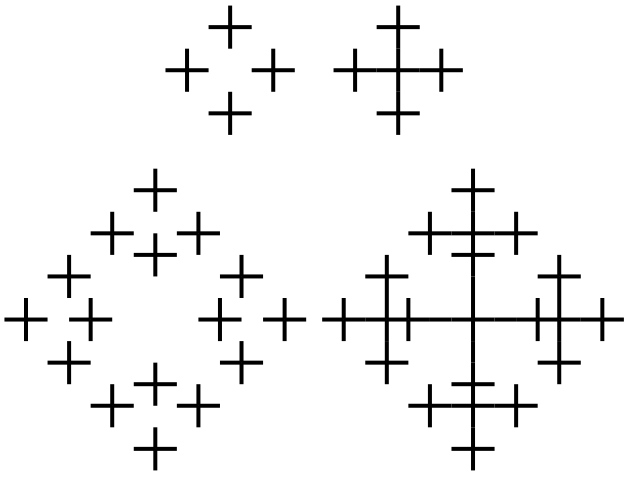
Tokyo University of the Arts
Art Media Center
Generative Design 2014

title: a small table
Student(s): Henna Miettinen



n = 3, δ = 90
[+F][++F][+++F][++++F]
F → AF[+F][-F]F

[+AAAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F[+AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][-AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F[++AAAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F[+AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][-AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][+++AAAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F[+AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][-AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][++++AAAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F[+AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][-AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]

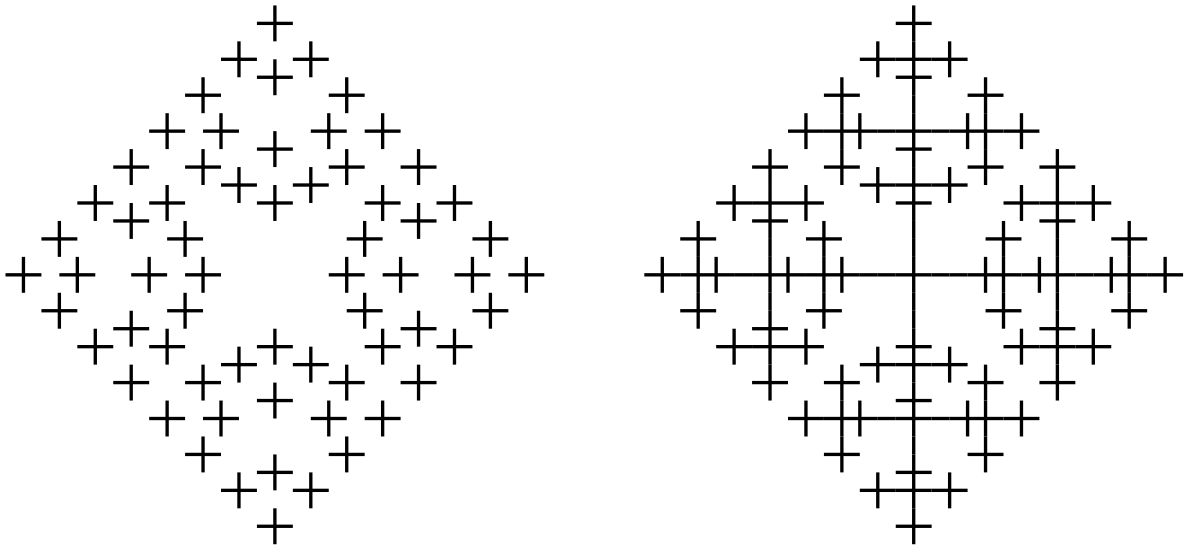


n = 1

[+AF[+F][-F]F][++AF[+F][-F]F][+++AF[+F][-F]F][++++AF[+F][-F]F]

n = 2

[+AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][++AAF[+F]
[-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][+++AAF[+F][-F]
F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][++++AAF[+F][-F]F[+AF[+F]
[-F]F][-AF[+F][-F]F]AF[+F][-F]F]

