

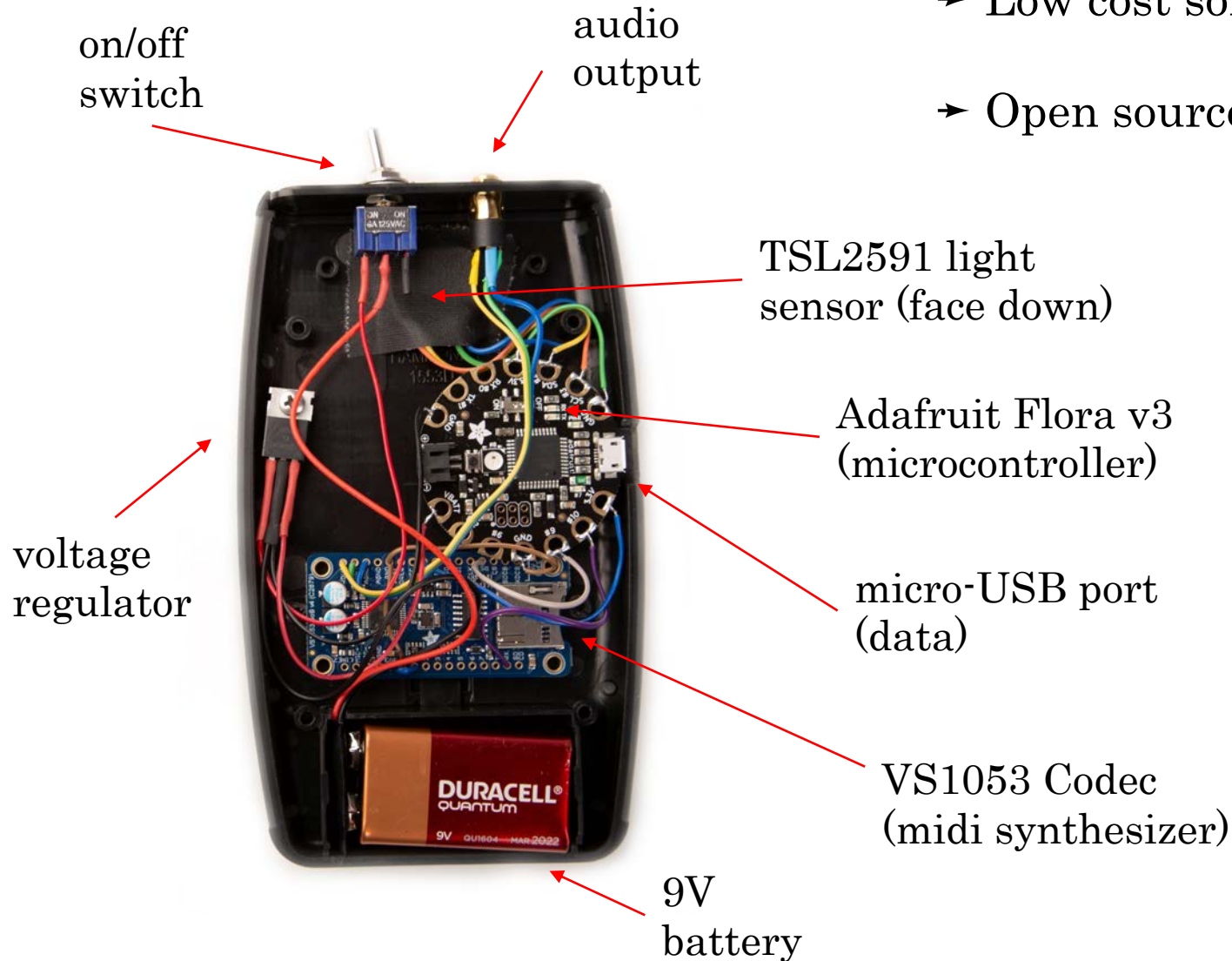
Making Solar Eclipse Events Accessible with LightSound

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What is LightSound?

