

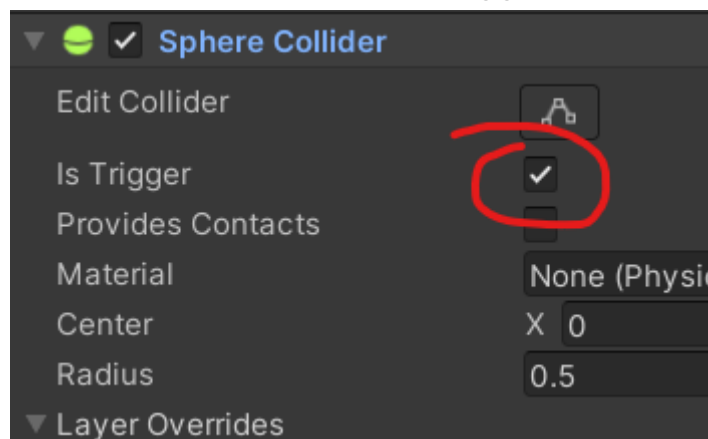
AI Sound Detect

1. Set Object Sound Emitter
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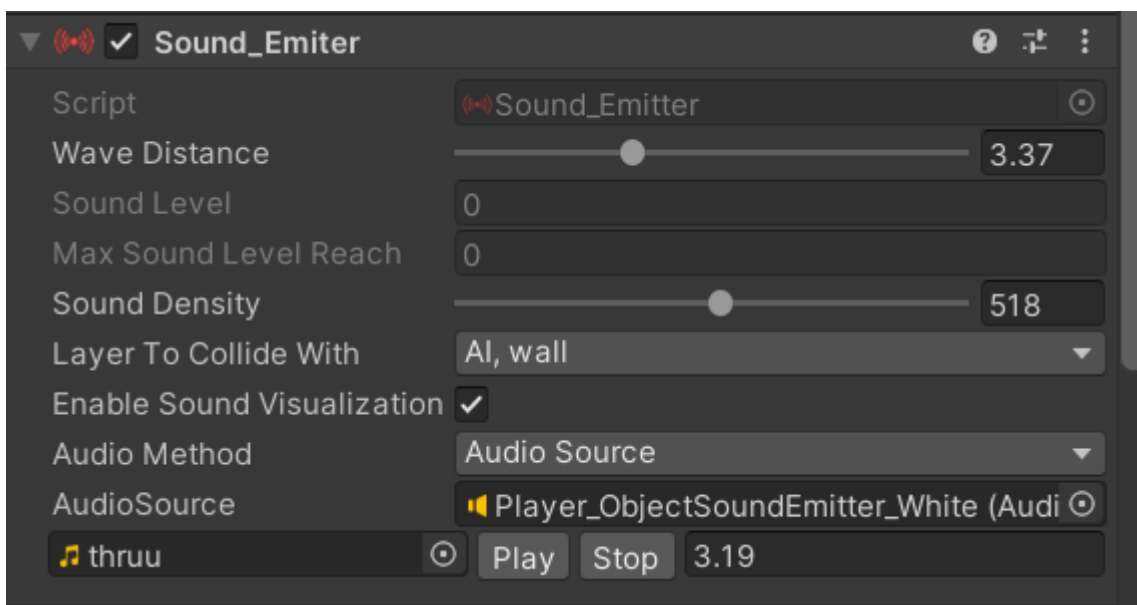
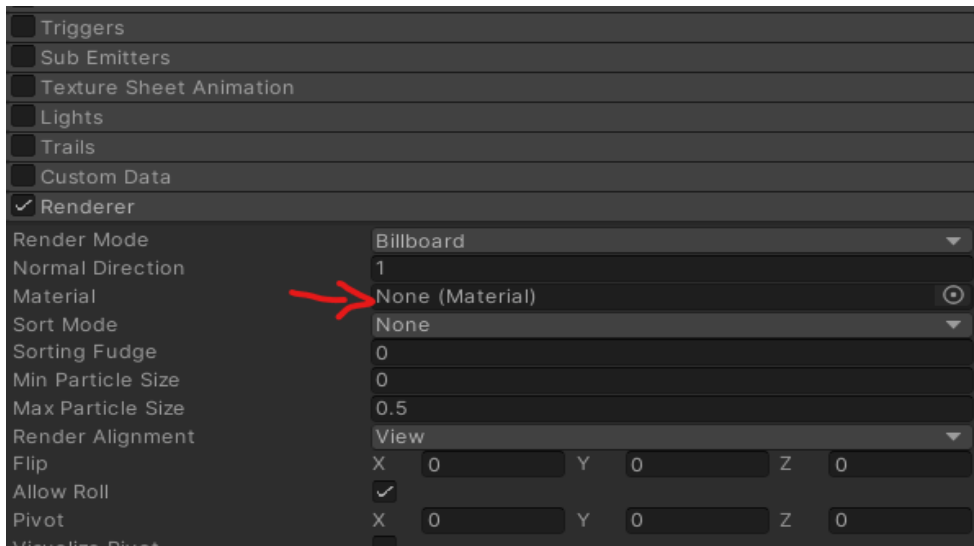
1. Set Object Sound Emitter

