

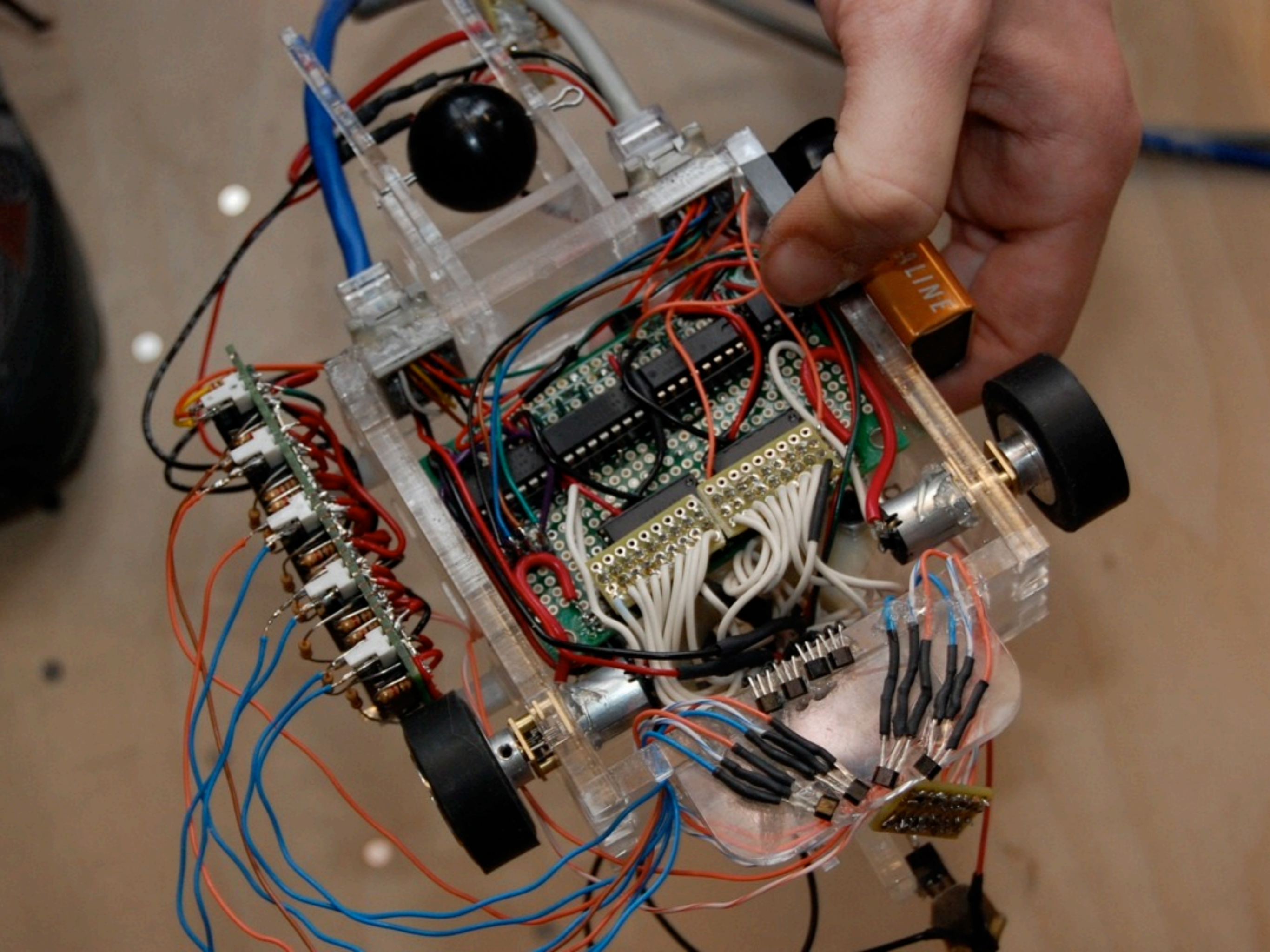
MECHATRONICS

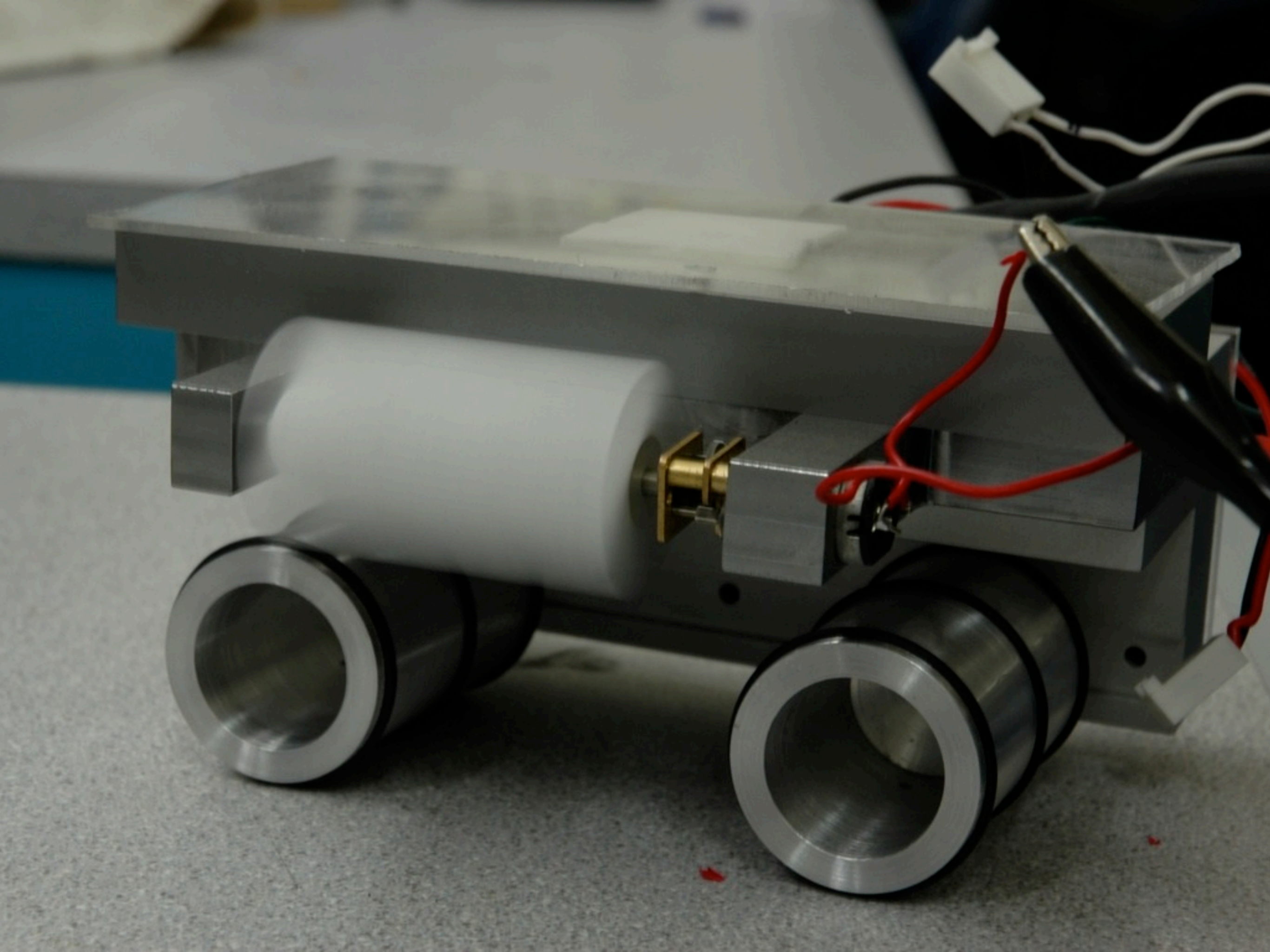
MEAM 410/510

Mechatronics is the synergistic combination of Mechanical engineering, Electrical engineering, Computer engineering, Control engineering, and Systems Design engineering in order to design and manufacture useful products.

