



### What is our GOAL for this MODULE?

Create a jumping and running Trex dinosaur for our Trex game

### What did we ACHIEVE in the class TODAY?

- Made a jumping and running Trex
- Learned to scale the images in the game
- Create a ground sprite

# Which CONCEPTS/ CODING BLOCKS did we cover today?

- Add animation to Sprites
- Add gravity effect to Sprites
- Create a ground sprite and Trex sprite



#### How did we DO the activities?

1. Create a sprite for Trex somewhere near the ground. Let's give a name to our sprite as Trex and store it in a variable.

```
var trex

function setup(){
   createCanvas(600,200)

  //create a trex sprite
   trex = createSprite(50,160,20,50);
}

function draw(){
   background("white")
   drawSprites();
}
```

2. Create a rectangular sprite called **ground**. This is where the Trex dinosaur will run. The **ground** sprite should ideally cover the entire screen:

```
function setup(){
   createCanvas(600,200)
   trex = createSprite(50,160,20,50);
   trex.addAnimation("running", trex_running);

   //adding scale and position to trex
   trex.scale = 0.5;
   trex.x = 50;

   //create ground Sprite
   ground = createSprite(200,180,400,20);
}
```



3. Create a Trex Sprite and load a running Trex animation:

```
var trex ,trex_running;
1
2
    function preload()
4
      trex_running = loadAnimation("trex1.png", "trex
    3.png", "trex4.png");
6
                                 MildHall
    }
    function setup(){
10
      createCanvas(600,200)
11
      //create a trex sprite
12
      trex = createSprite(50,160,20,50);
13
      trex.addAnimation("running", trex_running);
14
15
16
    function draw(){
17
      background("white")
18
      drawSprites();
19
20
21
```



4. Make the Trex jump and add a gravity effect to it. Make sure the Trex falls on the ground:

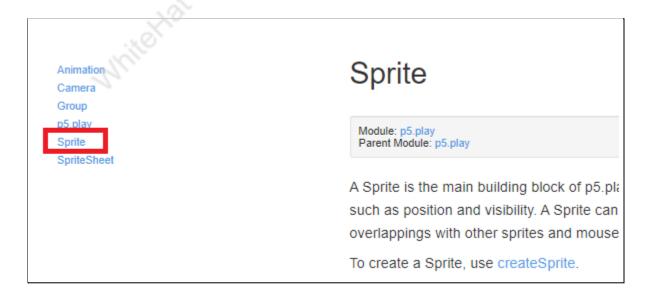
```
function setup(){
    createCanvas(600,200)
    trex = createSprite(50,160,20,50);
    trex.addAnimation("running", trex_running);
    edges = createEdgeSprites();
}

function draw(){
    //set background color to white
    background("white");

    //jump when space key is pressed
    if(keyDown("space"))
    {
        trex.velocityY = -10;
    }
    trex.velocityY = trex.velocityY + 0.5;

    //stop trex from falling down
    trex.collide(edges[3]);
    drawSprites();
}
```

5. Click on the Sprite documentation:





6. Choose the scale properties:

```
update()

    Properties

    _rotation

    animation

    collider

    debug

    depth

    friction

    groups

    height

    immovable

 life

                                                   el at Jr x WhiteHat Jr

    mass

    maxSpeed

    mouseActive

    mouselsOver

    mouselsPressed

    originalHeight

    originalWidth

    position

    previousPosition

    removed

    restitution

    rotateToDirection

    rotation

    scale

    shapeColo

    touching

    velocity

    visible

    width
```

7. Scale the dinosaur to the right size:

```
function setup(){
   createCanvas(600,200)
   trex = createSprite(50,160,20,50);
   trex.addAnimation("running", trex_running);
   edges = createEdgeSprites();

   //adding scale and position to trex
   trex.scale = 0.5;
   trex.x = 50;
}

function draw(){
   //set background color to white
   background("white");
```

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8. Collide the Trex to the ground:

```
//create ground Sprite
ground = createSprite(200,180,400,20);
}

function draw(){
  background(220);

  //jump when space key is pressed
  if(keyDown("space"))
  {
    trex.velocityY = -10;
  }
  trex.velocityY = trex.velocityY + 0.5;

  //stop trex from falling down
  trex.collide(ground);

  drawSprites();
}
```

## Output:



# PRO-C11



#### What's next?

We will fix the two bugs discovered in the game and we learn to build the infinite running Trex.

WhiteHat Jr. White

## **Extend Your Knowledge:**

To know more about adding an image you can use the link here: AddImage