OBSTACLE COMPONENT

The **Obstacle Component** lets you control how much an object weakens the AI's vision. Instead of completely blocking sight like a wall, an Obstacle reduces the AI's remaining vision range when the See Sense ray passes through it. This creates more realistic behavior for objects such as glass panels, bushes, fogged windows, cloth, water, forcefields, or any semi-transparent cover.
Each Obstacle has a **Range Decrease Factor** (0–1) that defines how much it weakens sight:

- **0** → the object does not reduce vision at all (fully transparent)
- **0.5** → vision range is cut in half
- **1** → vision is completely eliminated (fully opaque)

This means an AI can still see through the object—but only to a limited distance depending on how strong the obstacle is. If multiple obstacles stack up, the vision is reduced repeatedly, just like looking through several layers of tinted glass. With the Obstacle Component, you can create nuanced environments where being seen (or hidden) depends on how much cover lies between the AI and the target, not just whether the cover is there at all.

What Obstacle Component Can Achieve

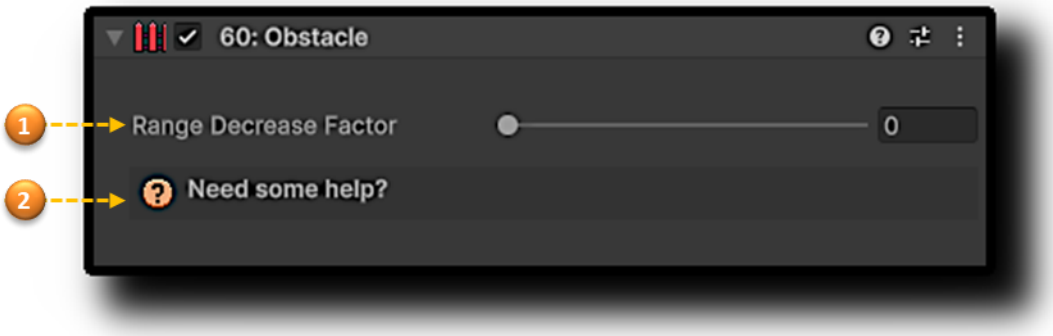
Obstacle Components let you shape how much the world should weaken an AI's vision. Instead of every object acting like a perfect wall or being completely invisible, Obstacles create **partial cover** that feels natural and intuitive. Once added to any object—glass, foliage, water tanks, cloth, foggy surfaces—they automatically reduce the effective sight range of any See Sensor that looks through them.

Designers can use Obstacle Components to introduce:

- **Stealth cover**, where players can stay hidden behind bushes, curtains, or dirty windows
- **Semi-transparent sightlines**, such as looking through aquarium walls, office glass, or mesh fences
- **Environmental realism**, where different materials block vision by different amounts
- **Tactical movement**, letting players break line of sight using terrain, props, or layered obstacles
- **Dynamic visibility puzzles**, where AI can see "a little" but not "enough" through certain objects
- **Stacked obstructions**, where looking through multiple obstacles gradually reduces vision to zero

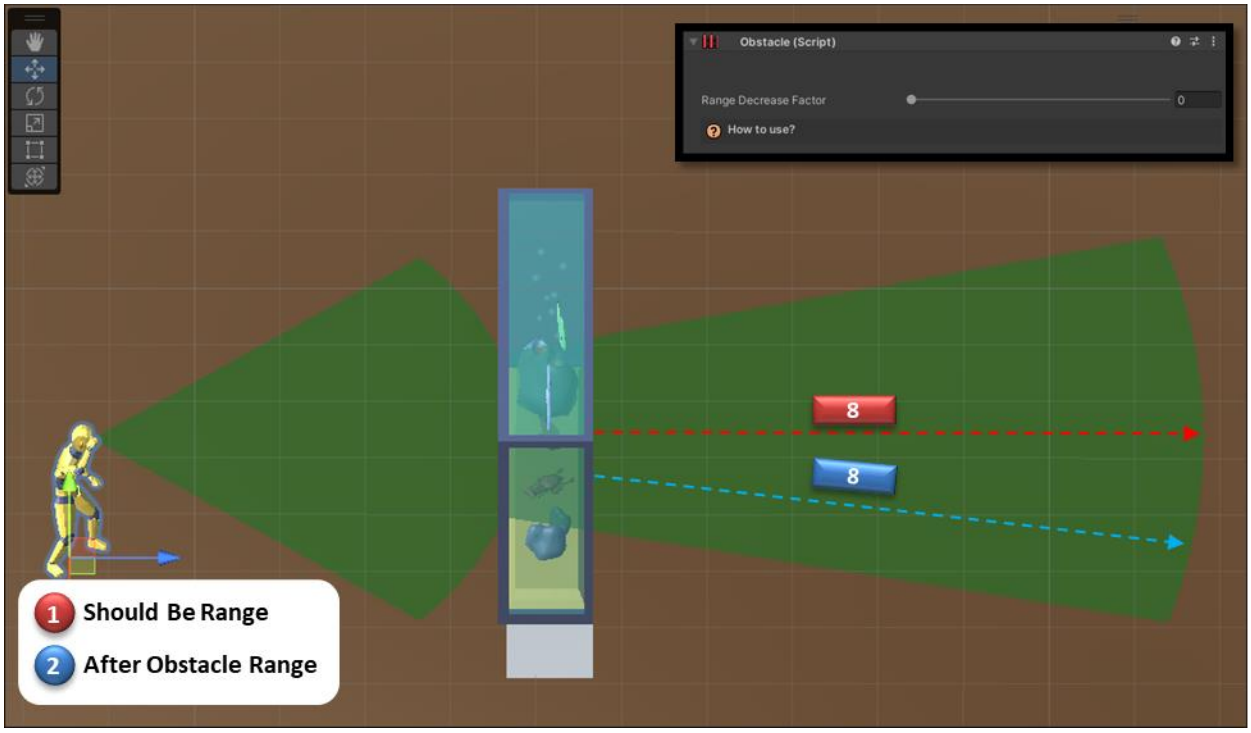
By attaching an Obstacle Component to any surface, you instantly make your world visually richer and your AI more believable- **without writing a single line of code.**

