

# Face Streamer

## Unity Plugin documentation

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### General information

Face Streamer is a free app that uses ARCore to track a face and stream its data to a remote computer using 2 protocols : OSC and TCP.

OSC is used to get face feature points :

- face position
  - face direction
  - eye position
  - nose tip position
  - mouth position
  - mouth width and height
- (This feature list will extend as ARCore face tracking evolves)

TCP is used to stream in real time the face mesh itself to a remote Unity session. This allows high quality face filters and real time performance.

### Important Information

Face streamer application is only available on the Play Store for now :  
<https://play.google.com/store/apps/details?id=com.AlexBourgeois.FaceStreamer>

There is no recording/playback option for the moment.

This package contains the required scripts to receive a mesh streamed by the face streamer app available for free on the Play Store. This package is not required to receive the OSC data but nevertheless it includes an OSC Receiver script to easily integrate face features in your project.

## Setup Guide

### Mesh Receiver

1. Make sure your phone and the computer are on the same network.
  2. Check that Unity is allowed in your firewall settings.
  3. Drag and drop "FaceStreamer-MeshReceiver" prefab in your scene.
  4. Play Unity.
  5. Open the FaceStreamer app on your phone.
  6. Enable the "Send Mesh" option in the "Face Mesh - TCP" section of the settings.
  7. Specify your computer's IP in the "Face Mesh - TCP" section of the settings.
  8. Wait for the connection to establish itself, a debug message should appear in the console when the phone is connected.
  9. Watch yourself on your phone and see your face appear in Unity.
- Note : The face mesh is the child of "FaceStreamer-Receiver" GameObject.

### Face Features

1. Complete the Mesh receiver setup guide.
  2. Drag and drop "FaceStreamer-FaceFeatures" prefab in your scene.
  3. Play Unity.
  4. Open the FaceStreamer app on your phone.
  5. Enable the "Send features" option in the "Face Features - OSC" section of the settings.
  6. Specify your computer's IP in the "Face Features - OSC" section of the settings.
  7. Watch yourself on your phone and see your face appear in Unity.
- Note : The "FaceStreamer-FaceFeatures" GameObject contains all the face features information.

## Contact

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