

OPEN SOURCE HARDWARE & EMPOWERMENT

Leah Buechley
High-Low Tech Group
MIT Media Lab
<http://hlt.media.mit.edu>

three stories

1. code to form

inspiration, education, & creation



Kerrin Jefferis and Patrick Stein
traer.physics library by Jeffrey Traer Bernstein
unlekkerLib (stl) library by Marius Watz

```
// Kerrin Jefferis and Patrick Stein
// ~ Computational Nature
//   A hyperbolic coral
//   number of nodes in
//   nodes are connected
//   creating a contine
//   any keypress to re

// Built using Traer Phys

// Uses PeasyCam to navig
//   mouse left-click-d
//   mouse wheel, or ri
//   mouse middle-click
//   mouse double-click

// - - - - - Librar

import traer.physics.*;
import peasy.*;

// - - - - - Variab

ParticleSystem physics;
PeasyCam cam;

ArrayList nodes; // Arra

int[] pattern = { // Grow
  2,3};
int patterncount = 0; //

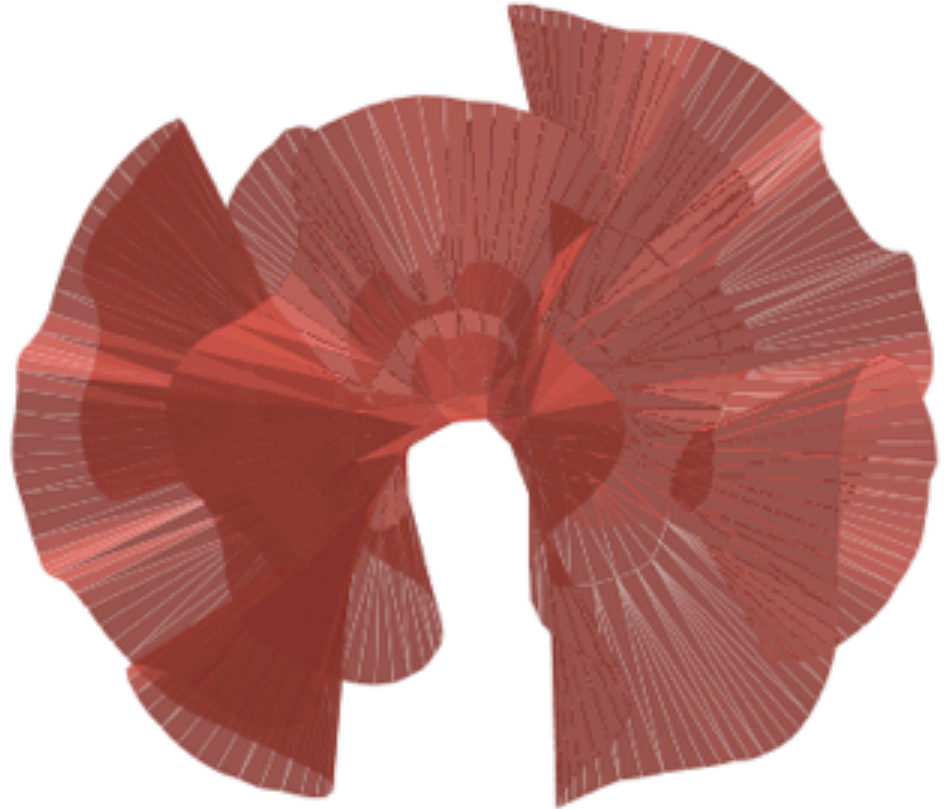
Particle start; // Centr
int startnodes = 4; // N
int numgenerations = 5; //
int radius = 12; // Start

int restlength = 10; //
float strength = 0.1; //
float damping = 0.05; //

float repulsion = -3; //
float repulsion_mindist =

float drag = 0.03; // Ph
float speed = 3; // Phys

int colR = int(random(255
int colG = int(random(255
int colB = int(random(255
```





