

Roblox Exercise: Sliding Door

What You Will Make

You will build a door that slides up and down when you press E on a button.

Step 1: Build the Door

1. Open Roblox Studio and create a Baseplate.
2. Click Home → Part.
3. Select the new part.
4. In Properties:
 - Name: Door
 - Anchored: True
 - Size: X=6, Y=12, Z=1
5. Move it so it looks like a door.

Step 2: Build the Button

1. Click Home → Part again.
2. Select the new part.
3. In Properties:
 - Name: Button
 - Anchored: True
 - Size: X=2, Y=1, Z=2
4. Place it near the door.

Step 3: Add the Press E UI

1. Select Button in Explorer.
2. Click + →
ProximityPrompt.
3. Set Properties:
 - ActionText: Open Door
 - ObjectText: Button
 - KeyboardKeyCode: E
 - HoldDuration: 0

Step 4: Add the Script

1. In Explorer, right-click ServerScriptService.
2. Insert Object → Script.
3. Name it DoorScript.

Step 5: Code

Add this script

```
local TweenService = game:GetService("TweenService")

local door = workspace:WaitForChild("Door")
local button = workspace:WaitForChild("Button")
local prompt = button:WaitForChild("ProximityPrompt")

local closedCFrame = door.CFrame
local openCFrame = closedCFrame * CFrame.new(0, door.Size.Y + 1, 0)

local isOpen = false
local busy = false

local tweenInfo = TweenInfo.new(0.6)

local function toggleDoor()
    if busy then return end
    busy = true

    local target = openCFrame
    if isOpen then
        target = closedCFrame
    end

    local tween = TweenService:Create(door, tweenInfo, { CFrame = target })
    tween:Play()
    tween.Completed:Wait()

    isOpen = not isOpen
    busy = false
end

prompt.Triggered:Connect(toggleDoor)
```

Step 6: Test

1. Click Play.
2. Walk to the button.
3. Press E.
4. Door goes up.
5. Press E again.
6. Door goes down.

Mini Challenges

- Change the door speed by editing 0.6.
- Make the door go higher by changing +1 to +5.