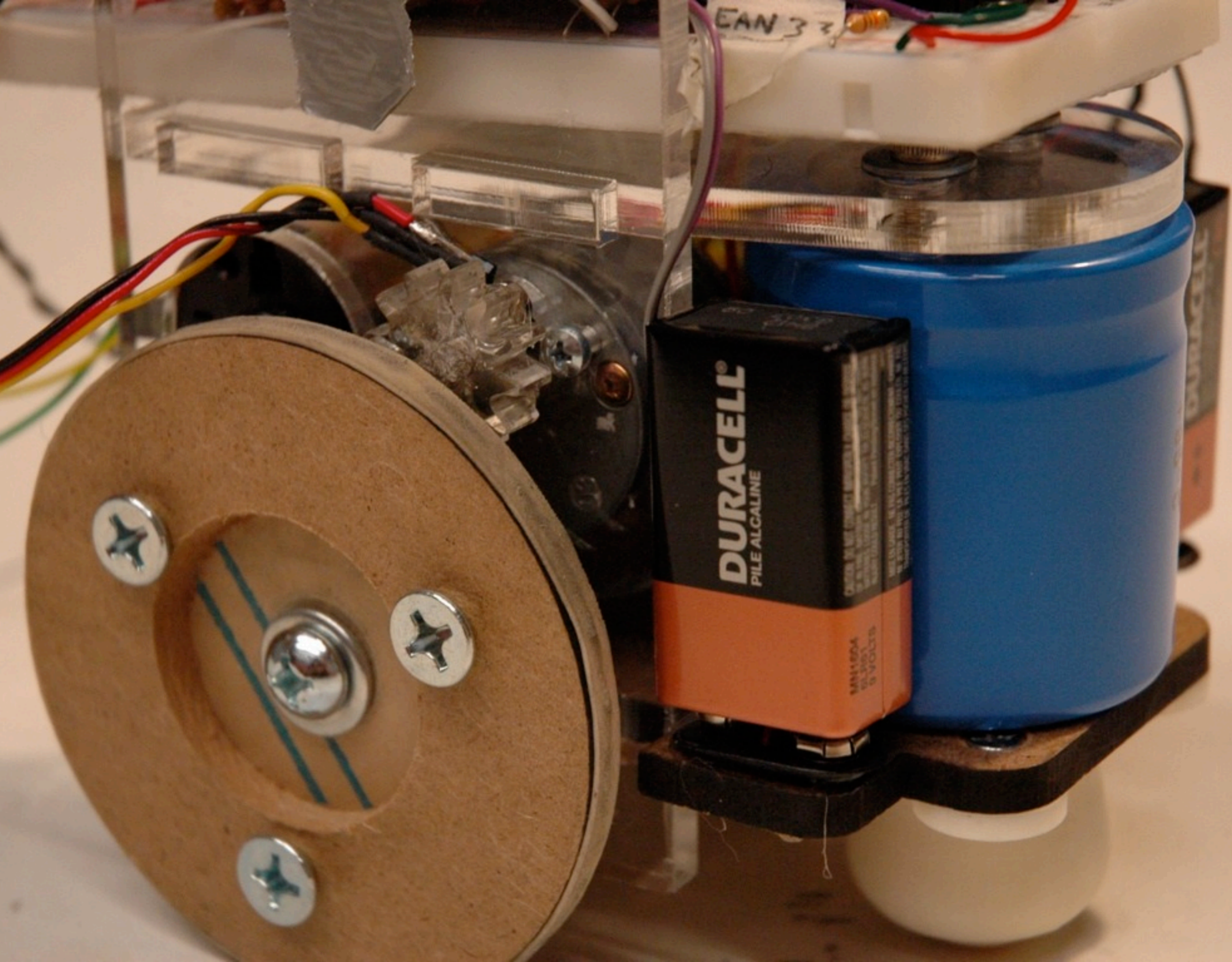
-Wikipedia









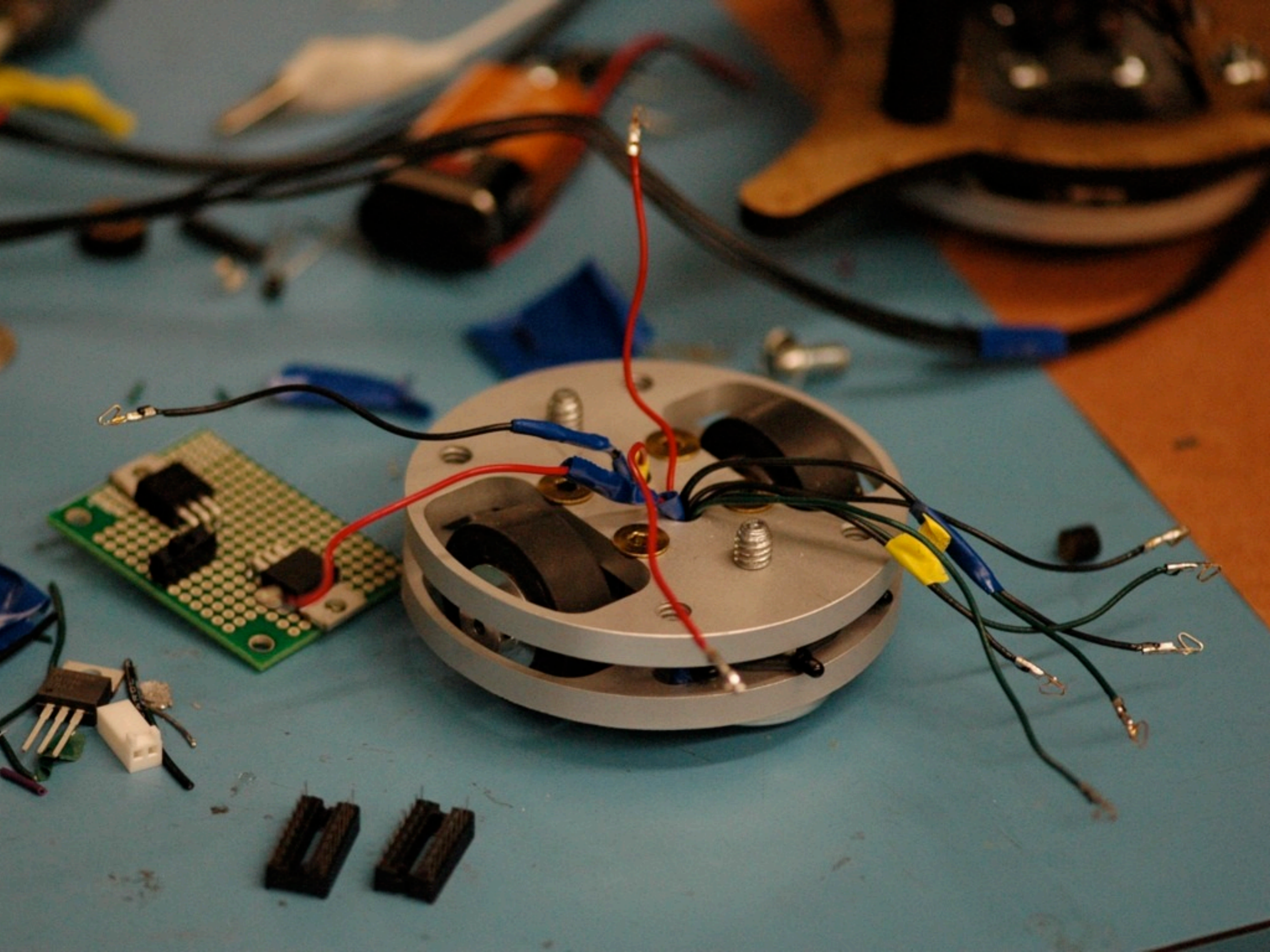


