An Open Source Platform for Hearing Aid Algorithms
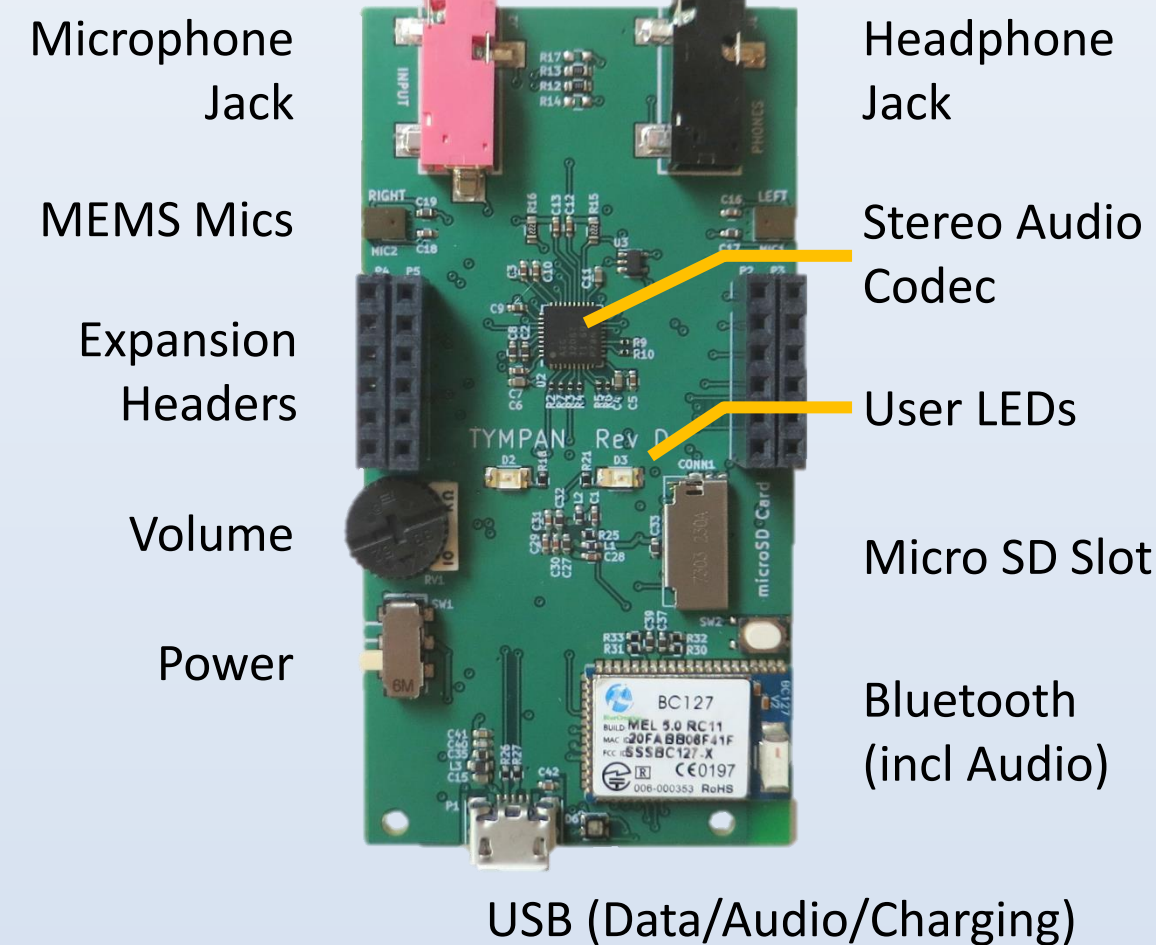
William (Chip) Audette, Odile Clavier, Creare LLC;
Daniel Rasetshwane, Stephen Neely, Ryan