The_Muse_FINAL

```
import ddf.minim.*;
Minim minim;

AudioPlayer A1;
AudioPlayer A2;
AudioPlayer A3;

AudioPlayer B1;
AudioPlayer B2;
AudioPlayer B3;

AudioPlayer C1;
AudioPlayer C2;
AudioPlayer C3;

import org.openkinect.freenect.*;
import org.openkinect.processing.*;

Kinect kinect;

PImage depthImg;

int minDepth = 800;
int maxDepth = 900;

float c1 = 0;
float c2 = 0;
float c3 = 0;

float d1 = 0;
float d2 = 0;
float d3 = 0;

float e1 = 0;
float e2 = 0;
float e3 = 0;

int meanX, meanY, meanA, meanB, meanC, meanD, meanE;

void setup() {

 fullScreen(P3D);
```

```
kinect = new Kinect(this);
kinect.initDepth();

depthImg = new PImage(kinect.width, kinect.height);

minim = new Minim(this);
A1 = minim.loadFile("A1.wav");
A2 = minim.loadFile("A2.wav");
A3 = minim.loadFile("A3.wav");

B1 = minim.loadFile("B1.wav");
B2 = minim.loadFile("B2.wav");
B3 = minim.loadFile("B3.wav");

C1 = minim.loadFile("C1.wav");
C2 = minim.loadFile("C2.wav");
C3 = minim.loadFile("C3.wav");

}

void draw() {

background (0);

fill (255);
noStroke();
textSize(25);
text("Step within the green boundaries", 300, 360);
text("One person at a time", 350, 390);

int count=0;
int cumulX=0;
int cumulY=0;

int[] rawDepth = kinect.getRawDepth();
for (int i=0; i<rawDepth.length;i++) {
  if (rawDepth[i]>=minDepth&&rawDepth[i]<=maxDepth) {
    depthImg.pixels[i] = color(255);
    count++;
    cumulY+=i/kinect.width;
    cumulX+=i%kinect.width;
  } else {
    depthImg.pixels[i] = color(0);
  }
```

```
}

depthImg.updatePixels();
fill(255,0,0);
if (count>0) {
  meanX=(cumulX/count)*width/kinect.width;
  meanY=(cumulY/count)*height/kinect.height;
//    fill(255,0,0);
//    ellipse(meanX,meanY,80,80);
}

meanA = meanY + 100;
meanB = meanX - 100;
meanC = meanB + 100;
meanD = meanA - 50;
meanE = meanB - 100;

//  ellipse(meanB,meanA, 80, 80);
// fill(255);
// ellipse(meanC,meanA, 80, 80);
//  fill(0,255,0);
//  ellipse(meanB,meanD, 80, 80);

 noStroke ();

 // row 1

fill (255, 0, 0, e1);
rect (90, 30, 220, 220);

fill (255, 113, 113, c1);
rect (310, 30, 220, 220);

fill (255, 197, 197, d1);
rect (530, 30, 220, 220);



 // row 2
fill (255, 255, 0, e2);
rect (90, 250, 220, 220);

fill (255, 255, 109, c2);
rect (310, 250, 220, 220);
```

```
fill (255, 255, 151, d2);
rect (530, 250, 220, 220);



// row 3
fill (0, 176, 240, e3);
rect (90, 470, 220, 220);

fill (75, 208, 255, c3);
rect (310, 470, 220, 220);

fill (171, 233, 255, d3);
rect (530, 470, 220, 220);



// column 1

  if (meanC >= 90 && meanC <= 310
  && meanA >= 30 && meanA <= 250) {
    e1 = e1 + 10;
    A1.play();
  }
  else {
    e1 = e1 - 10;
    A1.rewind();
  }

  if (e1 > 255) {
    e1 = 255;
  } else if (e1 < 0) {
    e1 = 0;
  }



  if (meanC >= 90 && meanC <= 310
  && meanA >= 250 && meanA <= 470) {
    e2 = e2 + 10;
    B1.play();
  }
  else {
```

```
  e2 = e2 - 10;
  B1.rewind();
 }

 if (e2 > 255) {
  e2 = 255;
 } else if (e2 < 0) {
  e2 = 0;
 }


 if (meanC >= 90 && meanC <= 310
 && meanA >= 470 && meanA <= 690) {
  e3 = e3 + 10;
  C1.play();
 }
 else {
  e3 = e3 - 10;
  C1.rewind();
 }

 if (e3 > 255) {
  e3 = 255;
 } else if (e3 < 0) {
  e3 = 0;
 }


// column 2

 if (meanB > 310 && meanB < 530
 && meanA > 30 && meanA < 250) {
  c1 = c1 + 10;
  A2.play();

 }
 else {
  c1 = c1 - 10;
  A2.rewind();
 }

 if (c1 > 255) {
  c1 = 255;
 } else if (c1 < 0) {
```

```
  c1 = 0;
 }

 if (meanB > 310 && meanB < 530
 && meanA > 250 && meanA < 470) {
  c2 = c2 + 10;
  B2.play();

 }
 else {
  c2 = c2 - 10;
  B2.rewind();
 }

 if (c2 > 255) {
  c2 = 255;
 } else if (c2 < 0) {
  c2 = 0;
 }

 if (meanB > 310 && meanB < 530
 && meanA > 470 && meanA < 690) {
  c3 = c3 + 10;
  C2.play();
 }
 else {
  c3 = c3 - 10;
  C2.rewind();
 }

 if (c3 > 255) {
  c3 = 255;
 } else if (c3 < 0) {
  c3 = 0;
 }

// column 3

 if (meanE >= 530 && meanE <= 756
 && meanD >= 30 && meanD <= 250) {
  d1 = d1 + 10;
  A3.play();
 }
 else {
```

```
  d1 = d1 - 10;
  A3.rewind();
 }

 if (d1 > 255) {
  d1 = 255;
 } else if (d1 < 0) {
  d1 = 0;
 }

 if (meanE >= 530 && meanE <= 756
 && meanD > 250 && meanD < 470) {
  d2 = d2 + 10;
  B3.play();
 }
 else {
  d2 = d2 - 10;
  B3.rewind();
 }

 if (d2 > 255) {
  d2 = 255;
 } else if (d2 < 0) {
  d2 = 0;
 }


 if (meanE >= 530 && meanE <= 756
 && meanD > 470 && meanD < 690) {
  d3 = d3 + 10;
  C3.play();
 }
 else {
  d3 = d3 - 10;
  C3.rewind();
 }

 if (d3 > 255) {
  d3 = 255;
 } else if (d3 < 0) {
  d3 = 0;
 }

}
```