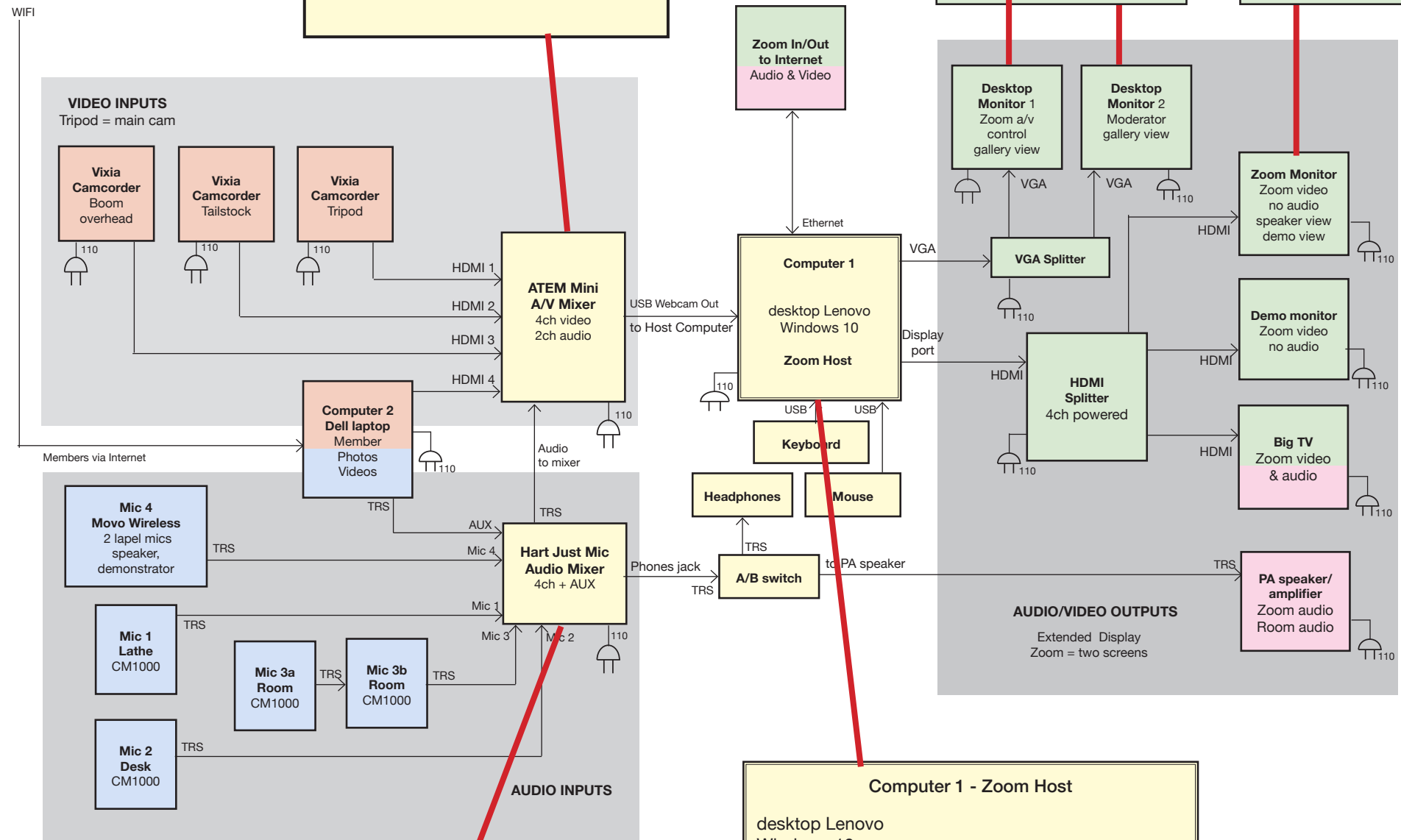**Blackmagic Design ATEM Mini A/V Mixer**
Buttons switch 4 HDMI video sources to the host Zoom feed.
Brings room audio from Hart mixer into the Zoom. Can mute and adjust volume; better to set, test, and leave audio control to the mixer.
Sends USB audio and video to host computer, Zoom sees it as a single webcam.

Desktop Monitors 1&2
Zoom a/v control
1 - Operator's control screen and gallery view
2 - Moderator/meeting room galleery view
Multi-screen Spotlights

Zoom Monitors
Zoom video
speaker view
no audio
1 - operator
2 - demonstator/moderator
3 - Big TV facing members

WIFI

Vixia Camcorder 1
Tripod in meeting space
Looks at speaker, demonstrator. Needs active operator tasked with framing whatever is going on everywhere in the room, whether or not it's on the big TV.

