**EZPZ: Component Reference Guide**

**Key Terms**

**Component:** These are individual scripts that you can place on a GameObject to give it properties or abilities, like movement or health. Components are divided into 5 different types:

* **Actions**: These enable a GameObject to do something (for instance, move, jump, or shoot).
* **Things**: These detail what a GameObject is (player, enemy or something else).
* **Logic**: These are typically used for creating or changing data
* **Event**: These are certain conditions that can be triggered to activate a specific component (such as pressing the Spacebar to destroy a GameObject).
* **Other**: These are components with more specific capabilities that don’t fit neatly into other categories.

**Variable:** A value on a Component that changes the way it behaves.

**Function:** Something that a Component can do, such as causing an action or changing a value. Some functions can be triggered by Event Components.

**GameObject:** An object in Unity. We can add components to these to give them different properties and abilities.

**BoxCollider2D:** This makes a GameObject solid, so that it will collide with others and register collisions. We can set its “Trigger” variable to true if we want to register collisions but still allow objects to move through each other.

**RigidBody2D:** This allows a GameObject to be affected by physics, and is necessary if we want the GameObject to move. We can change its “Gravity Scale” to 0, if we don’t want it to fall.

**Scene:** This is usually a Level, but can also be a title screen or other menu.

**Properties that are common to many components:**

|  |  |  |
| --- | --- | --- |
| Variables | | |
| Name | Type | Description |
| Input Type | Interaction Type | How this component should activate (on the press of a key, only once, constant activation, or on an event) |
| Key | Key Code | If Input Type is set to Button, this is the key that will activate it |
| Active | bool | Whether or not the component can be activated |
| Delay | float | From activation, wait this many seconds before happening |
| Time Between | float | How much time needs to pass before the component can be activated again |
| Functions | | |
| Name | Type | Description |
| Set Active | void | Set the “Active” variable to true or false |

**Actions**

Bounce: Reverse an object’s velocity on the X and/or Y axis.

Functions:

|  |  |  |
| --- | --- | --- |
| Variables | | |
| Name | Type | Description |
| X | bool | Bounce on the X axis? |
| Y | bool | Bounce on the Y axis? |

|  |  |  |
| --- | --- | --- |
| Functions | | |
| Name | Type | Description |
| Do Bounce | void | Reverse the GameObject’s velocity on the X and/or Y axis. |

Create At Location: Create an instance (copy) of a GameObject at a specified location.

Functions:

|  |  |  |
| --- | --- | --- |
| Variables | | |
| Name | Type | Description |
| Target | GameObject | Create at this object’s location (if applicable) |
| Object To Create | GameObject | Create a copy of this object |
| Location | Vector3 | Location to create the copy at. If Target exists, create at Target’s position with this value as an offset. |

|  |  |  |
| --- | --- | --- |
| Functions | | |
| Name | Type | Description |
| Create | void | Create an instance of Object To Create at Location |

Follow: Follow another GameObject

|  |  |  |
| --- | --- | --- |
| Variables | | |
| Name | Type | Description |
| Target | GameObject | Follow this object |
| Speed | float | Follow at this speed |

Jump

Link

Move Horizontal

Move To

Move Vertical

Shoot In Direction

**Events**

Collision Event

Compare Event

Dice Roll Event

Input Event

In Range Event

Mouse Click Event

Timer Event

**Logic**

Change Scene

Data

Destroy

Health

Set Text

**Other**

Key

Lock

**Things**

Collectable

Enemy

Hazard

Node

Player