Report on

'Speech Transcription'

By

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Objective:

To construct a Speech transcription device.

Description:

This device is an implementation of speech transcription from Tamil to English. It contains a mic that records the input language Tamil. Then we get a translated English version of the Tamil speech in the form of text. As this device is only an example it can be made to translate any language into another. This device comes handy for travelers, tourist and newly migrated people who do not know the language.

Block Diagram:
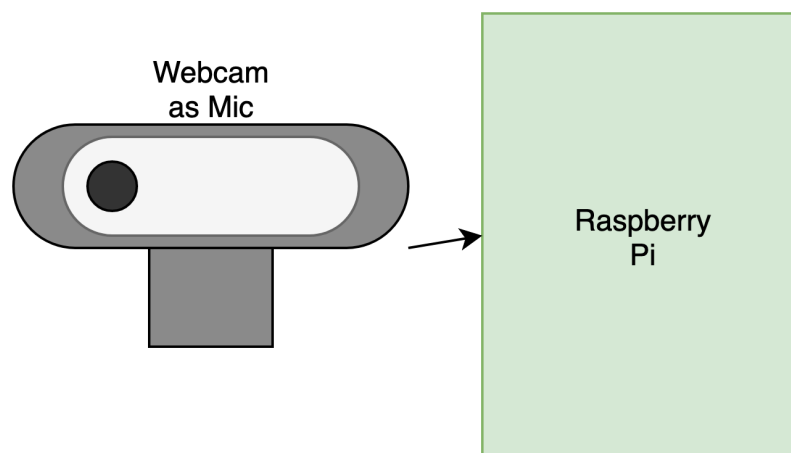
System Requirement Specification

Hardware Requirement:

- WebCam

- Raspberry Pi

Software Requirement:

- Python
    - Library: 1. pyaudio

○ 2. speech_recognition

○ 3. unicodedata

○ 4. os
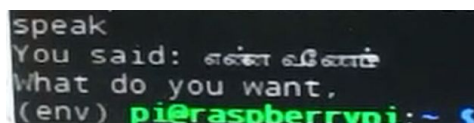
○ 5. googletrans

Working Principle:

When the program is started, the mic starts to record until there the speech is completed. Then the speech is sent to google translate API with a parameter that this speech is in Tamil language and to which language we need to convert the speech. Then the google translator translates the speech and returns text output of the speech in English.

Circuit Connections:

- Connection of Raspberry pi to Webcam:
    ○ Connect Webcam to Raspberry pi USB port

Result:

The result of the project Speech Transcription is verified and it satisfied all my requirements without any exceptions.