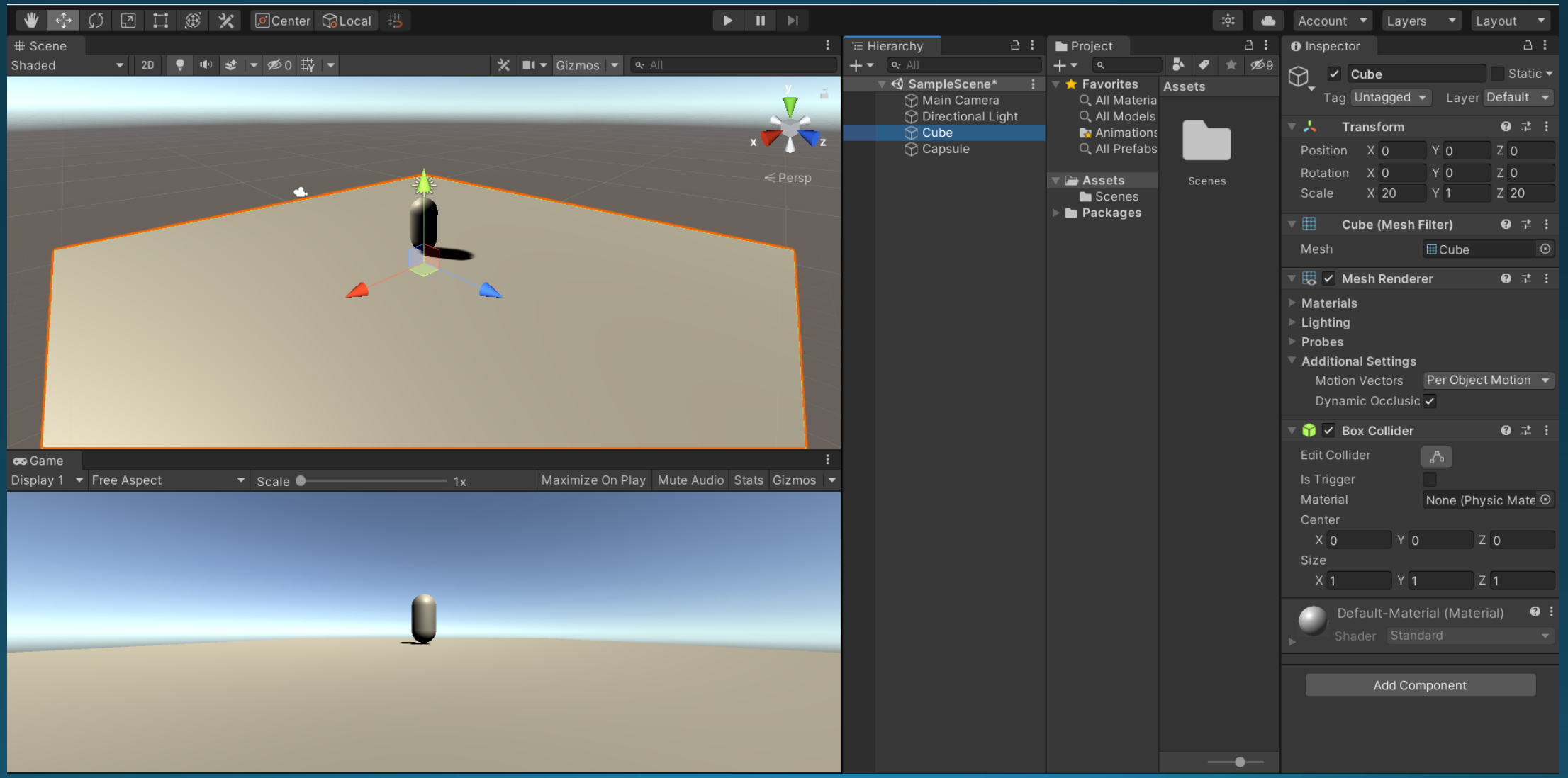
3D物件移動

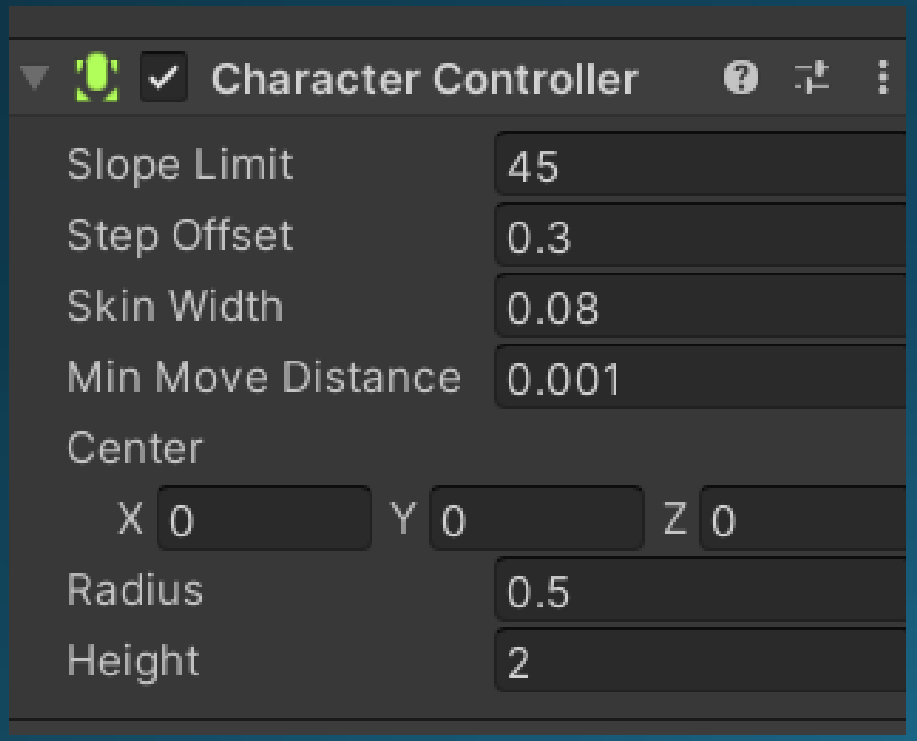
創建物件

