

# Unity How to Make Simple Asteroid Ship Movement

Follow below steps to create a moving and jumping player.

- Create a player sprite/gameobject
- Add a Rigidbody2D component;
- Set the Rigidbody2D gravityScale to 0;

Add this script to your GameObject:

[Ship.cs](#)

```
using UnityEngine;
using System.Collections;

public class Ship : MonoBehaviour {

    int maxSpeed = 1000;
    int acc = 600;
    int rotateSpeed = 300;

    void Update () {

        // BUG: cannot slow down when at max speed
        float v = Input.GetAxis ("Vertical");
        if (v != 0) {
            GetComponent<Rigidbody2D> ().AddForce (transform.up * v *
Time.deltaTime * acc);
        }

        float h = -Input.GetAxis ("Horizontal");
        transform.Rotate(new Vector3(0, 0, h * Time.deltaTime *
rotateSpeed));

        transform.position =
Game.rePositionAfterOffScreen(transform.position);
    }
}
```

Create a Game script. This has a method to reposition the ship when it goes off screen.

[Game.cs](#)

```
using UnityEngine;
```

```
using System.Collections;

public class Game : MonoBehaviour {

    void Update () {
        if (Input.GetKey ("escape")) {
            Application.Quit();
        }
    }

    public static Vector3 rePositionAfterOffScreen(Vector3 position) {
        Vector3 viewPortPos = Camera.main.WorldToViewportPoint
(position);

        if (viewPortPos.y > 1) {
            return Camera.main.ViewportToWorldPoint (new
Vector3(viewPortPos.x, 0f, viewPortPos.z));
        }

        if (viewPortPos.y < 0) {
            return Camera.main.ViewportToWorldPoint (new
Vector3(viewPortPos.x, 1f, viewPortPos.z));
        }

        if (viewPortPos.x > 1) {
            return Camera.main.ViewportToWorldPoint (new Vector3(0f,
viewPortPos.y, viewPortPos.z));
        }

        if (viewPortPos.x < 0) {
            return Camera.main.ViewportToWorldPoint (new Vector3(1f,
viewPortPos.y, viewPortPos.z));
        }

        return position;
    }
}
```

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