

Unity How to Make Simple Player Movement

Follow below steps to create a moving and jumping player.

- Create a player sprite/gameobject
- Add a Rigidbody2D component;
- Freeze the (Z) Rotation of the Rigidbody2D;
- Add and position a CircleCollider2D component over the feet;
- Add and position a BoxCollider2D component over the torso;
- Add an empty GameObject called "GroundCheck" as a child to your player GameObject (select icon or label for it for better visibility in editor);
- Position this below or on his feet;

Add this script to your player GameObject:

[PlayerMove.cs](#)

```
using UnityEngine;
using System.Collections;

public class PlayerMove : MonoBehaviour {

    float maxSpeed = 10f;
    float jumpForce = 300f;

    bool grounded = false;
    public Transform groundCheck;
    float groundRadius = 0.2f;
    public LayerMask whatisGround;

    // Use this for initialization
    void Start () {
        GetComponent<Rigidbody2D> ().constraints =
RigidbodyConstraints2D.FreezeRotation;
    }

    // no need for * Time.deltaTime here
    void FixedUpdate () {
        grounded = Physics2D.OverlapCircle (groundCheck.position,
groundRadius, whatisGround);

        if (grounded) {
            float move = Input.GetAxis ("Horizontal");
            Vector2 current = GetComponent<Rigidbody2D>().velocity;
            GetComponent<Rigidbody2D> ().velocity = new Vector2 (move *
maxSpeed, current.y);
        }
    }
}
```

```
    }  
  
    void Update() {  
        if (grounded && Input.GetKeyDown (KeyCode.Space)) {  
            GetComponent<Rigidbody2D>().AddForce(new Vector2(0,  
jumpForce));  
        }  
    }  
}
```

Select your player and in the inspector do the following:

- Put your player in the “Player” layer;
- Drag the GroundCheck child to the GroundCheck transform slot;
- In the whatisGround layermask select “Everything” and deselect “Player”;

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