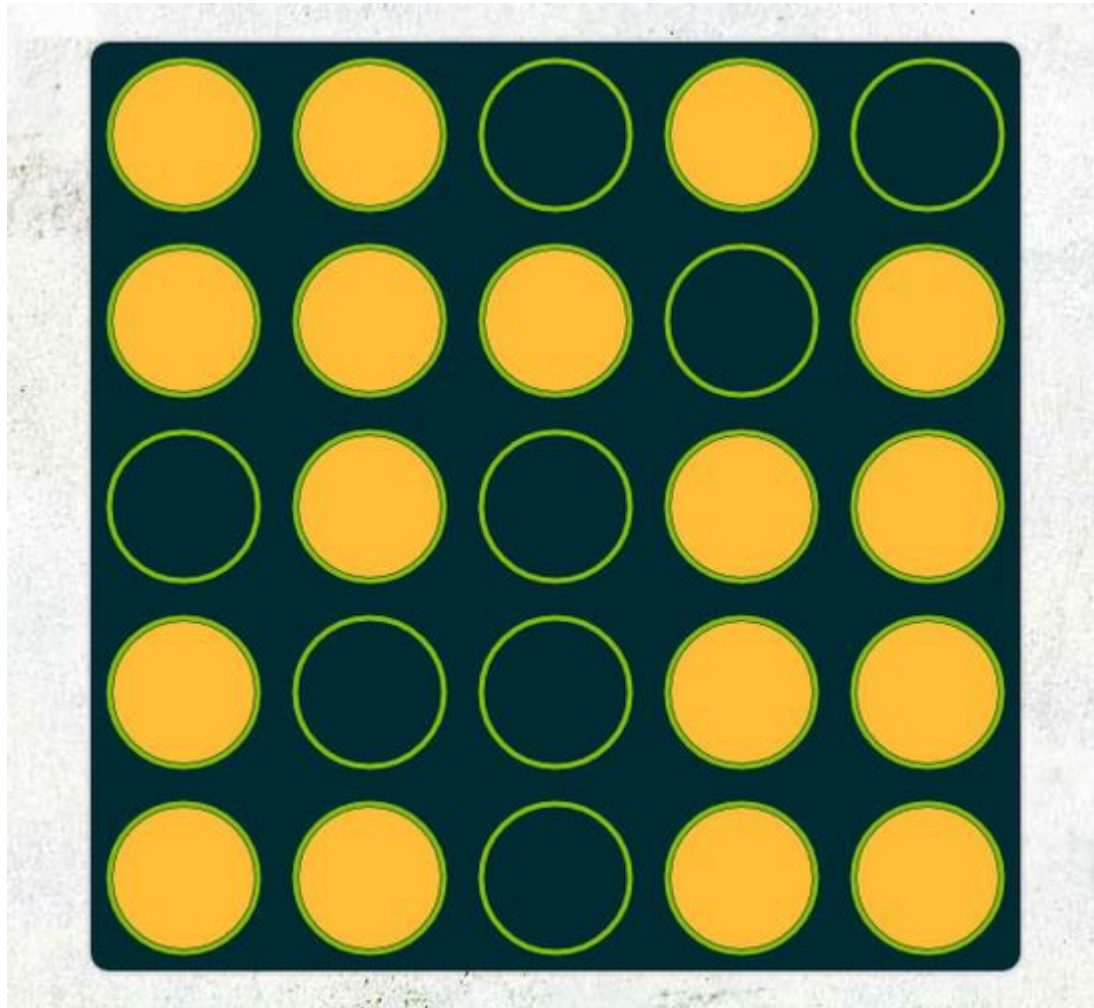
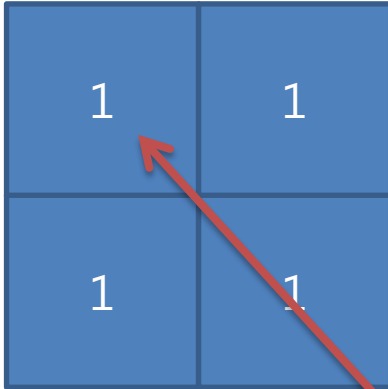