Vixia Camcorder 3 Boom overhead
Must re-frame for each demonstrator.
Has its own monitor screen and zoom controls on the triopod.
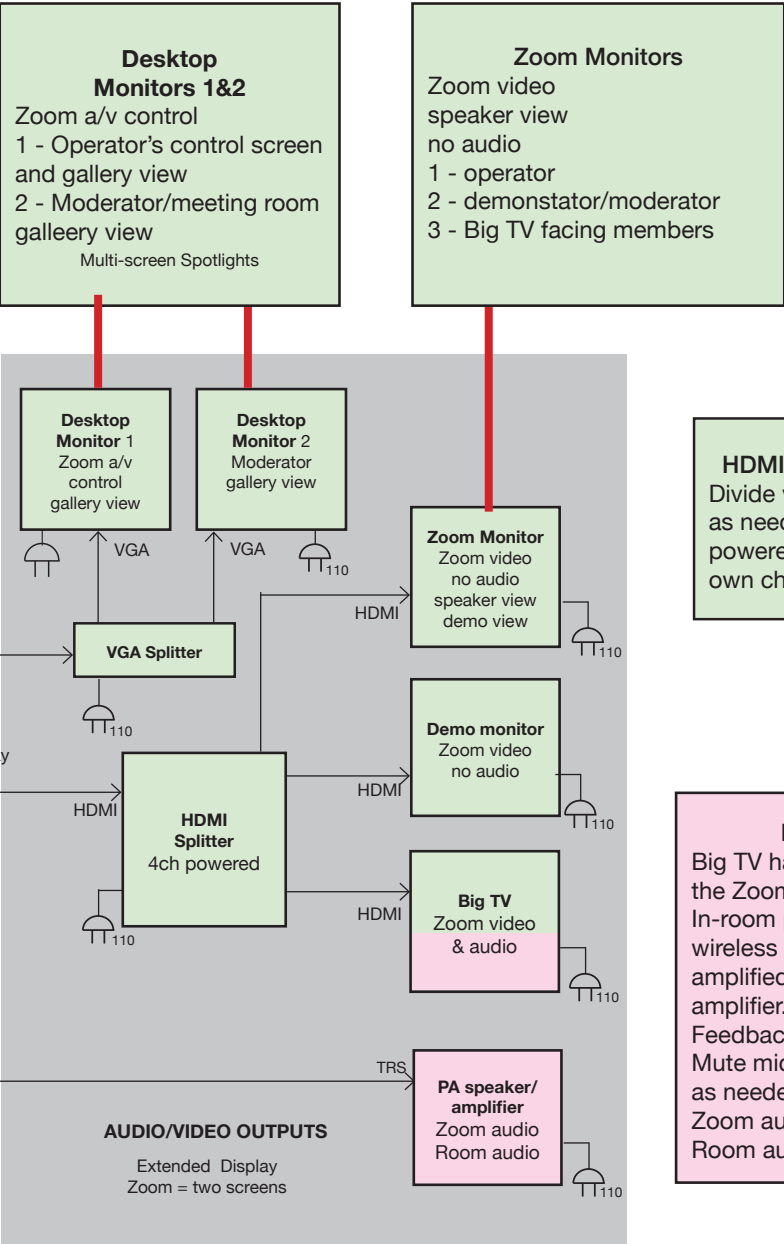No audio.

Vixia Camcorder 2 Tailstock
Best view of demonstrator's hands, tool, project.
Swivels to show members in meeting room.
No audio.

Computer 2 Dell laptop
Member Photos
Videos
Audio and video
Audio passes through to the zoom via Aux channel on mixer.

HDMI & VGA Splitters
Divide video signals as needed. Must be powered 5v from their own charger.

In-room audio
Big TV has enough volume for the Zoom.
In-room puck mics and wireless lapel mics can be amplified by Lyx PA speaker/amplifier.
Feedback squealing is likely.
Mute mics and adjust volume as needed.
Zoom audio
Room audio

VIDEO INPUTS
Tripod = main cam

Vixia Camcorder Boom overhead	Vixia Camcorder Tailstock	Vixia Camcorder Tripod

110 | 110 | 110

HDMI 1
HDMI 2
HDMI 3
HDMI 4

ATEM Mini A/V Mixer
4ch video
2ch audio

110

Zoom In/Out to Internet
Audio & Video

Ethernet

Desktop Monitor 1
Zoom a/v control
gallery view

Desktop Monitor 2
Moderator gallery view

VGA   VGA

Zoom Monitor
Zoom video
no audio
speaker view
demo view

110

Computer 2 Dell laptop
Member
Photos
Videos

USB Webcam Out
to Host Computer

Computer 1
desktop Lenovo
Windows 10
Zoom Host

VGA

VGA Splitter

110

Demo monitor
Zoom video
no audio

HDMI

110

Display port

Audio to mixer

TRS

110

Members via Internet

Mic 4 Movo Wireless
2 lapel mics speaker, demonstrator

AUX
Mic 4

TRS

Hart Just Mic Audio Mixer
4ch + AUX

HDMI Splitter
4ch powered

HDMI

Big TV
Zoom video
& audio

110

USB   USB

Keyboard

HDMI

Mic 1 Lathe
CM1000

TRS
Mic 1

Phones jack

Headphones   **Mouse**

TRS

Mic 3a Room
CM1000

Mic 3b Room
CM1000

TRS   TRS
Mic 3   Mic 2

to PA speaker

A/B switch

TRS

PA speaker/amplifier
Zoom audio
Room audio

110

Mic 2 Desk
CM1000

TRS

110

TRS

AUDIO INPUTS

AUDIO/VIDEO OUTPUTS
Extended Display
Zoom = two screens

Hart Just Mic IV Audio Mixer

4ch + AUX
TRS output jack to ATEM audio input 1. Input 2 not used - control all aud9o sourdes here.
Has mute and volume control for each of four mic channels, plus master volume slider.
Headphones jack switches between operator headphones and Lyx in-room PA system, allows mic monitoring and amplification of in-room demo and member questions/comments.
Aux jack passes video sound from #2 computer throough to the ATEM.

Computer 1 - Zoom Host

desktop Lenovo
Windows 10
Zoom setting - two monitors
Display settings - extended not mirrored
Main monitor shows gallery view and controls Zoom call, sets and releases Spotlights, chooses in-room speaker and demo cameras.
Always have off-site Zoom co-host.
Cannot use virtual backgrounds with multi-cam setups.

Lancaster Area Woodturners
Audio-Video setup, December 2022
v1c explainer

John Kelsey, Zoomist

	Operator	
A	V	
	Inputs	
V	A	
	Outputs	