Project 73

DP EDUCATION
Coding School

73

Fly
Hand Move
Missile
Power Off

How It Works — Start here

Run — See the App

Built on Code Studio

❖ Let's create an Iron Man.

❖ The background and required sprites have been created and given in the respective places.

❖ To assemble each body part in order, make the variables created in this way equal to 1.

```
var bodyPart=1;
var chestPart = 1;
var headPart =1;
var leftHandPart =1;
var rightHandPart = 1;
var leftLegPart = 1;
var rightLegPart= 1;
```

❖ Then some sprites created and given to you do not need to be visible at the beginning of the game, so their visibility should be hidden.

```
powerButton.visible = 0;
flyButton.visible = 0;
handMoveButton.visible = 0;
missileButton.visible = 0;
powerOffButton.visible = 0;
iornmanFly.visible = 0;
missileLeft.visible = 0;
missileRight.visible = 0;
```

❖ After creating the design in this way, let's start creating functionalities. Do all the codes for this in the draw function.

❖ first drawSprites(); Call the function.

❖ After that, let's create the relevant code to assemble each body part in order.

❖ First, when you click on the body, adjust the part so that it comes to the right place. Then set the value of the variable created above as bodyPart equal to 0.

```
if ( mousePressedOver(body) ) {
    body.x = 200;
    body.y = 180;
    bodyPart =0;
}
```

❖ So it is equal to 0 because that part has to be placed first.

❖ After that, when the chest part is clicked, in addition to checking whether the bodyPart variable is equal to 0, it should be checked in the if block.

```
if ( mousePressedOver(chest) && bodyPart == 0 ) {
    chest.x = 200;
    chest.y = 115;
    chestPart =0;
}
```

❖ Here the chestPart variable is set to 0.
❖ In the same way, when you click on the other parts, place them correctly and make their respective variables equal to 0. It is mandatory to check if the variable is 0 in the section placed before it

```
if ( mousePressedOver(head) && bodyPart == 0 && chestPart == 0 ) {
    head.x = 200;
    head.y = 40;
    headPart =0;
}
```

```
if ( mousePressedOver(leftHand) && bodyPart == 0 && chestPart == 0 && headPart == 0 ) {
    leftHand.x = 120;
    leftHand.y = 140;
    leftHandPart =0;
}
```

```
if ( mousePressedOver(rightHand) && bodyPart == 0 && chestPart == 0 && headPart == 0 && leftHandPart == 0 ) {
    rightHand.x = 280;
    rightHand.y = 140;
    rightHandPart =0;
}
```

```
if ( mousePressedOver(leftLeg) && bodyPart == 0 && chestPart == 0 && headPart == 0 && leftHandPart == 0 && rightHandPart == 0 )
    leftLeg.x = 149;
    leftLeg.y = 300;
    leftLegPart = 0;
```

```
if ( mousePressedOver(rightLeg) && bodyPart == 0 && chestPart == 0 && headPart == 0 && leftHandPart == 0 && rightHandPart == 0 && leftLegPart == 0 )
    rightLeg.x = 250;
    rightLeg.y = 300;
    rightLegPart = 0;
    powerButton.visible = 1;
```

❖ Finally, the visibility of the powerButton sprite is shown in the if block where the right leg is assembled. After all the parts are connected, the power button will be displayed to start Iron Man.

❖ Now let's create what should happen when the power button is clicked.

 Let's change the images of the sprites to create how the lights on the eyes, chest and hands are on. Code as below for that.

```
if ( mousePressedOver(powerButton) )
    head.setAnimation(▼"head.png_1");
    chest.setAnimation(▼"chest.png_1");
    leftHand.setAnimation(▼"Hand L.png_1");
    rightHand.setAnimation(▼"Hand R.png_1");
    playSound(▼"iron-man-repulsor-sound-1.mp3", ▼false); ↵
    playSound(▼"ElevenLabs_2023-06-06T16_29_15.000Z_Jarvis_vnxRNKYYMyBCwfqdymnL.mp3", ▼false); ↵
    powerButton.visible = 0;
    flyButton.visible = 1;
    handMoveButton.visible = 1;
    missileButton.visible = 1;
    powerOffButton.visible = 1;
```

Images with lights on are included in the library for you.