Light Off



1	1	0	1	0
1	1	1	0	1
0	1	0	1	1
1	0	0	1	1
1	1	0	1	1

1
1
0
1
0
1
1
1
0
1
0
1
0
1
1
1
1
0
1
1



```
function getIndex(e)
{
    var r = canvas.width / col ;
    var i = Math.floor(e.pageX / r);
    var j = Math.floor(e.pageY / r);

    return i+ j*col ;
}
```

x , y coordinate

0	1	2	3	4
5	6	7	8	9

```
function getCoord(i)
{
    var obj = {};
    obj.r = canvas.width / col / 2;
    obj.x = (i%col) * obj.r * 2 + obj.r ;
    obj.y = Math.floor(i / col) * 2 * obj.r + obj.r;

    return obj;
}
```

```

function render()
{
    .....
    for(var i=0;i<row*col;i++)
    {
        var obj = getCoord(i);
        ctx.beginPath();

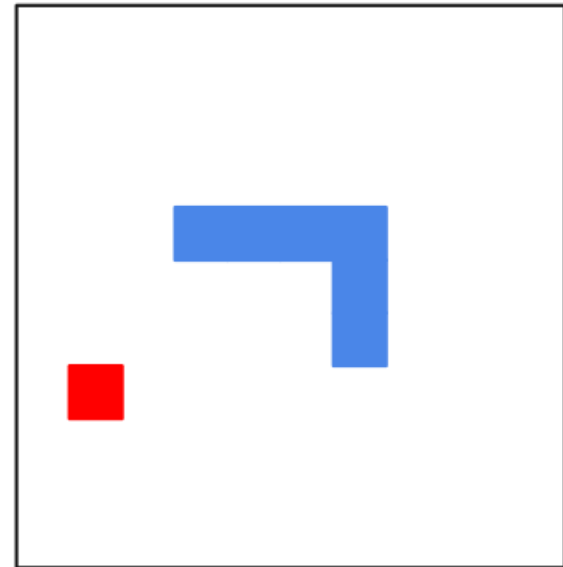
        ctx.arc( obj.x , obj.y , obj.r , 0 , 2*Math.PI);
        if(arr1[i])
            ctx.fillStyle = "#ffff00";
        else
            ctx.fillStyle = "#ffffff";
        ctx.fill();
        ctx.strokeStyle = "green";
        ctx.stroke();
    }
    .....
}

```

Snake

GRID

0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	1	1	1	1	0
0	0	0	0	0	0	1	0
0	0	0	0	0	0	1	0
0	2	0	0	0	0	0	0
0	0	0	0	0	0	0	0



```
var canvas = document.getElementById('canvas');  
var ctx = canvas.getContext('2d');
```

```
var keysDown = {};  
window.addEventListener('keydown', function(e) {  
    keysDown[e.keyCode] = true;  
});  
window.addEventListener('keyup', function(e) {  
    delete keysDown[e.keyCode];  
});
```

```
function update(mod) {}  
function render() {}  
function run() {}
```

```
var time = Date.now();  
setInterval(run, 60);
```

```
var arr = [];  
var point = [];  
var snake = [{x:3 , y:6, d:dir} ,  
              {x:3 , y:5, d:dir} ,  
              {x:3 , y:4, d:dir} ,  
              {x:3 , y:3, d:dir}];
```

```
function newFood()  
{  
    idx = Math.round(row * Math.random()) * col + Math.round(col *  
    Math.random());  
}
```

```
Array.prototype.removeElement = function(index)  
{  
    this.splice(index,1);  
    return this;  
};
```



```
for(var i=0; i<row*col; i++)    // array initialize
    arr[i] = 0;
```

```
for(var j=0;j<point.length;j++)    // check inflection point
{
    if(point[j].x == snake[i].x && point[j].y == snake[i].y)
    {
        snake[i].d = point[j].d;
        point[j].cnt++;
    }
    if(point[j].cnt == snake.length)
    {
        point.removeElement(j);
    }
}
```

```

if(snake[i].d == 0) // right           //find direction
    snake[i].x +=1;
else if(snake[i].d == 1) // down
    snake[i].y +=1;
else if(snake[i].d == 2) // left
    snake[i].x -=1;
else if(snake[i].d == 3) // up
    snake[i].y -=1;

if(
    arr[snake[i].y*col + snake[i].x] == 1 ||
    ( (snake[i].y*col + snake[i].x) % col == 0    &&
    snake[i].d == 0) ||
    ( (snake[i].y*col + snake[i].x) % col == col-1 && snake[i].d == 2)
)
    // collision dectection
{
    clearInterval(id);
    alert("Crashed!!!");
}
else
    arr[snake[i].y*col + snake[i].x] = 1;

```

```
if(snake[0].y*col + snake[0].x == idx)          // check food
{
    var index = snake.length-1;
    var x = snake[index].x ,y = snake[index].y;

    if(snake[index].d == 0) // right
        x -= 1;
    else if(snake[index].d == 1) // down
        y -= 1;
    else if(snake[index].d == 2) // left
        x += 1;
    else if(snake[index].d == 3) // up
        y += 1;

    snake.push({x:x , y:y , d:snake[index].d});
    newFood();
}
else
    arr[idx] = 2 ;
```