McCreery, Boys Town National Research Hospital;
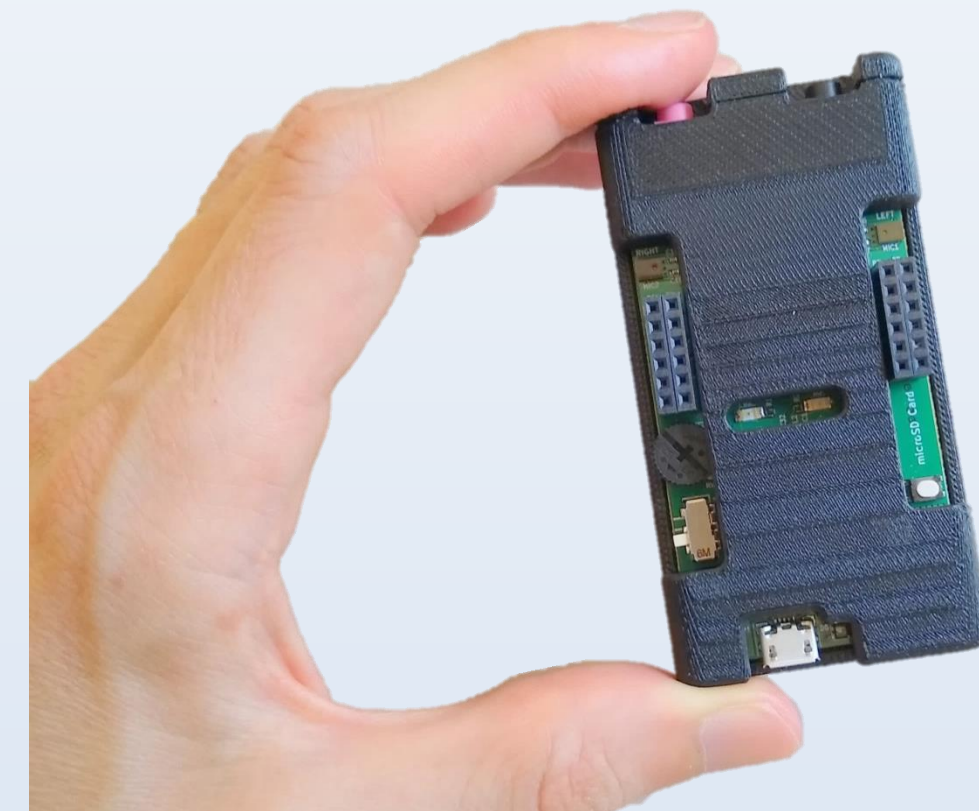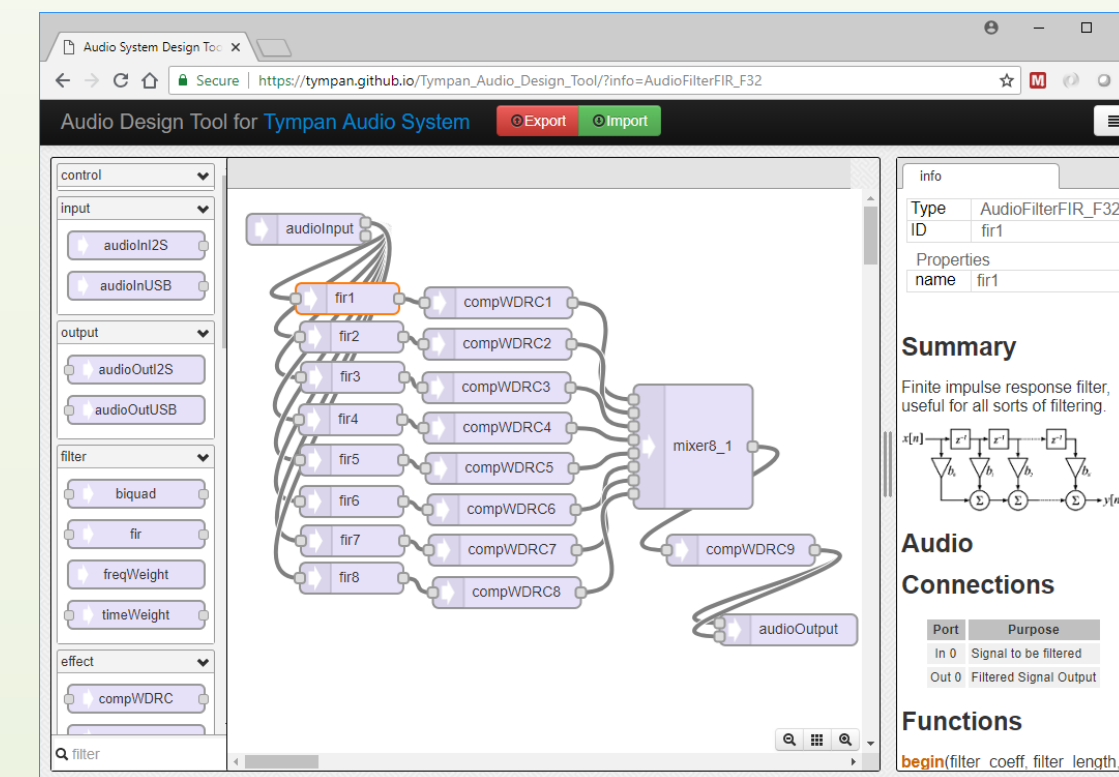Marc Brennan, University of Nebraska-Lincoln; Joel Murphy, Tympan

