**Triggering System**

**Overview:**

The triggering system is part of the gizmoball game in which it connects triggers to actions. An action may only occur once a certain requirement has been satisfied – the ball colliding with another object that has been assigned a trigger. Once a collision has been detected, it will trigger an action, the actions can be simple state changing actions, for example changing the velocity of the ball. However, an option for the user would be to add more complicated triggers when in build mode, for example another gizmo in the game’s plane may have been assigned a trigger which will in turn activate another gizmo (example, flipper) to change its state.

**How it works:**

Each gizmo will hold a list of references which refer to what other gizmo’s on the board that gizmo is connected too and what type of actions they will trigger when they have been activated. There are two ways which the triggering system works; firstly, the user can physically activate triggers by assigning gizmo’s to keyboard keys so that once the assigned key has been pressed the set action will be activated. The other way a gizmo’s action will be triggered is when two gizmo’s on the board are connected to each other. The user sets up a connection between the two gizmos along with an action. The gizmo that will trigger the action will be tracked so that the controller knows when a collision with the ball has been detected. Once a collision has been detected, we iterate through the list of references to other gizmos and carry out the actions assigned along with the connected gizmos. If there is no list, we simply carry on.

**Types of triggers:**

*LeftFlipperKeyPressed, RightFlipperKeyPressed, LeftFlipperActivate, RightFlipperActivate, RotateGizmoLeft, RotateGizmoRight,*