

# Tutorial; Damage hit/Player changes colour

## Setup

There are no new game objects to use for this part of the game as we are going to be going back to coding a pre-existing player in the game. Open up the player script and we will be editing this on the void update and void OnCollisionEnter.

## Coding player taking damage

The purpose of this code is to imitate the effect of if the player was taking damage if they were hit by an enemy in a game. We will be changing the colour of the player so they go redder each time the player hits the enemy, and in order to do this we will need to access the RGB colour range on the colour wheel. The code is written so as the damage is increased and the numeric value goes up, the colour of the player becomes gradually more red. It does this by accessing the cube (if (contact.name == "Cube")) in the hierarchy and as we are using void OnCollisionEnter the script knows that this is about interaction between the game object "Cube" and the player.

We then also need to access the renderer in order to get the colours so the player is able to change colour. We can use transform.GetComponent<Renderer> to find the renderer in the game engine and then material.color = new colour so that this changes the material colour on the player. In total, the code should look something like this;

```
void OnCollisionEnter(Collision collision)
{
    GameObject contact = collision.gameObject;

    //Damage when hit by cube
    if (contact.name == "Cube")
    {
        damage += 0.2f;

        if(damage > 1)
        {
            damage = 1;
        }
    }

    transform.GetComponent<Renderer>().material.color = new Color(1, 1 - damage, 1 - damage);
}
```