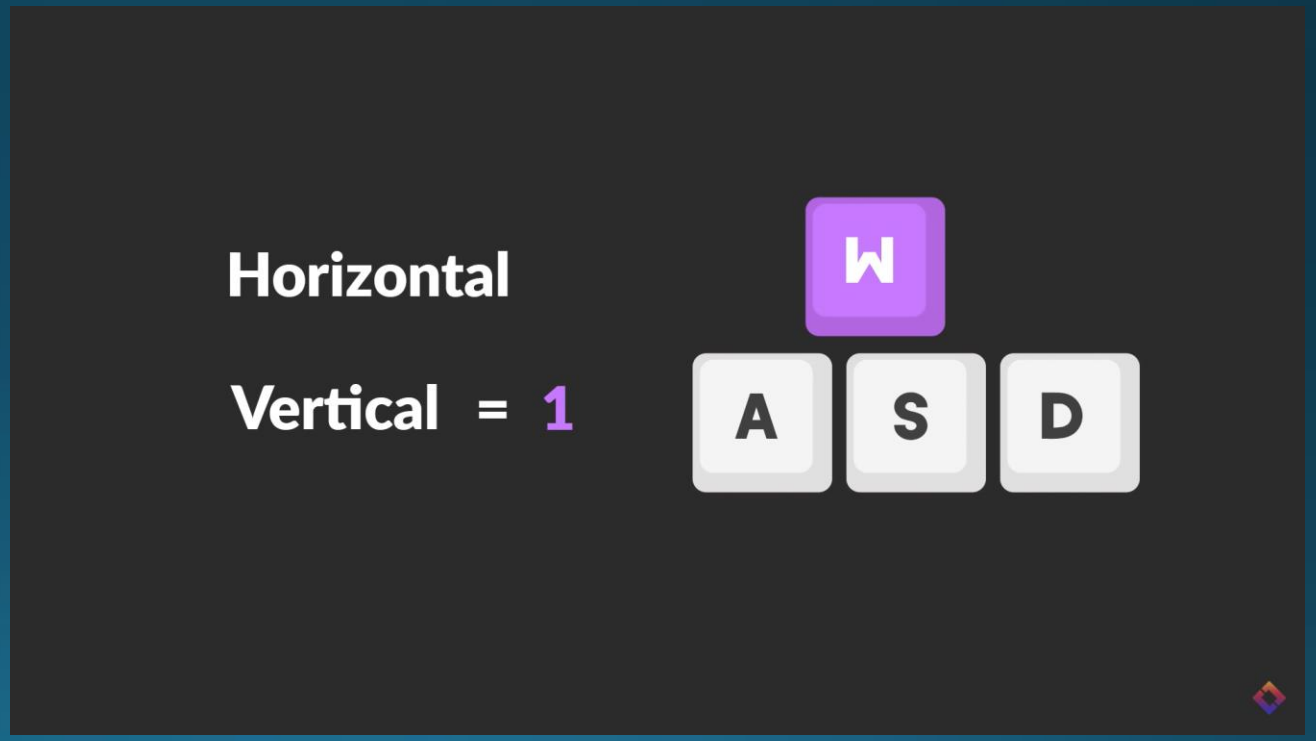
創建一個Capsule 和一個 cube，並把cube的長寬改成20



Character controller 元件

