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How to Tell the Culture

Improve people's feeling of experience

Traditional Culture + Modern Technology

- Culture is the soul
- Can give equipment information
- Many ways to feel (sounds, touch, body language)
background style
Projection equipment and Kinect motion capture
Hardware preparation

1. Projector
   - The bigger lumen the clearer brightness
   - Better >=2500 lumen

2. Kinect
   - I just use XBOX 360

3. Computer
   - My computer is Mac Pro
   - My system is OS X El Capitan 10.11.3

4. Sound
   - It doesn’t important but can improved people feeling
**Software preparation**

1. 2.2.1 processing download  
   http://download.processing.org/processing-2.2.1-macosx.zip

2. Library download
   - SimpleOpenNI: A simple OpenNI wrapper for processing  
     http://code.google.com/p/simple-openni/
   - v3ga blob detection library  
     http://www.v3ga.net/processing/BlobDetection/index-page-download.html
   - Toxiclibs 020 (examples tested & working with 021 as well)  
     http://hg.postspectacular.com/toxiclibs/downloads/
   - PBox2D: A simple JBox2D wrapper library  
     https://github.com/shiffman/PBox2D

Make sure to restart the PDE after installing a library, because this list is only refreshed at startup. If somehow problems persist, please use the Processing forum for support. Beyond this point I will be assuming necessary libraries have been installed.
Other preparation

white wall or white KT board

white cloth
How to do | PART 4

processing can make light flow people

kinect

computer

sound
processing code : three part

one: Building frame 构建基本框架
code download :

two: Painting in the area in running 在区域内绘画
code download

three: Capture running contour line 捕捉动态轮廓
code download
How to do | PART 4

processing code :three part
How to do | PART 4

processing code : three part

```java
void setupFlowfield() {
    // set stroke weight (for particle display) to 2.5
    strokeWeight(2);

    // initialize all particles in the flow
    for (int i = 0; i < flow.length; i++) {
        flow[i] = new Particle(i/(1000.0));
    }

    // set all colors randomly now
    setRandomColors(1);
}

void drawFlowfield() {
    // center and reScale from Kinect to custom dimensions
    translate(0, (height-kinecHeight)*reScale/2);
    scale(reScale);

    // set global variables that influence the particle flow's movement
    globalX = noise(frameCount * 0.01) * width/2 + width/4;
    globalY = noise(frameCount * 0.005 + 5) * height;

    // update and display all particles in the flow
    for (Particle p : flow) {
```
How to do | PART 4

part of processing code

```java
// a basic noise-based moving particle

class Particle {
    // unique id, (previous) position, speed
    float id, x, y, xp, yp, s, d;
    color col; // color

    Particle(float id) {
        this.id = id;
        s = random(0, 6); // speed
    }

    void updateAndDisplay() {
        // let it flow, end with a new x and y position
        id += 0.01;
        d = noise(id, x/globalY, y/globalX-0.5)*globalX;
        x += cos(radians(d))*s;
        y += sin(radians(d))*s;

        // constrain to boundaries
        if (x<18) x=xp+kinectWidth+18;
        if (y<18) y=yp+kinectHeight+18;

        // if there is a polygon (more than 0 points)
        if (poly.npoints > 0) {
            // if this particle is outside the polygon
            if (!poly.contains(x, y)) {
                // while it is outside the polygon
                while (!poly.contains(x, y)) {
                    // randomize x and y
                    x = random(kinectWidth);
                    y = random(kinectHeight);
                }
                // set previous x and y, to this x and y
                xp=x;
                yp=y;
            }
        }
    }
}
```
How to do | PART 4

part of processing code
Apply to do | PART 6

Fashion Show

shopping mall
museum

Public space exhibition