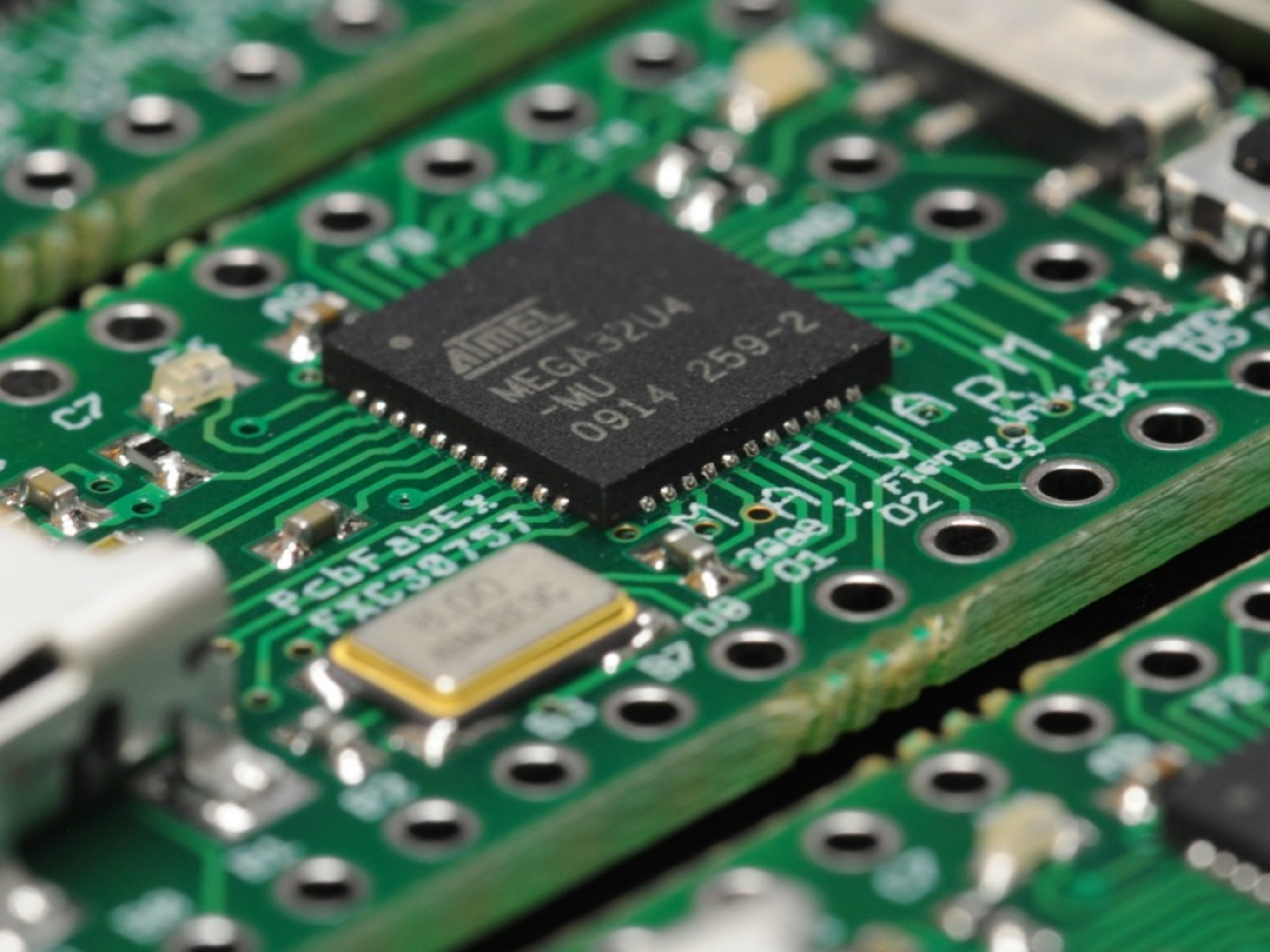
MONSTER
ASSAULT
ENERGY

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ENERGY
