# Health System Documentation

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## Overview

The Game Core Health System is a useful plugin for game developers who need to implement a health system in their Unity games. This plugin provides a reusable health component, a health bar and hitbox component that can be easily customized and extended to fit the needs of any project. By using the Health System, developers can save time and effort by avoiding the need to rewrite health logic for each project, resulting in a more efficient development process.

## Installation

To install the package, follow these steps:

- 1. Add the plugin package from the Unity Asset Store to "My Assets"
- 2. Create or open a Unity project and download and install the plugin from the package manager
- 3. The plugin will be installed in your project and you will be able to access it through the Unity editor.

## Components

#### Health Component

The Health Component is the core of the Health System plugin. It provides a flexible and reusable health system that can be customized and extended as needed. By accessing the health component through an abstract base class, developers can achieve low coupling, which allows for easy modification and extension without affecting the code base.

The Health Component is designed to be used with any game object in Unity. It is responsible for keeping track of the health of the game object and responding appropriately when the health changes. The health component can be easily accessed and modified through the base class, which makes it simple to add custom logic or behaviors to the health system.

To add the HealthComponent to a gameobject, follow these steps:

- 1. Select the GameObject in the Unity editor.
- 2. Add the "Health" component to the GameObject by selecting "Add Component" > "Health System" > "Health".

#### Health Bar Component

The Health Bar Component is a visual representation of the health of a game object. It displays the current health level and provides visual feed back to the player. The Health Bar can be customized to match the visual style of any game.

The Health Bar Component is designed to work with the Health Component, allowing it to accurately display the health of the game object in real-time. You can easily modify the Health Bar as you need to add additional functionality or customize the visual style.

Our Health System comes with a premade Health Bar prefab you can use to quickly add a health bar to any gameobejct that has a health component on it.

To add the Health Bar to your Unity scene, follow these steps:

- 1. Open the **Prefabs** folder (Assets/ Ilumisoft/Health System/Prefabs)
- 2. Drag and drop the **Healthbar** prefab on the desired gameobject

# Hitbox Component

The Hitbox Component provides an interface to apply damage to a game object. It is designed to work with the Health Component, allowing it to reduce the health of the game object when it is hit.

The Hitbox Component is highly customizable and can be modified to suit the needs of any game. Developers can add additional functionality or modify the behavior of the Hitbox Component to achieve specific gameplay goals. Our default Hitbox for example comes with a damage multiplier, which you can be used to adjust how much damage will be applied by the hitbox. In that way you could create multiple hit/damage zones for an object, like head, torso, leg.

To add the Hitbox to a gameobject, follow these steps:

- 3. Select the GameObject in the Unity editor.
- 4. Add a collider to it
- 5. Add the "Hitbox" component to the GameObject by selecting "Add Component" > "Health System" > "Hitbox".

#### Demo

The package comes with a simple demo scene, having a health component with a health bar attached to an object. You can add damage or add health using buttons. A simple demo script listens to the health empty event of the health component and destroys the object when the health is empty. To open the demo scene, select the Demo folder (Assets/Ilumisoft/Health System/Demo) and double click the Demo scene.

# Support

If you like the project, please take a minute and give us a rating in the Asset Store. This really helps us to create and improve our Unity Assets.

If you encounter any problems or errors, please contact us via email:

support@ilumisoft.de