

Lesson 8 – Making Advance Games



Now let us see some Advance Gaming Projects
Gaming projects with Devices
&
Projects as per Students Imagination

Project 1 – Invaders from the Sky

This is comparatively a harder game. It involves:

- Multiple enemy planes.
- One own plane.
- Enemy bullets firing at you.
- Own bullets firing at the enemy.
- Score of bullet hits on own plane and number of lives left.
- Score of your hits on enemy planes.
- Background music.
- Once you understand its coding, you could make similar & complex games.

The storyline of the game is:

- Aliens are invading the earth in the deserts of Nevada.
- Only one plane remains at the air base and is being piloted by you.
- Though the fight is tough you take up the challenge because your plane can sustain up to three hits.
- If you get more than three hits the game will be over.
- Let us see how long you can keep the invaders at bay?

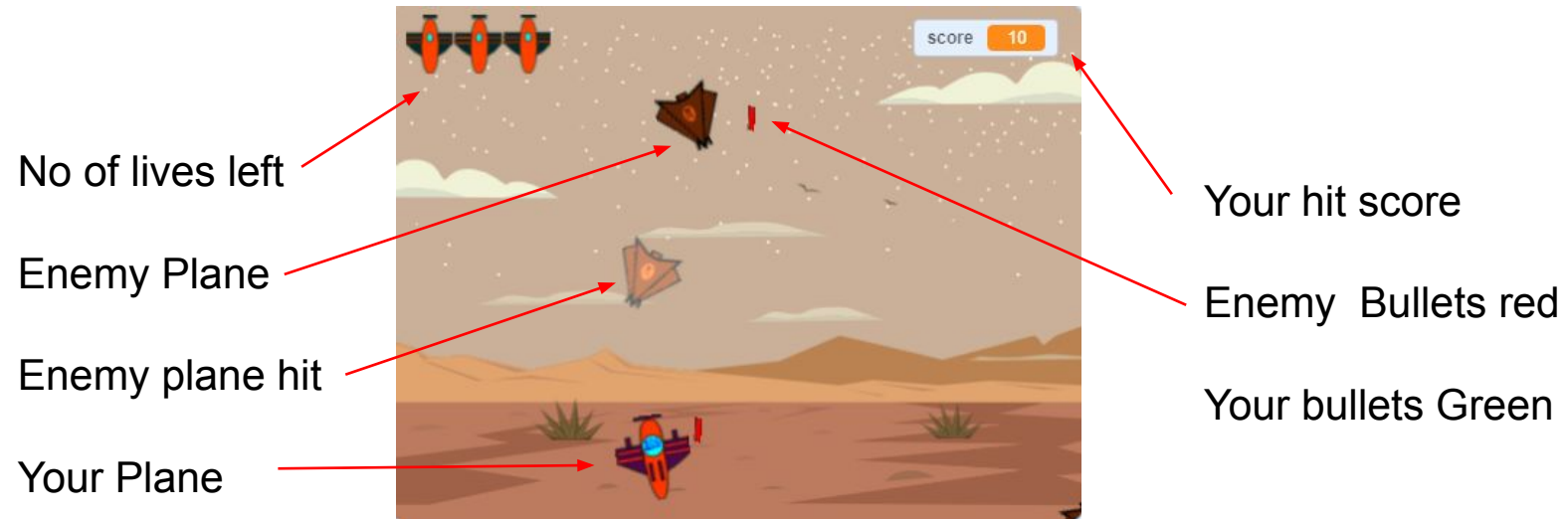
Method of coding.

In this game the alien planes require no control.
They will come from random locations to attack you.

You must control your plane by using the left and right arrows.
When you use the left arrow, the plane moves left and when you use the right arrow it moves right.

Your bullets are fired in the direction in which your plane is facing.
You also need to add background music and place it in a forever loop.