DRINK





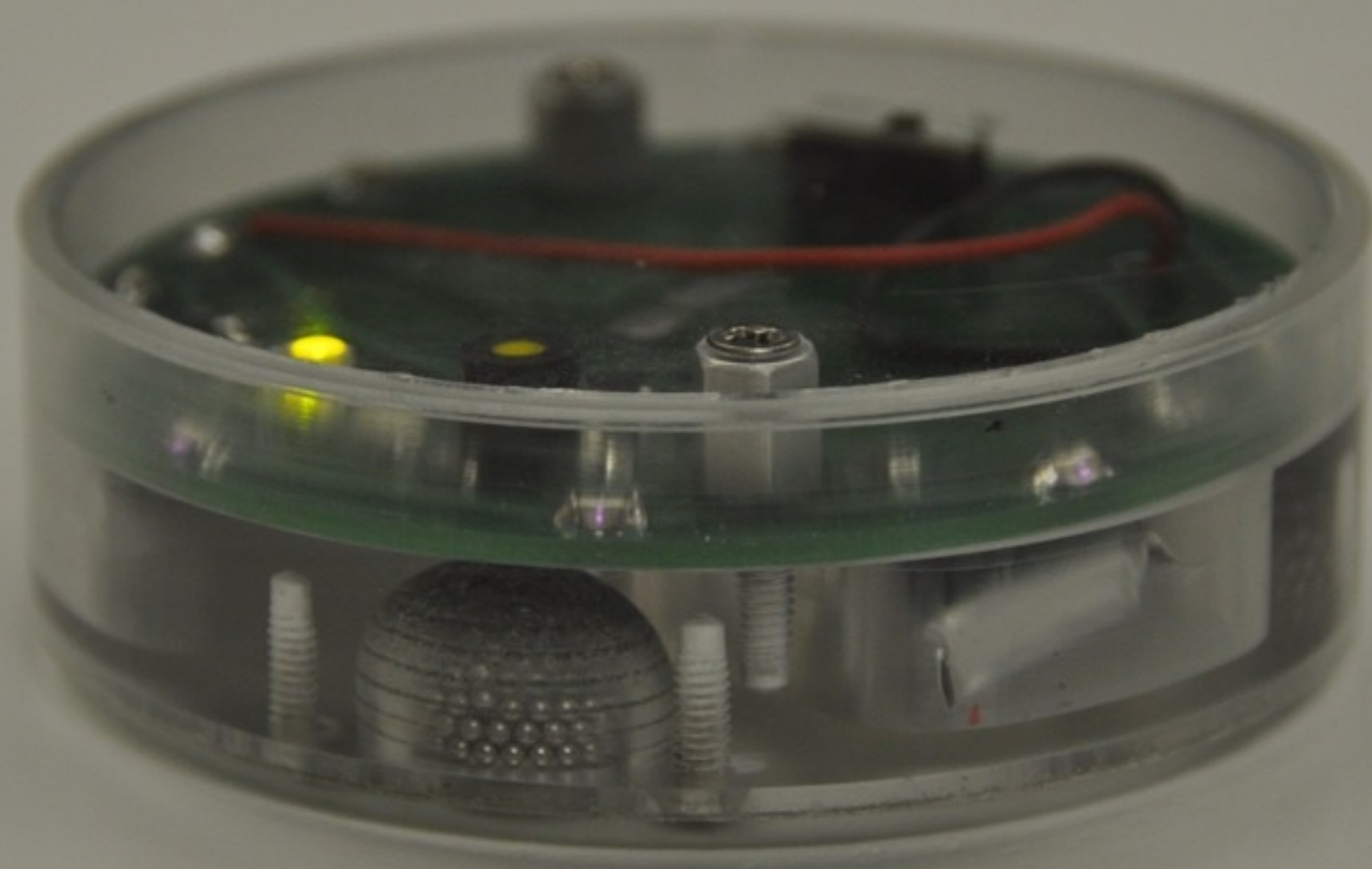
ATMEL

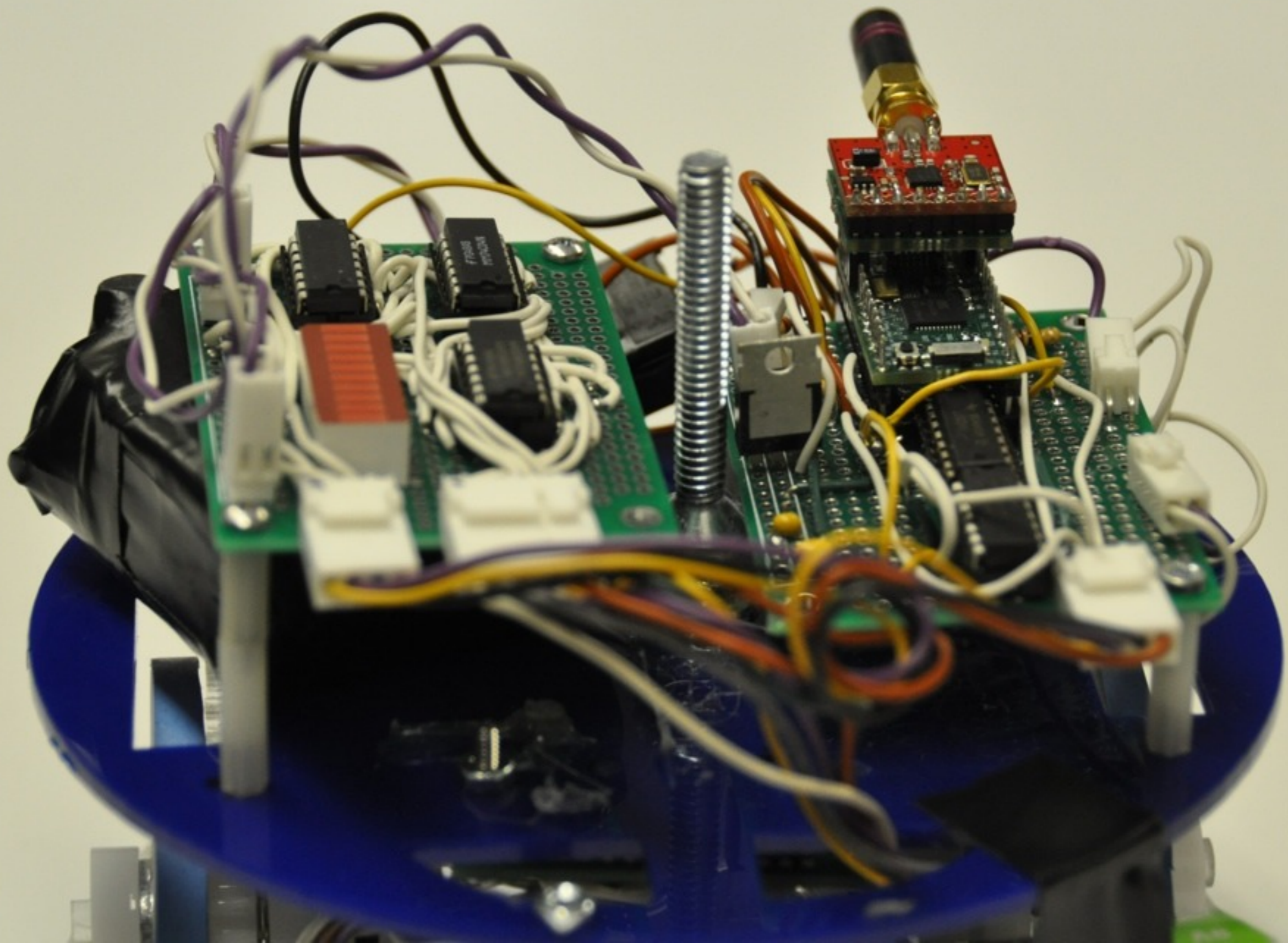
MEGA32U4

