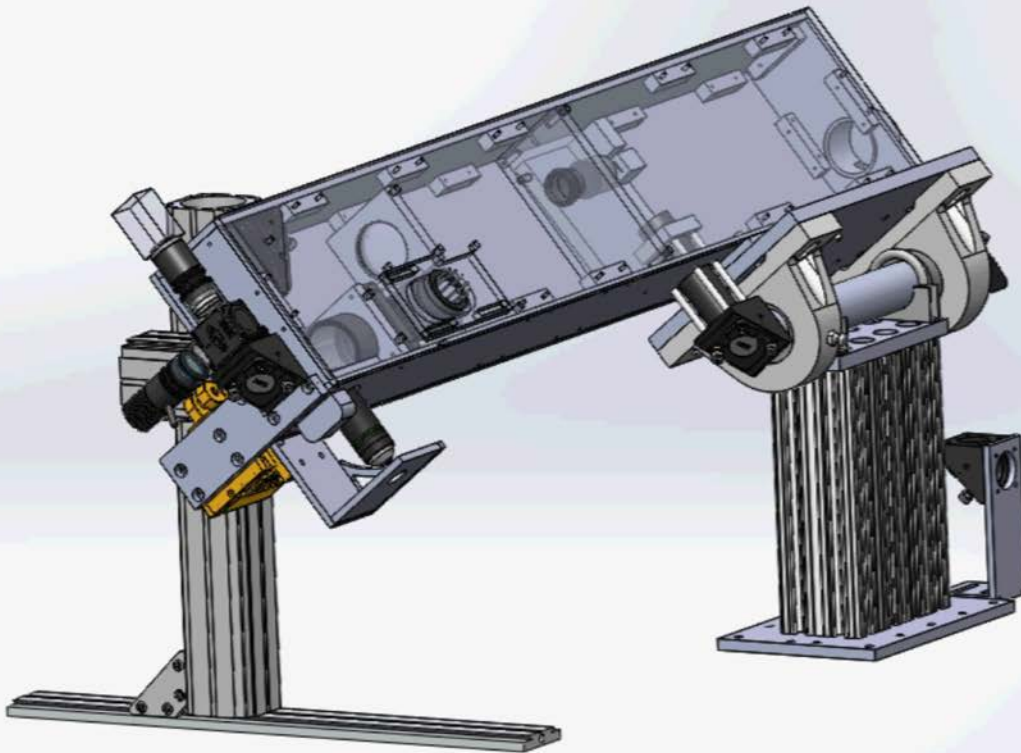# Neurotechnology Core

You can't buy the bleeding edge.
You have to make it.

Joel Greenwood Ph.D.

Director of Neurotechnology

Department of Neuroscience, Yale University School of Medicine

Yale Day of Instrumentation • Jan 24th 2020

THE KAVLI FOUNDATION

Yale University School of Medicine

https://medicine.yale.edu/neuroscience/kavli/research/neurocore.aspx
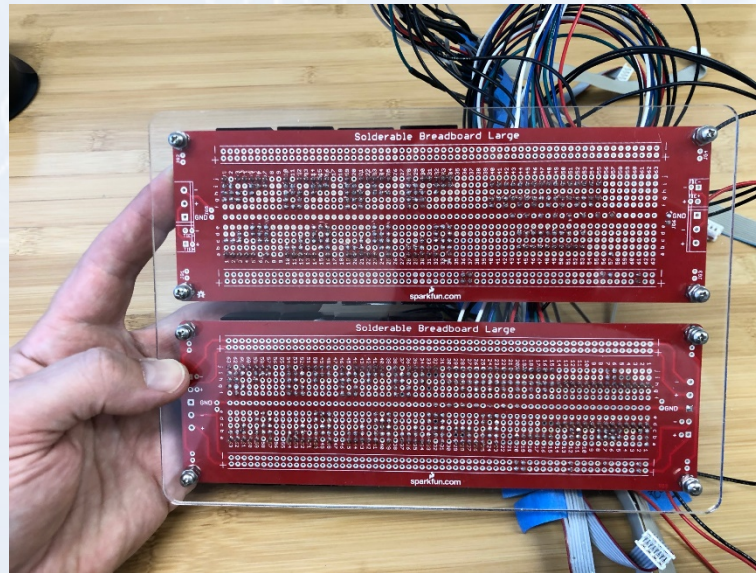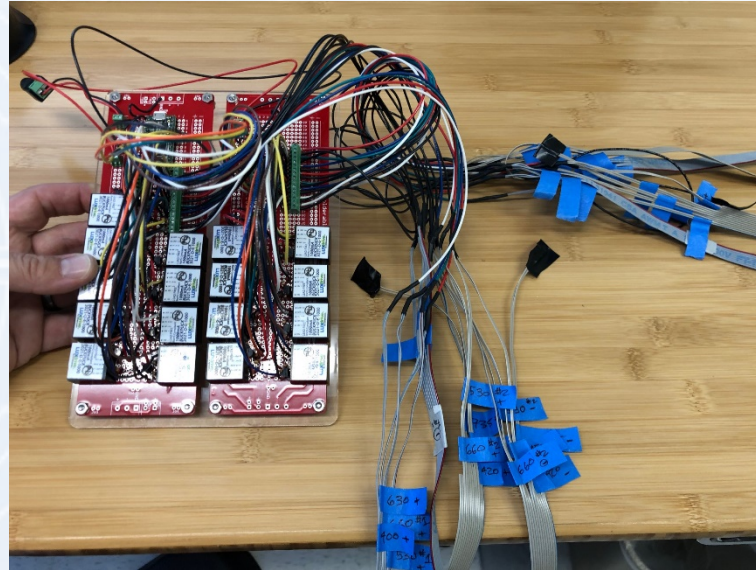
Ceci n'est pas une machine shop

A **machine shop** is a room, building, or company where machining, a form of subtractive manufacturing, is done.   (Wikipedia)

Hackerspaces are community-operated physical places, where people share their interest in tinkering with technology, meet and work on their projects, and learn from each other. (hackerspaces.org)

Circadian rhythm light control chamber

Ann Feke
Gendron Lab

Instrumentation Design   Experimental Design

Come talk to me about Neurotechnology hacking

Software
Electronics
Mechanical Design and Fabrication
    Computer Aided Design (CAD)
    Computer Aided Machining (CAM)
Systems Integration
    experimental design <=> hardware <=> software
    data collection <=> data analysis
Optics
Multi-Photon Microscope Design and Fabrication
Epifluorescent Microscope Design, Fabrication and Automation
Electrophysiology
Optogenetics
Animal Behavior Rigs from Worms to Humans