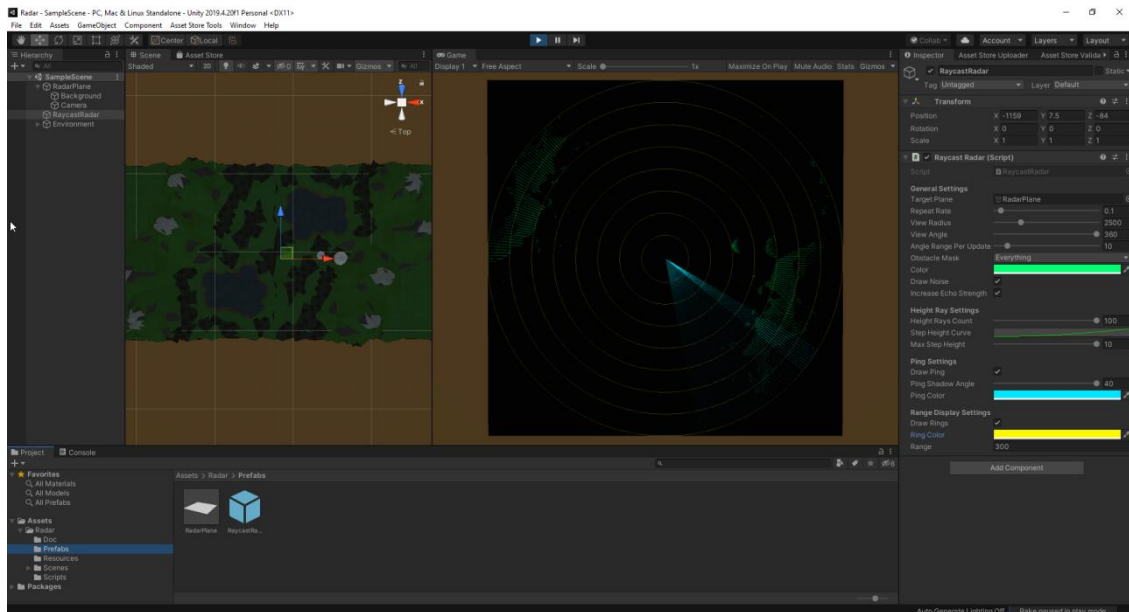# Raycast Radar

Version 0.3.2

Raycast Radar is a simple module that tries to generate a halfway realistic radar image of the environment. For this purpose raycasts are used, which in turn are processed and written into a texture.

How it works...

Drag the RaycastRadar prefab into the scene, select the plane on which the radar image is to be displayed in the Inspector under TargetPlane. There is also a RadarPlane Prefab which already has a black background and a camera aligned to it.