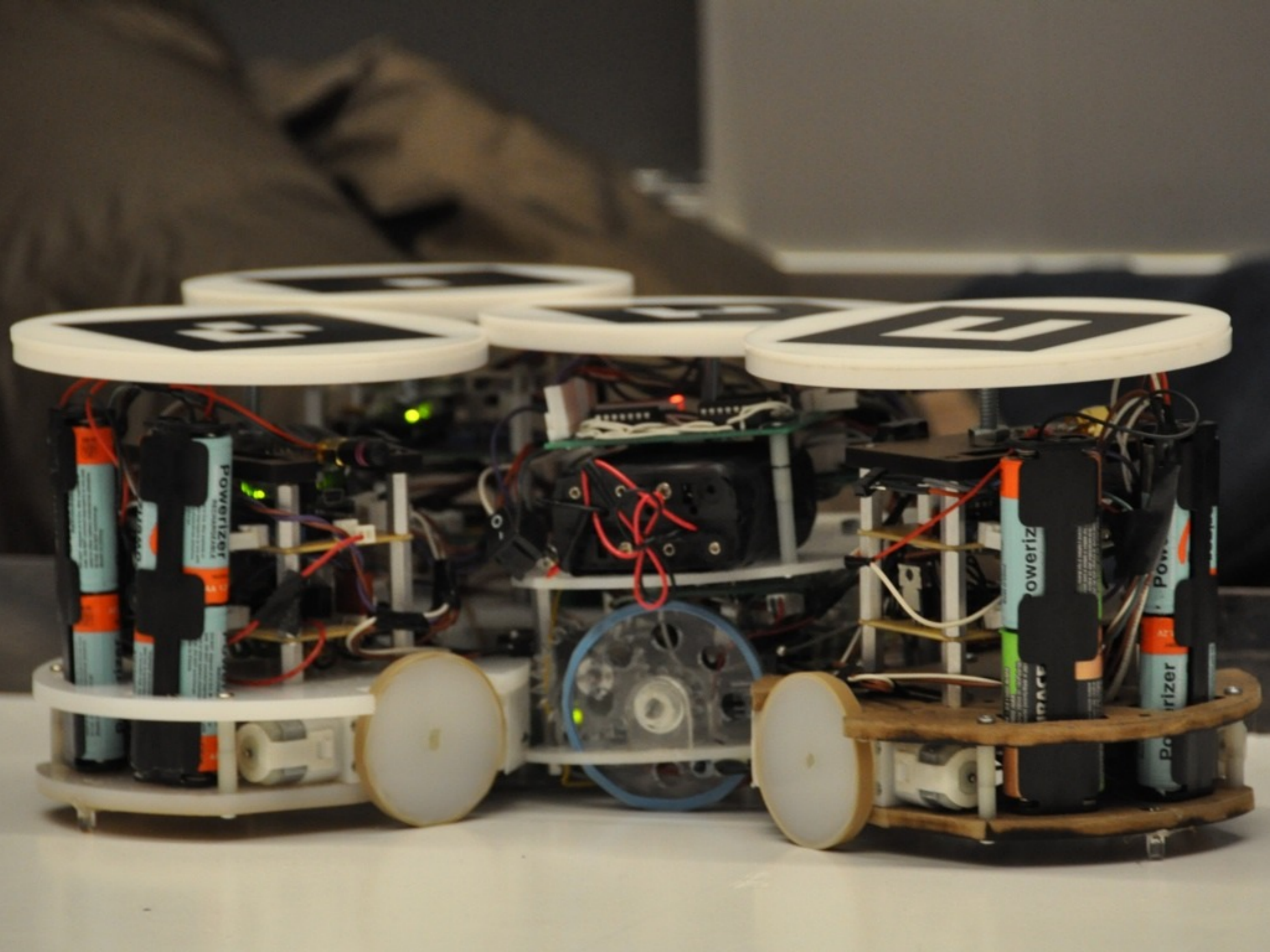
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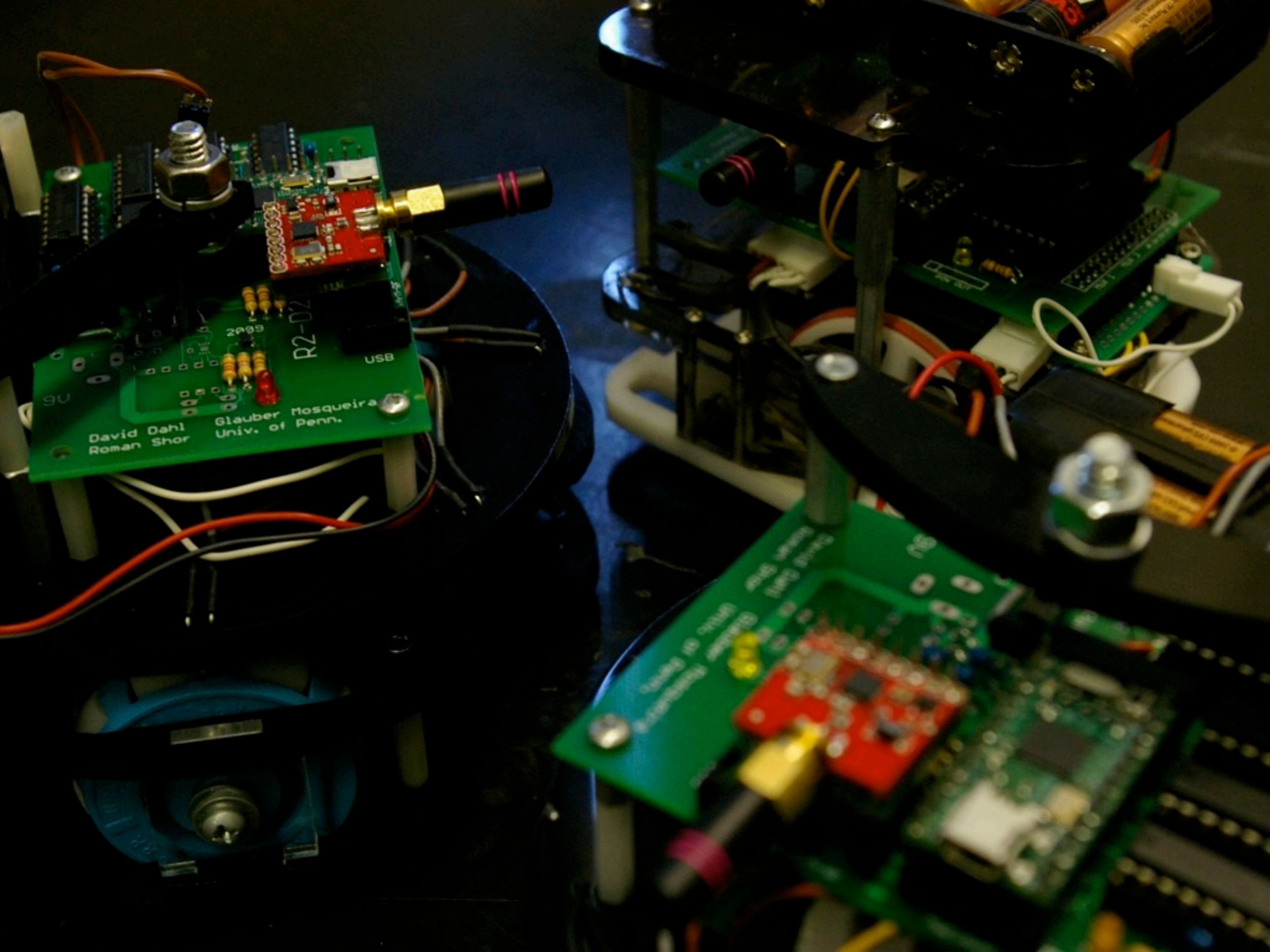
