Trigger Description

Triggers will be used to allow the user to add behaviours to Gizmos on the board. These triggers will be active whilst the program is in run mode. The triggers can either be called by a user pressing a key on the keyboard, or by a Gizmo being hit by a ball. Some of the behaviours that the triggers can cause are:

- Rotate left/right flippers
- Change colour of Gizmo
- Rotate Gizmo
- Make Gizmo appear/disappear
- Add points
- Add new ball

The key triggers will be implemented using the KeyPressedListener and will allow the user to select which keys effect which trigger. The user will be able to do this whilst in build mode.

Triggers can be added in build mode by clicking the “Add X Trigger” button on the Build GUI and then clicking the Gizmo on the board which they want to add it to. When this is selected the user can press the key which they want to be associated with that trigger or they can choose to have it act upon a ball hit. The KeyPressedListener will know which key the user has pressed and assign that to the trigger.

It is likely that the only triggers which will be assigned to keys are rotate flippers, add new ball and maybe make Gizmo appear/disappear .

There will be a key listener for the Build mode and also one for the run mode. This is so we can distinguish whether the user is trying to assign a key to a trigger or call the trigger.

It will be possible to add two triggers to the same key or same hit action. E.g. if a Gizmo is hit then a point could be added and it could also change colour.

When a key has been pressed which has been assigned a trigger, the listener will be notified which will then call on the controller to update the model. When the model is updated, the view will also be notified of this and the user will see the change on the board.

We could have a text box in the Build mode which shows the current key triggers of a Gizmo when you select it. There could also be somewhere on the Run mode GUI showing which key is assigned to which trigger.