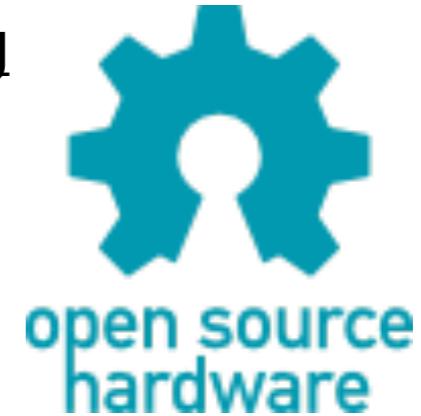


# Open Source Hardware

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**Open Source Hardware Association** [www.oshwa.org](http://www.oshwa.org)

Definition of Open Source Hardware  
Certification of Hardware  
Annual Summit



UTSAAH Lab created a fork of the Tympan Rev D hardware source files on GitHub in order to make necessary changes so that the hardware can be produced by Indian manufacturing companies. Joel worked closely with them on their design modifications.



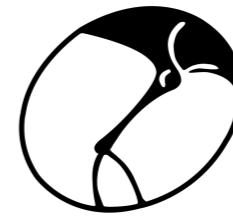
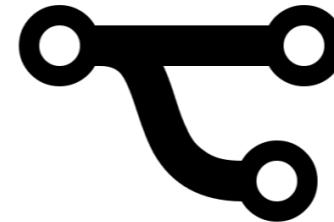
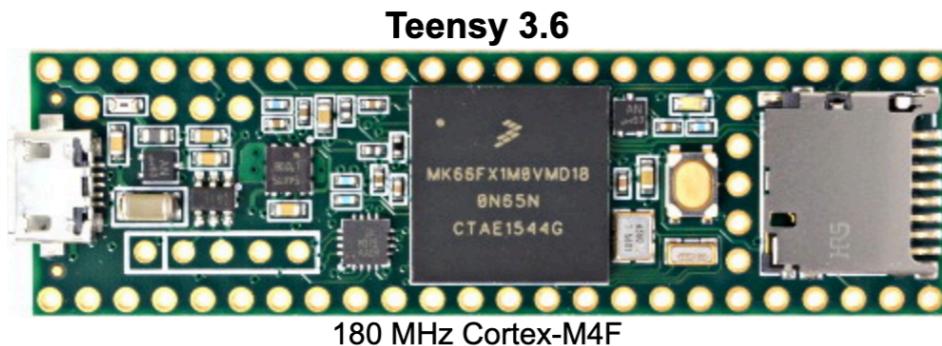
**UTSAAH Laboratory**

Universal Technology Solutions for Accessible and Affordable Healthcare Laboratory

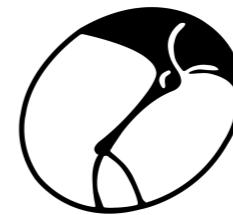
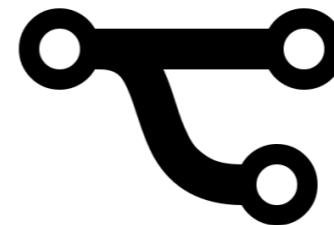
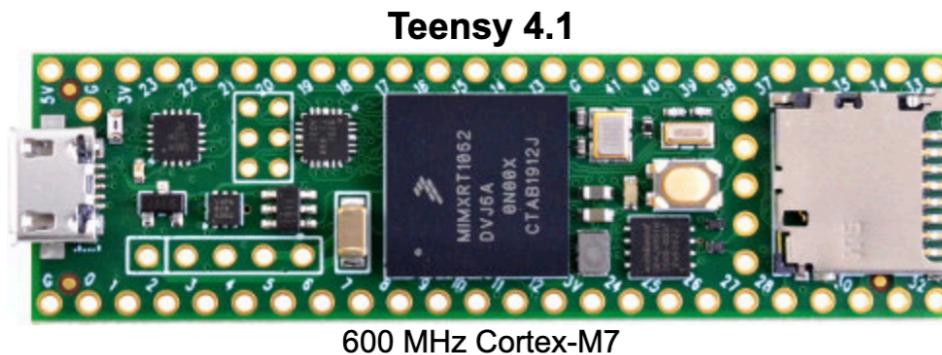
<https://cpdm.iisc.ac.in/utsaah/>