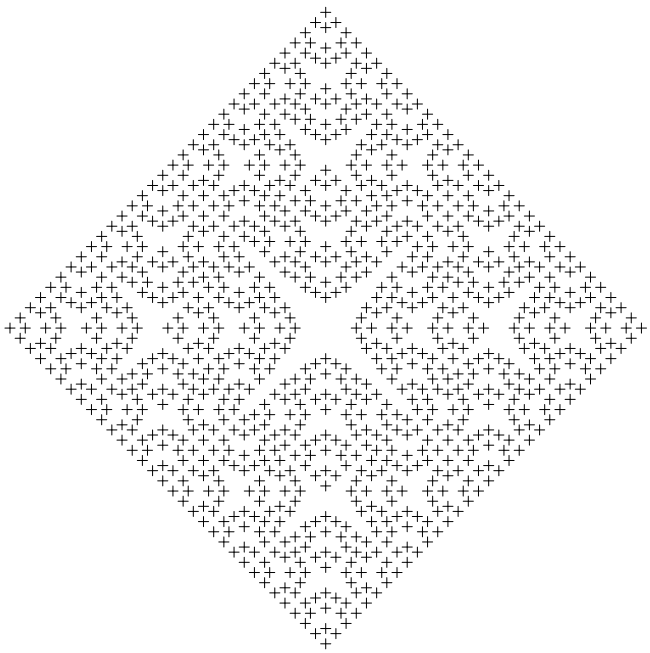


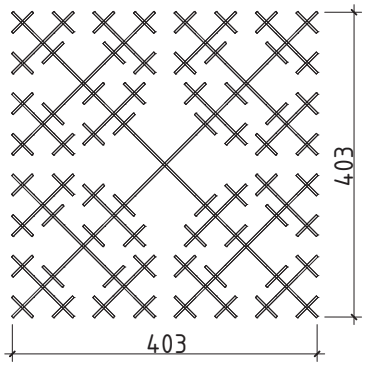
n = 3

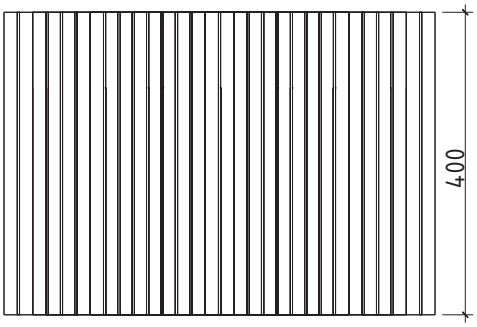
[+AAAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F[+AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]
[-AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]
[++AAAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F[+AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]
F][-AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]
[+++AAAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F[+AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]
F][-AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]
[++++AAAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F[+AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]
[-AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]

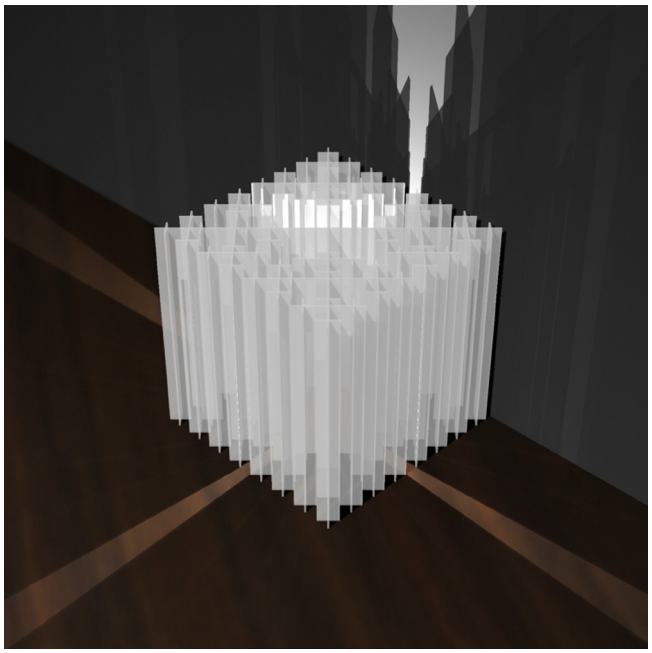
n = 3, δ = 90
[+F][++F][+++F][++++F]
F → AF[+F][-F]F

