

```

-- Game
-- Player 1 starts at position (0, 0)
p1x = 0
p1y = 0
p1s = 0 -- Sprite state for Player 1 (animation cycle)

-- Player 2 starts at position (100, 0)
p2x = 100
p2y = 0
p2s = 0 -- Sprite state for Player 2

-- Coin starts at a random position
o1x = math.random(0, 184)
o1y = math.random(0, 120)

-- Score for both players
score1 = 0 -- Player 1's score
score2 = 0 -- Player 2's score

-- Update function: Controls movement and checks for collisions
function update()
    -- Player 1 controls (Arrow keys)
    if key("right") and p1x < 184 then
        p1x = p1x + 1 -- Move Player 1 to the right
    end
    if key("left") and p1x > 0 then
        p1x = p1x - 1 -- Move Player 1 to the left
    end
    if key("up") and p1y > 0 then
        p1y = p1y - 1 -- Move Player 1 up
    end
    if key("down") and p1y < 120 then
        p1y = p1y + 1 -- Move Player 1 down
    end

    -- Player 2 controls (W, A, S, D keys)
    if key("d") and p2x < 184 then
        p2x = p2x + 1 -- Move Player 2 to the right
    end
    if key("a") and p2x > 0 then
        p2x = p2x - 1 -- Move Player 2 to the left
    end
    if key("w") and p2y > 0 then
        p2y = p2y - 1 -- Move Player 2 up
    end
end

```

```

end
if key("s") and p2y < 120 then
    p2y = p2y + 1 -- Move Player 2 down
end

-- Check if Player 1 touches the coin
if p1x > o1x - 8 and p1x < o1x + 8 then
    if p1y < o1y + 8 and p1y > o1y - 8 then
        score1 = score1 + 1 -- Increase Player 1's score
        o1x = math.random(0, 184) -- Move coin to a new position
        o1y = math.random(0, 120)
    end
end

-- Check if Player 2 touches the coin
if p2x > o1x - 8 and p2x < o1x + 8 then
    if p2y < o1y + 8 and p2y > o1y - 8 then
        score2 = score2 + 1 -- Increase Player 2's score
        o1x = math.random(0, 184) -- Move coin to a new position
        o1y = math.random(0, 120)
    end
end

-- Draw function: Displays everything on the screen
function draw()
    clear(12) -- Clear the screen with blue color (color code 12 is blue)

    -- Display Player 1's score and position
    text("P1 Score: " .. tostring(score1), 30, 0, 15)
    sprite(p1s, p1x, p1y) -- Draw Player 1's sprite

    -- Display Player 2's score and position
    text("P2 Score: " .. tostring(score2), 30, 10, 15)
    sprite(p2s, p2x, p2y) -- Draw Player 2's sprite

    -- Display the coin
    sprite(16, o1x, o1y) -- Draw the coin sprite

    -- Check if Player 1 wins
    if score1 == 3 then
        clear(0)
        text("P1 WINS!", 80, 60, 6) -- Show "P1 WINS!" message
    end
end

```

```
-- Check if Player 2 wins
if score2 == 3 then
    clear(0)
    text("P2 WINS!", 80, 60, 6) -- Show "P2 WINS!" message
end
end
```