.
 - Seen stuff in Leap Motion Control Panel and see applications there.
 - Search about how to develop with Leap Motion Sensor and found Leap SDK.
- Task 2 (Generation of data for different hands and fingers)
 - In this task I have studied about Leap SDK and it's Library
 - And make simple programme for displaying data related position and direction of hands and fingers

Task Accomplished

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Challenges Faced

Future Plans

Thank You

- Task 3 (Individual alphabet recognize)
 - In this task I have made one programme in which we need to first load pose with one alphabet and then we can recognize that alphabet by performing that pose
- Task 4 (Record gesture for words)
 - Here I used one interface for recording and recognizing gesture for particular word or sentence.
- Task 5 (Communication between Leap and Galileo Board)
 - Here we have decided to not to use zig-bee but we will use Intel wireless module. currently it working on Ethernet

Task Accomplished

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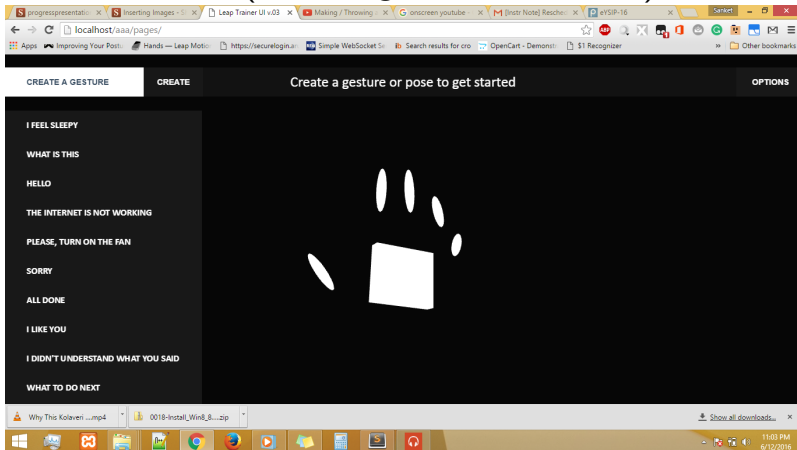
Task
Accomplished

Challenges Faced

Future Plans

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Task 4 (Record gesture for words)



Task Accomplished

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Challenges Faced

Future Plans

Thank You

Task 4 (Record gesture for words)



Challenges Faced

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Challenges Faced

Future Plans

Thank You

- Recording and Recognizing Gestures in Leap motion Sensor
- Installing Windows IOT on Galileo
- Making sentence from basic words generated from system

Future Plans

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Challenges Faced

Future Plans

Thank You

- Interfacing with MP3 module is remaining in my task
- Making sentence generation more reliable
- Load more words and make system more accurate.

Thank You

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Challenges Faced

Future Plans

Thank You

THANK YOU !!!