

# Debris Grid

This component allows you to spawn debris (e.g. asteroids) around a Transform (e.g. camera). Unlike the **Debris Spawner** component, this procedurally places the debris in specific locations, so you can travel far away until the debris despawns, and return to the same location to find the debris will spawn again in the same location. This is achieved using a virtual grid surrounding the target Transform whose cells spawn debris based on their location hash.

## Target

This allows you to set the target Transform that the debris will spawn around.

## Spawn Inside

If you want the debris to only spawn inside specific volumes (e.g. nebula), then you can specify the **SgtShapeGroup** here.

## Cell Size

This allows you to set the world size of each cell in the grid. The total amount of cells is based on the **Hide Distance** setting. If you have a **Hide Distance** of 10, and a **Cell Size** of 1, then your grid will have +- 10 cells in each axis, giving you a total of 8000 cells. Keep in mind that each cell can only store one debris object, so if you set this value too high, you will not be able to see many debris.

NOTE: If this value is set too low relative to **Hide Distance**, then you will experience lag when moving the **Target** transform too fast.

## Cell Noise

This allows you to set how far from the cell center each debris can be spawned from. If you set this to 0 then each debris will be spawned at the center of its cell, thus giving a uniform placement. This can be broken up by increasing this setting, but setting it too high allows debris from one cell to intersect those from an adjacent cell, so it's important to find the right balance based on your specific debris settings.

## Debris Target Count

This allows you to set the expected debris count assuming the whole debris grid has no **Spawn Inside** set, or is fully within their volumes. This value gets converted to a spawn probability, so keep in mind this count may be exceeded, or be much lower if you're not fully inside a **Spawn Inside** volume, or your **Cell Size** setting is set too low.

## Seed

This allows you to set the base seed of the debris spawning.

## Show Distance

This allows you to set the distance from the camera in world space where debris fades in to its maximum scale.

## Hide Distance

This allows you to set the distance from the camera in world space where debris fades out to its minimum scale.

## Scale Min

This allows you to set the minimum scale multiplier of each debris object.

## Scale Max

This allows you to set the maximum scale multiplier of each debris object.

## Scale Bias

This allows you to bias the probability that the spawned debris will be scaled toward the minimum or maximum values.

## Random Rotation

This allows you to randomly rotate the spawned debris, or to inherit it from the prefab.

## Prefabs

This allows you to set the prefabs that will be used to spawn the debris. These should be normal prefabs with the **SgtDebris** component attached.