VA 401 - Final Project

müge mahmutçavuşoğlu

BEAT it

- hit, pass, cross, open
- play, knock, ring

- interface, body

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My project is a tool,
a game for people to trans-
form their movements into
sound to generate music.

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inspiration:

I was so depressed about my struggle so rather than staying at home and working on it, I went out with my friends to a place to dance but I guess it worked. Then I realized I couldnt keep up with the tempo and the rhtym and they didn't seem to keep up with me.

http://www.youtube.com/watch?v=Pbdewwtm70w

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goals of the project:

- to create more compatible relations between body movements and sound

- to remove the layers between body and sound

- to turn the audience into performer and composer

- to create a solid and direct relation between sound/music and human

- to make a conceptual interchange between movement and sound on temporal plane

sound and movement

"The goal here is to specify the nature of the existence of dance - what it consists of. This is an important matter. We must know what dance is in order to be able to explain how we related to it, how we can know anything about it, talk about it, refer to it, or evaluate it. To take an extreme example, if dance is only a mental thing, existing in the minds of interested observers, then it is difficult to explain how a group of persons could perceive it, discuss it, and agree or disagree on its value. If dance is held to consist only of, say, physical movement, but not the auditory phenomenon of music, then it is difficult to explain why and how we frequently discuss and evaluate the musical dimension of a dance performance.

Specifying the media of dance is easily confused with defining dance. Defining dance is an exercise that not only examines the medium of the phenomenon but other criteria by which dance can be distinguished from similar phenomenon. Perhaps one problem with some of the definitions examined in the previous chapter is a preoccupation with specifying the medium."