❖ After changing the sprites, the play sound block has been used in the design so that a sound can be heard when the power is on. The sounds that need to be used there are also included in the library.

```
playSound(▼"iron-man-repulsor-sound-1.mp3", ▼false); ↵
playSound(▼"ElevenLabs_2023-06-06T16_29_15.000Z_Jarvis_vnxRNKYYMyBCwfqdymnL.mp3", ▼false); ↵
```

❖ As soon as the power is turned on, the power button is hidden and the other operational buttons are displayed using the above button visible codes.

```
powerButton.visible = 0;
flyButton.visible = 1;
handMoveButton.visible = 1;
missileButton.visible = 1;
powerOffButton.visible = 1;
```

❖ Then let's code the functionality of the operational buttons that appeared like that.

❖ When the fly button is clicked, use the mousePressedOver block in an if block and code what should happen in the if block.

❖ First use this block to change the background of iron man flying. The

```
background.setAnimation( ▼ "background2.jpeg_1");
```

image to be used for that is in the library as "background2.jpeg_1".

❖ Change its scale to 2.5.

❖ Add blocks in the following way to hide all the body parts of the standing person while flying.

```
head.visible = 0;
chest.visible = 0;
body.visible = 0;
leftHand.visible = 0;
rightHand.visible = 0;
leftLeg.visible = 0;
rightLeg.visible = 0;
```

❖ Then use `iornmanFly.visible =1;` this block to make the ironmanFly sprite visible.

❖ Give a speed and a direction for that sprite to move and make it fly. For `iornmanFly.setSpeedAndDirection(1, 180);` that Use the block like this

❖ So if the ironmanFly sprite moves and its x position is equal to -160, i.e. when it leaves the screen completely, code as follows in an if block to display the standing sprites on the screen again.

```
if ( iornmanFly.x == -160 )
    background.setAnimation( ▼ "background.jpg_1");
    background.scale = 2;
    head.visible = 1;
    chest.visible = 1;
    body.visible = 1;
    leftHand.visible = 1;
    rightHand.visible = 1;
    leftLeg.visible = 1;
    rightLeg.visible = 1;
```

❖ Then when the handMoveButton is clicked, the assembled body parts should be hide. Then show the visible of the new handMove sprite

```
if ( mousePressedOver(handMoveButton) ) {
    head.visible = 0;
    chest.visible = 0;
    body.visible = 0;
    leftHand.visible = 0;
    rightHand.visible = 0;
    leftLeg.visible = 0;
    rightLeg.visible = 0;
    handMove.visible = 1;
}
```

❖ If there is an ironmanFly or handMove sprite on the display when you click on the Missile button, they must be hidden first. After that, making the added body parts visible should be done first.

❖ Then show the visibility of the sprites related to the two missiles and see how to give them a speed and a direction.

❖ Use the play sound block to use the sound of the missile launch. The sound required for that is in the library.

```
if ( mousePressedOver(missileButton) ) {
    handMove.visible = 0;
    ironmanFly.visible = 0;
    head.visible = 1;
    chest.visible = 1;
    body.visible = 1;
    leftHand.visible = 1;
    rightHand.visible = 1;
    leftLeg.visible = 1;
    rightLeg.visible = 1;
    missileLeft.visible = 1;
    missileRight.visible = 1;
    missileRight.setSpeedAndDirection(1, 300);
    missileLeft.setSpeedAndDirection(1, 240);
    playSound("missileSound.mp3", false);
}
```

❖ Finally, when the Power Off button is clicked, to create its functionality, first of all, if a handMove or ironmanFly sprite is visible, hide them.

❖ Then code as above to make all body parts visible.

❖ The lights are turned on due to the power on of the displayed body parts. In order to turn them off, the images related to light off in the head, chest, leftHand and rightHand sprites should be set.

```
head.setAnimation("offHead.png_1");
chest.setAnimation("offChest.png_1");
leftHand.setAnimation("offLeftHand.png_1");
rightHand.setAnimation("offRightHand.png_1");
playSound("iron-man-repulsor-sound-1.mp3", false);
playSound("powerOff.mp3", false);
powerButton.visible = 1;
```

❖ Use play sound blocks and select the above music in the library to play the sound during power on as well as when turning off.

❖ Finally, make the power button visible to power on again..