HARDWARE

Microphone Jack
MEMS Mics
Expansion Headers
Volume
Power

Headphone Jack
Stereo Audio Codec
User LEDs
Micro SD Slot
Bluetooth (incl Audio)

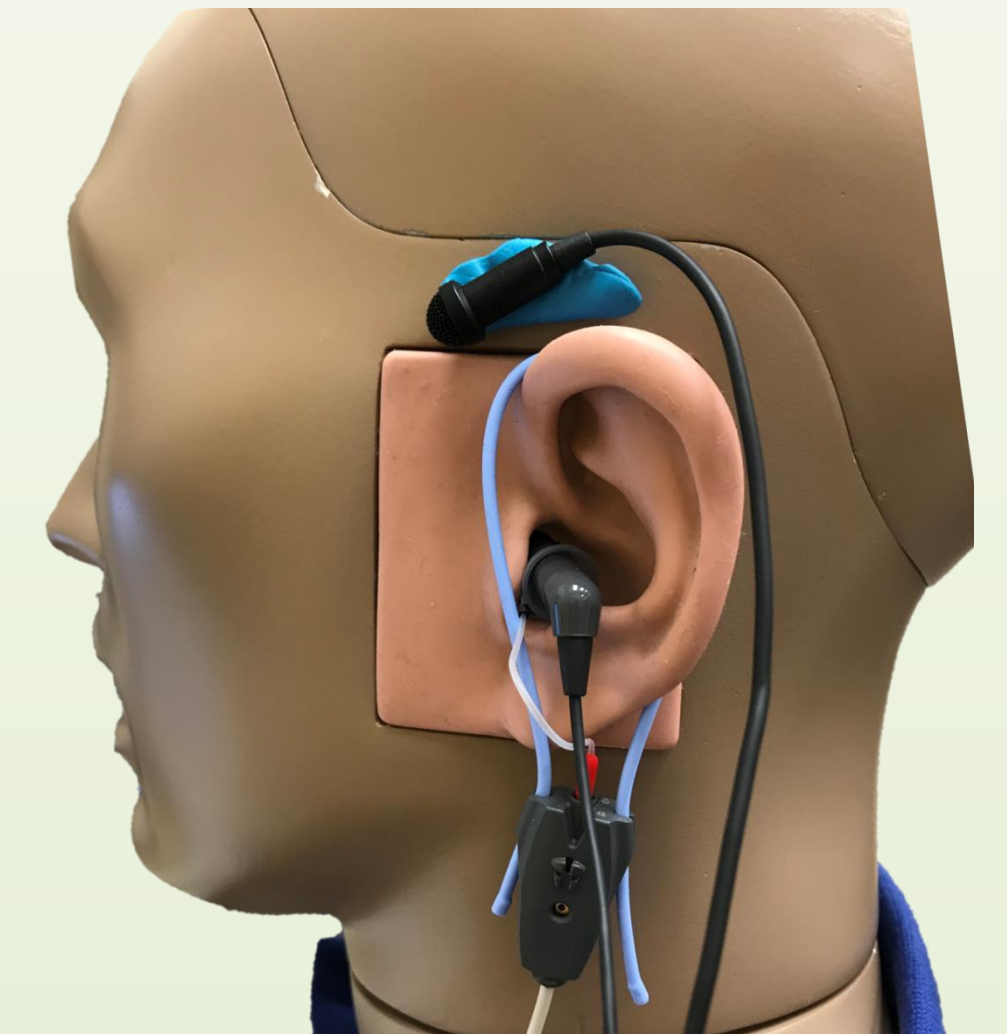USB (Data/Audio/Charging)

