

Tech News

Moiré Patterns

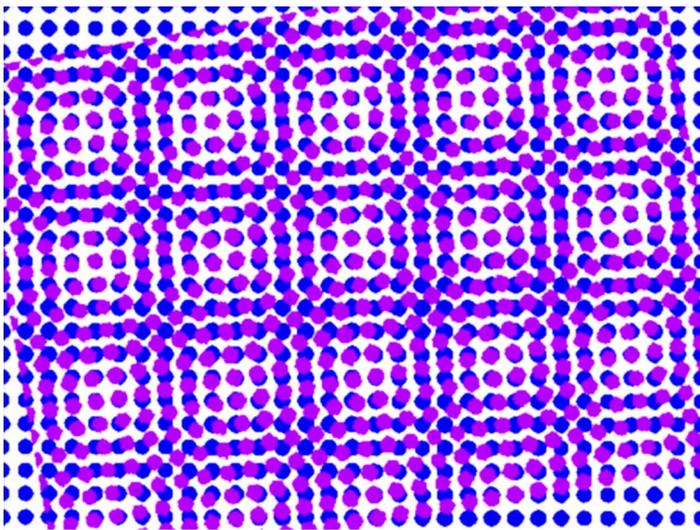
Today we will fool around with Moiré patterns, the patterns that are formed when two repeating images are superimposed with slight differences in size, angle, or position. Although Moiré patterns can be quite pretty, they can also be a real nuisance for publishers who want to print pictures. Fine details in the pictures can form Moiré patterns with the halftone grid, resulting in large visible patterns that were not part of the original image.

I wrote a simple scratch program to demonstrate the effects. It has one essential sprite whose costume is a 480x360 (full screen) pattern. The costume is a repeating pattern of opaque and transparent parts. By stamping the pattern on the background, one gets two copies: a fixed one and a movable one.

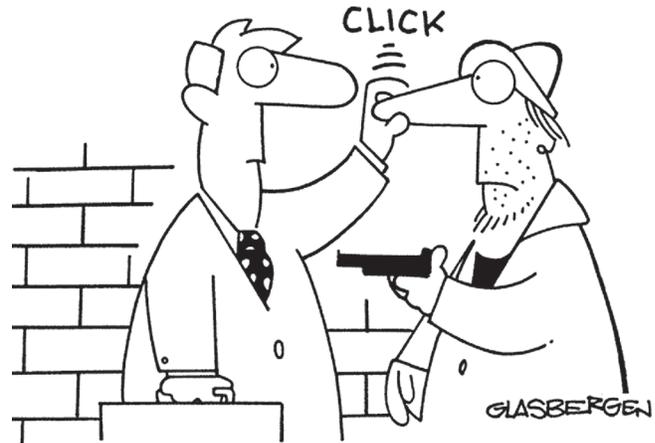
The arrow keys and other keyboard keys are set up to move the sprite around, rotate it, and change its size. The program is available from the MIT web site at

http://scratch.mit.edu/projects/kevin_karplus/8152

For this program, the programming is very simple, but creating a good costume is harder. I spent a lot of time in Photoshop Elements creating the two costumes (dots and stripes) for the program. I would like to create other costumes, but I need to figure out a better tool for creating them!



Here is a Moiré pattern created by rotating the dot grid. The blue dots are the stamped background and the magenta dots are the movable sprite.



Kevin finally gets to use what he learned in his online self-defense class.

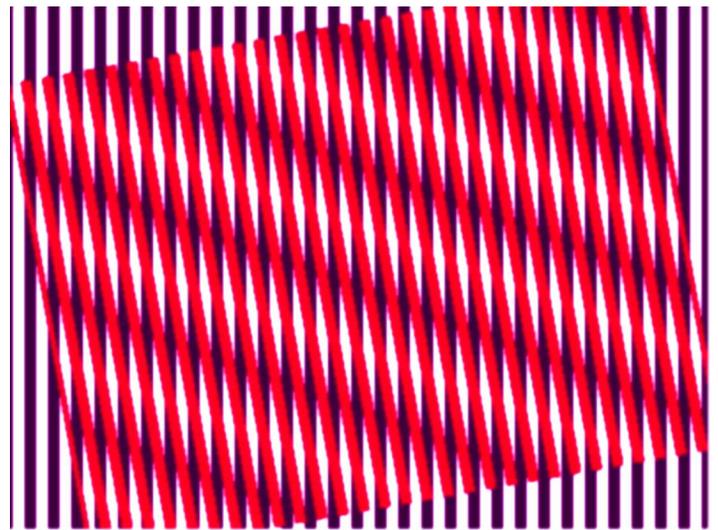
Copyright © 2001 Randy Glasbergen. www.glasbergen.com

Year almost over

After today, there are only 2 more Tech Club meetings in the school year. Anyone have any ideas about what we should do? The last Tech Club meeting is on the same day as graduation and the USO dance, so we might want to have a short meeting then.

I hope to see lots of new programs this summer from all of you appearing in the Spring Hill Gallery at

<http://scratch.mit.edu/galleries/290>



Here is a Moiré pattern created by rotating and shrinking the stripes sprite.