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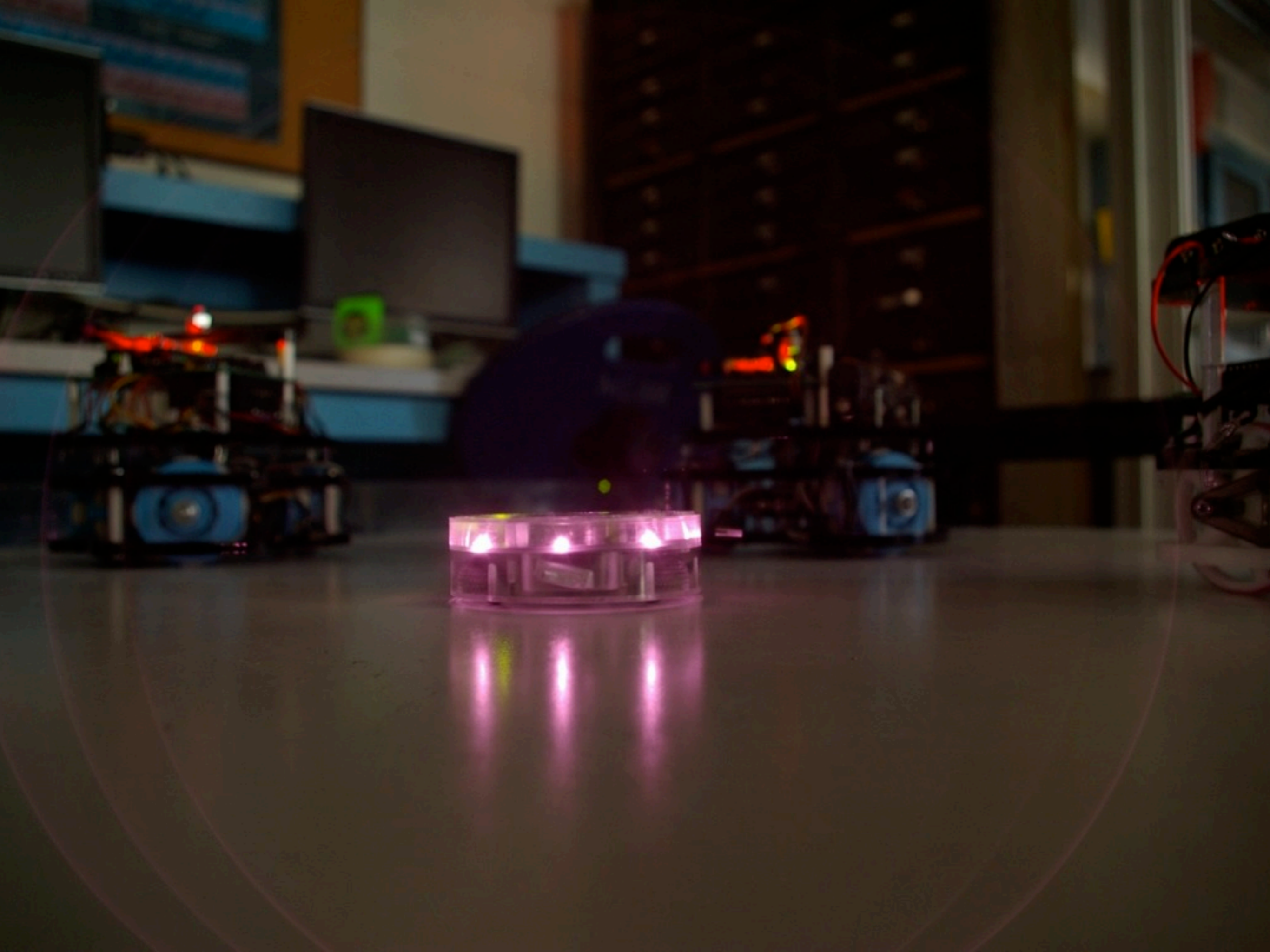






