**Luminous Group Test**

The test is split into 2 parts, the first is to fix a small bug and the second is to develop a small piece of functionality.

Feel free to use internet resources where needed, referencing sources where applicable.

Please use Unity 2019.4 to complete the test.

Although there is no strict time limit it should take roughly 3 – 4 hours to complete.

**Moving Error Test:**

Reproduction Steps:

1. Open the scene called “Moving Error Test” in the scene folder.
2. Press play, observe the fast-moving cube.

The expected behaviour is:

* Cube moves from left to right a distance of 6m.
* Should Reset instantly to the left after each move.
* Cube should move at 1m per second.
* Cube should take 6 seconds to move from left to right.

Correct the incorrect movement speed and ensure the movement is smooth.

**Development Test:**

Brief:

Implement a small application where the user can look around using simple keyboard and mouse controls. When the user looks directly at the red Sphere in the scene using the green reticle the sphere will change to a random colour. When the user looks away it will return to red, and when the user looks back at the sphere it will change to a different random colour. You are allowed to use whatever packages/components that are available within Unity to achieve this.

Acceptance Criteria:

* Test completed in the “Development Test” scene in the Scenes folder.
* User can move and look around the scene using keyboard and mouse input using the **latest** Unity input package.
* When user looks directly at the sphere, the sphere changes to a random colour.
* When the user looks away from the sphere it returns to being red.
* The above detection should be **pixel perfect.**
* Code should be clean, commented, and easy to understand.

Extra Credit:

* System supports multiple Spheres of varying Transforms.
* Custom implementation which does not rely on the Unity Physics package.