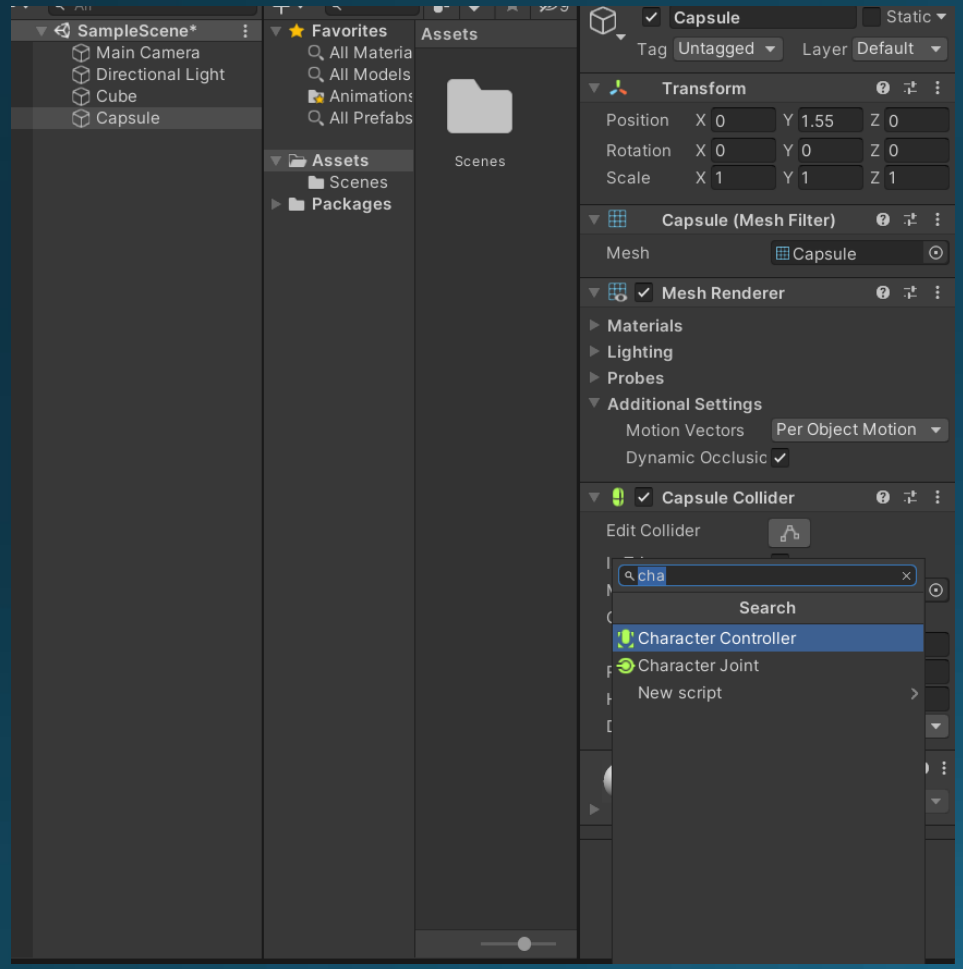
算是unity內建的腳色控制器
裡面會幫你計算一些複雜的物件移動
偵測按鍵輸入.....