Open, Extensible Hardware

Small and Battery Powered

GUI For Starting New Algorithms

ALGORITHMS

Testing a Feedback Cancelation Algorithm

WHAT WE DO

Goal: To get **you** started with real-time audio processing.

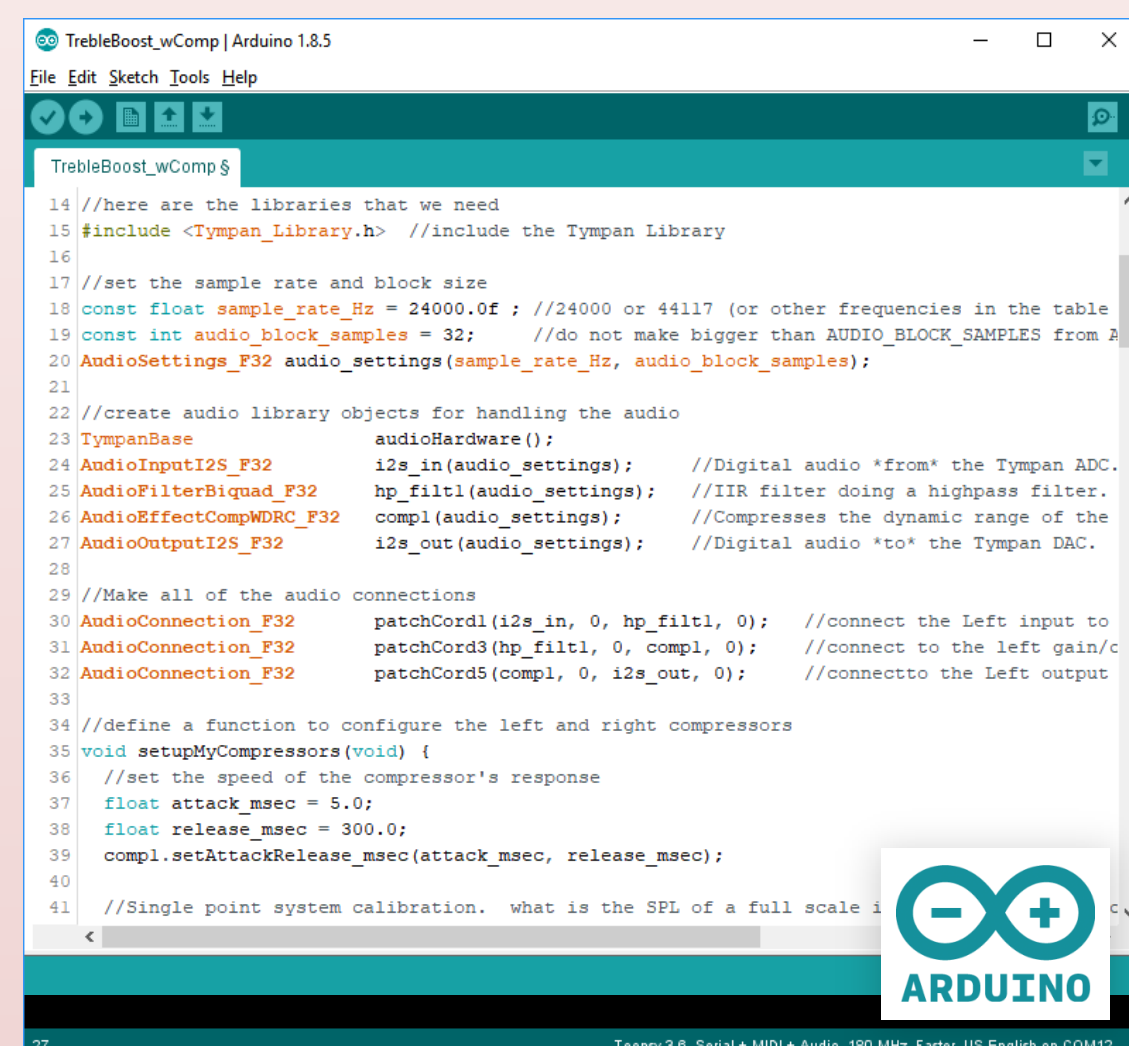**Why:** Greater participation leads to greater innovation.