# Open Source Hardware

Tympan based on the Teensy project [www.pjrc.com](http://www.pjrc.com)



**Rev D**

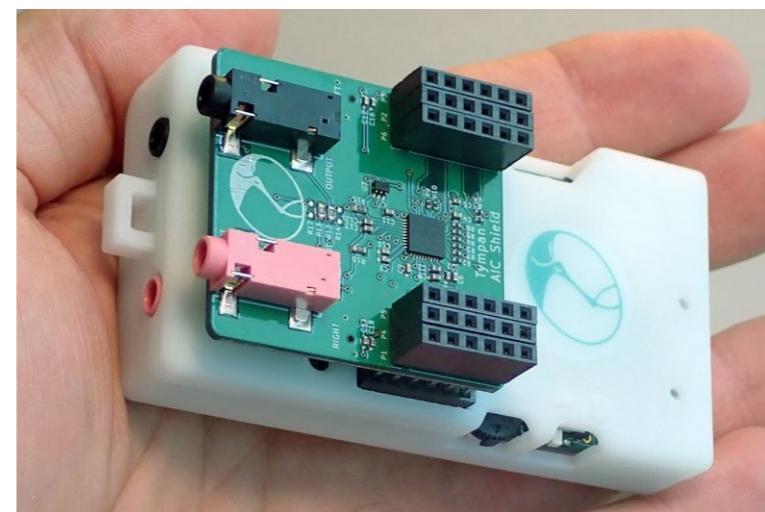


**Rev E**

Tympan Rev E is in production and will be part of the ASA Challenge hardware support for accepted applicants.

We also support expansion shields!

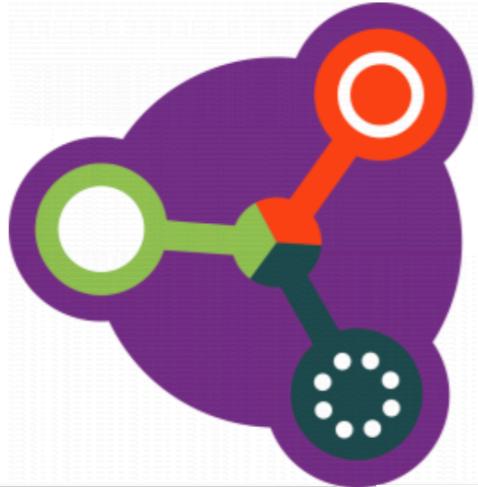
- Tympan AIC Shield which adds a second CODEC and 2 channels of audio
- Tympan BTE Shield available this summer with our cabled Behind The Ear units.



**Tympan**

# Open Source Partnership

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## Gathering for Open Science Hardware

<https://openhardware.science>

GOSH is creating the Open Instrumentation Alliance, an e-commerce site to promote and sell Open Science Hardware. Tympan is working on a partnership with GOSH to sell Tympan products and benefit GOSH with profit and resource sharing. Expecting that the coming Rev E and future Rev F, along with the CODEC Shield and BTE units will be part of this endeavor.

# Open Source

Tympan source code and hardware design/production files are available to review and download on github.

[www.github.com/tympan](https://www.github.com/tympan)

The screenshot shows the GitHub profile for the 'Tympan' organization. At the top, there's a summary card for the 'Tympan' repository, which is described as an "Open-source hearing aid and hearing aid development tools". It shows location as Brooklyn, NY, and links to the website (<http://www.tympan.org>) and email ([outreach@tympan.org](mailto:outreach@tympan.org)). Below this, a navigation bar includes links for 'Repositories' (15), 'Packages', 'People' (9), 'Teams' (2), 'Projects', and 'Settings'. A section titled 'Pinned repositories' lists four repositories: 'Tympan\_Library', 'Tympan\_Audio\_Design\_Tool', 'Tympan\_AIC\_Shield', and 'Tympan\_Rev\_D\_Hardware'. Each pinned repository has a thumbnail, name, description, language (HTML), star count, and commit count. Below the pinned repositories is a search bar with placeholder 'Find a repository...', and dropdown menus for 'Type', 'Language', and 'Sort'. A green 'New' button is located on the right. The main content area displays four more repositories: 'Tympan\_Remote\_App', 'Tympan\_Library', 'Tympan\_Sandbox', and 'Tympan\_Rev\_E\_Hardware'. Each repository card includes the repository name, description, language, license (e.g., MIT), star count, commit count, and last update time. To the right of the repository cards is a sidebar with sections for 'Top languages' (C++, HTML, TypeScript, Eagle) and 'People' (a grid of user profiles). An 'Invite someone' button is also present in the sidebar.