9V
2A09
R2-D2
USB
David Dahl
Roman Shor
Glauber Mosqueira
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Robotic Hockey Teams Face-off at Penn Engineering

In the Design of Mechatronic Systems "finals" are more than an exam; they are a tournament in which the winners hoist a trophy high above their heads in victory.

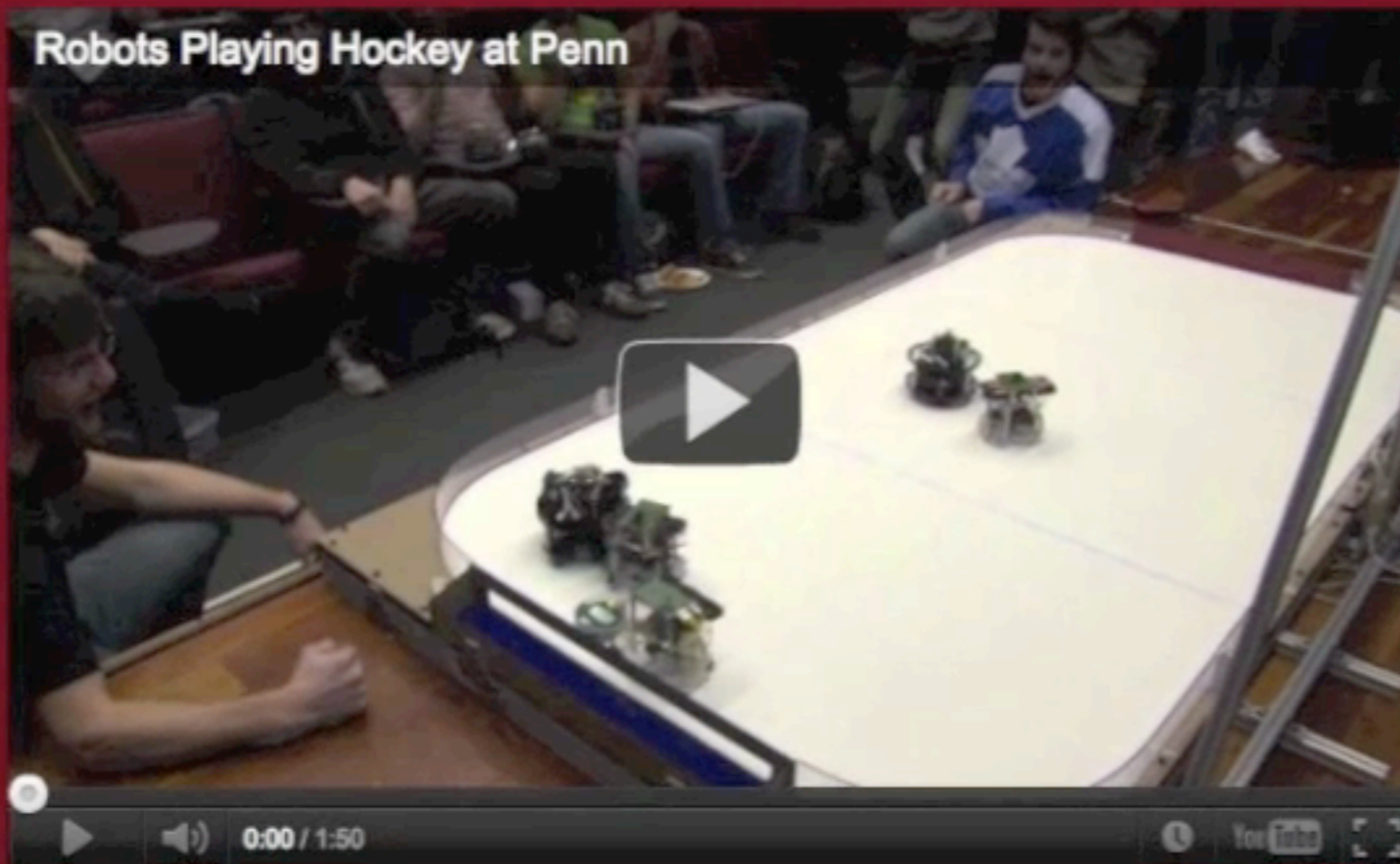
EVENTS

Scientists Clarify Link Between Asians and Americans

Vaccination Regimen Knocks Out Early Breast Tumors

Wharton Future of Advertising Super Summit Meet

Robots Playing Hockey at Penn



Robotic Hockey Teams Face-off at Penn Engineering

For students in the School of Engineering and Applied Science's Design of Mechatronic Systems class, "the finals" are more than an exam; they are a tournament in which the winners hoist a trophy high above their heads in victory.