Stage Explanation



Code for Enemy Planes

```
when green flag clicked
hide
set score to 0
set controller to 0
delete all of Director
delete all of xposition
delete all of yposition
forever
wait 2 seconds
create clone of myself
```

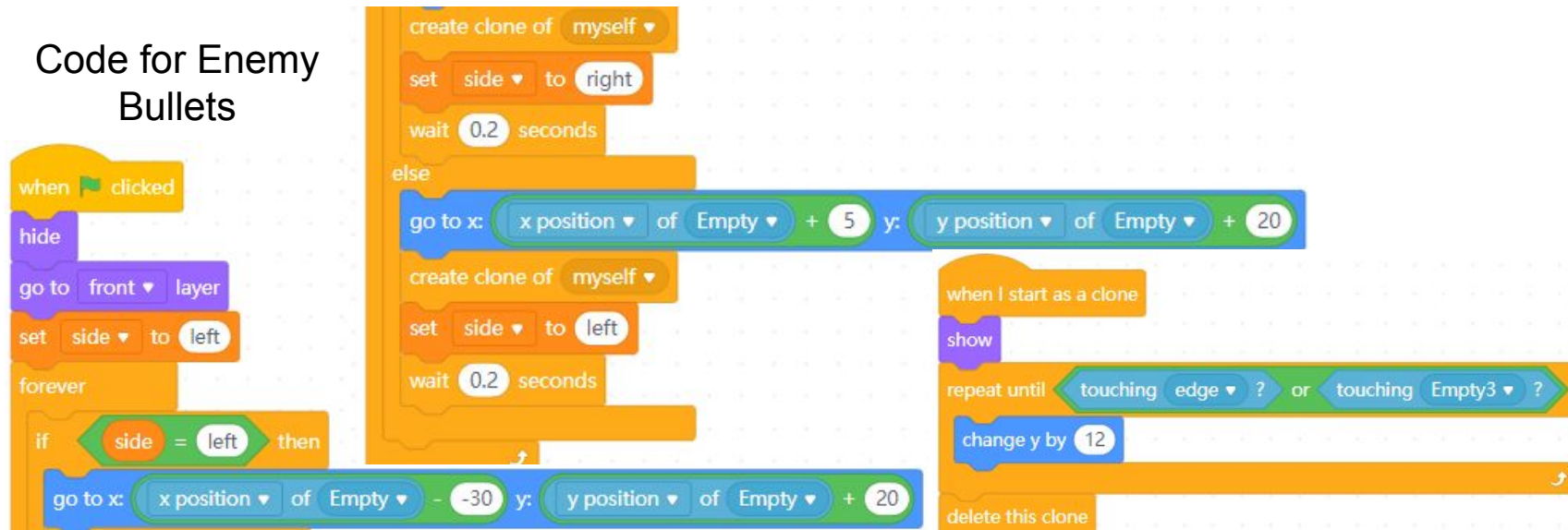
```
when I start as a clone
show
set plane lives to 3
repeat until y position < -184
move 2 steps
if touching Empty2? then
set brightness effect to 40
wait 0.05 seconds
set brightness effect to 0
change plane lives by -1
if plane lives < 1 then
change score by 10
delete this clone
delete this clone
```

```
when I start as a clone
go to x: pick random -272 to 240 y: 200
point towards Empty
forever
change controller by 1
add direction to Director
add x position to xposition
add y position to yposition
create clone of Empty4
wait 2 seconds
```