Sound Emitter can be any object that will emit sounds and is supposed to be detected by AI characters.

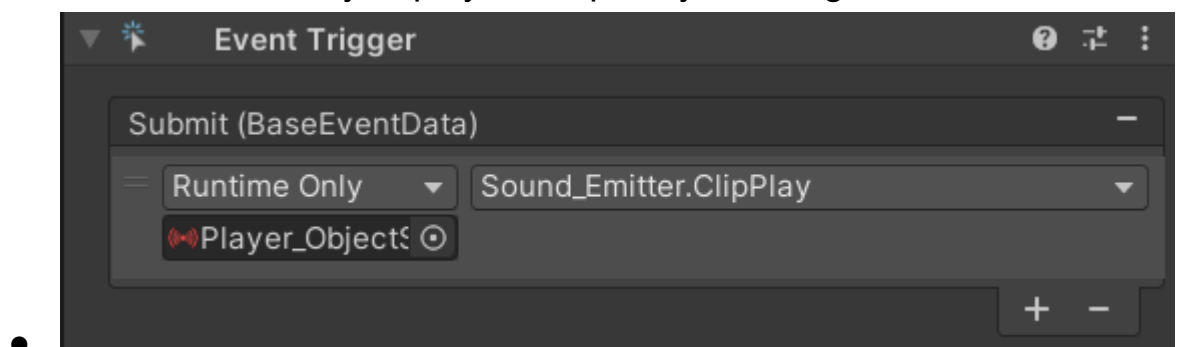
- Add a Spere Collider with the option Is Trigger



- Set a unique tag that is different from the parent object tag, for example, "SoundEmitter". [How to set Tag](#)
- Add "Sound_Emitter" script.
- Drag the Audio Source in the field Object Emitter Source
- Adjust the distance of wave desired from the slider
- Adjust the distance propagation of the sound from Amp.
- Layer To Collide With set on which objects sound will collide, example Walls means will not pass thru walls , also add the Layer of the NPC@AI that will detect the sound when will collide with it.
- Enable Sound Visualization need to be false , this field is only for visual test then particles become invisible. If particle system are not visualize is because the Default material on the Particle System is empty.
- AudioClip is just a utility to check the audio clip from the AudioSource.