Throughout the school year, members of the class, led by Jonathan Fiene, director of laboratory programs, design pint-sized robotic hockey teams that faceoff in an annual competition known as The Robockey Cup. Each team produces three robots that skate on wheels, shoot with pistons, and see the puck, the goals, and each other using a variety of sensors.

[Learn More](#)

Video by Kurtis Sensenig, University Communications

ABOUT THE PHOTO

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- GRADUATE

ABOUT PENN

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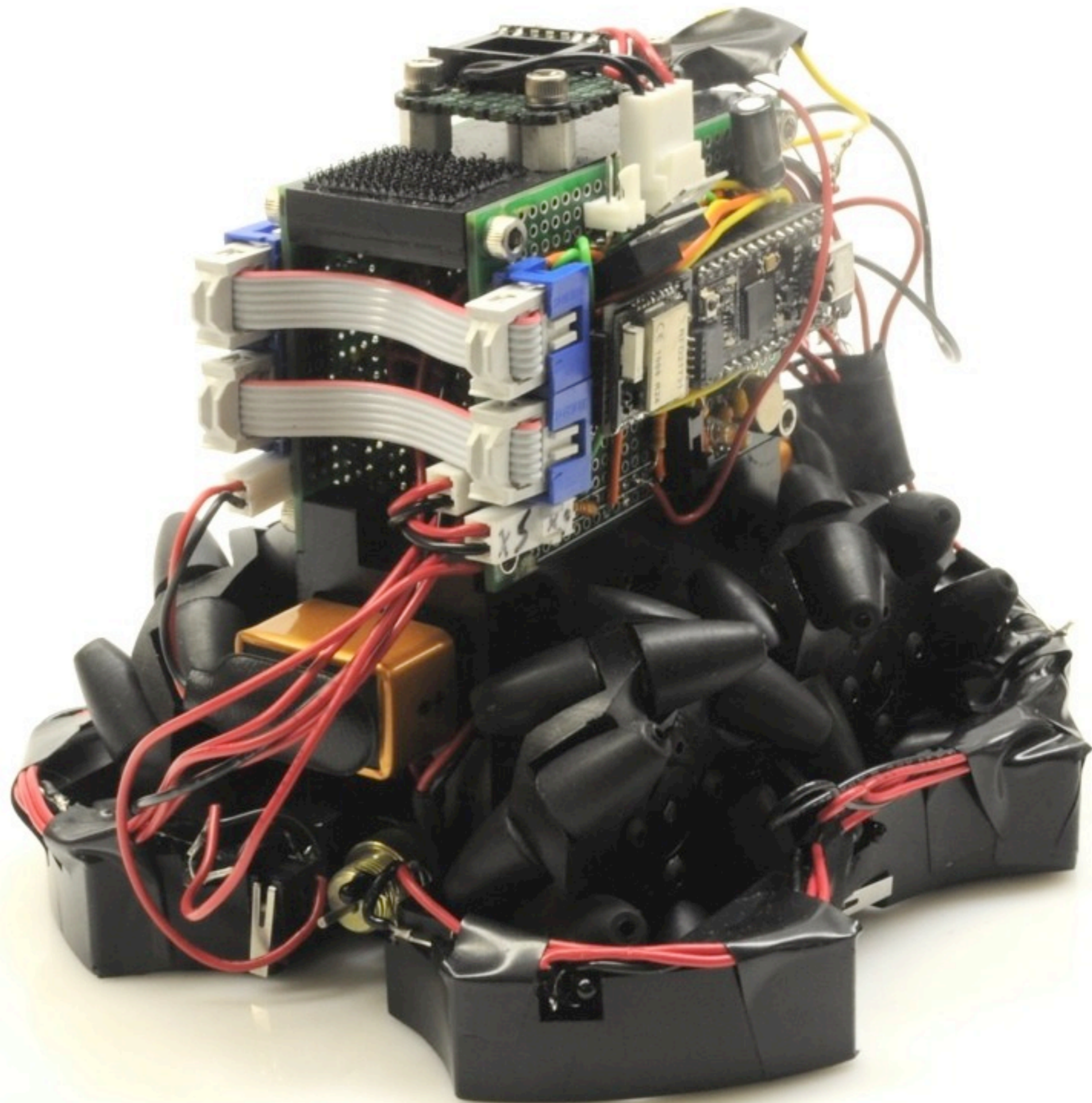
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Fiene

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[Urban Dictionary: 'fiene'](#) ☆

1. A shortening of caffiene because, as we all know, when you're hopped up on the 'fiene, you don't have time for syllables. Pronounced, "Feen" 2. ...

www.urbandictionary.com/define.php?term='fiene' - [Cached](#) - [Similar](#)

[MEAM Faculty - Fiene](#) ☆

Jonathan **Fiene**. Lecturer and Director of Laboratory Programs Mechanical Engineering and Applied Mechanics (MEAM). [Email](#) | [Teaching Webpage](#) ... Pronounced, "Fee-nee" ...

www.me.upenn.edu/about-people/faculty/profile-fiene.php - [Cached](#)

Locations

Berger Auditorum

lectures (MW 3:00-4:20) & recitations (F 3:00-4:20?)

Towne 193 (GM)

card-swipe

19 (soon to be 26) stations

electronics, programming, SolidWorks

Towne 167

card-swipe

laser cutting*

* = training required

Resources

Textbook

Introduction to Mechatronics, 1st ed., 2010

Carrier, Kenny, and Ohline

Course Wiki

<http://medesign.seas.upenn.edu>

Staff Email

meam510staff@lists.seas.upenn.edu

Lab kits

solderless breadboard

hookup wire kit

small screwdriver

diagonal cutters

wire strippers (20-30 AWG)

(5) alligator-clip wires

(5) mini-grabber wires

coaxial banana-alligator wire

mini-B USB cable

roll of 25-gauge 63/37 solder

(1) m2 microcontroller*

Components

some quizzes

4-5 homework assignments

5 individual labs

1 group lab

1 final project

Expectations

A0 & L1



function generators



spare breadboards

multimeters