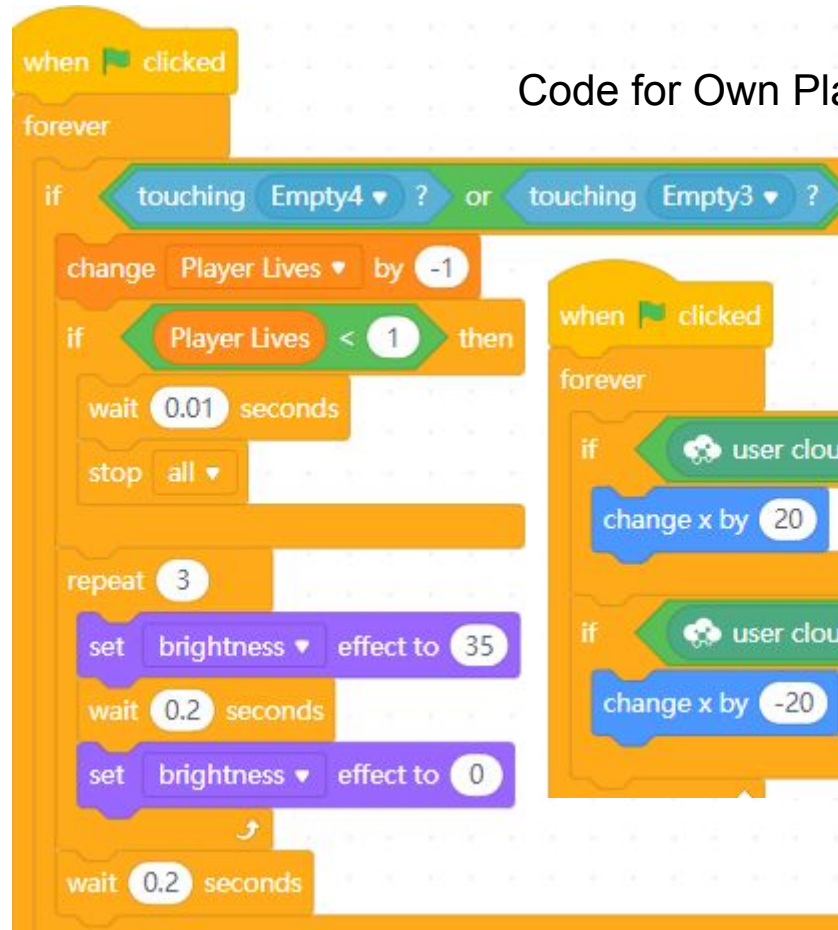
Code for Background Music

```
when green flag clicked
forever
play sound Dance Space until done
wait 0.1 seconds
```

