

## Project Proposals

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**Your Names and ID numbers:**

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**Name of Your Group:** InnovaSoft

**CHOICE 1**

**Project Title:** TURKISH SIGN LANGUAGE RECOGNITION USING MICROSOFT KINECT

**Sponsor (if any):** Innova

**Description of which problem you intend to solve:**

The aim of this project is to develop a software that can enhance communication of dumb people with others by using Kinect which is a motion sensing input device. We believe that this project will meet communicational necessities of dumb people and help them to interact with different people.

**Characteristics of the project :**

- What will be the coverage?

The project

- Recognizes the gestures of the user
- Provides the meaning of the gesture as a text and voice
- Saves new gestures if a user creates
- Gives the full list of all gestures
- Involves an online gesture database
- Makes possible uploading gestures to and downloading gestures from online database

- What will be the limitations?
  - User should stand in front of Kinect in the intended position.
  - User should stand stable in predefined time-interval by doing the gesture that s/he wants to save.
- What will your system do and what won't do? Specify as detailed as possible.

Our project includes a menu:

1. Recognition of gestures
2. Save new gestures
3. Gesture list
4. Upload gestures to online database
5. Download gestures from online database

**Recognition of gestures:** When this option is chosen by the user, our program waits gesture from the user and when a gesture is detected our software provides the meaning of that gesture as a text and voice. For detection of the gesture, our software needs two seconds seeing that gesture stable.

**Save new gestures:** When this option is selected, program waits for new gesture to save it (gesture must be done for 5 seconds). Then program waits a new phrase as a meaning of that gesture.

**Gesture list:** When this option is selected, program gives the list of gestures with their meanings. In addition to predefined ones, program gives the gestures saved later.

**Upload gestures to online database:** There will be an online gesture database which is a part of the project. User can upload saved gestures to that database via this option.

**Download gestures from online database:** This option enables users to connect the database mentioned above, and lists the gestures in the database. User can select gestures and download them to the system.

This software expects voice input only while saving a new gesture and won't process it only will save it. It won't detect voice and output any gesture related to that voice. The voice is only heard from our program when the gesture is detected or any gesture is selected from the gesture list.

This software will be developed by C++ programming language with Visual Studio Framework.

- Who will be using your product?

Dumb people and who usually interact with them are our target users.

- What will be the end product?

End product will be an executable computer program which works with the Kinect.

### **CHOICE 2**

**Project Title:** SIEMENS EC CORPORATE HUMAN RESOURCES MANAGEMENT SYSTEM

**Sponsor (if any):** Siemens Kurumsal İletişim Hizmetleri San. ve Tic. A.Ş. (Siemens EC)

### **CHOICE 3**

**Project Title:** BUILDING A SERVER-CLIENT ARCHITECTURE TO PLAY CARD GAMES FROM MOBILE PHONES

**Sponsor (if any):** Usta Yazılım, Teknokent ODTÜ