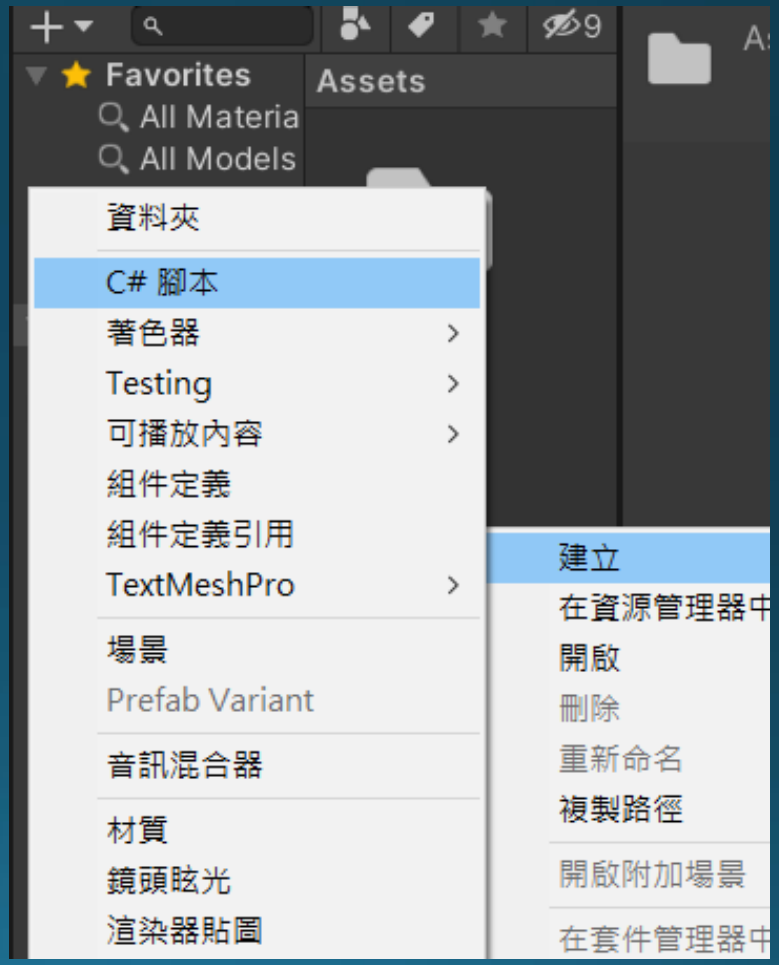


建立腳本

選擇capsule->add component->character controller

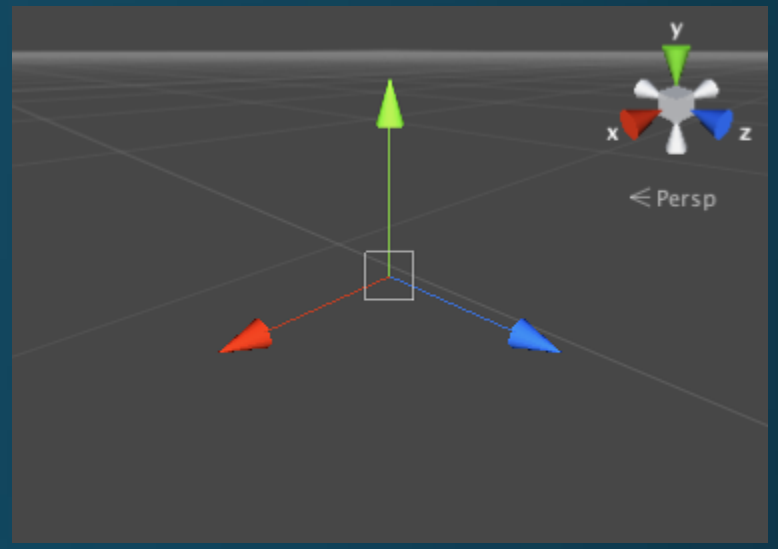


在assets按下右鍵->create->C# script



~~難過地寫~~code

點兩下腳本打開



第一步 我們要隨時取得物件X、Z軸上的變化量

```
void Update()
{
    float x = Input.GetAxis("Horizontal");
    float z = Input.GetAxis("Vertical");
}
```

接著我們要將X、Z軸的變化存入一個變數來讓物件移動

```
Vector3 move = new Vector3(x, 0f, z);
```

~~難過地寫~~code

為了驅動物件移動，我們要在腳本裡匯入character controller

```
public CharacterController controller;
```

類似C++裡的import、Python裡的import as

Import character controller 命名為 controller

使用character controller內建的Move功能
導入剛剛存放物件整體X、Z軸變化量的變數move

```
    controller.Move(move);
```

~~難過地寫~~code

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Import character controller 命名為 controller

