

ActionScript 3

```
package{
import flash.display.MovieClip;
import flash.events.KeyboardEvent;
import flash.ui.Keyboard;
import flash.events.Event; //used for ENTER_FRAME event

public class Main extends MovieClip{

//constants
const gravity:Number = 1.5;           //gravity of the game
const dist_btwn_obstacles:Number = 300; //distance between two obstacles
const ob_speed:Number = 8;           //speed of the obstacle
const jump_force:Number = 15;        //force with which it jumps

//variables
var player:Player = new Player();
var lastob:Obstacle = new Obstacle(); //variable to store the last obstacle in the obstacle array
var obstacles:Array = new Array();    //an array to store all the obstacles
var yspeed:Number = 0;                //A variable representing the vertical speed of the bird
var score:Number = 0;                //A variable representing the score

public function Main(){
init();
}

function init():void {
//initialize all the variables
player = new Player();
lastob = new Obstacle();
obstacles = new Array();
yspeed = 0;
score = 0;

//add player to center of the stage the stage
player.x = stage.stageWidth/2;
player.y = stage.stageHeight/2;
addChild(player);
```

```

//create 3 obstacles ()
createObstacle();
createObstacle();
createObstacle();

//Add EnterFrame EventListeners (which is called every frame) and Keyboard EventListeners
addEventListener(Event.ENTER_FRAME,onEnterFrameHandler);
stage.addEventListener(KeyboardEvent.KEY_UP, key_up);
}

private function key_up(event:KeyboardEvent){
if(event.keyCode == Keyboard.SPACE){
//If space is pressed then make the bird
yspeed = -jump_force;
}
}

function restart(){
if(contains(player))
removeChild(player);
for(var i:int = 0; i < obstacles.length; ++i){
if(contains(obstacles[i]) && obstacles[i] != null)
removeChild(obstacles[i]);
obstacles[i] = null;
}
obstacles.slice(0);
init();
}

function onEnterFrameHandler(event:Event){
//update player
yspeed += gravity;
player.y += yspeed;

//restart if the player touches the ground
if(player.y + player.height/2 > stage.stageHeight){
restart();
}

//Don't allow the bird to go above the screen

```

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if(player.y - player.height/2 < 0){
player.y = player.height/2;
}

//update obstacles
for(var i:int = 0;i<obstacles.length;++i){
updateObstacle(i);
}

//display the score
scoretxt.text = String(score);
}

//This functions update the obstacle
function updateObstacle(i:int){
var ob:Obstacle = obstacles[i];

if(ob == null)
return;
ob.x -= ob_speed;

if(ob.x < -ob.width){
//if an obstacle reaches left of the stage then change its position to the back of the last obstacle
changeObstacle(ob);
}

//If the bird hits an obstacle then restart the game
if(ob.hitTestPoint(player.x + player.width/2,player.y + player.height/2,true)
|| ob.hitTestPoint(player.x + player.width/2,player.y - player.height/2,true)
|| ob.hitTestPoint(player.x - player.width/2,player.y + player.height/2,true)
|| ob.hitTestPoint(player.x - player.width/2,player.y - player.height/2,true)){
restart();
}

//If the bird got through the obstacle without hitting it then increase the score
if((player.x - player.width/2 > ob.x + ob.width/2) && !ob.covered){
++score;
ob.covered = true;
}
}

```

//This function changes the position of the obstacle such that it will be the last obstacle and it also randomizes its y position

```
function changeObstacle(ob:Obstacle){
ob.x = lastob.x + dist_bt看_obstacles;
ob.y = 100+Math.random()*(stage.stageHeight-200);
lastob = ob;
ob.covered = false;
}
```

//this function creates an obstacle

```
function createObstacle(){
var ob:Obstacle = new Obstacle();
if(lastob.x == 0)
ob.x = 800;
else
ob.x = lastob.x + dist_bt看_obstacles;
ob.y = 100+Math.random()*(stage.stageHeight-200);
addChild(ob);
obstacles.push(ob);
lastob = ob;
}
```

}

}

RAW Paste Data

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