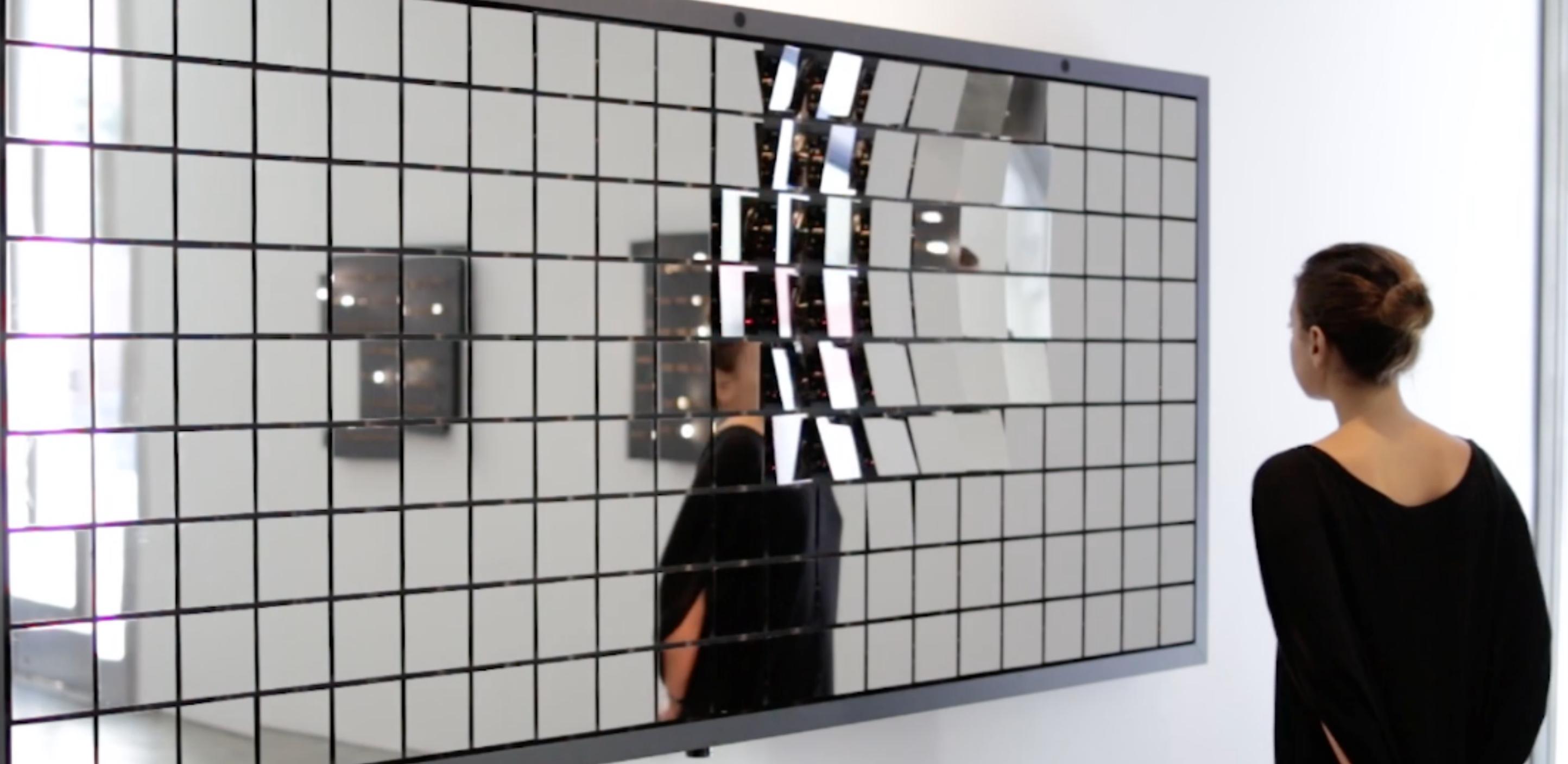


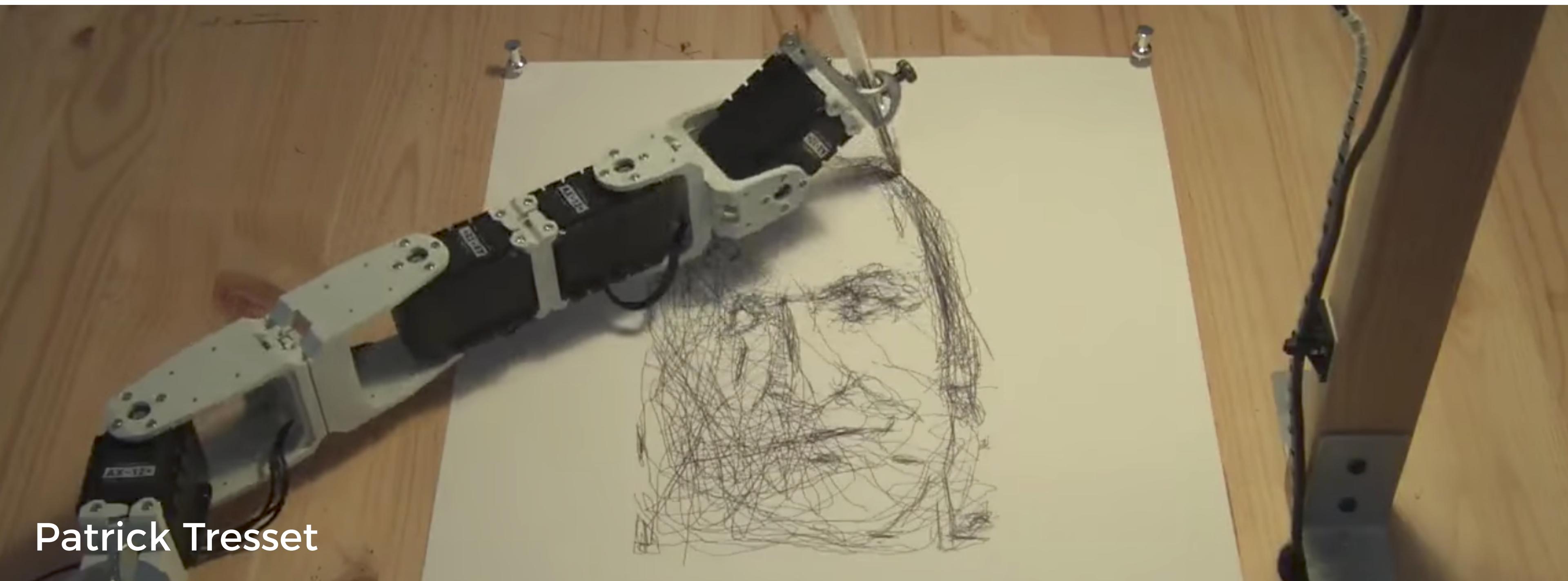
Creative Coding

Dr Dave Meckin
Dr Simon Emberton

Random
International

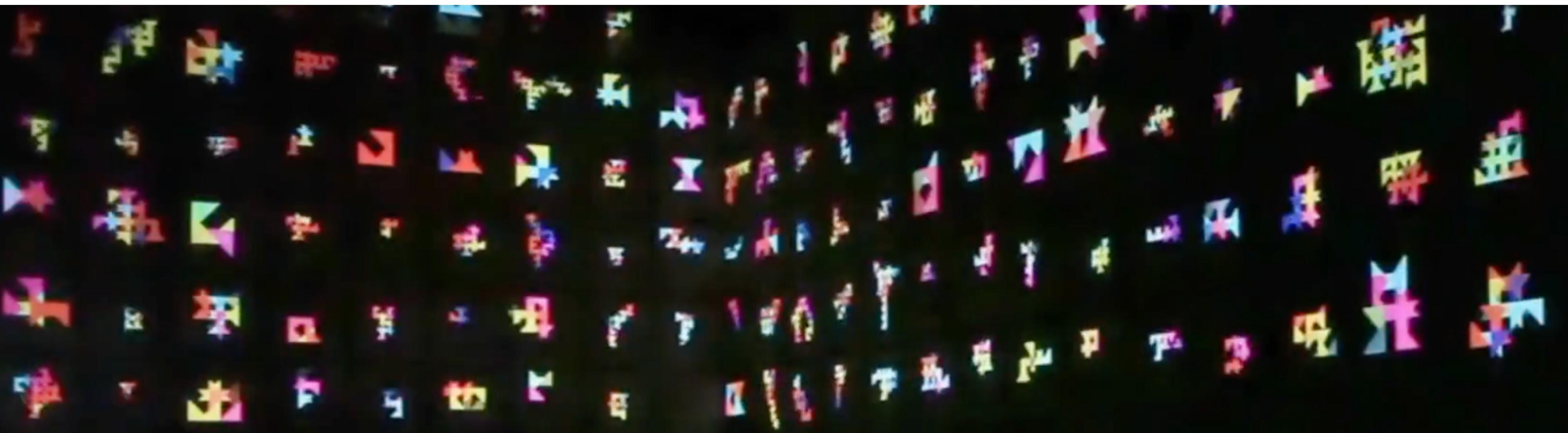


Patrick Tresset





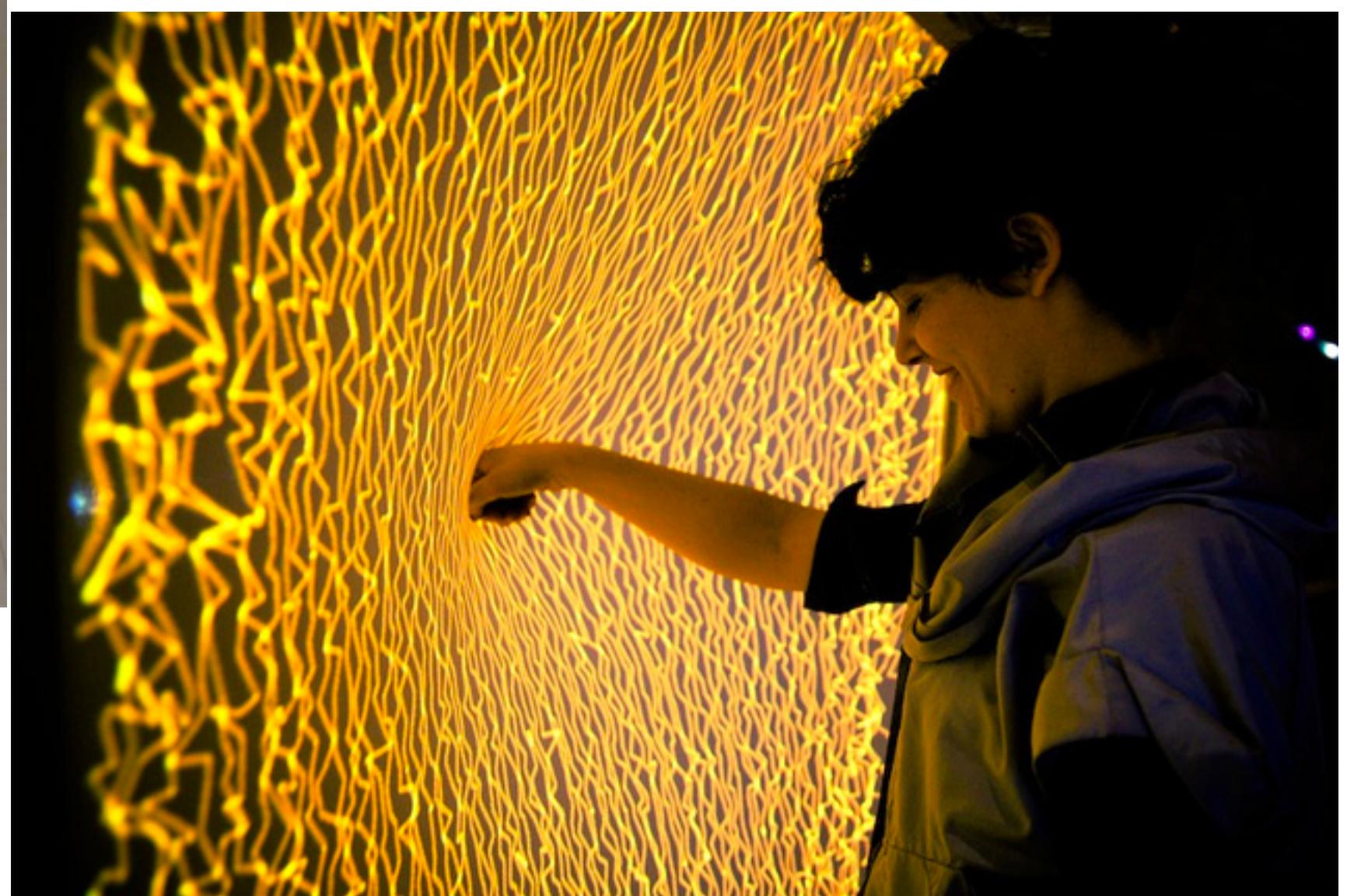
United Visual Artists



Universal Everything



[http://www9.atpages.jp/~niceview/index.php?
plugin=ref&page=FrontPage&src=woodenmirrormu
seum.jpg](http://www9.atpages.jp/~niceview/index.php?plugin=ref&page=FrontPage&src=woodenmirrormuseum.jpg)



<http://www.thisiscoLOSSAL.com/wp-content/uploads/2012/12/firewall-1.jpg>



Practical Taster

Stage 1

Line 17

```
bubble = new Bubble(random(50,width-50),random(50,height-50), radius, speed);
