

Φύλλο εργασίας για «HTML5 -JavaScript»

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Δημιουργία παιχνιδιού ΔΙΑΣΤΗΜΟΠΛΟΙΟ v 1.0.3



```
<!DOCTYPE html>
<title>default</title>
<body bgcolor="#00FFCC">
<CENTER>
<br>
<br>
<br>
<canvas width="920" height="520" ></canvas>
<script src="requestAnimationFramePolyfill.js"></script>
<script>
var canvas = document.querySelector("canvas");
var ctx = canvas.getContext("2d");

var aclass =
{
  x: 0,
  y: 0,
  width: 50,
  height: 60
};

var hero = Object.create(aclass);
hero.x = 200;
hero.y = 310;
hero.width=90;
hero.height=38;
hero.vy=0;
hero.face=true;

var meteo=new Array;
for(i=1;i<=300;i++){
meteo[i] = Object.create(aclass);
meteo[i].x = Math.floor(Math.random()*30000)+700;
meteo[i].y =Math.floor(Math.random()*480)+20;
meteo[i].width=Math.floor(Math.random()*30)+10;
```

```
meteo[i].height=Math.floor(Math.random()*30)+10;
meteo[i].vx=-(Math.floor(Math.random()*3)+0.5);
meteo[i].damage=true;
}
```

```
var astro=new Array;
for(i=1;i<=20;i++){
astro[i] = Object.create(aclass);
astro[i].x = Math.floor(Math.random()*30000)+700;
astro[i].y =Math.floor(Math.random()*430)+40;
astro[i].width=40;
astro[i].height=40;
astro[i].vx=-(Math.floor(Math.random()*3)+0.8);
astro[i].face=true;
}
```

```
var rocket=new Array;
for(i=1;i<=200;i++){
rocket[i] = Object.create(aclass);
rocket[i].x =hero.x-20;
rocket[i].y =hero.y+20
rocket[i].width=40;
rocket[i].height=17;
rocket[i].vx=0;
rocket[i].face=false;
}
```

```
imagehero=new Image();
imagehero.src="img/hero.png";
```

```
imagemeteo=new Image();
imagemeteo.src="img/meteor.png";
```

```
imageastro=new Image();
imageastro.src="img/astro.png";
```

```
imagerocket=new Image();
imagerocket.src="img/rocket.png";
```

```
var countastro=0;
var ammo=40;
var startammo=1;
var x;
var life=200;
```

```
canvas.addEventListener("mousemove", mousemoveHandler, false);
canvas.addEventListener("mousedown", mousedownHandler, false);
```

```
function mousemoveHandler(event)
{
var mouseX = event.pageX - canvas.offsetLeft;
var mouseY = event.pageY - canvas.offsetTop;
canvas.style.cursor = "pointer";
```

```
if(mouseY<hero.y){
hero.vy=-3;}
}
```

```

else if(mouseY>hero.y+hero.height){
  hero.vy=3;}
else if(mouseY>hero.y && mouseY<hero.y+hero.height){
  hero.vy=0;}
}

function mousedownHandler(event)
{

var mouseX = event.pageX - canvas.offsetLeft;
var mouseY = event.pageY - canvas.offsetTop;

  for(i=1;i<=ammo;i++){
    rocket[startammo].face=true;
    rocket[startammo].vx=15;
    }
    startammo=startammo+1;

}

update();
function update() {
requestAnimationFrame(update, canvas);

for(i=1;i<=300;i++){
meteo[i].x=meteo[i].x+meteo[i].vx;}

for(i=1;i<=20;i++){
astro[i].x=astro[i].x+astro[i].vx;}

ctx.fillStyle="black";
ctx.fillRect(0, 0, canvas.width, canvas.height);

ctx.fillStyle= "white";
ctx.font = "20px Verdana";
ctx.fillText("Αστρονάυτες: "+countastro,650,490);

x=ammo+1-startammo;

ctx.fillStyle= "white";
ctx.font = "20px Verdana";
ctx.fillText("Ρουκέτες: "+x,50,490);

ctx.fillStyle="red";
ctx.fillRect(700, 10, 200, 20);
if(life>0){
ctx.fillStyle="green";
ctx.fillRect(700, 10, life, 20);}

for(i=1;i<=300;i++){
  ctx.drawImage(imagemeteo,meteo[i].x,meteo[i].y,meteo[i].width,meteo[i].height);
  if((hero.x+hero.width>=meteo[i].x) && (hero.x<=meteo[i].x+meteo[i].width)
  && (hero.y+hero.height>=meteo[i].y) && (hero.y<=meteo[i].y+meteo[i].height)
  && hero.face==true && meteo[i].damage==true){
    damage=Math.floor(Math.random()*80)+20;
    life=life-damage;

```

```

        meteo[i].damage=false;

    }
}

for(i=1;i<=20;i++){
    if(astro[i].face==true){
        ctx.drawImage(imageastro,astro[i].x,astro[i].y,astro[i].width,astro[i].height);}
    if((hero.x+hero.width>=astro[i].x) && (hero.x<=astro[i].x+astro[i].width)
    && (hero.y+hero.height>=astro[i].y) && (hero.y<=astro[i].y+astro[i].height)
    && astro[i].face==true){
        astro[i].face=false;
        countastro=countastro+1;
    }
}

if(hero.face==true){
    ctx.drawImage(imagehero,hero.x,hero.y,hero.width,hero.height);}

if(life<0){
    hero.face=false;
}

for(i=1;i<=ammo;i++){
    if(rocket[i].face==true){
        rocket[i].x=rocket[i].x+rocket[i].vx;
        ctx.drawImage(imagerocket,rocket[i].x,rocket[i].y,rocket[i].width,rocket[i].height);}

}

hero.y=hero.y+hero.vy;

for(i=1;i<=ammo;i++){
    if(rocket[i].face==false){
        rocket[i].x =hero.x-5;
        rocket[i].y =hero.y+14;
    }
}

if(hero.y<-30){
    hero.y=-30;}

if(hero.y+hero.height>550){
    hero.y=550-hero.height;}

}

</script>
</body>
</html>

```