- Low cost sonification device designed for solar eclipse
- Open source code and instructions for building



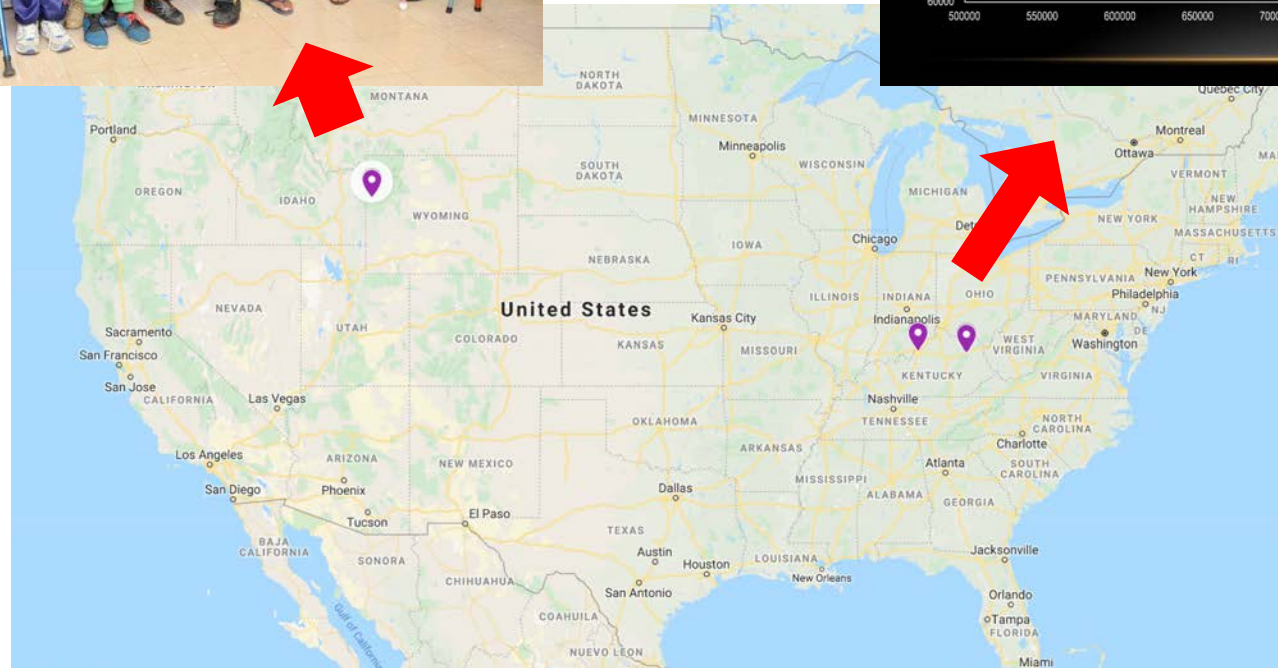
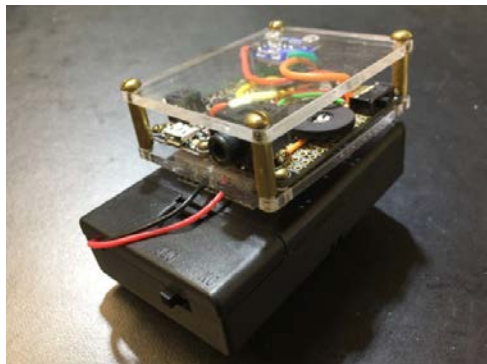
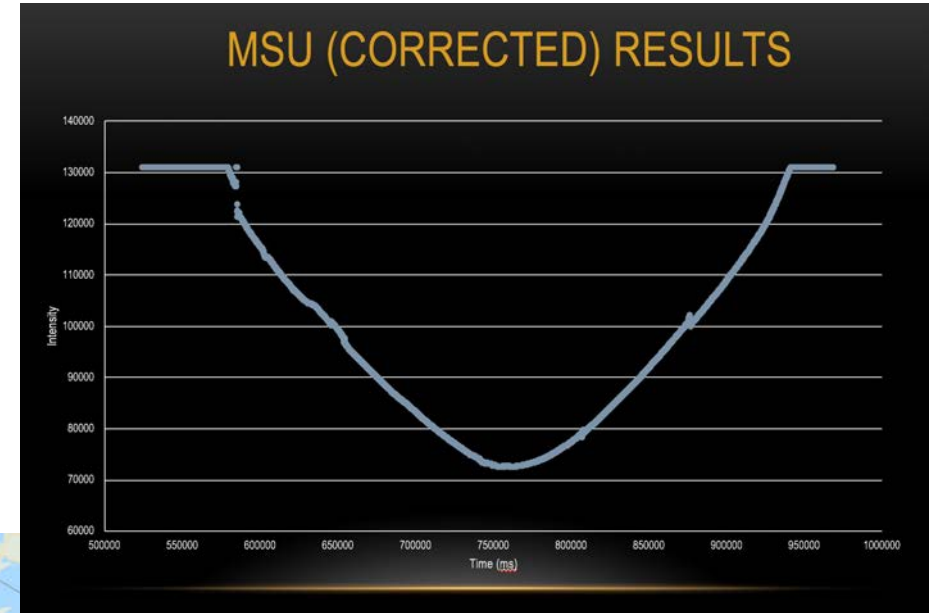
LightSound sound clip