[+AAAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F[+AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][-AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]
F]AF[+F][-F]F]AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][++AAAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F[+AAF[+F][-F]F[+AF[+F][-F]F]
[-AF[+F][-F]F]AF[+F][-F]F][-AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][+++AAAF[+F][-F]
F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F[+AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][-AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]
AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F][++++AAAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F[+AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]
F]AF[+F][-F]F][-AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]AAF[+F][-F]F[+AF[+F][-F]F][-AF[+F][-F]F]AF[+F][-F]F]









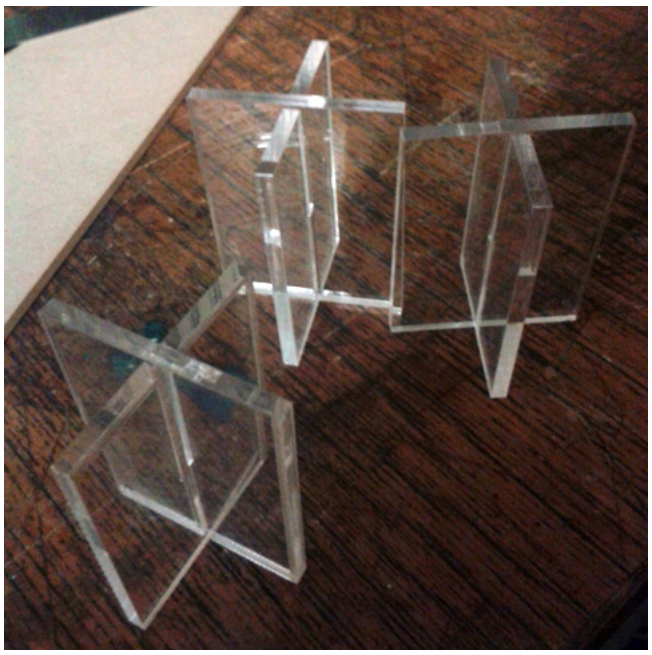


1. The 5th iteration of the string produces aesthetical results. I like the repeating and rectangular pattern that is also changing and creates the star shaped openings.

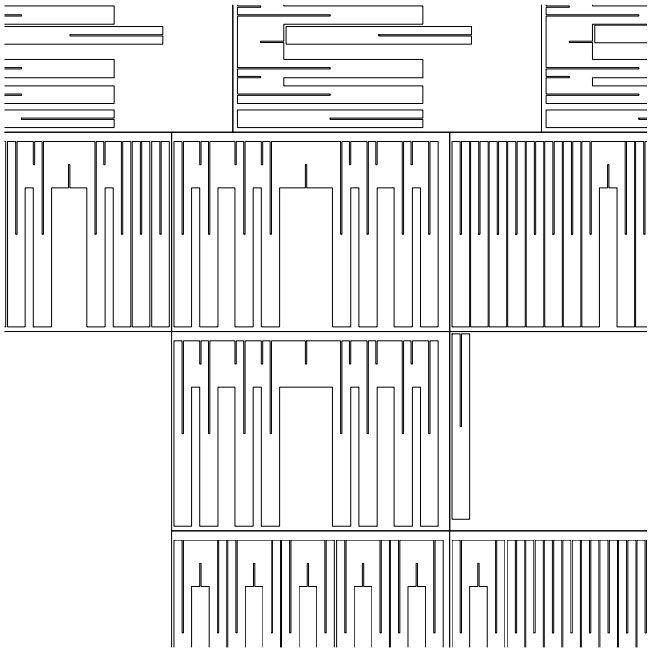
2. Top and side views of the table. I wanted to make a small table that I could also take home. A small lamp can be placed in the space that is created under the table, The height of the cubic table is 40 centimeters so that the table top will be at comfortable height if approached from a bed.

