**Google assistant**

In this project we are building a DIY Google Home using your Raspberry Pi, also know as Google Assistant.

**Things You Need**

* Speaker
* Mic

### 1.Setup Google Assistant API

* Open Browser in Pi and go to: <https://console.cloud.google.com/cloud-resource-manager>
* Click **CREATE PROJECT** for creating new project

Name your project. Here, mine is: **googlepi**

* Open your project by clicking your**project name**
* Open**API Manager Dashboard**

API Manager => Dashboard and click **ENABLE API**

* Open**Library**and Search**Google Assistant**

Click the**Enable**Button for enabling Google Assistant API

* Create credentials for it

open **Credentials** and goto **OAuth Consent screen**

Enter **product name**and leave everything as default, and**save** it

Go to**credential**

Click **OAuth Clinet ID**

Choose**Other** and give it a name and hit **Create** button .

Now you created and**authentication key.**

Download the**Credential** by clicking down arrow. You'll get an**json**file.

Keep the Jason file safe we will need it later

### 2: Setup Google Assistant in Pi

### Setup**python virtual environment**

### **Run the following code**

Sudo apt-get install python3-dev python3-venv

### Download **Dependencies**

Sudo apt-get install portaudio19-dev libffi-dev libssl-dev

### Setup **Python3**

python3 -m venv env

env/bin/pip install setuptools --upgrade

### Now we are set the**virtual environment**

source env/bin/activate

you will get something like this

C:\Users\VINGYAN 3\AppData\Local\Microsoft\Windows\INetCache\Content.Word\014_1czNJc2710.jpg

Install**Google Assistant SDK**

pip install --upgrade google-auth-oauthlib[tool]

Setup**Google Assistant SDK**with**Credentials**

google-oauthlib-tool --client-secrets path/to/client\_secret\_XXXXX.json --scope https://www.googleapis.com/auth/assistant-sdk-prototype --save --headless

**In the place of client secret xxxxx.json use the name of the json file you downloaded**

After this you will **re-direct**a permission page

Click**ALLOW**

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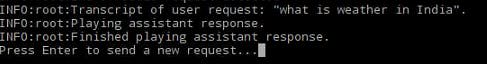
Then you get a message like this, meaning your authentication is completed.

### Let's Test Google Assistant in Pi

### Type this to run your assistant

python -m googlesamples.assistant.grpc.pushtotalk

After the setup, you'll get something like this in your terminal, then all things working good.



**Issues**

**Known issues are due to the .asoundrc file**

**U will be getting invalid sample rate to fix this locate the .asoundrc file in pi and replace it with the following**

**If u cannot find right click in the pi home folder and choose show hidden**

pcm.!default {

  type hw

  capture.pcm "mic"

  playback.pcm "speaker"

}

pcm.mic {

  type plug

  slave {

    pcm "hw:2,0"

  }

}

pcm.speaker {

  type plug

  slave {

    pcm "hw:0,0"

  }

}