coral3

White Strong & Flexible ▾

Add to Cart

\$5.55



coral2

White Strong & Flexible ▾

Add to Cart

\$6.97

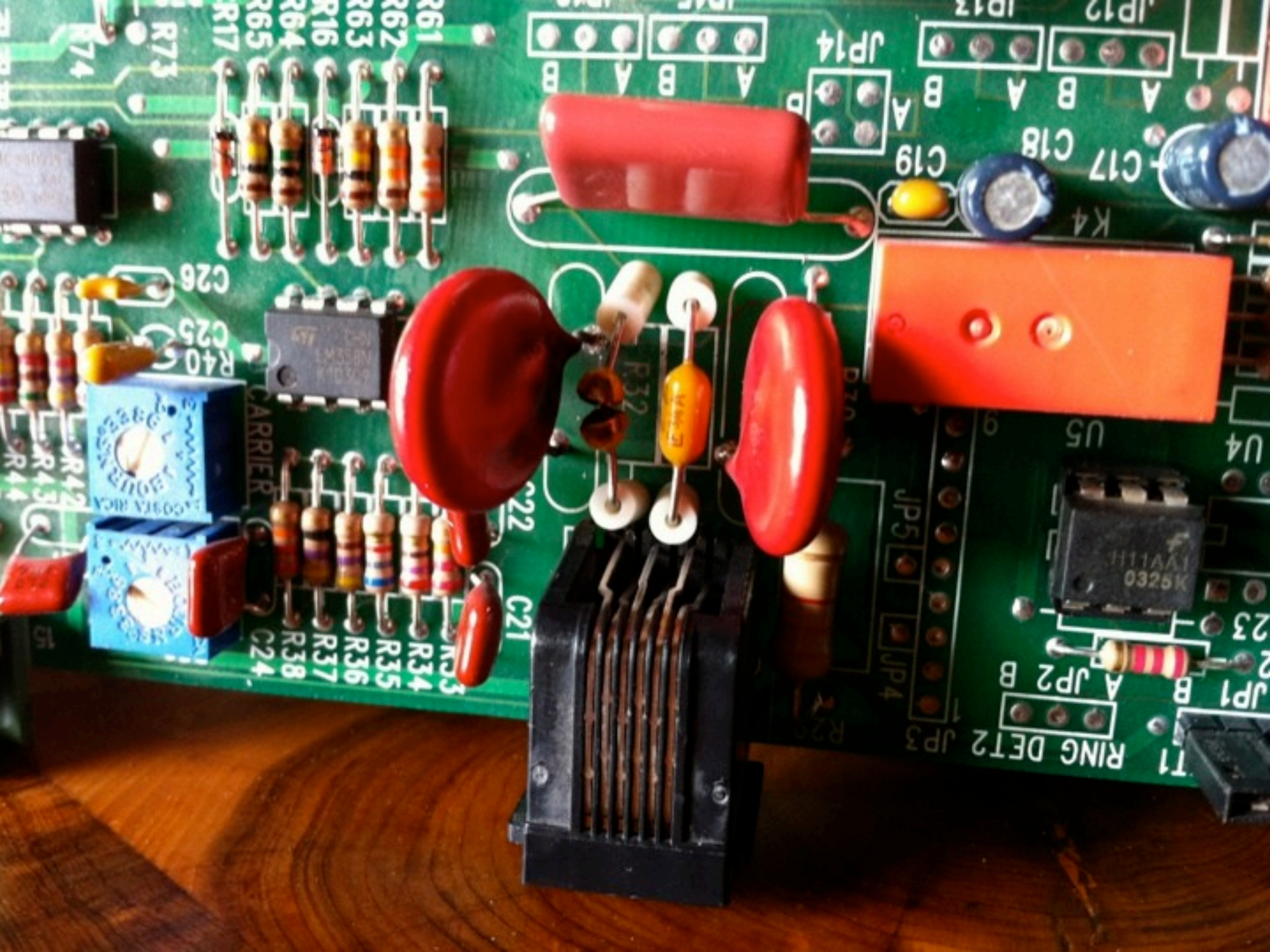


2. repair

frustration & opportunity









Xantrex DR2412 2,400W 12V
DC to AC

Global Village Construction Set!

3. the emperor's suit

hyperbolic curmudgeonry



why is it part of the Arduino
(OSHW) family?

easy to use software
open source software
excellent documentation
great example code
extensive libraries
friendly online forums
inspiring projects
community

not because of OSHW

what does it mean that
LilyPad is OSHW?

almost nothing

this is true for 80% of what we
celebrate as OSHW

moral of the story?

thank you!

Leah Buechley
High-Low Tech Group
MIT Media Lab
<http://hlt.media.mit.edu>



Jennifer Jacobs