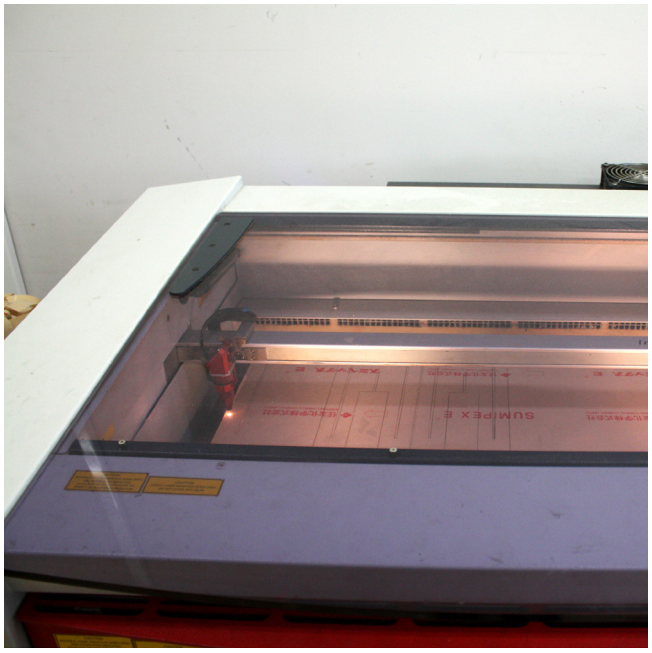
3. Rendering of the idea of the table, My plan was to make it using corrugated plastic, プラダン, because it would look pleasing softening the light, and I was interested in using this kind of soft and cheap material, but this didn't work out because cutting of the material is difficult.

4. Trial pieces of corrugated plastic cut with laser cutter got coloured and the material was melting too much.

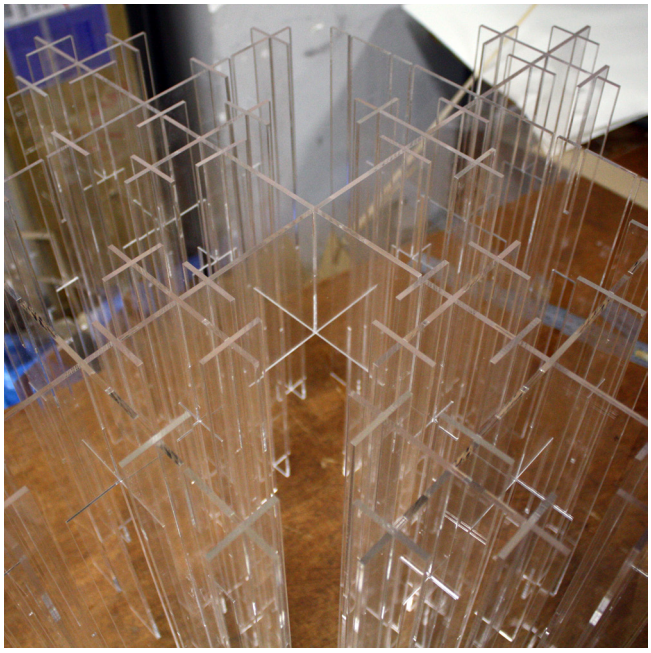


◀5
6▶





◀7
8▶



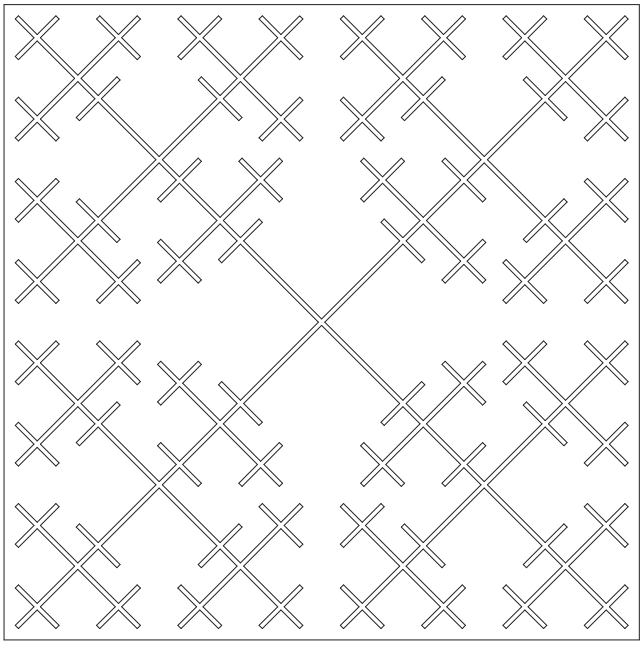
5. Testing pieces of acrylic. I decided to use acrylic as the material, because it can be cut accurately and it can be transparent, so that the light plan can also be included.

