

# Microphone WebGL Library

## How to use

Our plugin realizes same API as basic Unity Microphone class.

This is the basic description of Unity Microphone class <https://docs.unity3d.com/ScriptReference/Microphone.html>

Only difference with it - Our plugin have **CustomMicrophone** class from FrostweepGames.Plugins.Native namespace instead of Microphone class from UnityEngine namespace. But it uses UnityEngine Microphone class for other platforms – not targeted to WebGL.

## Static Properties

**devices** - A list of available microphone devices, identified by name.

## Static Methods

**End** - Stops recording.

**GetDeviceCaps** - Get the frequency capabilities of a device.

**GetPosition** - Get the position in samples of the recording.

**IsRecording** - Query if a device is currently recording.

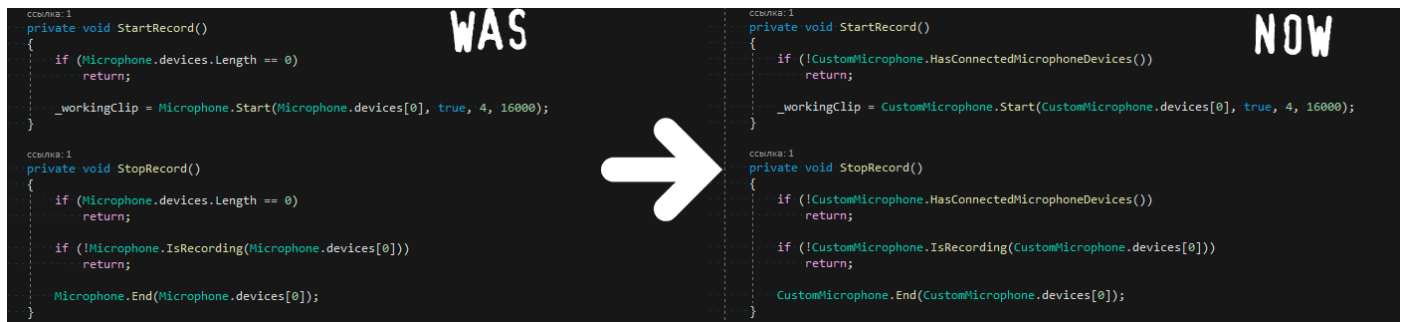
**Start** - Start Recording with device.

**HasConnectedMicrophoneDevices** – Returns info if at least one microphone device connected or not

**RequestMicrophonePermission** – Requests permission for a microphone. Most useful for Android and WebGL

**HasMicrophonePermission** – Returns info if microphone permission is granted or not

**GetRawData** - Returns RAW data (samples array) of an AudioClip. This is the full array of samples that could not be filled fully by audio stream dependently from an array size and recording duration. Most useful when you need to use it in Voice chats such as Photon Voice or similar. You could use this function with GetPosition() to know last sample position in array.



The image shows a comparison of code snippets, labeled 'WAS' and 'NOW', with a large white arrow pointing from 'WAS' to 'NOW'. The 'WAS' code uses the Unity `Microphone` class, while the 'NOW' code uses the `CustomMicrophone` class from the `FrostweepGames.Plugins.Native` namespace.

```
cc0bma:1 WAS NOW
private void StartRecord()
{
  if (Microphone.devices.Length == 0)
    return;
  _workingClip = Microphone.Start(Microphone.devices[0], true, 4, 16000);
}

cc0bma:1 private void StopRecord()
{
  if (Microphone.devices.Length == 0)
    return;
  if (!Microphone.IsRecording(Microphone.devices[0]))
    return;
  Microphone.End(Microphone.devices[0]);
}

cc0bma:1 private void StartRecord()
{
  if (!CustomMicrophone.HasConnectedMicrophoneDevices())
    return;
  _workingClip = CustomMicrophone.Start(CustomMicrophone.devices[0], true, 4, 16000);
}

cc0bma:1 private void StopRecord()
{
  if (!CustomMicrophone.HasConnectedMicrophoneDevices())
    return;
  if (!CustomMicrophone.IsRecording(CustomMicrophone.devices[0]))
    return;
  CustomMicrophone.End(CustomMicrophone.devices[0]);
}
```

Asset Includes two demo scenes that shows how plugin works in basic situations.

## Some FAQ:

- Asset perfectly builds in Unity Cloud Build (WebGL) but when I try to Play it from there, I got [DOMException](#). This issue could be fixed when you download build as ZIP and then upload to server that doesn't have restriction(limitation) for usage of MediaDevices such as Microphone.
- I've tried to use [LeapSync\\_Example](#) but it doesn't work perfectly in WebGL but works fine in Editor. This is issue in Unity Engine and we currently don't know how to fix it. When we trying to set samples data dynamically - it won't work in WebGL. So, that's why it currently marked as **Experimental feature**.