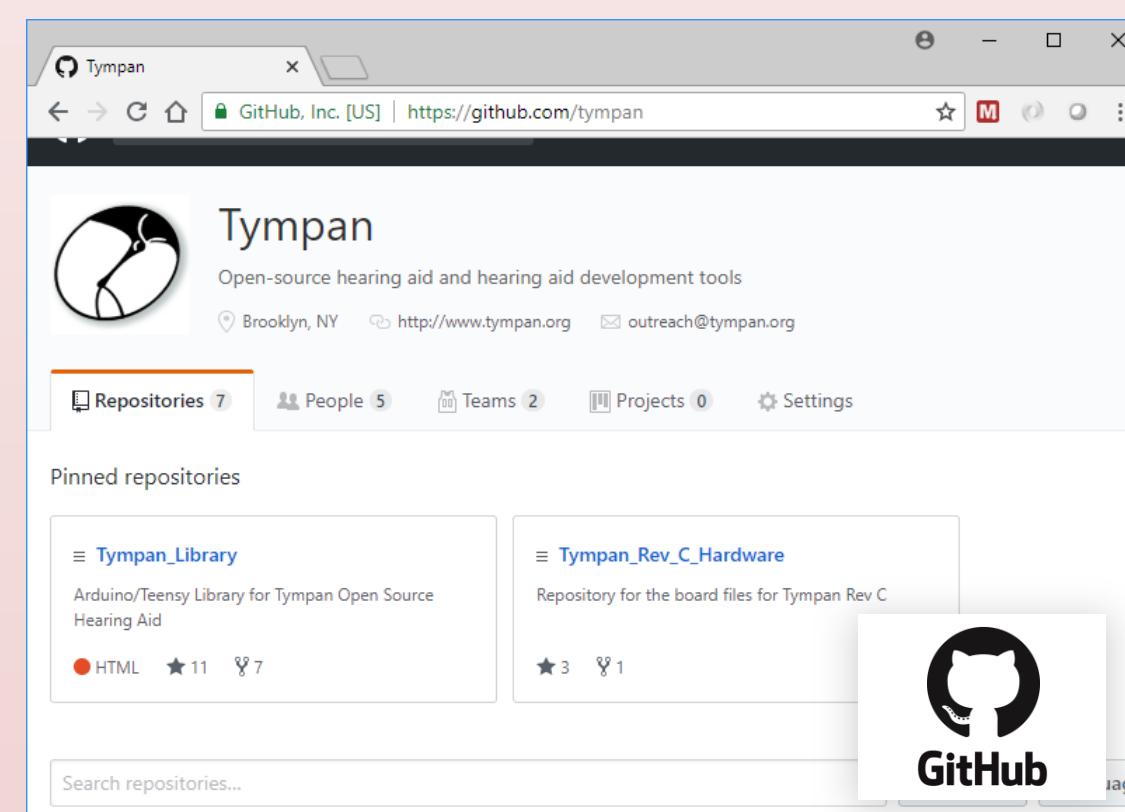| Audiology Researchers	Algorithm Developers	Students And Enthusiasts

