

## **[B-2] Spin a cube**

### **Objective**

Learn how to apply vector-based rotation to objects in Unity.

### **Challenge Statement**

1. Scripting Rotation:
  - a. Edit the “Spin” script to rotate the object using vector operations.
  - b. The rotation should be controllable through user input (e.g., different keys to rotate around different axes).

### **Extra Challenge**

- Rotate the cube in world space.
  - In other words, regardless of the orientation of the cube, when you press the “up” arrow key, the cube should rotate directly upwards.

**Answer key next page!**

### Answer Key

```
using UnityEngine;

public class Spin_Solution : MonoBehaviour
{
    public float rotationSpeed = 100.0f;

    void Update()
    {
        float rotateX = Input.GetAxis("Vertical") * rotationSpeed *
Time.deltaTime;
        float rotateY = Input.GetAxis("Horizontal") * rotationSpeed *
Time.deltaTime;

        transform.Rotate(Vector3.up, rotateY, Space.World);
        transform.Rotate(Vector3.right, rotateX, Space.World);
    }
}
```

### Starter Code

```
using UnityEngine;

public class Spin : MonoBehaviour
{
    public float rotationSpeed = 100.0f;

    void Update()
    {
        // Implement rotation logic using vector operations
    }
}
```