

Source code :(READ ME file is in the repo)
https://github.com/phuongngo2904/Senior_Project

In order to run the Raps OS version, you must have the actual Raspberry Pi board or you can run the window version which has a demo version on Youtube(<https://youtu.be/1r5bvGSeeLc>) by following these commands:

- **Checking if python is installed, if it is please ignore this step**

Open the terminal window in your computer and run this command:

```
$ python3 --version
```

- **Install virtual environment**

```
$ pip3 install virtualenv
```

- **Create a directory to store env**

```
$ mkdir environments
```

```
$ cd environments
```

- **Create a virtual environment**

```
$ virtualenv senior
```

- **Activate virtual environment**

```
$ senior\Scripts\activate
```

- **Then go back to the root**

```
$ cd
```

- **Make sure you have git package installed**

```
$ git --version
```

- **Clone the project**

```
$ git clone https://github.com/phuongngo2904/Senior\_Project.git
```

- **Navigate to the project**

```
$ cd Senior_Project
```

- **Install requirements**

```
$ pip3 install -r requirements.txt
```

- **Install tensorflow**

```
$ pip3 tensorflow==2.5.1
```

- **Run the real time recognition**

```
$ cd code
```

```
$ python3 real_time_detection.py
```

Demo :

<https://youtu.be/1r5bvGSeeLc>(real time recognition)

https://youtu.be/j8Hz8Bf_bsQ(speech to text with Rasp OS)