Team Madison Secret Feature plan

For the secret feature, our team has chosen option A, the game screen flip attacks. The plan is to implement the x-axis and y-axis flips as BulletFormations for the COVID final boss. This way we can model the y-axis flip and the x-axis flip as an attack of the enemy. Since we define our JSON script to have a “Behaviors” object that allows for behavior changes of our enemies, we can add in behavior changes for COVID where the “bulletFormation” attribute will be set to one of the flip attacks, and we can give specific times of when these attacks will happen.

There will also be another BulletFormation that will flip back to the normal orientation. This allows us to lengthen the time that the screen flip attacks last, by simply changing the times that the flip attacks happen.

To implement the feature, we will have various flip() functions defined inside the UIController. To avoid calling the UIController.flip() functions from inside the FlipAttack’s, we will use an observer pattern, with the UIController observing the attacks. In the FlipAttack, it will notify the UIController that it is time to flip, then the UIController will call flip() from inside its update() method.