

Building a Biocube

Introduction

When it comes to collecting and comparing data, standardization is key. The following materials are what David Liittschwager recommends to build a Biocube that is both affordable and comparable to those used by Smithsonian researchers.

Materials

- 12 aluminum tubes (1/4in diameter, 12in length, .014in wall) –K&S Aluminum tubes (part #8106) can be purchased individually at hardware and hobby/craft shops or in bulk by contacting David Gallagher of K&S Metals at 773-586-8503. Costs vary based on aluminum pricing, but are typically around \$1.00/tube. <http://www.ksmetals.com/>.
- 24 6in-pieces of solid THHN wire (14 AWG), green – can be purchased at most hardware stores
 - 25 ft spool (2 biocubes) at Home Depot is around \$6.50: <http://thd.co/17qT4nt>
 - 100 ft spool (8 biocubes) at Home Depot is around \$18.75: <http://thd.co/17qTeLv>
- Alcohol-based quick-drying spray paint - Krylon Products K03106 11oz Green Fluorescent Spray Paint

Procedure

1. Bend pieces of wire in half so that they are L-shaped.
2. Hold three L-shaped pieces of wire together and insert into tube to make 3-way corner joint.
3. Repeat this step for each corner until you have a cube.
4. Use spray paint to paint cube so that you can easily separate the cube from the surrounding area. The product listed above is the color preferred by the Biocube team, but it isn't necessary that it be green.