```

Line 26

```
bubble.move();  
bubble.display();
```

Stage 2

Delete line 17 and replace with:

```
for (var i = 0; i < 5; i++) {  
    bubbles[i] = new Bubble(random(50,width-50),random(50,height-50), radius, speed);  
}
```

Delete line 26 and replace with:

```
for (var i = 0; i < bubbles.length; i++) {  
  
    bubbles[i].move();  
    bubbles[i].display();  
  
}
```

Stage 3

In between setup() and draw() - line 24

```
function mousePressed() {  
    bubbles.push(new Bubble(mouseX, mouseY, radius, speed));  
}
```

Stage 4.1

line 73

```
spin(val) {  
    this.angle = this.angle+val;  
}  
  
intersects(other) {  
    var d = dist(this.x, this.y, other.x, other.y);  
    if (d < this.r + other.r) {  
        return true;  
    } else {  
        return false;  
    }  
}
```

Stage 4.2

line 37

```
for (var j = 0; j < bubbles.length; j++) {  
  
    if (i != j && bubbles[i].intersects(bubbles[j])){  
  
        bubbles[i].spin(random(0.1,1));  
        bubbles[j].spin(random(0.1,1));  
    }  
  
}
```

Stage 5.1

line 7

```
var radiusMin = 10;  
var radiusMax = 50;  
var speedMin = 1;  
var speedMax = 20;
```

line 30

```
bubbles.push(new Bubble(mouseX, mouseY, random(1, radius), random(1, speed)));
```

Stage 5.2

line 21

```
gui = createGui('slider-range');  
gui.addGlobals('radius', 'speed');
```