Approach: Develop open Hardware, Software, Algorithms, and Community. **Make it approachable** and fun!

SOFTWARE

Arduino (C/C++) Examples
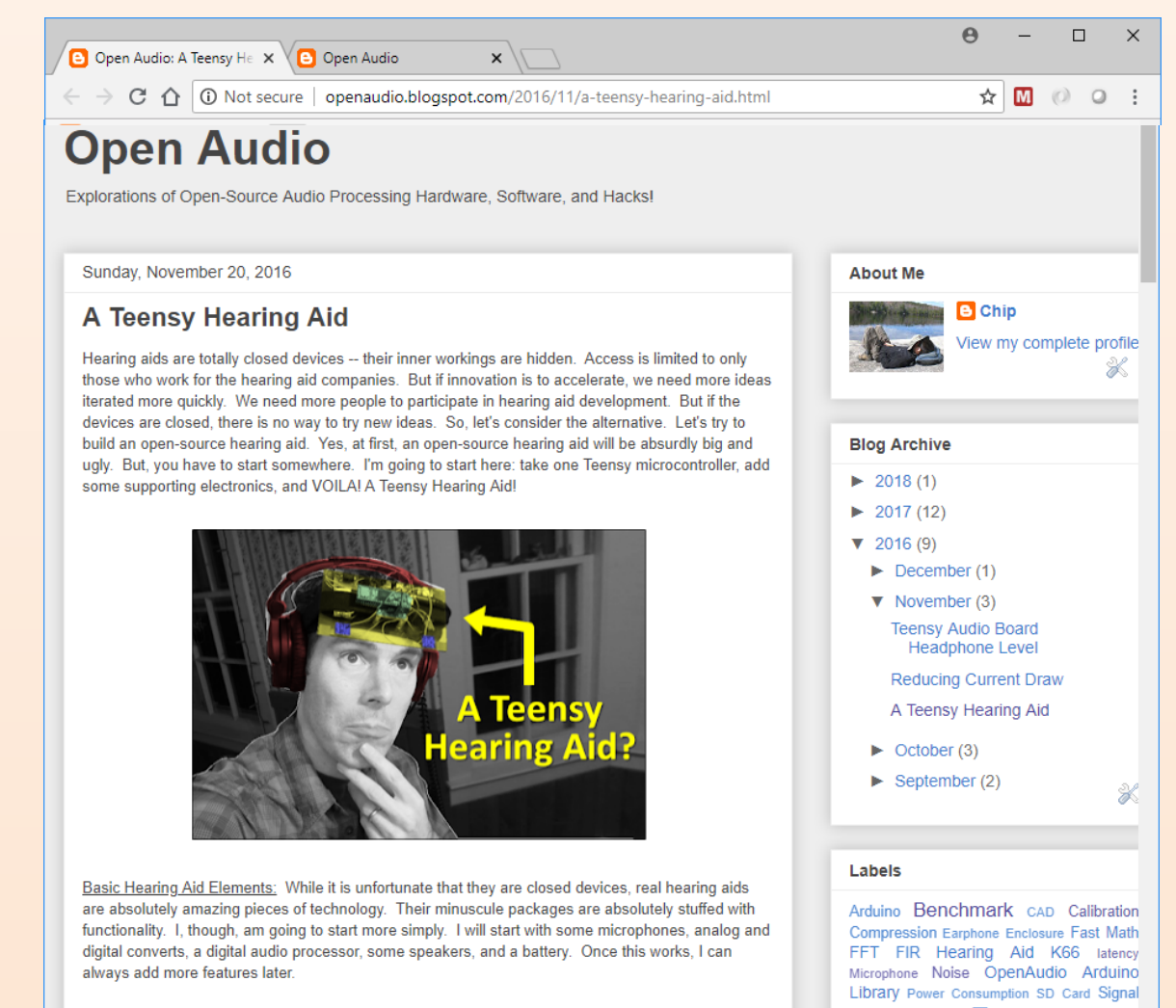