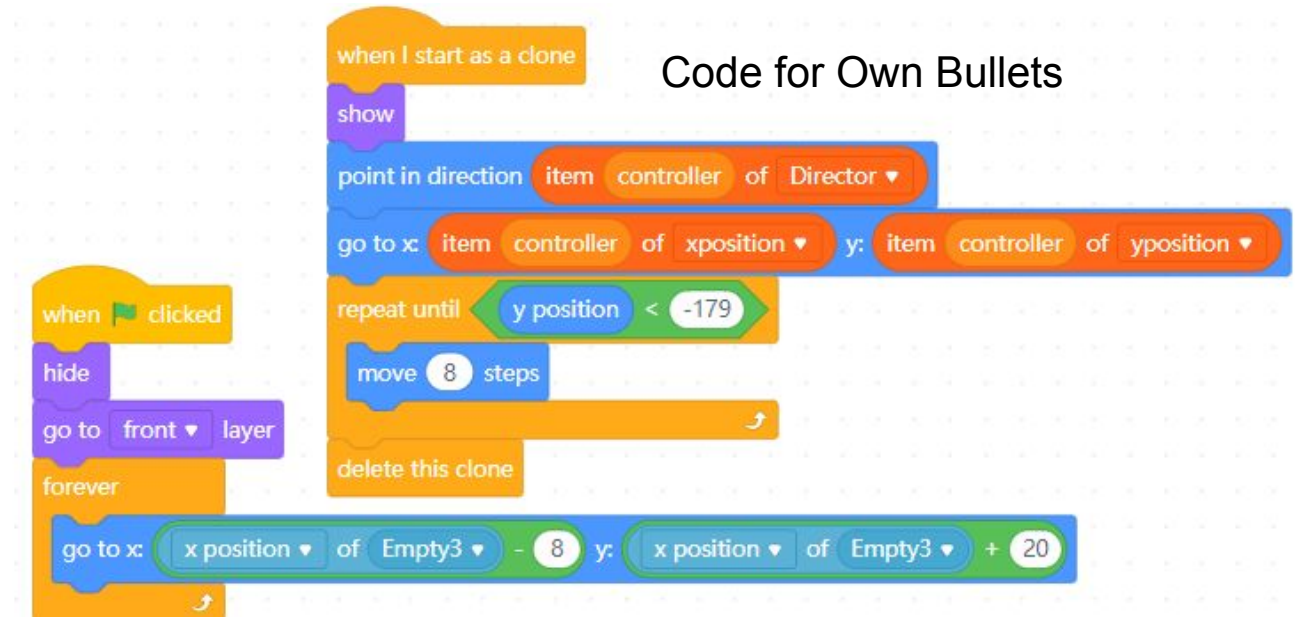
Code for Enemy Bullets



Code for Own Plane



Code for Own Bullets

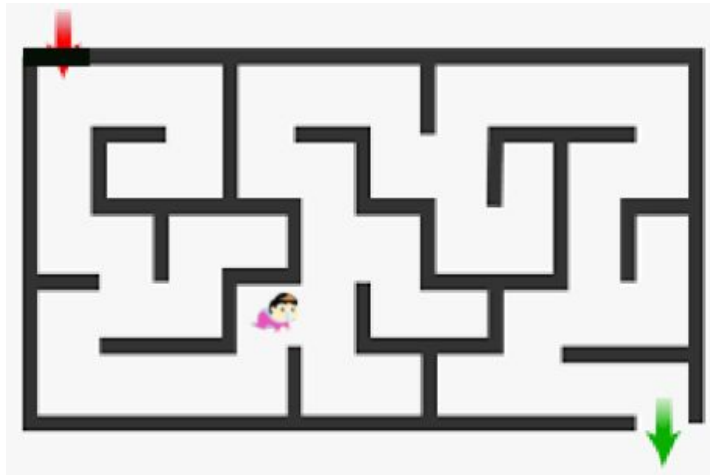


Project 2 – A Child Lost is a Maze

This is easier than project 1. Its story line is:

A small child is lost in a maze close to its house.
You have to guide it to come out of the maze.

Project must be executed using the arrow keys. Try yourself. See code if stuck.



View of
the Maze

Code for the Maze



Code for Child



Project 3 – Maze Game Level 2

This project is similar but has a more challenging maze. Its story line is:

A small panda entered a maze in search of Raspberry. It is lost inside.
You have to guide it to the raspberry.

The project must be executed using arrow keys.

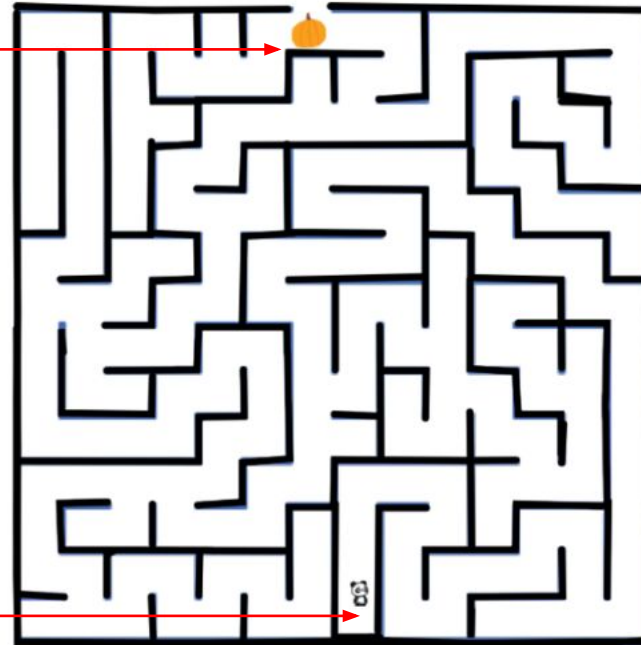
Game Controls

We must control the panda by using:

- Up arrow – To move upward
- Down arrow – to move downward
- Right arrow – to move right side
- Left arrow – to move left side.

Raspberry

Baby Panda



```
when green flag clicked
go to x: 4 y: -131
forever
  if key right arrow pressed? then
    change x by 4
    if touching color black? then
      change x by -4
  if key left arrow pressed? then
    change x by -4
    if touching color black? then
      change x by 4
```

Code for Baby Panda

```
if key up arrow pressed? then
  change y by 4
  if touching color black? then
    change y by -4
if key down arrow pressed? then
  change y by -4
  if touching color black? then
    change y by 4
```

```
when green flag clicked
forever
  if touching Blueberry2? then
    start sound Chirp
    stop all
```

Code for Raspberry

Code for Maze

```
when green flag clicked
go to x: -22 y: 154

when green flag clicked
go to x: -9 y: 4
```


Project 4 – The Flying Panda

The aim of this project is to teach the use of Gyro Sensor to control a game.