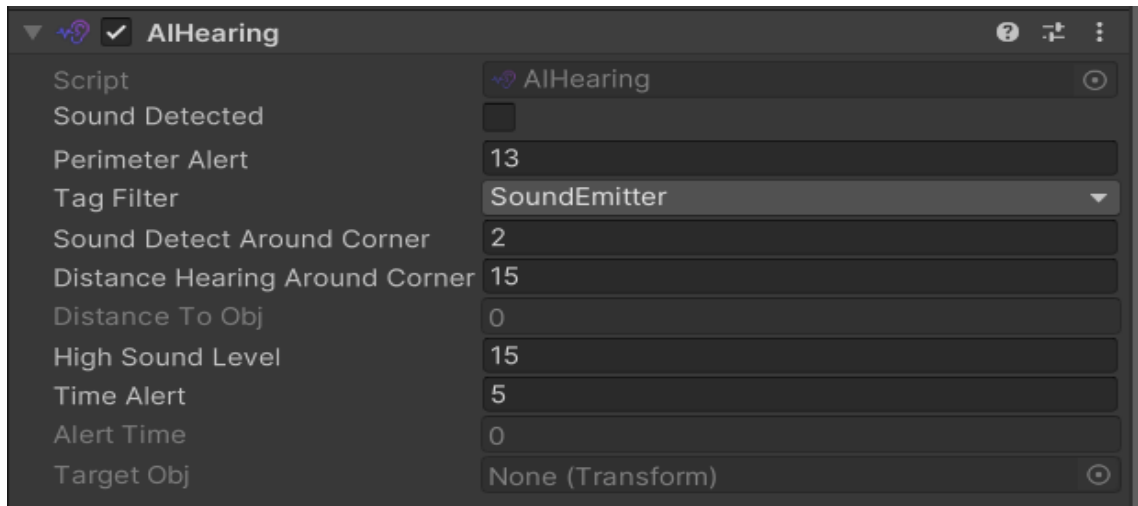
- AudioSource mode will wait until the audio source will play
- AudioClip is a custom mode where the playing clip will get triggered based on the option choice.
- An alternative way to play the clip is by invoking via an event



2. Set AI Hearing

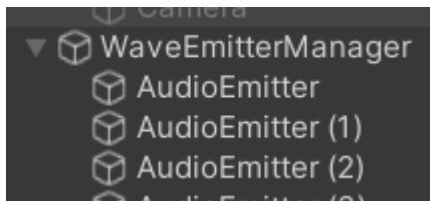
AI is generally not a player character and not controllable. This can be anything from a human character to an animal or a device like a robot or security camera.

- Add a Collider to it.
- Set the layer for example, "AI". [How to add Layer](#)
- Add "AIHearing" script.
- Perimeter Alert: Set the perimeter for how far Ai can detect Sounds
- Sound Detect Around Corner: Set the max level that AI can tolerate before will detect the sound around corners
- Distance Hearing Around Corner: Set the distance how far after the corner a sound can be detected if the level from above will be passed.
- High Sound Level: If a sound that is behind a wall or at a distance that will not collide with and Ai should hear it , example a explosion sound set the level that can be tolerated.
- Sound Detected: is an automatic bool that will become true when a sound is detected. From this bool can be take the action with the system that your project have.
- Time Alert: this is the time for which the bool Sound Detected will stay active after a sound has been detected (this only if the sound emitter is inside the Perimeter Alert).
- Alert Time: this is a read-only field that shows us the count down after a sound has been detected.
- Tag Filter: Here set the Tag that AI will need to detect when sound will collide with him.
- Target Obj: is an automatic field that shows us the first sound emitter position that has been acquired, when a Sound have been detected. This is the location that can be set to our AI to move to it for investigation.

