

Here is how you need to setup ngrok on your raspberry pi

1. **Install `ngrok` on your Raspberry Pi:**

```
wget https://bin.equinox.io/linux/arm/ngrok-stable-linux-arm.zip
unzip ngrok-stable-linux-arm.zip
```

2. **Connect your `ngrok` Account (Optional but Recommended):**

- **Sign Up:** Go to the `ngrok` website (<https://ngrok.com/>) and sign up for a free account.
- **Get Authtoken:** Once logged in, navigate to your dashboard. On the left sidebar, click on "Your Authtoken." Copy this authtoken.

- **Connect on Raspberry Pi:** In your Raspberry Pi terminal, run the following command, replacing `<YOUR_AUTHTOKEN>` with the authtoken you copied:

```
./ngrok authtoken <YOUR_AUTHTOKEN>
```

3. **Run `ngrok` to expose your Flask server's port (8080 in your case):**

```
./ngrok http 8080
```

4. **Observe the Output: `ngrok` will start and display information in the terminal. Look for the lines that say:**

```
Session Status: online
```

```
Account: Your Name (plan: free)
```

```
Version: x.x.x
```

```
Region: us (United States)
```

```
Web Interface: http://127.0.0.1:4040
```

```
Forwarding: http://<random_id>.ngrok.io -> http://localhost:8080
```

```
Forwarding: https://<another_random_id>.ngrok.io -> http://localhost:8080
```

5. **Note the Public URL:** `ngrok` will provide you with a temporary public URL (something like [https://your\\_random\\_id.ngrok.io](https://your_random_id.ngrok.io)). **Keep this URL handy.**

6. **Access the Video Feed in Google Colab:** You can now use this `ngrok` URL within an `<iframe>` in your Google Colab notebook to display the live video stream.

```
# Replace with the ngrok URL you obtained
```

```
ngrok_url = 'https://your_random_id.ngrok.io'
```

```
video_feed_url = f'{ngrok_url}/video_feed'
```