使用character controller內建的Move功能
導入剛剛存放物件整體X、Z軸變化量的變數move

```
    controller.Move(move);
```

更改移動速度

```
public float speed = 12;
```

```
controller.Move(move * speed * Time.deltaTime);
```

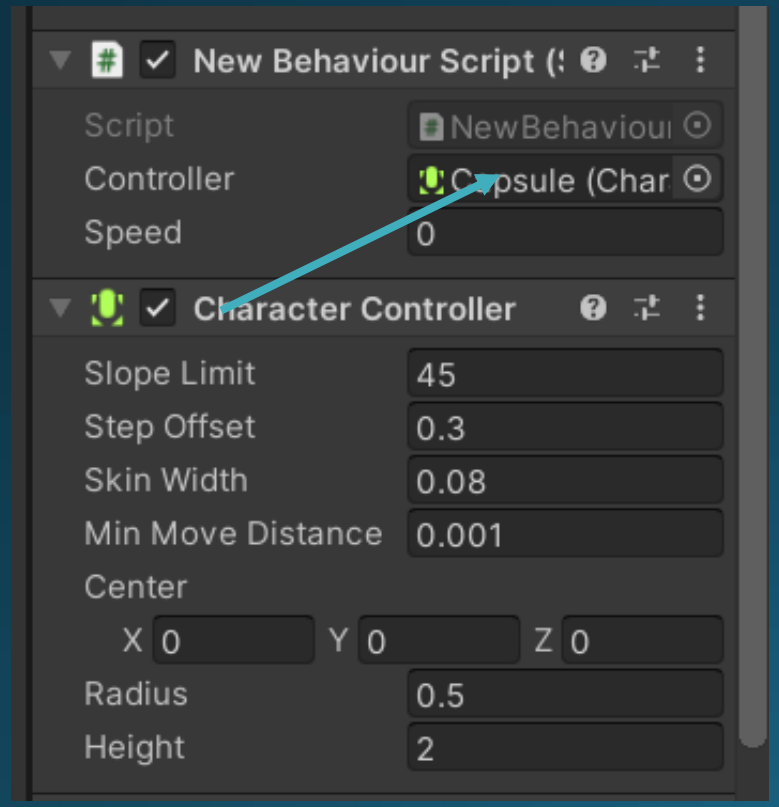
完整code

```
public class NewBehaviourScript : MonoBehaviour
{
    public CharacterController controller;

    public float speed = 12;

    // Update is called once per frame
    void Update()
    {
        float x = Input.GetAxis("Horizontal");
        float z = Input.GetAxis("Vertical");

        Vector3 move = new Vector3(x, 0f, z);

        controller.Move(move * speed * Time.deltaTime);
    }
}
```

放入腳本

把腳本拖入capsule

把character controller拖入controller裡面



左鍵長按拖進去

完成了!!!