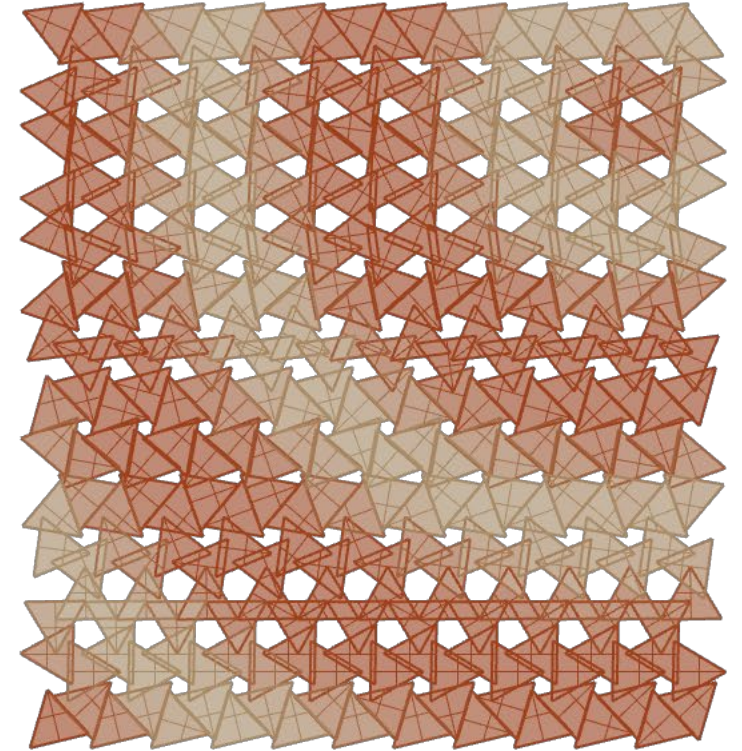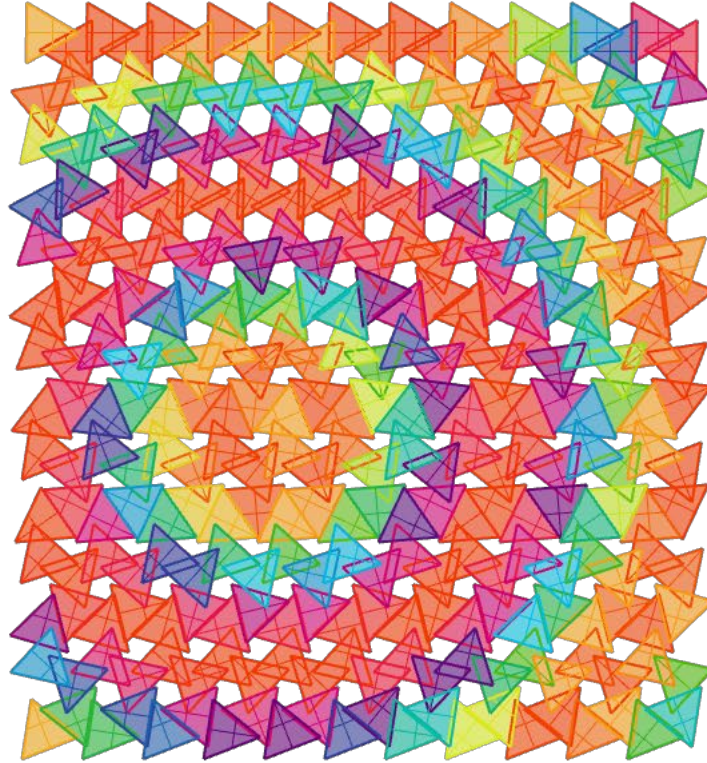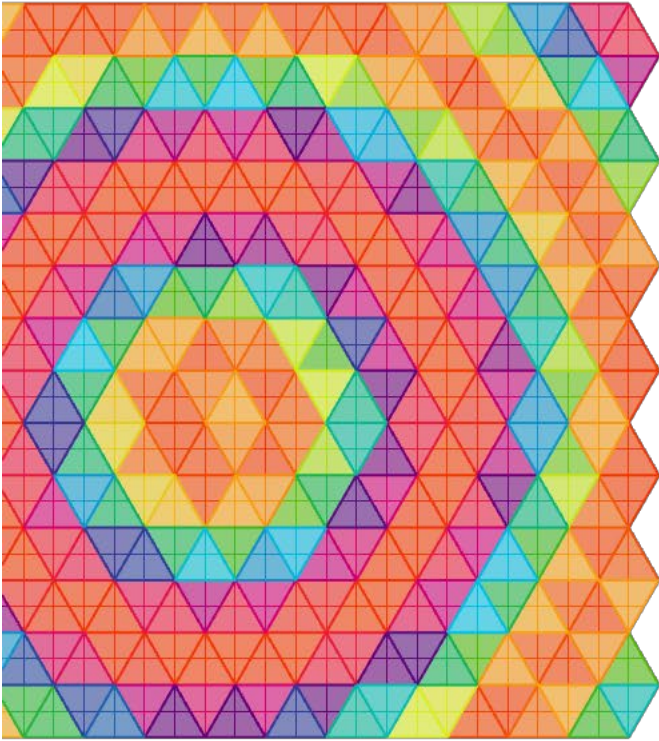# Project 2 – Parametric Patterns
Nikshith Reddy Nagaraja Reddy

This project explores the use of a **triangular grid system** along with a **single point attractor** to create interesting concentric geometric patterns with relation to the point attractor, that form polygonal gaps using the control knob. I used the **rotational increment** and a control knob to monitor the angle. I used The **graph mapper** tool to control the gradient of the colored patterns and the way color is distributed. I then used the **'lunch box'** plug in to bake my parametrically controlled patterns. The result is 3 different patterns from a single grasshopper definition.

Grasshopper Definition

Bifocals
Exceptions
Active

Input
Size — 1.6
Extents x — 22
Extents y — 14
rotation seed value — 15

Control Knob
Rotati...
261

Triangular
Plane
Size
Extent X
Extent Y
Cells
Points

List Length
List
Length

Rotation
Random
Range
Number
Seed
Random

Rotate
Geometry
Angle
Plane
Geometry
Transform

Point
Point

Attractor Point Distance
Point A
Point B
Distance

Bounds
Numbers
Domain

Construct Domain
Domain start
Domain end
Domain

Smallest — 0.20
Largest — 0.95

Graph Mapper + Gradient

Remap Numbers
Value
Source
Target
Mapped
Clipped

Graph Mapper
0:1
0:1

Gradient
Lower limit
Upper limit
Parameter

Boundary Surfaces
Edges
Surfaces

Generate Surface

Custom Preview
Geometry
Shader

Bake tool + LunchBox Plugin to generate colored Surface
Button

Object Bake
Bake Toggle
Geometry Objects
Layer
Object Name
Object Color
Layer Color
User String
User Keys