

Bugs - The Curious Case of Disappearing Game Objects



What we did:

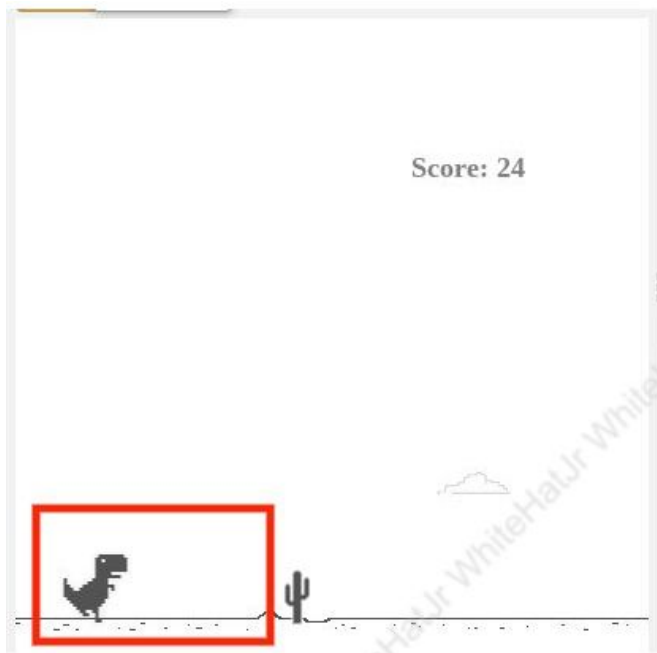
- Set the collider radius so that the game ends when T-Rex touches the obstacle.
- Diagnose and design a solution to the problem of disappearing obstacles and clouds.
- Add animation and reset function when the game ends.

How we did it:

Step 1: Set the collision radius of the T-Rex

sprite.setCollider() function is used to set the collider shape and size —
trex.setCollider("circle",0,0,40).

```
7 var trex = createSprite(200,380,20,50);  
8 trex.setAnimation("trex");  
9  
10 trex.setCollider("circle",0,0,40);  
11  
12 //scale and position the trex  
13 trex.scale = 0.5;  
14 trex.x = 50;  
15
```



Step 2: Print the game state in the console and see it change when the collision happens

```
38 //set background to white
39 background("white");
40 //display score
41 text("Score: "+ count, 250, 100);
42 console.log(gameState);
43
44 if(gameState === PLAY){
45     //move the ground
46     ground.velocityX = -6;
47     //scoring
48     count = Math.round(World.frameCount/4);
49 }
```

Step 3: Change the T-Rex animation after END state changes to a different image where its eyes pop out after the collision.



Step 4: Change the T-Rex animation when the gameState becomes END

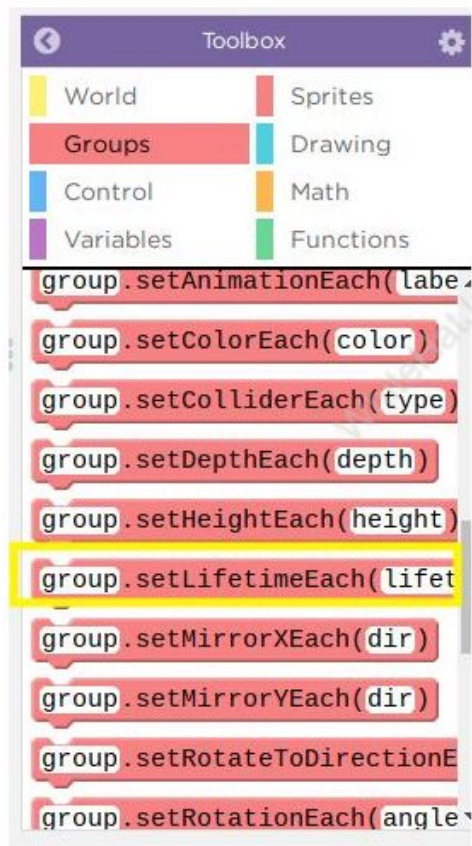
```

70     }
71 }
72
73 else if(gameState === END) {
74     ground.velocityX = 0;
75     trex.setAnimation("trex_collided");
76     obstaclesGroup.setVelocityXEach(0);
77     cloudsGroup.setVelocityXEach(0);
78 }
79

```

Step 5: Set the lifetime of the game object to -1

This is so that every frame will move away from 0 and never reach 0



Step 6: Write the code for setting the Lifetime of all the spawned objects in the groups to be -1 in the END condition of the game.

```

72
73 else if(gameState === END) {
74     ground.velocityX = 0;
75     trex.setAnimation("trex_collided");
76     ObstaclesGroup.setVelocityXEach(0);
77     CloudsGroup.setVelocityXEach(0);
78     ObstaclesGroup.setLifetimeEach(-1);
79     CloudsGroup.setLifetimeEach(-1);
80 }
81
82 //console.log(trex.y);
83

```

Step 7: Resolve the bug where, when we press space just at the time of the collision, the T-Rex flies upwards without gravity

```
70     }
71 }
72
73 else if(gameState === END) {
74     ground.velocityX = 0;
75     trex.velocityY = 0;
76     trex.setAnimation("trex_collided");
77     ObstaclesGroup.setVelocityXEach(0);
78     CloudsGroup.setVelocityXEach(0);
79     ObstaclesGroup.setLifetimeEach(-1);
80     CloudsGroup.setLifetimeEach(-1);
81 }
```

Step 8: Set Game Over text and restart icon displayed on the screen when the game ends

```
73 else if(gameState === END) {
74     ground.velocityX = 0;
75     trex.velocityY = 0;
76     trex.setAnimation("trex_collided");
77     ObstaclesGroup.setVelocityXEach(0);
78     CloudsGroup.setVelocityXEach(0);
79     ObstaclesGroup.setLifetimeEach(-1);
80     CloudsGroup.setLifetimeEach(-1);
81
82     var gameOver = createSprite(200,300);
83     var restart = createSprite(200,340);
84
85     gameOver.setAnimation("gameOver");
86     gameOver.scale = 0.5;
87     restart.setAnimation("restart");
88     restart.scale = 0.5;
89 }
```

What's next? : Add sounds to the game