Noise Trap Inspector Tab



1	Range Decrease Factor	Float value that slice the remaining vision range of a character which looking through obstacle).
2	'Need some help?'	Displays Help Information.

Example 1: How Obstacle with Range Decrease Factor (0.5) will work

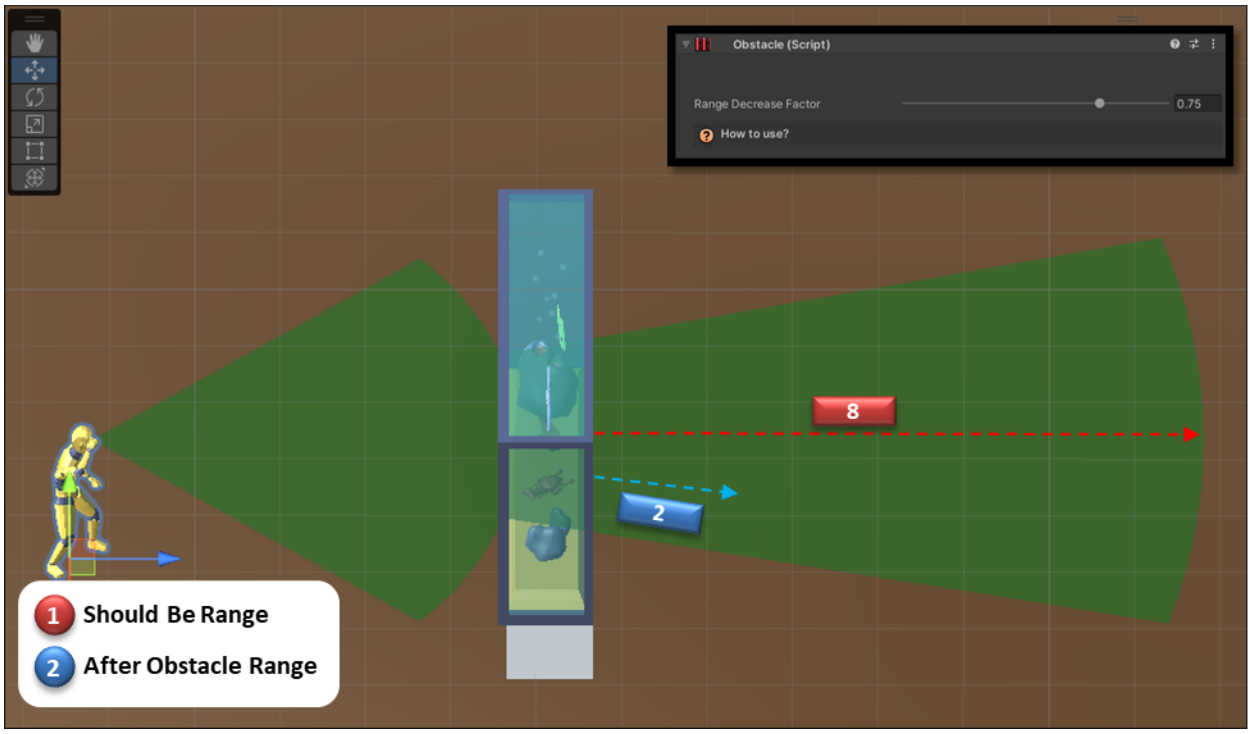


Here, the same obstacle now has its **Range Decrease Factor set to 0.5**. This means the See Sense's remaining range is reduced by **50%** the moment the ray passes through it.

- **Red line** again shows the original vision range.
- **Blue line** shows the *reduced* range after crossing the obstacle.

You can clearly see that the AI loses half of its remaining vision distance, making the target harder (or impossible) to detect beyond that point. This is ideal for semi-transparent or obstructive materials-like frosted glass, thick bushes, smoke, aquarium walls, or anything that should weaken visibility without fully blocking it.

Example How 2: Obstacle with Range Decrease Factor (0.75) will work



In this example, the obstacle's **Range Decrease Factor is set to 0.75**, meaning the See Sense loses **75% of its remaining sight range** the moment the ray passes through it.

- **Red line** shows the original, unobstructed vision range.
- **Blue line** shows the heavily reduced range after passing through the obstacle.

Because the obstacle removes most of the available sight distance, the AI can only detect targets that are **very close** behind it. Anything farther away becomes effectively invisible. This behavior is perfect for **dense visual blockers** such as thick foliage, dirty or foggy glass, heavy smoke, underwater panels, or any material that should drastically weaken visibility without fully acting as a solid wall.