Open Source Sharing and Collaboration
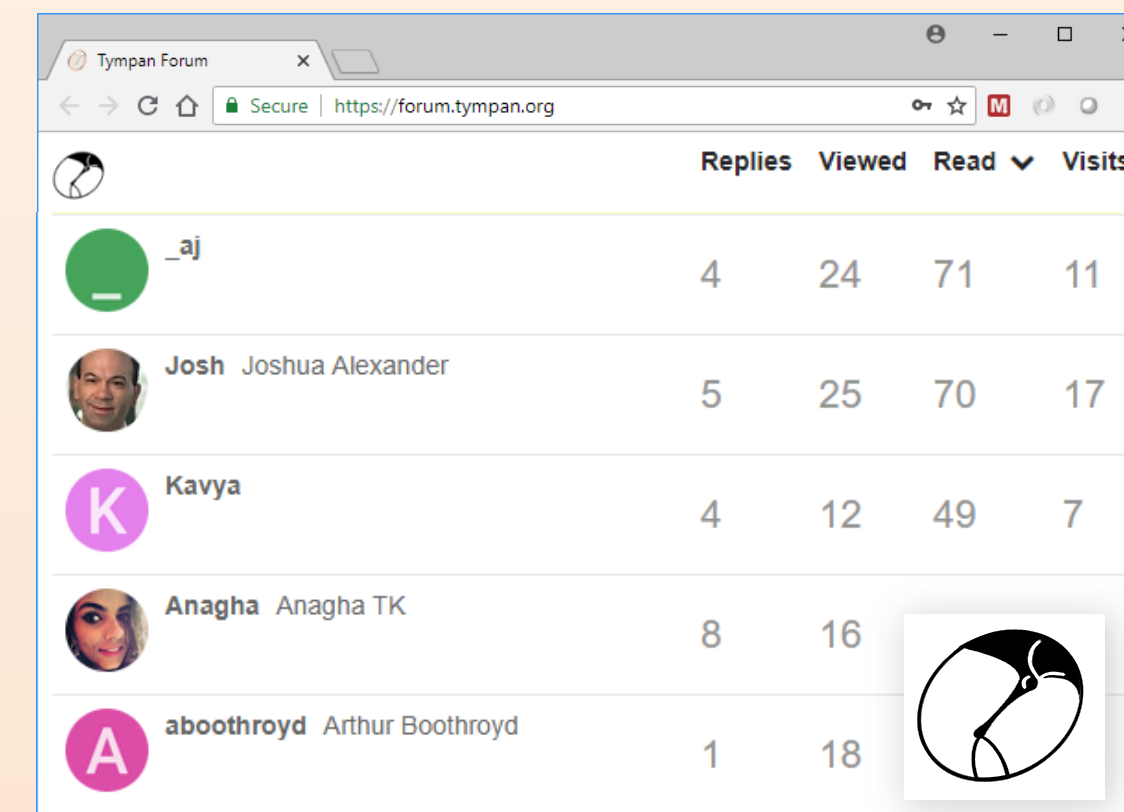
COMMUNITY

Learn and Troubleshoot via Forum

Share Your Fun Projects!

http://tympan.org