# Open Source

## Tympan Arduino Library

Tympan_Library / src /		
eyuan-creare	Updated Example: Adding an indicator to the phone app ...	3b2bc35 on Oct 27, 2020 History
..		3 years ago
SdFat_Gre_FatLib	Restructure library, Add SdFat_Gre, add SD example	3 years ago
SdFat_Gre_SdCard	SD: Re-enable isr for Tympan's SD writing	2 years ago
SdFat_Gre_SpiDriver	Restructure library, Add SdFat_Gre, add SD example	3 years ago
utility	BTNRH_WDRC_Types: adding reading settings from SD	10 months ago
AICShield.cpp	AICShield: Created dedicated class. Moved out of Tympan.h	13 months ago
AICShield.h	AICShield: add bool output to enable()	11 months ago
AccessConfigDataOnSD.h	AccessConfigDataOnSD: add ability to round sig digits on floats	10 months ago
AudioCalcEnvelope_F32.h	Improve Comments	2 years ago
AudioCalcGainDecWDRC_F32.h	Merge remote-tracking branch 'refs/remotes/origin/master' into PDM_Mi...	12 months ago
AudioCalcGainWDRC_F32.h	Merge remote-tracking branch 'refs/remotes/origin/master' into PDM_Mi...	12 months ago
AudioCalcLeq_F32.cpp	AudioCalcLEQ_F32: tweaks to fix compiler warnings	12 months ago
AudioCalcLeq_F32.h	Add AudioCalcLeq_F32.h	13 months ago
AudioCalcLevel_F32.cpp	AudioCalcLevel: improve comment	2 years ago
AudioCalcLevel_F32.h	AudioCalcLevel_F32.h: improve comments	13 months ago
AudioConfigFIRFilterBank_F32.cpp	FIRFilterBank: moving defines for fmove, fcopy, fzero	13 months ago
AudioConfigFIRFilterBank_F32.h	FIRFilterBank: moving defines for fmove, fcopy, fzero	13 months ago
AudioConfigIIRFilterBank_F32.cpp	IIR Filterbank: add debug println()	12 months ago
AudioConfigIIRFilterBank_F32.h	IIRFilterBank: Add second-order-sections. Compiles.	12 months ago
AudioControlTester.cpp	Restructure library, Add SdFat_Gre, add SD example	3 years ago
AudioControlTester.h	Examples: Adding IIR, Renaming Others	3 years ago
AudioConvert_F32.h	Moving around I16_to_F32 conversions	2 years ago
AudioEffectCompDecWDRC_F32.h	Add get methods to compressor	15 months ago
AudioEffectCompWDRC_F32.h	Add get methods to compressor	15 months ago
AudioEffectCompressor_F32.h	Restructure library, Add SdFat_Gre, add SD example	3 years ago
AudioEffectDelay_f32.cpp	src, multiple: improves audio_block id copying (for SD writing warnings)	17 months ago
AudioEffectDelay_f32.h	src, multiple: improves audio_block id copying (for SD writing warnings)	17 months ago
AudioEffectEmpty_F32.h	Restructure library, Add SdFat_Gre, add SD example	3 years ago
AudioEffectFeedbackCancel_F32.h	FeedbackCancel: add print for fdbk model	12 months ago
AudioEffectFreqShiftFD_F32.cpp	src, multiple: improves audio_block id copying (for SD writing warnings)	17 months ago
AudioEffectFreqShiftFD_F32.h	src, multiple: improves audio_block id copying (for SD writing warnings)	17 months ago
AudioEffectGain_F32.h	Improve Comments	2 years ago

# Open Source

## Getting Starting with Tympan

Eric Yuan edited this page on Aug 27, 2020 · 42 revisions

### Getting started with Tympan

1. [What's in the Box?](#)
2. [Install Software](#)
3. [Connect the Tympan to Arduino IDE](#)
4. [Try Some Examples](#)
5. [Try More Examples](#)

### What's in the Box?

