

Magnetic Pickup Documentation

Unreal Engine 4



<http://www.chadjiantoniou.com>

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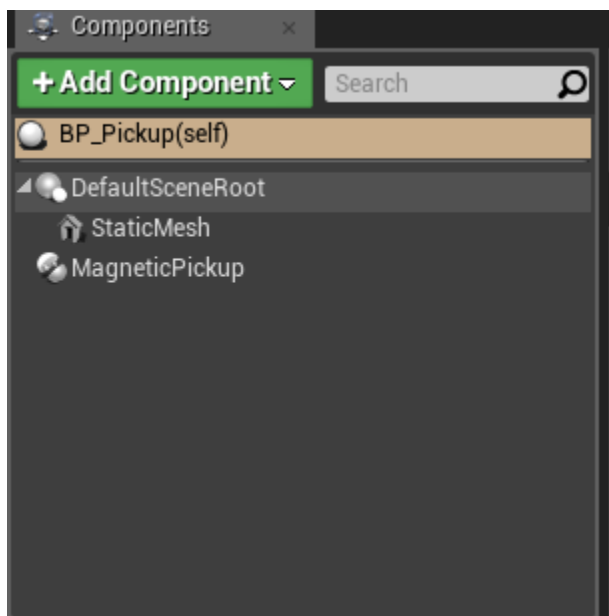
Introduction

The following will describe the functionality of the Magnetic Pickup plugin for Unreal Engine 4 and provide guidance on how to setup and initialize the component. The Magnetic Pickup plugin makes the Magnetic Pickup Component available, which can be attached to any actor, which enables said actor to act as a “follow” pickup, such that whenever the player comes in range of it, the pickup actor follows the player until it reaches them.

Once purchased, the plugin can be found under the “CHadjiantoniou” category in the editor’s Plugin window.

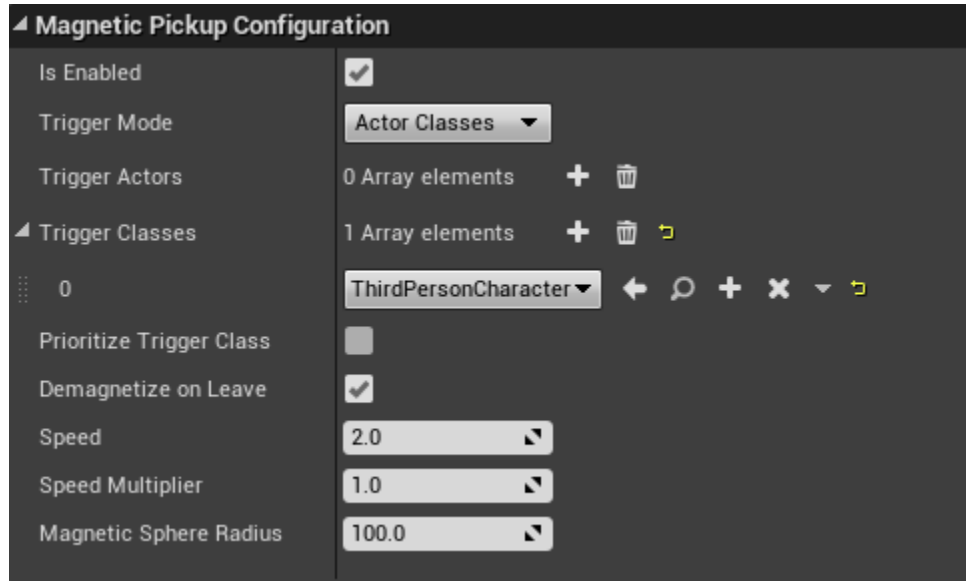
Attaching the component

You can attach the Magnetic Pickup Component on any actor you wish. Primary candidates for this are actors which include a Static Mesh Component. Below an example of a custom pickup actor (called BP_Pickup), which includes a Static Mesh Component and the Magnetic Pickup Component



Properties

The Magnetic Pickup Component includes a set of properties that allow you to customize the behavior of the pickup and follow functionality, as shown below:



Each actor you attach the component to can have different configurations. A good practice is to create a blueprint which will act as the base pickup, attach the Magnetic Pickup Component and configure the pickup and follow functionality there. Configuration can also be done on a per-instance basis.

Note: The Magnetic Pickup Component does not implement the actual pickup functionality. What happens when the pickup actor reaches the locked actor is up to the consumer to implement.

Configuration

Below a description of the various properties available on the Magnetic Pickup Component.

Name	Description
Is Enabled	Whether the magnetic functionality is enabled or not. If this is unchecked, the magnetic functionality will be disabled.
Trigger Mode	Whether the component should check for specific actors to magnetize to, or actor classes. Available options are <ul style="list-style-type: none"> • Actor Classes • Actor References • Actor Classes & References • Actor Tags
Trigger Actors	Array of actor references that trigger magnetization. Used in the case of TriggerMode = Actor References
Trigger Classes	Array of actor classes that trigger magnetization. Used in the case of TriggerMode = Actor Classes
Trigger Tags	Array of actor tags that trigger magnetization. Used in the case of TriggerMode = ActorTags
Pullback Distance	The distance added to the target arm during input, according to the PullbackMode selected. It is the distance the camera will pull back when input is detected.
Speed	Interpolation speed in which the item will travel to the target
Speed Multiplier	Interpolation speed multiplier
Prioritize Trigger Class	In the case of TriggerMode = TM_Actor Classes & References, if set to true checks inside classes array for existence of collided actor first. By default it checks for actors references first
DeMagnetize on Leave	If it is already magnetized, should it demagnetize if it is already following an actor, after it leaves the configured range.
Magnetic Sphere Radius	The radius of the activation sphere. Once configured actors/references step into the radius of the sphere, the magnetic functionality will be activated

Callbacks

The Magnetic Pickup component also exposes 2 callback events.

- OnMagnetized: Fires when a trigger actor enters the magnetic sphere
- OnDeMagnetized: Fires when a trigger actor leaves the magnetic sphere. This event only fires if the DeMagnetize on Leave property is set to true