Project Definition: Music of The Body movement

My project is a tool, a game for people to transform their movements into sounds and generate music.

Goals and Objectives

Goals;

- 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

Objectives;

- creating or choosing an existing environment so called 'dance floor' that the real action takes place.
- using a motion tracking tool (kinect, flock of birds, webcam, iphone, or nike fuel band) with the appropriate commands
- a sound editting software
- a midiware to connect two softwares
- a suitable programming software (possibly processing or maxmsp)
about kinect:
"*Kinect* (codenamed in development as Project Natal) is a motion sensing input device by Microsoft for the Xbox 360 video game console and Windows PCs. Based around a webcam-style add-on peripheral for the Xbox 360 console, it enables users to control and interact with the Xbox 360 without the need to touch a game controller, through a natural user interface using gestures and spoken commands."
-if it is going to be an application, it will be based on one of motion sensitive app and connecting it with a sound data.

Target Audience and History

- Main target audience is people from 18-30 ages who are compareably more familiar with new technology and who have an interest on intefering the sound and performing body motions which may also refer to sports and other professions based on physical movement or maybe also people who would like to dance and express through body movement.

Background Information

The project idea happened to me when I was struggling about finding ideas. It was the second week of project course and 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 that I need to drink to be able to dance because I couldnt keep up with the tempo and the rhtym. It is not that I am a shy person, it is just because I couldnt manage. I have never been a 'auditory' person and I have always so impressed with people who are able to contribute their auditory senses to their life, as a function or just for fun. My auditory ability is only based on recognizing words and contexts, in artistic sense I am almost similiar to a deaf person. So I wanted to make a project that make me able to have a relation and effect on it. But in other hand this situation makes me percieve the environment by using my other senses. So I thought, since now focusing on other senses made my auditory ability undermined but now they can help it to get more experience.

This switch in different senses interests me. In my case it is not basically the senses themselves but the idea is to create alternative interfaces or languages to experience things that we are used to do. This increase or the new language makes us experience the environment much more and gives us more pleasure by sensing it more and also by satisfying our instinct for finding alternative ways to communicate.

Detailed Project Description

-My project is basicly about giving people a chance to create their own sound and own environment to 'move' around and having fun. It will make the user able to dance very compatibly to the music and also satisfies their passion of making of music as turning the body into an insturment. On the contrary we used to see that people acting through the sound, motion will be the input and the sound will be the output.

In my project, I am planning to create a platform which you may also call as 'game' that people can control the sound by their body movements and if they want they can also make music out of it. It can be used by one or a group of people like the game 'kareoke' they would come togather and rather than a group of people sitting and singing like crazies, they will also have to react to the music. This reaction would actually be the cause, so as it cycles. My project also consist of the documentation of the final product, using by different kind of people in different environments.

Design-wise I will assign different sounds and materials on to different parts of body. When more than one come together, they would be able to create their own orchestral polyphonic sound. And if it is possible I am planning to create a visual that is reflected on the performer and activates when that person moves and starts lightning.

Scope of the Project

what will be covered:
- analysis of body movements in three dimensional sense
- generating sounds based on speed and direction
- recording option for each performance

what will not be covered:
- analysis of facial or more detailed expressions

Required know-how and Resources

- Motion tracking tools
- Software use and programming
- Sound designing

Difficulties and Risks

There are two basic challenges for me in this project,
First, I have to get know about music a little bit so that users do not have to have that concers. Random noises are just random noises. Notes or sounds have to be used and selected in harmony.
Second difficulty is using the softwares and kinect. There will be more than one interfaces that will be used so each requieres different softwares and connecting those softwares is another issue. Implementing sound and visuals may occur different than I have in my mind.

Phases of The Project

- research about interaction of human motions and sound
- research about how the combination of sounds turn into music in scientific bases - designing the sound and visuals
- to get to know about kinect and softwares
- assigning commands to body parts
- creating a meaningful sound data
- generating sound sequences
- implementing the sound and visuals by those softwares
- documantation of the final product

Criteria of succes

I am planning to be done with research. Then make the computer percieve the basic body parts and assigning basic commands to kinect.

Resources and Influences

http://www.mediacy.com/index.aspx?page=IP_trackobjects

http://www.youtube.com/watch?v=5Edozcj7GEc

http://vimeo.com/49045688

http://www.youtube.com/watch?v=IC3nC8ZmeoA

http://www.youtube.com/watch?v=CIwfACkl9WU

http://www.youtube.com/watch?v=EhOmkF2M4UY

http://www.nike.com/us/en_us/c/nikeplus-fuelband

http://www.youtube.com/watch?v=w5qf9O6c20o

http://www.instructables.com/id/Matrix-sound-machine-Generative-music-with-a-part/

http://inciswf.com/matrix.swf

http://synapsekinect.tumblr.com/

http://ethnotekh.com/portfolio/kinectar/

http://www.youtube.com/watch?v=DqVpysEywec&feature=youtu.be

http://www.ted.com/talks/neil_harbisson_i_listen_to_color.html

http://ethnotekh.com/portfolio/kinectar/

Gantt chart

Task	December (49 50 51 52)	January (1 2 3 4)	February (5 6 7 8)	March (9 10 11 12)	April (13 14 15 16)	May (17 18 19 20)	June (21 22 23 24)
searching and achieving for the proper soft wares	██						
learning how the soft wares work		██					
learning the proper coding language for the soft wares		██					
body shape recognition map			██				
coding basic sounds			██				
working on sound design and collaborating				██			
coding the visuals				██			
creating a certain visual aesthetic					██		
combining visuals and sounds together						██	
documentation							██
presentation							██