Video demonstration of simulated eclipse

The sound starts as a high flute tone in the bright sunlight, and as the circle covers the sensor, the sound drops to a low clarinet before becoming clicks as the circle completely covers the opening. As it continues passing over, the low clarinet sound returns and the pitch rises until the flute sound returns.





Great American Solar Eclipse August 21, 2017

One LightSound device can impact thousands!!!



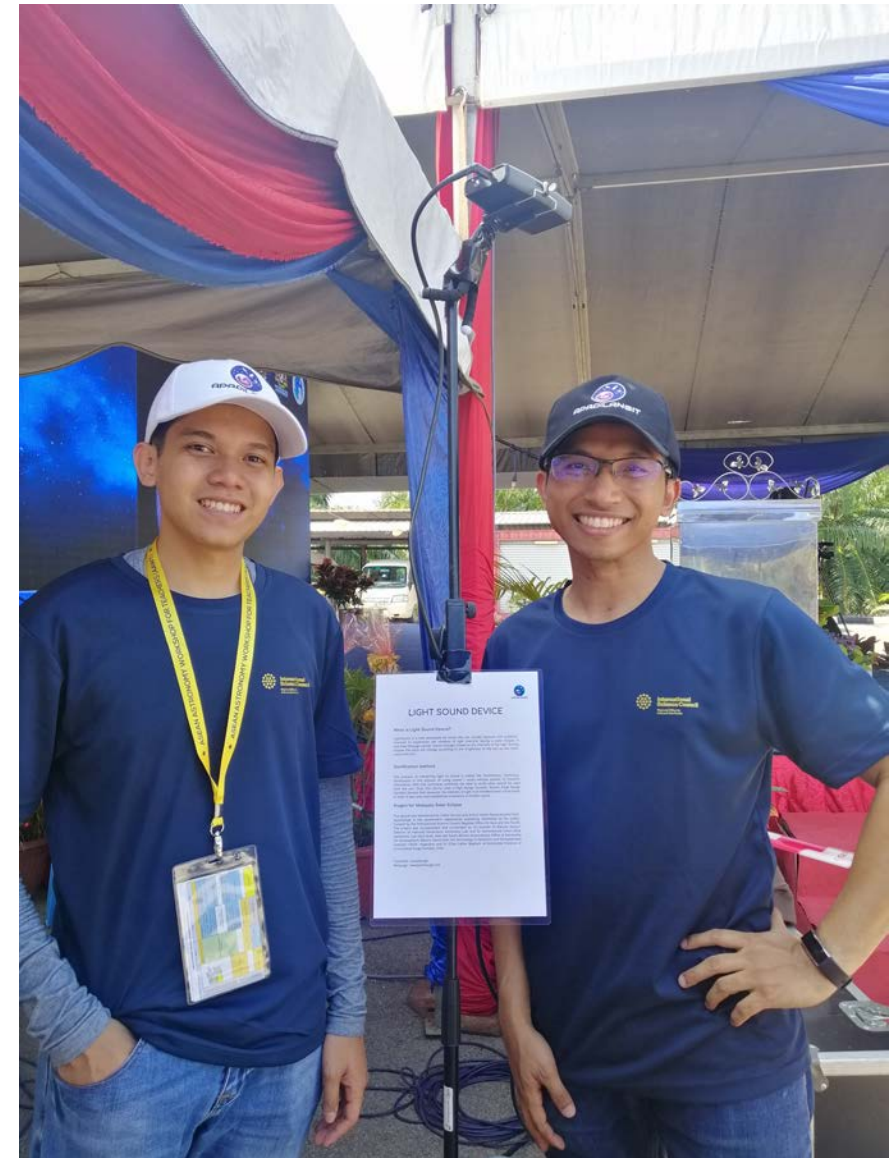
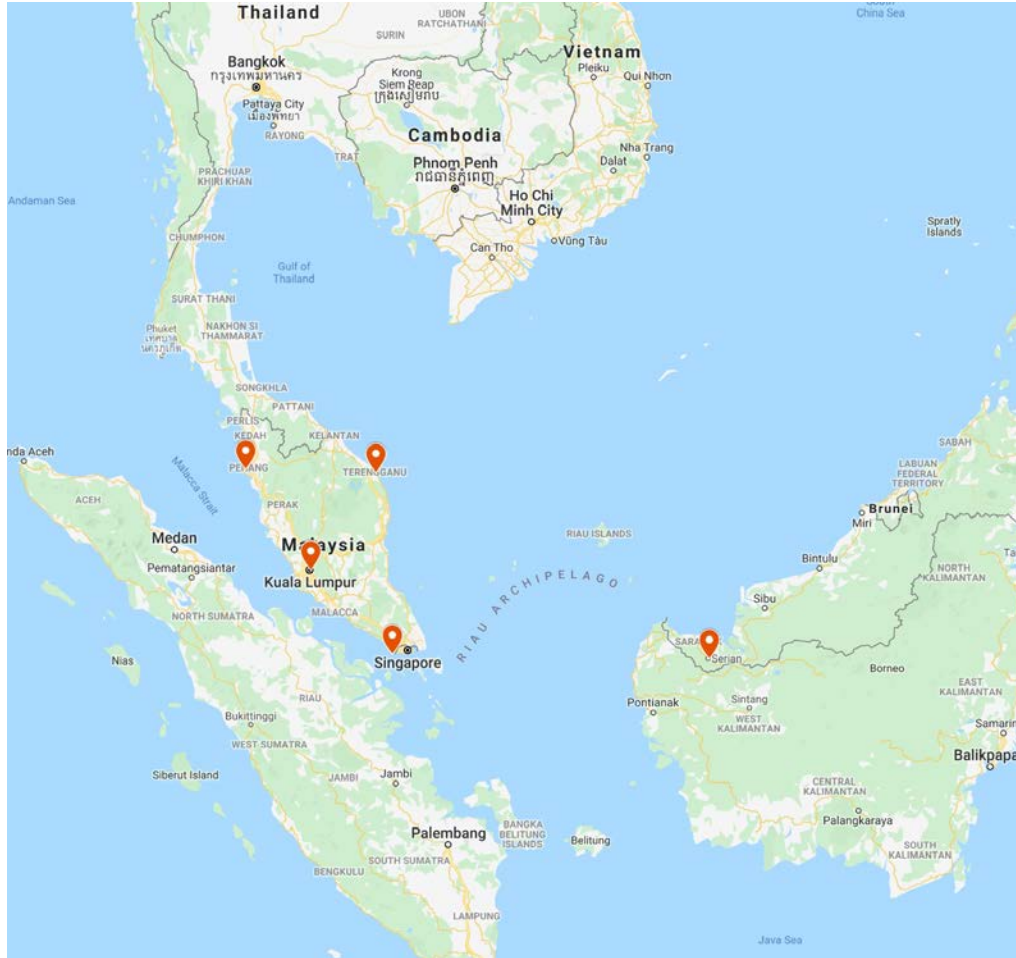
July 2, 2019
South America (20 devices)



Low-cost, high impact (\$60/device)

December 14, 2020
South America (100+ devices)