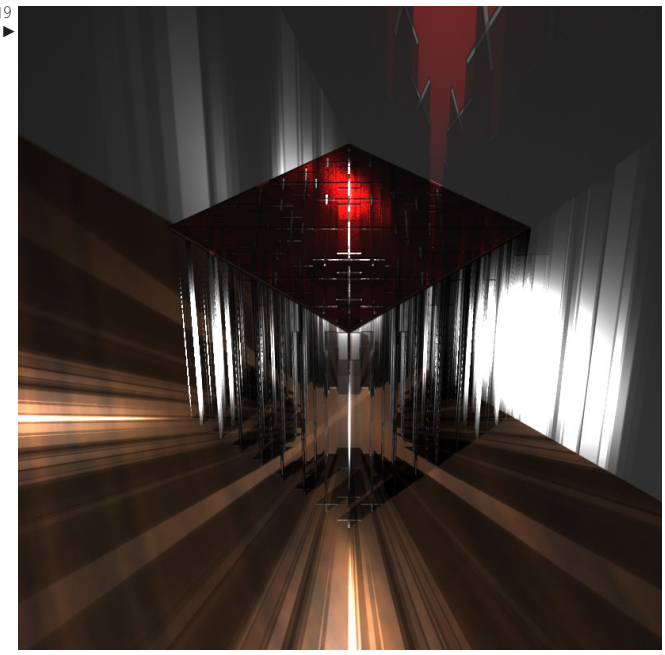
6. Drawings of the pieces to be cut.

7. Laser cutter at work.

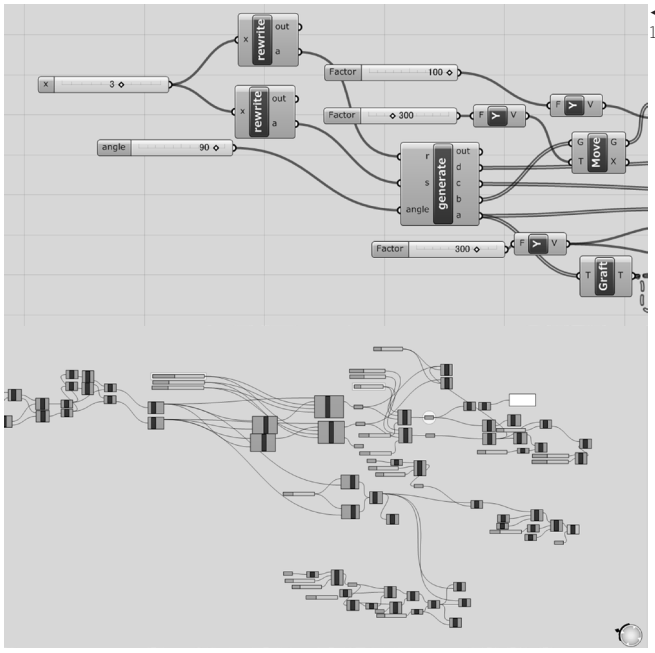
8. Frame of the table.

◀9
10▶





◀11
12▶





9. Drawing of the table top, My plan is to make the table top with the shape of the frame cut into it, so that it will make the structure more stable, Also it will emphasize the generated pattern.

10. Rendering of the plan of the completed table. The tabletop is made of layers of transparent red acrylic and transparent clear acrylic, that will not be cut in with the shape.

11. Screenshots. This is the first design that I used Grasshopper to complete. I got help and I also learned a lot about using the application. Also I learned to write a bit of Python code.

12. The testing part proved to make the table stronger.