DECO2011
Programming

Assignment 1
The Idea behind the Coding
The Idea
The idea of the sketch originally came from drawing a 3D grid plane from intersecting lines to produce a sci-fi like feel (draft1). It then quickly developed into something that imitates the structural framework of a building, using lines and triangles randomised within a grid like fashion.

This then became an idea that would reflect how an actual building framework could be designed through coding such as this. However the coding unfortunately does not reflect the structural integrity and stress that would in reality assist in showing whether the generated framework can or cannot be built, and whether it is feasible to begin with as a building.

Thus this sketch for now would suffice a simple structure framework generator without any form of grounding in physics.

Progress
The original static image can be seen in draft1. Lines are intersected from both sides of the sketch to produce a 3D grid like plane.

Later on after seeing “Blue Arcs” by Sol LeWitt where random arcs are been drawn in a grid like fashion. From this I thought what if I just use lines to make a framework, and randomise it.

This was the initial draft as randomised lines in a grid like fashion (draft2).
However, draft2 shows an unorganised form of lines, due to the randomised function from 0 to 2. The problem here was that, for example, within the x2 equation, x is multiplied by the random function. Now if the random function results in a 0, the end of that line to be drawn will ultimately draw back to the origin. This presents a problem, as a structural grid like pattern was preferred.

That problem was quickly remedied by adding that x value to a value that consisted of the “graphX” value, multiplied by a randomised number between -1 and 1.

This generated a more organised image. The “if” function was also added to accommodate the randomised triangle added to the code. This also helped to keep it in ratio to the lines. The added triangle function was purely an aesthetic addition to give the sketch more flavour.

Hue was later used as a colour profile instead of RGB, as this made randomised the colour of each stroke a lot easier, as one value can change the colour dramatically with ease. The occurrence value (int a = 0) was also added to assist in controlling how much of the sketch will be filled by the two shapes (this function was inspired by “Blue Arcs”).

Few more tweaks were done with the HSB, ratio, and occurrence.

Final Product: STRUCTURES