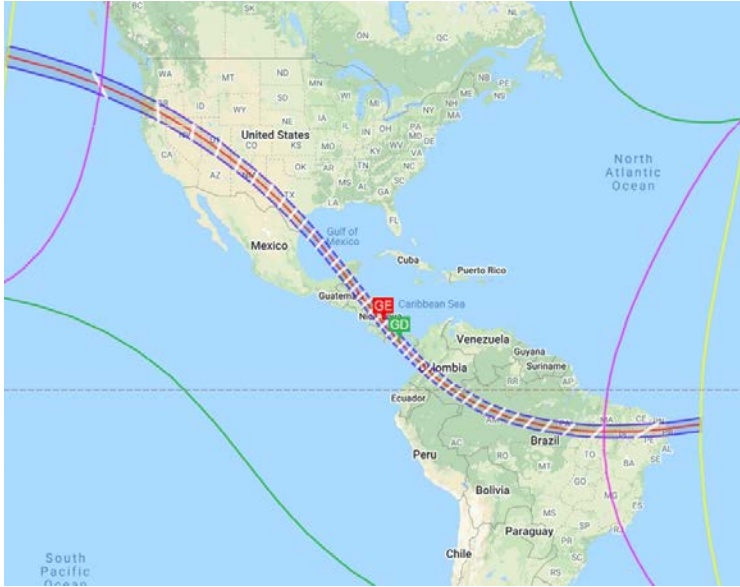
December 26, 2019 Malaysia Annular Solar Eclipse



1. North : Pinang Island (Partial)
2. Central : National Planetarium, Kuala Lumpur (Partial)
3. South : Tanjung Piai, (Annular)
4. East Coast : Terengganu (Partial)
5. East Malaysia : Serian (Annular)

Credit: Murtaz

North American Annular Eclipse October 14, 2023



Future Work

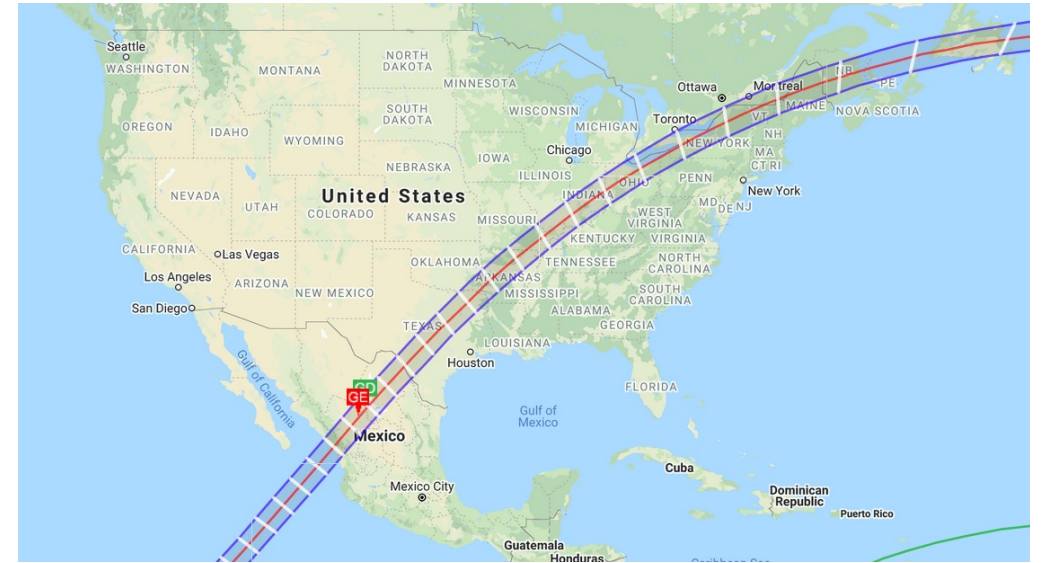
Goal:
100s of devices!!

We are looking for people and organizations to...

- Build LightSound devices
- Run LightSound-building workshops
- Donate LightSounds

Researching developing packaged “kits”

North American Total Eclipse April 8, 2024



Workshops and Lesson Plans

- Hosting workshops through the American Astronomical Society (Jan. 2020, Jun. 2022)
- Plan to host workshops for educators and general community
 - Museums, national parks, schools, etc.
- Expanding workshop topics
 - Training others to run LightSound workshops
 - Developing lesson plans for classrooms and public engagement events



AAS 235 Workshop
Photo credit: Todd Buchanan 2020



LightSound

(eclipse sonification device)



<http://astrolab.fas.harvard.edu/LightSound-IAU100.html>



Orchestar

(color sonification device)



<http://astrolab.fas.harvard.edu/orchestar.html>

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