

Suns of Waste

Controls and movement

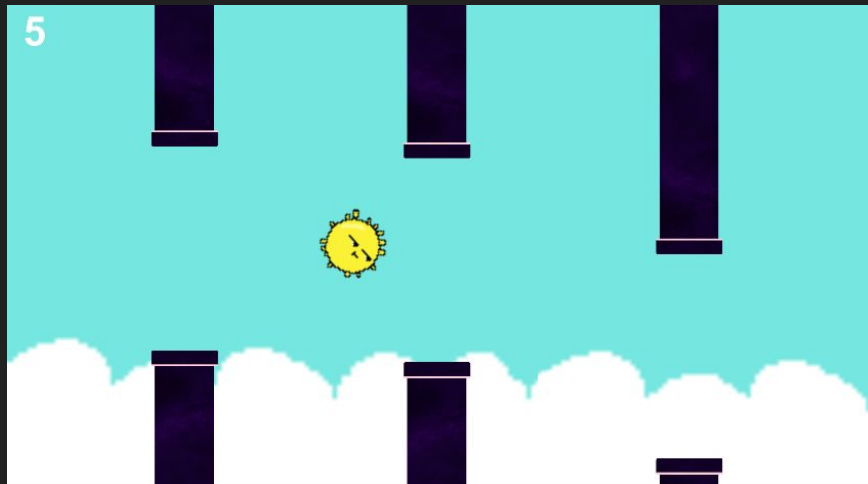
```
if (Input.GetKeyDown(KeyCode.Space) == true)
{
    myRigidBody.velocity = Vector2.up * flapstrength;
}

if(transform.position.y < -10)
{
    Instantiate(YouLose, new Vector3(0,0,-1),Quaternion.identity);

    Time.timeScale = 0.01f;
}

if (Input.GetKeyDown(KeyCode.R) == true)
{
    Time.timeScale = 1;

    SceneManager.LoadScene("SampleScene");
}
```



To allow the player to jump we added the space bar so that you can control the sun, if you want to restart the game we also added a restart button as shown when ' R ' is pressed.

Pipe mechanics

```
public float moveSpeed = 5;

public float deadZone = -10;

// Start is called before the first frame update

void Start()

{

}

// Update is called once per frame

void Update()

{

    transform.position = transform.position + (Vector3.left * moveSpeed) * Time.deltaTime;

    if (transform.position.x < deadZone)

    {

        Destroy(gameObject);

    }

}
```

The code shows that the pipes will be spawned between two coordinates randomly, with that it could cause too much lag so we implemented a deleting system where once the pipes hit a certain coordinate it gets deleted as shown with 'gameObject' destroy

Spawning Pipes

```
void spawnPipe()
{
    float lowestPoint = transform.position.y - heightOffset;
    float heighestPoint = transform.position.y + heightOffset;

    Instantiate(pipe, new Vector3(transform.position.x, Random.Range(lowestPoint, heighestPoint),
0), transform.rotation);
}
```

Using functions we added a system where the game instantiates a predetermined asset and places it to the right side of the screen. It also adds a random float that chooses a number located between the lowest and highest possible locations we determined through variables pre-set by us.

Saved Variables

```
public Rigidbody2D myRigidBody;  
    public float flapstrength;  
    public GameObject Ghost;  
    public GameObject Score;  
    public GameObject YouLose;
```

```
    public float XOffset;  
    public float YOffset;  
    public float moveSpeed = 5;  
    public float deadZone = -10;
```

```
public GameObject pipe;  
    public float spawnRate = 2;  
    private float timer = 0;  
    public float heightOffset = 5;
```

Death and Restarting

When the “R” key is pressed the game is restarted from the beginning of the scene. Unity tracks scenes as individual screens with the sprites and scripts contained within.

Thankfully unity has a built in function (`SceneManager.LoadScene("SampleScene");`) which allows me to quickly load the current scene again refreshing the score variable and placing the player back at the start of the level.

```
if (Input.GetKeyDown(KeyCode.R) == true)
{
    Time.timeScale = 1;
    SceneManager.LoadScene("SampleScene");
}
)
```

All References.

Unity tutorial

<https://www.youtube.com/watch?v=XtQMytORBmM&list=LL&index=6&t=1928s>