MIR Assignment 4. Spring 2015 (100 pts)

IMPORTANT Some questions have additional deliverables for the graduate students taking the course. These are marked with [CSC575]. Undergraduate students are welcome to do them but they are optional and will not affect their grade. The assignment is worth 10% of the final grade. There is some variance in the amount of time each question probably will require. Therefore dont expect them to be equally difficult even though they are all worth the same number of points. Please provide your answers in a SINGLE PDF file. There is no need to copy the assignment specification. Also please answer the questions in order and explicitly mention if you have decided to skip a question. You can either hand me a paper copy of your submission in class or email me an electronic copy.

Hope you find it interesting,
George Tzanetakis

Question 1 (50 points)

Check out the tangible music interfaces in `ttp://modin.yuri.at/tangibles}`. `Lookatallt`e categories (tangibles, blocks, toys). Pick 3 that you find interesting and write a short summary (1 paragraph for each interface) of what you find interesting about them.

Question 2 (50 points)

Propose a tangible interface that is somehow combined or related to the concepts we have covered in this course. Basically it should somehow combine the algorithms/tasks we have learned with some form of physical tangible interaction. Describe the user interaction and motivate its usage contrasting it with a traditional screen/keyboard/mouse graphical user interface. Although you don't need to do any hardware design try to propose something that can be engineered using existing technologies.

[CSC575] Sketch how you could design a user study to evaluate the effectiveness of the proposed tangible interface. How many participants ? What would their instructions be ? What would you measure ? What would you ask them ? If you don't have experience with human-computer interaction then reading some recent papers from the CHI conference would be a good starting point.