

TriGrid Drawing Tool

Create a browser based 2D drawing tool that uses triangular “pixels” as the basic drawing unit.

Use processing.js (<http://processingjs.org/>) and write your code in the Processing language (not JavaScript). You can use the html provided at the end of this document to get started. You should produce the trigrid.pde file that is referenced in the html. Submit your PDE file by email.

The tool should display a visually subtle grid of equilateral triangles (see example below). The sides of each triangle should be 50 pixels in length.

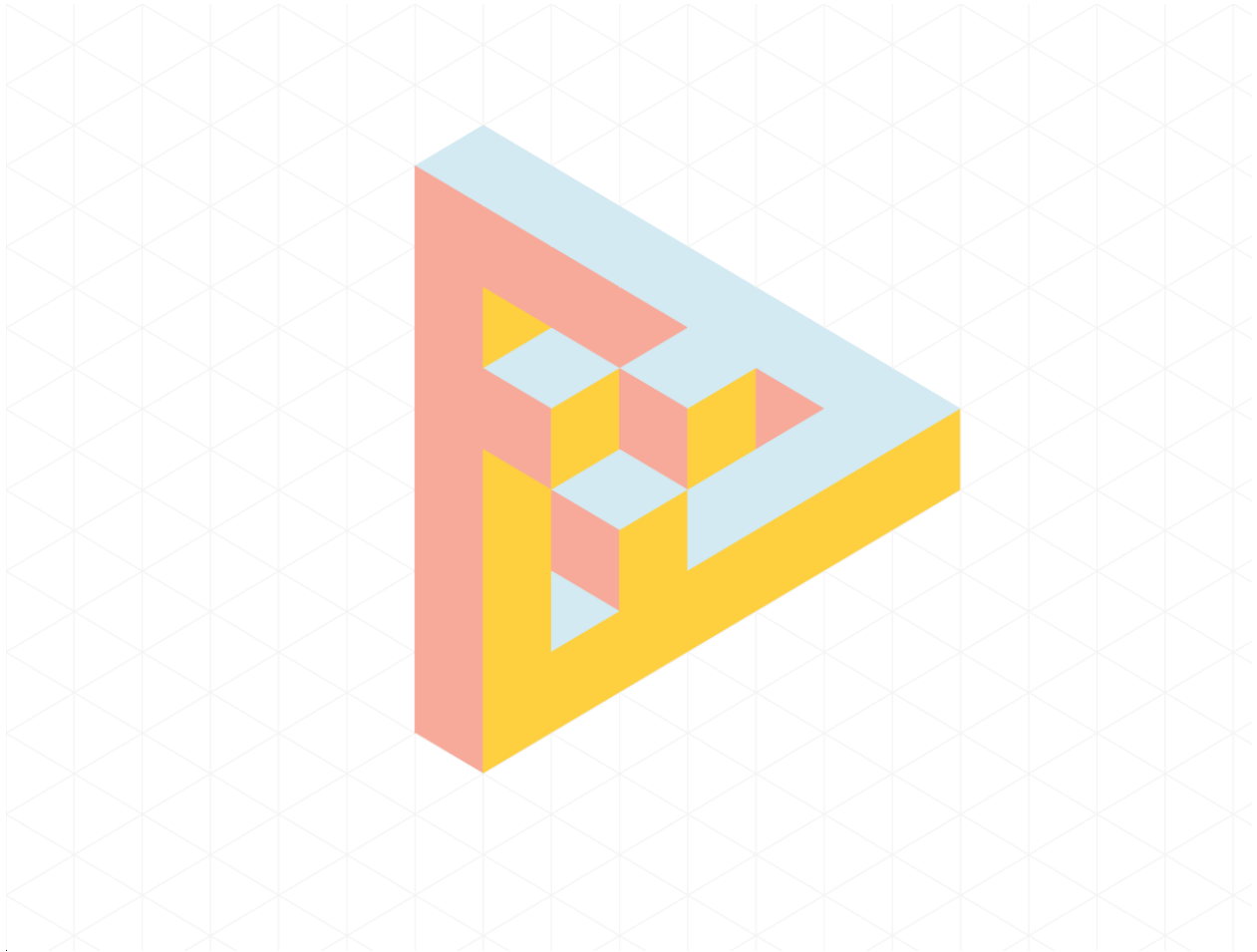
Each triangle can be uncolored (the default state) or can have 1 of 3 different colors. The user can change the color of a triangle by clicking on it. When clicked, a triangle should cycle to the next color, based on its current color. For example, if the user clicks on an uncolored triangle, it will change to Color1. If the user clicks a Color1 triangle, it will change to Color2. Clicking a Color2 triangle changes it to Color3 and clicking a Color3 triangle cycles it back to uncolored.

Colored triangles should not have any border, so adjacent triangles of the same color have no line between them and appear as a continuous block of color. Uncolored triangles should appear to be on the visually subtle grid mentioned above, such that there is a faint line between adjacent uncolored triangles. See the image below for an example of how colored and uncolored triangles should appear.

Choose any color scheme you like (including background color).

Bonus: Draw something clever.

Visual Example



HTML Wrapper

```
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
  <script src="http://github.com/downloads/processing-js/processing-js/processing-1.4.1.min.js"></script>
</head>
<body style="margin: 0;">
  <canvas width="100%" height="100%" data-processing-sources="trigridd.pde"></canvas>
</body>
</html>
```