

# How to use Astra microphone

## 1、 Commonly used third-party libraries

pyaudio

```
sudo apt-get install python-pyaudio python3-pyaudio
```

pyscreenshot

```
pip install pyscreenshot
```

## 2、 Video recording

```
python ~/astra_ws/src/astra_recording/01_Record_video.py # Video recording
```

Recording starts when it is started; the keyboard [q] ends recording, and the recorded video is automatically saved.

## 3、 Video playback

```
python ~/astra_ws/src/astra_recording/02_Paly_video.py # Video playing
```

Start to play the recorded file when it is started, and press [q] to exit.

## 4、 Voice recording

```
python ~/astra_ws/src/astra_recording/03_Record_Sound.py # Voice recording
```

```
yahboom@yahboom-pc:~$ python ~/astra_ws/src/astra_recording/03_Record_Sound.py
Please enter the recording duration (s) :5
ALSA lib pcm.c:2495:(snd_pcm_open_noupdate) Unknown PCM cards.pcm.rear
ALSA lib pcm.c:2495:(snd_pcm_open_noupdate) Unknown PCM cards.pcm.center_lfe
ALSA lib pcm.c:2495:(snd_pcm_open_noupdate) Unknown PCM cards.pcm.side
ALSA lib pcm_route.c:867:(find_matching_chmap) Found no matching channel map
ALSA lib pcm_route.c:867:(find_matching_chmap) Found no matching channel map
ALSA lib pcm_route.c:867:(find_matching_chmap) Found no matching channel map
ALSA lib pcm_route.c:867:(find_matching_chmap) Found no matching channel map
Cannot connect to server socket err = No such file or directory
Cannot connect to server request channel
jack server is not running or cannot be started
JackShmReadWritePtr::~JackShmReadWritePtr - Init not done for -1, skipping unlock
JackShmReadWritePtr::~JackShmReadWritePtr - Init not done for -1, skipping unlock
* recording
* done recording
success!!!
yahboom@yahboom-pc:~$
```

After starting, you need to enter the length of time you want to record, in seconds. After recording, it will save and exit automatically.

## 5、 Voice playback

```
python ~/astra_ws/src/astra_recording/04_Play_Sound.py # Voice playback
```

Before starting, make sure that the audio file exists and the path is correct.