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tools

- Motion tracking tool: Kinect

- Software programming

- Sound design

- Visuals elements
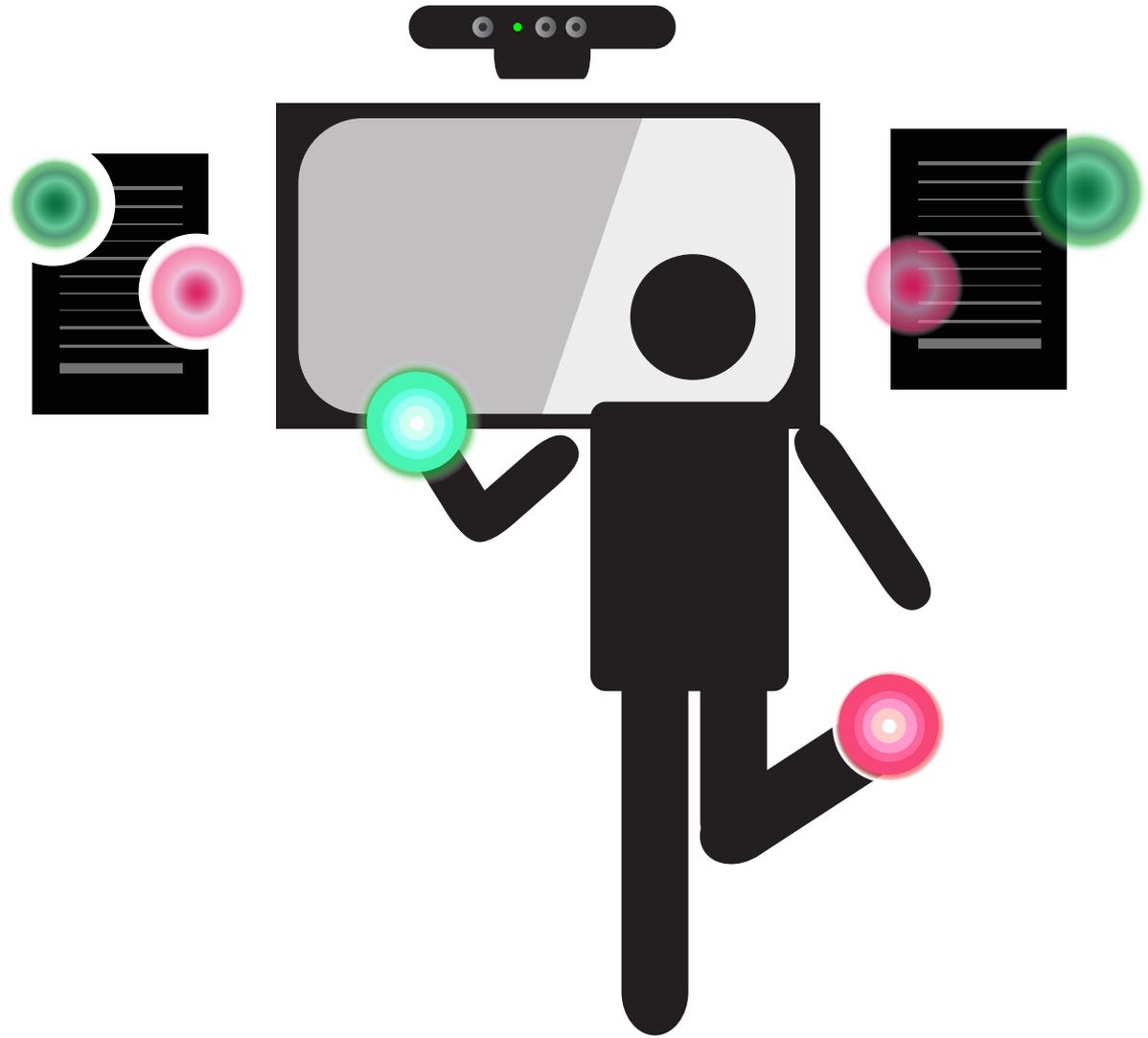
how it works

why kinect

1. More flexible
2. Real life motion takes place in 3D
3. Variety of outputs

"Kinect (codenamed in development as Project Natal) is a line of motion sensing input devices by Microsoft for Xbox 360 and Xbox One video game consoles and Windows PCs. Based around a webcam-style add-on peripheral, it enables users to control and interact with their console/computer without the need for a game controller, through a natural user interface using gestures and spoken commands."

which libraries - why

openNI: to make use of depth and specific space.

-in 3d it is more possible to create more various sound and
music.
minim: sound processing searching ongoing, but currently I
found a library of processing enables to play audio via compiler.
named minim.

into my source code of kutu pde I did some modifications to call minim library and by making use of if/else statements I output different audios with respect to density of the box. to catch more motion in order to create more distinctive music I enlarged the size of the box.

```
import processing.opengl.*;

import SimpleOpenNI.*;
//minim librarysini indirdim ve import ettim
import ddf.minim.*;
//iki tane object tanımladım bunlar minim ve player
Minim minim;
AudioPlayer player;

SimpleOpenNI kinect;

float rotation = 0;
//box size i buyuttum
int boxSize = 500;

PVector boxCenter = new PVector(0, 0, 600);

// this will be used for zooming

// start at normal
```

```
{
// depthin her arttıgı casete bir density check yapıyorum ve ona göre
//farklı mp3ler caliyorum
 depthPointsInBox= depthPointsInBox+1;
 minim = new Minim(this);
  if(depthPointsInBox == 500)
    {player = minim.loadFile("asd.mp3");
    player.play();}
   else if(depthPointsInBox == 1500)
     {player = minim.loadFile("bsd.mp3");
     player.play();}
   else if(depthPointsInBox == 2000)
      {player = minim.loadFile("csd.mp3");
     player.play();}
      else if(depthPointsInBox == 2500)
      {player = minim.loadFile("dsd.mp3");
     player.play();}
      else if(depthPointsInBox == 3000)
      {player = minim.loadFile("esd.mp3");
     player.play();}
      else if(depthPointsInBox == 4000)
      {player = minim.loadFile("fsd.mp3");
     player.play();}
```