

Platformer Code

Q. I want a platform. But I don't want one like the one on CSD Unit 3, Lesson 26 that goes down, I want one with a sideways scroll. How do I do that?

A. Don't. Gravity and platforms is a pain.

However, if you ignore me and do it anyway, be prepared to accept bugs in your code.

If the gravity and the scroll aren't the same way, it is a pain... so it won't be perfect.

The video that explains all of this is here: <https://youtu.be/c9HfPloog9k>

```
1 var speed = -1;
2 //Space Background - 2 frames to scroll
3 var frame1 = createSprite(200, 200);
4 frame1.setAnimation("sci_fi_1");
5 frame1.velocityX = speed;
6
7 var frame2 = createSprite(600, 200);
8 frame2.setAnimation("sci_fi_1");
9 frame2.velocityX = speed;
10
11 //Main character
12 var jumper = createSprite(100, 300);
13 jumper.setAnimation("alienGreen_walk_1");
14
15 //Platform
16 var platform = createSprite(400, 210);
17 platform.setAnimation("ground_wood_1");
18 platform.velocityX = speed;
19
20 var platformTop = createSprite(400, 205);
21 platformTop.setAnimation("edge");
22 platformTop.velocityX = speed;
23
24 var platformBottom = createSprite(400, 220);
25 platformBottom.setAnimation("edge_copy_1");
26 platformBottom.velocityX = speed;
27
28 var onPlatform = "no";
```

```
30 //Enemy
31 var enemy = createSprite(400, 300);
32 enemy.setAnimation("sun_1");
33 enemy.scale = 0.25;
34 enemy.velocityX = speed;
35
36 //Score variable
37 var score = 0;
```

```
39 function draw() {
40   drawSprites();
41
42   //Handle background scrolling movement
43   //Alternate what is on the screen
44   if (frame1.x < -200) {
45     frame1.x = 600;
46   }
47   if (frame2.x < -200) {
48     frame2.x = 600;
49   }
50
51   //hit the ground
52   if (jumper.y > 300) {
53     jumper.velocityY = 0;
54     jumper.setAnimation("alienGreen_walk_1");
55   }
56
57   //jump
58   if (keyWentDown("space")) {
59     jumper.velocityY = jumper.velocityY - 3;
60     jumper.setAnimation("alienGreen_jump_1");
61   }
62
63   //gravity pulls down
64   if (jumper.y < 125) {
65     jumper.velocityY = 3;
66     jumper.setAnimation("alienGreen_duck_1");
67   }
68 }
```

```
69 //Platform -----
70 //Slide along on top of platform
71 if (jumper.isTouching(platformTop)) {
72     jumper.velocityY=0;
73     onPlatform="yes";
74 }
75
76 //Platform passes under us, then go down
77 if ( !jumper.isTouching(platformTop) && jumper.y < 300 && onPlatform=="yes") {
78     jumper.velocityY = 3;
79     jumper.setAnimation("alienGreen_duck_1");
80     onPlatform="no";
81 }
82
```

```
83 //Bounce off platform bottom
84 if (jumper.isTouching(platformBottom)) {
85     jumper.velocityY = 3;
86     jumper.setAnimation("alienGreen_duck_1");
87 }
88
```

```
89 //enemy hits alien -----
90 //score: decreases, respawn enemy farther over
91 if(jumper.isTouching(enemy)){
92     enemy.x=randomNumber(510, 530);
93     score--;
94 }
95
96 //enemy gets to edge
97 //score: increase, respawn enemy
98 if (enemy.x<-50) {
99     enemy.x=randomNumber(410, 430);
100    score++;
101 }
```

```
103 //respawn platform  
104 if( platform.x <-50 ) {  
105     platform.x=400;  
106     platformTop.x=400;  
107     platformBottom.x=400;  
108 }  
109 }
```

```
111 //display score  
112 textSize(20);  
113 text( "Score: "+score , 10, 20 );  
114 }
```