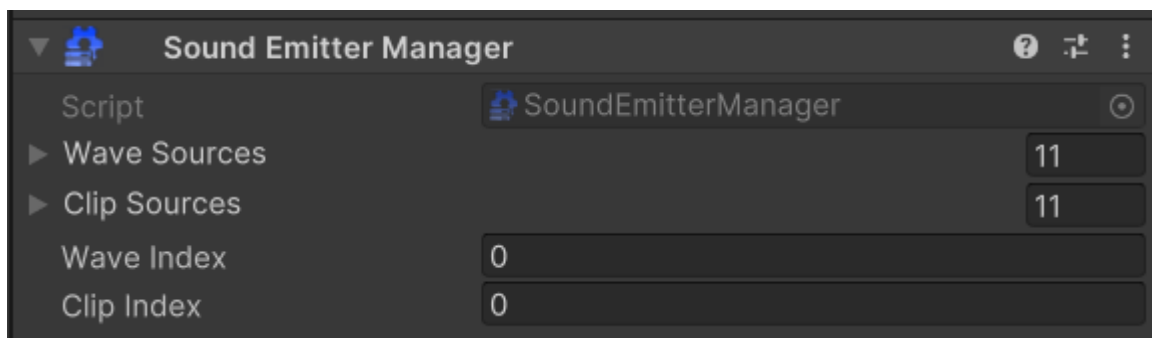


3. AddWave Emitter Manager

- Create a Empty Object and set his Name example:



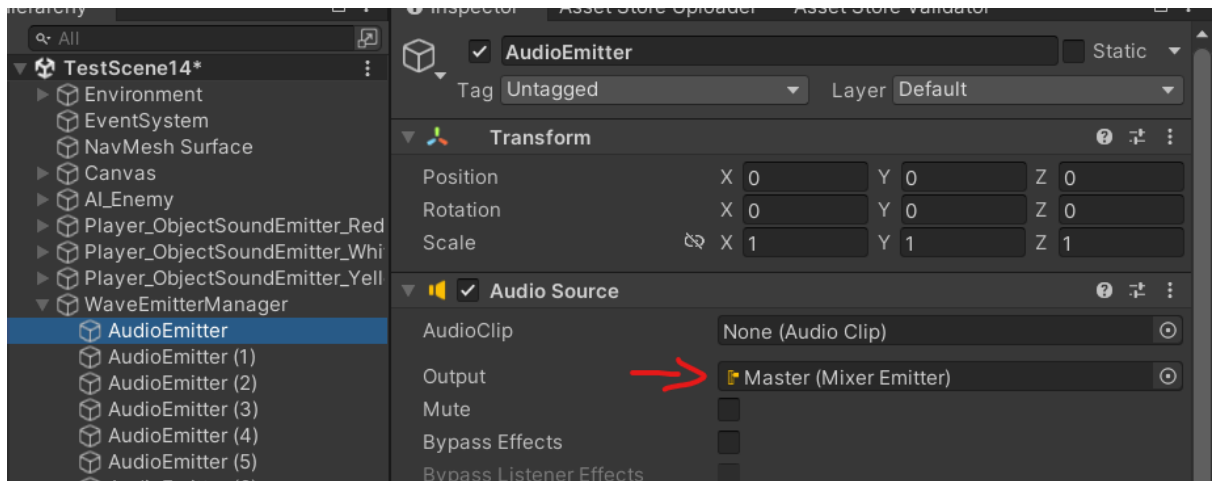
- Add Wave Emitter Manager script to it.
- Set a number of 10 fields



- Create childs objects around 11 and add components to them Audio Source for each one
- Drag them one by one in the Wave Source list foto above
- Set to each one of them the Output Master Mixer Emitter

In the Asset exist a prefab called SoundEmitterManager that is ready on use.

AudioClip will use this manager to play the audio clip at the position of SoundEmitter gameobject



Sound Emitter will use this WaveEmitterManager in case the player will turn the Sound Volume Mute to avoid cheating this manager will still create sound waves but on a channel that will not be use in the Project for the Main Sound control.

4. Troubleshooting

Sound Detect is not working, verify if:

- If sounds are not detected around the corners make sure a Navmesh exist and have been Baked.
- The checkbox on the collider "Is Trigger" is checked.
- There is a collision with AI object.
- On the Sound_Emitter object, Tag has been assigned.
- On AIHearing has been set the correct Layer of the Sound_Emitter layer list and the correct Tag name of the Sound Emitter Tag name.
- Collision is not working right: make sure that you have not change the tag choice to often otherwise remove Sound_Emitter script and add it again. Editor on unity always keep the cache .

For an example please see the video on my Youtube channel at [YT Chanel](#).

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