

audEERING's unity Plugin DOCUMENTATION SUMMARY

THE UNITY PLUGIN

The Unity Plugin of audEERING has been tested on most current versions of Unity Game Engine. The SensAI Unity interface rests on top of openSMILE technology. openSMILE is responsible for handling the audio and

models, then audEERING's SensAI technology will process the result and present it to the developer in a user-friendly way.

GAME FLOW

- 1. Game Design:** Create a game event to ask the for the player's voice
- 2. Record and Stream:** Recording the audio via microphone and sending the audio to SensAI
- 3. openSMILE / SensAI:** AI process to find emotions in the audio in real time
- 4. Game Interface:** Receiving the emotion and changing the game accordingly (e.g. trigger animations)
- 5. New iteration:** For the new game event, the player's emotion can be analyzed again

FILES AND CLASSES DESCRIPTION

Sens AI : This is the main script which is in charge of recording the audio, sending it for analysis and retrieving the emotion results. This script must be attached to the Game Object with the Audio Source Component on the scene. The followings are the most important events and functions inside this class.

Emotion Data: This file acts as a model for emotion data, highest emotion and also emotion categories.

Emotion Detection: This class calls on the GetFunctions (e.g. GetHappiness()) from SensAI and stores the retrieved value (e.g. amount of happiness in the last utterance) in a variable. It can be attached to any game object which is supposed to react to the selected emotion and inside the script the behavior of the game object (e.g. laughter animation trigger) can be manipulated.

The following basic emotions are available in the plugin:

- SadnessDetection.cs
 - BoredomDetection.cs
 - AngerDetection.cs
 - ExcitementDetection.cs
 - RelaxationDetection.cs
 - PleasantnessDetection.cs
 - ControlDetection.cs
 - UrgencyDetection.cs
- **Public Functions:** The following elements can be selected through publicly available GetFunctions:
- Speaker Gender
 - Speaker Emotions
 - Confidence for Pleasantness, Urgency und Control
 - Highest Emotion

CONTACT US



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MORE ON THE UNITY PLUGIN? GET IN TOUCH WITH audeERING

Are you interested in what our Unity Plugin can do for your business?
Our team at audEERING is ready to help.