

## INSTRUCTIONS:

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### Goal of the Project:

In Class 14, you have learned how to set collider radius for trex, so that the game ends when trex touches the obstacles. You also learned how to diagnose and design a solution for the problem of disappearing objects.

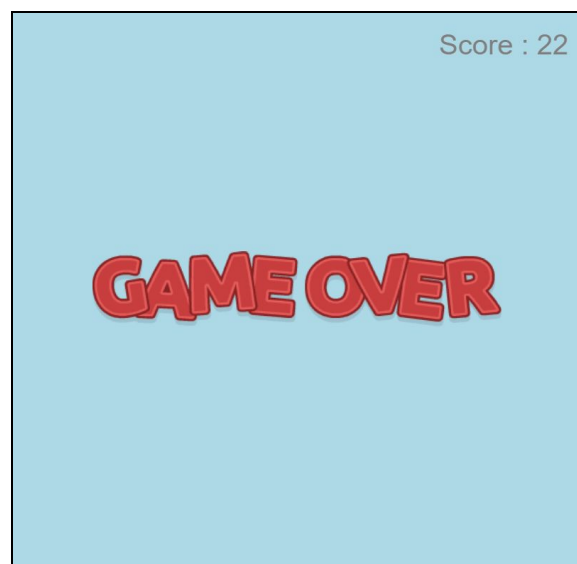
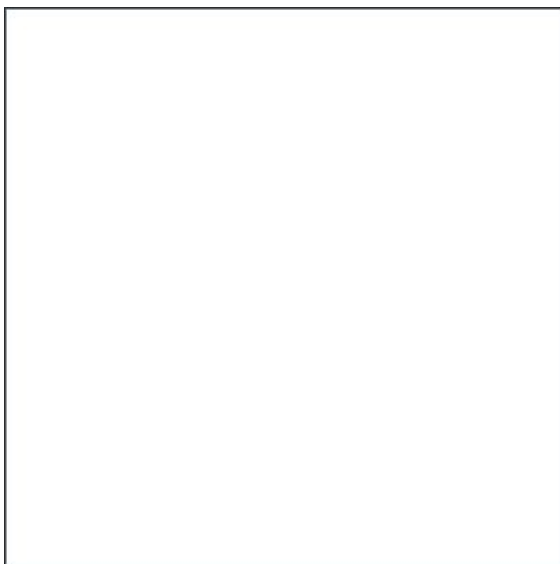
In this project, you will have to practice and apply what you have learned in the class and create a game of Fruit Ninja.

### Story:

Meera is learning new culinary skills everyday. She just learned to cut fruits in different ways for decoration. While searching on the internet for more ways of decorating and cutting fruits, she came across this game - Fruit Ninja. She really liked it.

She knows that you are a coding expert just as she is a culinary expert. So she has asked for your help to design this game for her.

See a video of this project [here](#).



**\*This is just for your reference. We expect you to apply your own creativity in the project.**

### Getting Started:

1. Login to code.org
2. Click on the following link: [Project Template](#)
3. Click on “How it Works”.
4. Click on “Remix”.
5. Rename the project to **Project 14** and click on **Save**.

### Specific Tasks to complete the Project:

1. Create a **sprite** for a **knife/sword** and give it an animation from the animation tab.
2. Give the **gameStates** as PLAY and END.

```
//Game States  
var PLAY=1;  
var END=0;  
var gameState=1;
```

3. Declare **score variable**, a **fruitGroup** and an **enemyGroup**.

```
// Score variables and Groups  
var score=0;  
var fruitGroup=createGroup();  
var enemyGroup=createGroup();
```

4. Add a light **background** color.
5. Create **functions for fruit and monster** outside draw function and call them inside the draw function.
  - Use different animations for fruits and monsters. (See Hints)

```
//Call fruits and Enemy function  
fruits();  
Enemy();
```

6. When the game starts, the **gameState** should be “PLAY”.

## 7. Inside the draw function:

- If the game state is “Play” -
  - Change the X and Y position of the sword sprite to the X and Y position of the mouse respectively.

```
// Move sword with mouse
sword.y=World.mouseY;
sword.x=World.mouseX;
```

- If the sword is touching the fruit, increase the score by 1 or 2 and destroy fruitGroup.

```
// Increase score if sword touching fruit
if(fruitGroup.isTouching(sword)) {
    fruitGroup.destroyEach();
    score=score+2;
}
```

8. If the sword is touching a monster, go to **gameState END**.

- Destroy the fruitGroup.
- Destroy the enemyGroup
- Set velocity X for both the groups to 0.
- Give the “**Game Over**” Animation to the sword and reposition it to the center of the game area..

9. Click on “**Run**” once to check if the code is working correctly.

\*Refer to the images given above for reference.

**Submitting the Project:**

1. SAVE all the changes made to the project.
2. Click the “**SHARE**” button to generate a shareable link.
3. Copy this link and submit it in the Student Dashboard Projects panel against the correct class number.

**Hints:**

1. Create fruits using the Fruits() function as shown below:

```
function fruits() {  
  if(World.frameCount%80===0) {  
    var fruit=createSprite(400,200,20,20);  
    fruit.scale=0.2;  
    //fruit.debug=true;  
    var r=randomNumber(1,4);  
    fruit.setAnimation("fruit"+r);  
    fruit.y=randomNumber(50,340);  
  
    fruit.velocityX=-7;  
    fruit.setLifetime=100;  
  
    fruitGroup.add(fruit);  
  }  
}
```

Create a similar function for a Monster.

```
function Enemy() {  
  if(World.frameCount%200===0) {  
    var monster=createSprite(400,200,20,20);  
    monster.setAnimation("alienGreen_badge_1");  
    monster.y=randomNumber(100,300);  
    monster.velocityX=-8;  
    monster.setLifetime=50;  
  
    enemyGroup.add(monster);  
  }  
}
```

2. If the sword touches the Monster, the game state will change to “END”. At that time, change the sprite of the sword to the “Game Over” text and center it on the canvas.

```
// Change the animation of sword to gameover and reset its position  
sword.setAnimation("textGameOver_1");  
sword.x=200;  
sword.y=200;
```

PROFESSIONAL

FRUIT NINJA - 1



**REMEMBER...** Try your best, that's more important than being correct.

After submitting your project your teacher will send you feedback on your work.

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