**Things to do next:**

* **The bird’s path-finding function.**

The bird is moving around the screen space(left to right, up and down ) to hunter crabs, when it encounter the crab, it would pick up the crab using its beak then walk to a location and release the crab.

(I used the ‘moveToward’& ‘control state change’ method for this one. In the script of the bird, I set numbers of states, each state determines the direction that the bird would move toward. Then set a series of colliders in the unity scene and marked them with a different tag, when the bird collides with a specific tag, the code would detect the tag name and change the current state in order to move to a new collider box)

This feature is made and tested to some extent, there are things in the project that can be adjusted and changed. Like the numbers of collider boxes and movement speed, etc.

The scale changes slightly when it moving up&down.

* **The bird’s rigged animation & appearances.**

I rigged the bird with a lot of 2D knob sprites in the same way as the crabs. And recorded a walking animation for the bird (using unity’s animation recorder). The bird’s look is still a bit peculiar after a project merge and the animation stopped working.

The animation needs to have a proper animator state machine to organize different animations in the future as the bird would have many behaviours.

Animations mentioned above need to be recorded and addded (mainly capture and releases).

* **The bird’s crab detector method**

As the main threat for crabs, the bird needs to detect the existence of the crab in order to capture them. There isn’t any structure being built in the project yet.

* **The bird’s state change, capture and release function.**

There is no logic nor control for birds to perform and switch action. They need to be added.

Capture number limited to 1;

* **The hand’s movement method and its logic of action**

The hand is hovering above on top of the screen and waiting for the opportunity to pick up the crabs. Once it grabbed the crab, it would move to the left side of the screen and release it.

There is already a very simple method of movement for the hand in the scene, which is similar to the one used on the bird, the hand moves horizontally by setting 2 collider box at each end of the boundary. The movement speed can be adjusted to better represent human-like action.

Since it need to reach down to complete a capture move, there require a simple state function to organize the logic of switching actions too. Same for the grabbing and releasing.

* **The hand’s behaviours and animations & realization of the grabbing/releasing function**

There is no very specific engineer plan for how to make the grabbing function yet.

Each action needs to have a set of animation (mainly grabbing& releasing). The hand was rigged with same style as other animated elements functions. Yet no animation is recorded for it.

* **The hand’s capture detection**

There is a collider as a child object of hand structure, which in my plan is intended to work as the detector for the hand to identify whether a crab is entered the capturable area. There is also another gameobject attached to the hand, it is the ‘grab point’, it works as the reference point for the position that captured crab would appear and attached to.

The script is not quite written so if there’s a better solution please ignore my plan.

Capture number limited to 1;

* **The tornados movement pattern**

Tornado is supposed to move around the screen, similar to the bird’s pattern, the difference being it does not have to consider the scale change as much as the bird.

Tornado also picks up crab when collider with them but it can pick up multiple crabs and release them randomly.

Tornado does not have any movement or logic script attach to it.

* **The tornados capture and release**

Capture multiple crabs (specific number depends on the actual appearance of the thing as well as Nicolas’s opinion), and release one crabs at a time (what I’m thinking is using a count-down timer to carunculate the release time ).

No actual function is built yet.

Probably need to attach a gameobject in unity scene as the tornado’s parent object(or child object) since the tornado asset is just an visual effect.

**General integration and testing**

Crab might need to know when it’s being interfered by other elements, so it could be add some reaction animation.

**Other things worth noticing**

The whole environment’s Z value for position is -30, (if you what adjust something newly add in the scene to best fit the camera);

Crab movement speed is best at 0.01 in my local build;