Since it is a raycast based radar, objects can be detected by the radar if they have a collider.
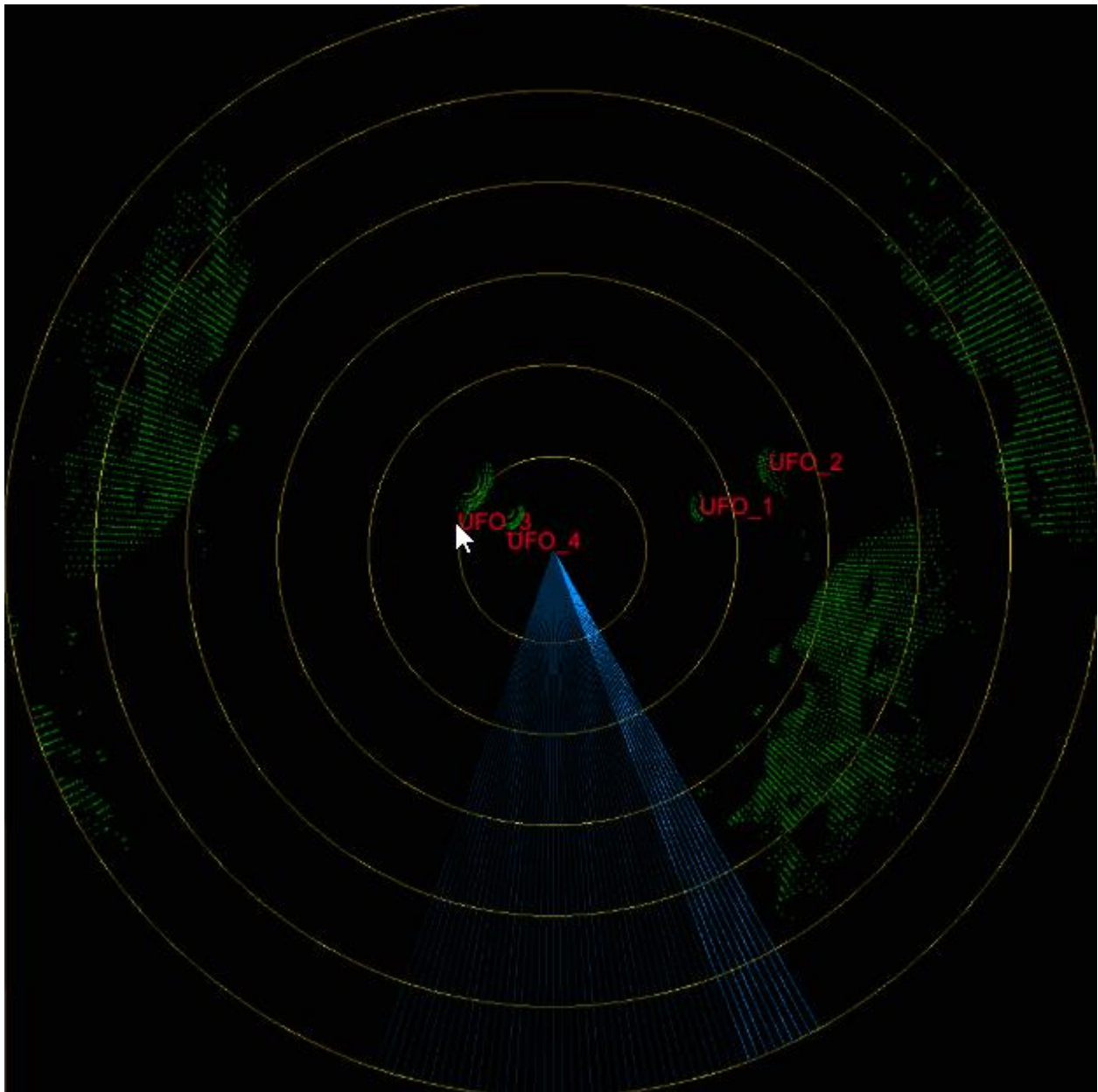
Green - Detected objects, Blue - Sweep, Yellow - Range indicating rings, Red object identifiers

Setting options

General Settings

Target Plane - target area for the radar image

Repeat Rate - Execution rate in seconds

View Radius - Indicates how far the radar can see.

View Angle - How big is the angle of the radar's beamwidth

Angle Range per Update - How big is the angle covered by the radar per execution step

Angle Resolution – In how many rays is one degree divided

Obstacle Mask - Which object layers are taken into account by the radar

Color - Color of the objects found by the radar

Draw Noise - Adds a simple noise to the detected objects

Increase Echo Strength - Increases the visibility of the detected objects

Height Ray Settings

Height Ray Count - Indicates how many rays are sent per angle offset in height.

Step Height Curve - Indicates the distribution of the rays on the different height levels

Max Step Height - Is the maximum height that can be between two ray levels

Sweep Settings

Draw Sweep - Should the sweep be drawn as well. Indicates which beams are currently being sent out.

Sweep Shadow Angle - Expanded sweep rays for better identification.

Sweep Color - Color of the sweep

Range Display Settings

Draw Rings - If the rings should be drawn for better distance recognition

Ring Color - Color of the rings

Range - How big are the distances between the rings

Identifiable Objects Settings

All gameobjects with a „identifiable_by_radar" tag will be considered.

Draw Identifiers - If the object names should be drawn

Time Before Deactivation – When an identifiable object is not found again in the given seconds here. The identifier will be removed from from the radar plane.

Font Color - Color identifier font

Font Size – Size of the identifier font