

```

/*=====*/
/*=== Squelette de projet avec la balise Canvas ===*/
/*=====*/

/*=====*/
/*=== Global space ===*/
/*=====*/

// Object to manage directions
var Direction = {
  Aucune      : {value: 0, name: "Aucune", code: "A"},
  Gauche      : {value: 1, name: "Gauche", code: "G"},
  Droite      : {value: 2, name: "Droite", code: "D"},
  Haut        : {value: 3, name: "Haut", code: "H"},
  Bas         : {value: 4, name: "Bas", code: "B"}
};

// Mob position
var largeurcarre = 10;
var posX =100;
var posY = 100;

// Mob moving
var speed = 3;
var speedStep = 0.25;
var direction;

// Graphic objects
var canvas;
var context;
var backgroundContext;
var parcours = new Image();
  parcours.src = "parcours.png";

/*=====*/
/*=== Code start ===*/
/*=====*/
window.onload = function()    // At start
{
  var backgroundCanvas;

  //init background for collision test
  backgroundCanvas = document.createElement( "canvas" );
  backgroundCanvas.width = parcours.width;
  backgroundCanvas.height = parcours.height;
  backgroundContext = backgroundCanvas.getContext("2d");
  backgroundContext.drawImage(parcours,0,0);

  //init our canvas and graphic context
  canvas = document.getElementById("myCanvas");
  context = canvas.getContext("2d");

  // Stop at start
  direction = Direction.Aucune;

  // Render the scene
  dessine();

  // launch animation
  setInterval(animate,20);
}

window.onkeydown=function(event)    // At key pressed
{
  switch (event.keyCode)
  {
    case 39 :
      direction = Direction.Droite
      break;

    case 37 :
      direction = Direction.Gauche
      break;

    case 38 :
      direction = Direction.Haut
      break;

    case 40 :
      direction = Direction.Bas
      break;
  }
  accelere();
}

```

```

function accelere() // speed up the game !
{
    speed += speedStep;
}

function avance_position() // Mob moving
{
    switch (direction.name)
    {
        case "Gauche" :
            posX -= speed;
            break;

        case "Droite" :
            posX += speed;
            break;

        case "Haut" :
            posY -= speed;
            break;

        case "Bas" :
            posY += speed;
            break;
    }
}

function animate() // Animation core
{
    avance_position();

    if ( isCollision() )
    {
        // Collision do something !
    }
    else
    {
        dessine();
    }
}

function dessine() // Draw the scene
{
    // Clear
    context.clearRect(0, 0, canvas.width, canvas.height);

    // Draw Background
    context.drawImage(parcours,0,0);

    // Draw Mob
    context.beginPath();
    context.rect(posX, posY, largeurcarre,largeurcarre);
    context.closePath();
    context.fill();
}

function isCollision() // Check for color detection
{
    var photo = backgroundContext.getImageData(posX, posY, largeurcarre, largeurcarre);

    for (var i = 0 ; i < photo.data.length ; i += 4)
    {
        // test rouge
        if (photo.data[i] == 237 && photo.data[i+1] == 28 && photo.data[i+2] == 36)
        {
            alert("Rouge !");
            return true;
        }
        // test bleu
        if (photo.data[i] == 63 && photo.data[i+1] == 72 && photo.data[i+2] == 204 )
        {
            alert("Bleu !");
            return true;
        }
        // test noir
        if (photo.data[i] == 0 && photo.data[i+1] == 0 && photo.data[i+2] == 0 )
        {
            alert("Noir !");
            return true;
        }
    }
    return false;
}

```