Since the virtual world of Sprites does not have sensors, we shall use a device Named Codey Rocky from Makeblock as it has a gyro sensor in it.

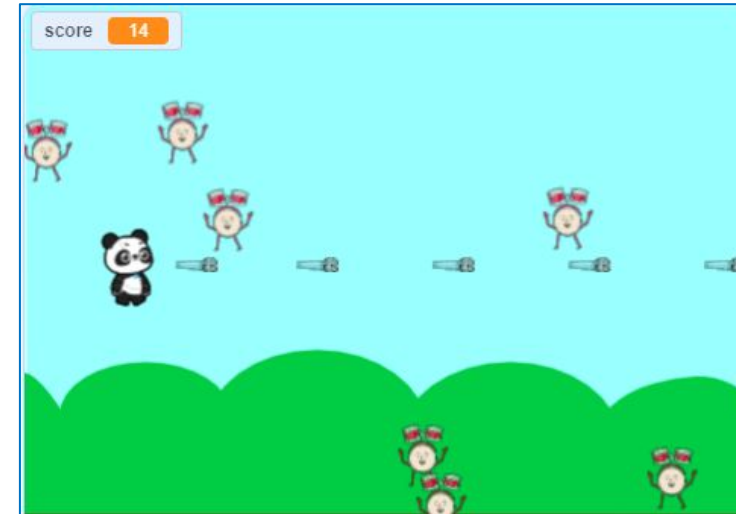
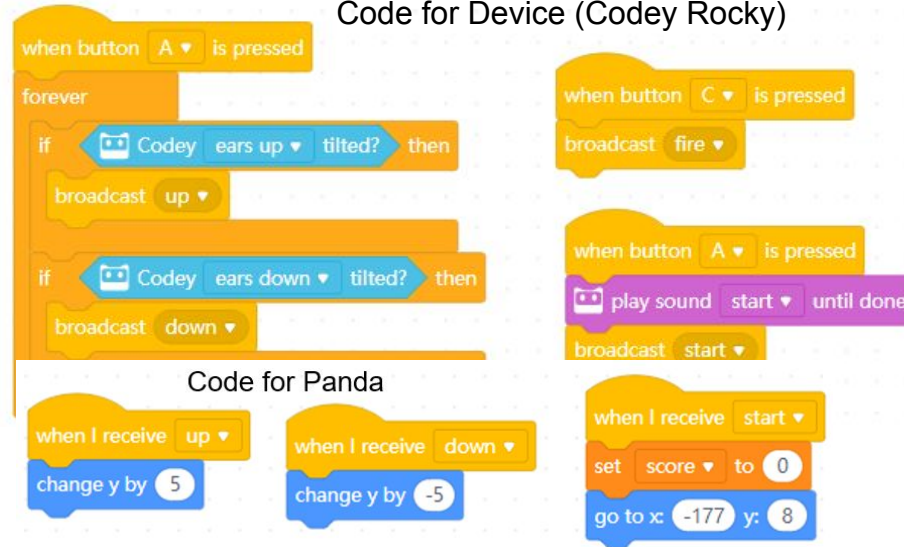
Game Control. In order to control the game:

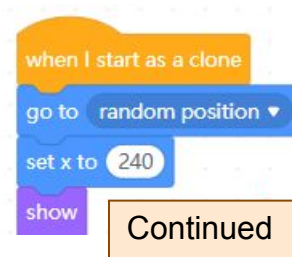
- Press button '**A**' of Codey Rocky to start the game
- Control the motion of Panda by tilting Codey in upward and downward direction.
 - Move Panda upwards by facing the ears of Codey upwards.
 - Move Panda downwards by facing the ears of Codey downwards.
- button '**C**' of Codey to fire bullets on enemies.

Enemy is coming from the sky & does not require any code.

Final Code

Code for Device (Codey Rocky)





Code for Enemy
(Sprite used Drum Kit)



when I receive fire ▼
forever
hide
create clone of myself ▼
wait 0.2 seconds

when I start as a clone
go to Panda ▼
show
repeat until touching edge ▼ ? or touching drum kit ▼ ?
change x by 10
delete this clone

Code for Bullets
(sprite used Microphone)



Code Karega India Badhega