

HTML5 Game Framework Box-2D 使用說明

Tutorial 5: sensor 物件

1. 接續 Tutorial4

2. 宣告 sensor 物件：

在 game_sample/js 資料夾內新增一 sensor.js 內容如下

```
var sensor = function () {
    this.arraySize = [];
    this.component;

    Object.defineProperty(this, 'position', {
        get : function () {
            this.component.position;
        },

        set : function (newValue) {
            this.component.position = newValue;
        },
    });

    Object.defineProperty(this, 'scale', {
        get : function () {
            this.component.scale;
        },

        set : function (newValue) {
            this.component.scale = newValue;
        },
    });

    Object.defineProperty(this, 'rotation', {
        get : function () {
            this.component.rotation;
        },

        set : function (newValue) {
            this.component.rotation = newValue;
        },
    });
};
```

```

    },
  });

  Object.defineProperty(this, 'isSensor', {
    get : function () {
      this.component.isSensor;
    },

    set : function (newValue) {
      this.component.isSensor = newValue;
    },
  });

  var mSensor = this;
  this.contactCallBack = function(bodyB, force){
    if(bodyB.m_userData === "angryBird"){
      bodyB.m_linearVelocity.x += 10;
    }
  }

  this.init = function (sprite, box2D) {
    this.pic = new Framework.Sprite(define.imagePath + sprite);
    this.component = new Framework.squareComponent(this.pic,
box2D.bodyType_Static, box2D);
    this.component.registerContact(this.contactCallBack);
    this.component.fixtureDef.m_restitution = 0;
  };

  this.update = function () {
    this.component.update();
  };

  this.draw = function () {
    this.pic.draw();
  };
}

```

與 monster 碰撞事件相同，在 contactCallBack function 碰撞時增加碰撞物件的 X 軸加速度

3. 在 MyBox2D.js 加入宣告的物件：

在 load function 內先宣告 sensor 並定義其座標

```
//Sensor
this.sensor = new sensor();
this.sensor.init('sensor.png', this.box2D);
this.sensor.position = {
  x: 500,
  y: 300
};
this.sensor.isSensor = true;
```

4. 加上遊戲的 initialize

在 initialize function 將遊戲物件 attach 到遊戲畫面

```
this.rootScene.attach(this.sensor.pic);
```

5. 加上遊戲的 update

將遊戲物件中需要 update 加入 function

```
this.sensor.update();
```

6. 載入宣告物件

在 game_sample/js/loadGame.js 中需定義所有在遊戲中所需的物件檔案

```
//陣列和載入JS檔的順序相同, lookFor為在要載入的檔案中,
//有用到的全域變數, importJS這個function, 會在找到lookFor的變數後
//才會繼續loading下一個檔案, 如果沒有需要lookFor, 則以空字串代表
var listScript =
[
  { src: 'game_sample/js/define.js', lookFor: 'define' },
  { src: 'game_sample/js/wall.js', lookFor: 'wall' },
  { src: 'game_sample/js/roof.js', lookFor: 'roof' },
  { src: 'game_sample/js/angryBird.js', lookFor: 'angryBird' },
  { src: 'game_sample/js/monster.js', lookFor: 'monster' },
  { src: 'game_sample/js/sensor.js', lookFor: 'sensor' },
  { src: 'game_sample/js/MyBox2D.js', lookFor: 'MyBox2D' },
  { src: 'game_sample/js/mainGame.js' },
]
```

7. 執行結果

