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Solution

**Hybrid Classroom
– with one tracking camera**
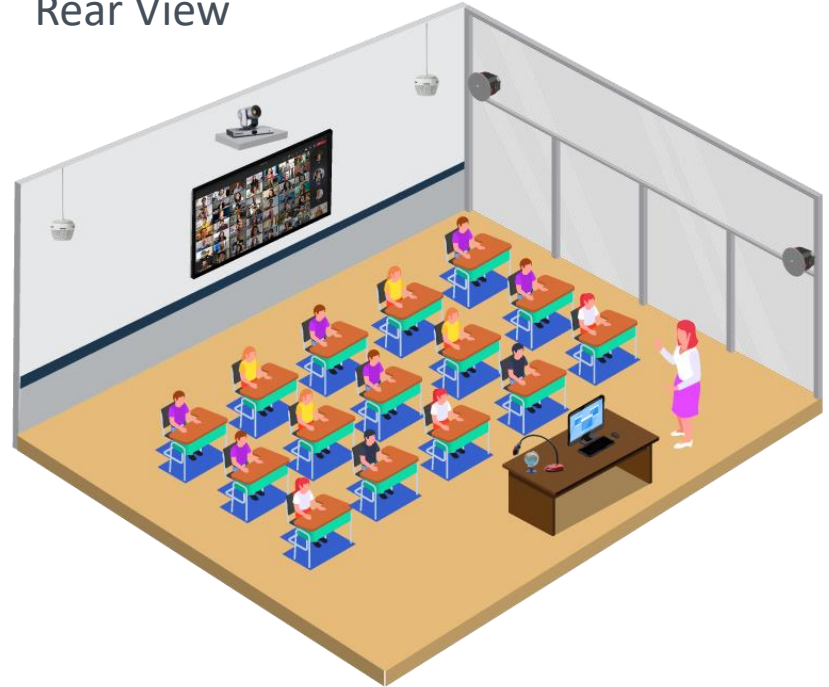
Hybrid Classroom Scenario

Front View
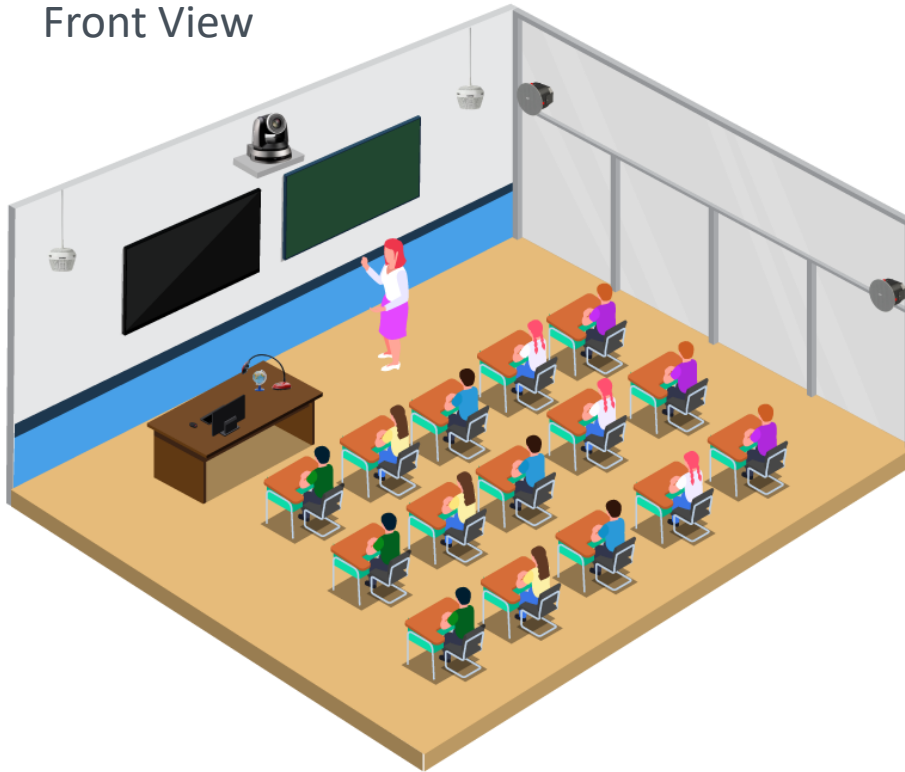
Rear View

What is
Hybrid Classroom

- Hybrid learning allows for students to spend some time in the classroom and some time learning from home (or another location outside the classroom
- Teaching student in-class and online at the same time.
- Blending the Virtual Classroom with the Real Classroom.

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Using Google Classroom and Google Meet to Power Virtual Learning

- Google Classroom is a free platform for educators. It uses a scaled-down approach to give teachers the things they need to communicate with students, organize class events and materials.
- Google Meet is a free videoconferencing tool that's integrated with Google Classroom!

Make participation in online teaching like a discussion on the spot

- Lumens tracking technology allows camera to always focus on teachers and writing on the blackboard, online students are like taking classes in a classroom.
- The back screen shows the online classmates. The teacher can instantly observe the reactions of all students.
- Lumens OIP products assist in extending HDMI.
- Lumens can provide the **USB AOC cable** or **Virtual Camera** to connect the camera to desktop.
- Document camera can present physical teaching materials, making up for the insufficiency of electronic teaching materials.
- **Audio quality** is important for online learning. Using professional audio equipment can improve the sound quality and increase remote students' understanding of the course.
- Installing **ceiling microphones** allows teachers to release their hands and concentrate on teaching
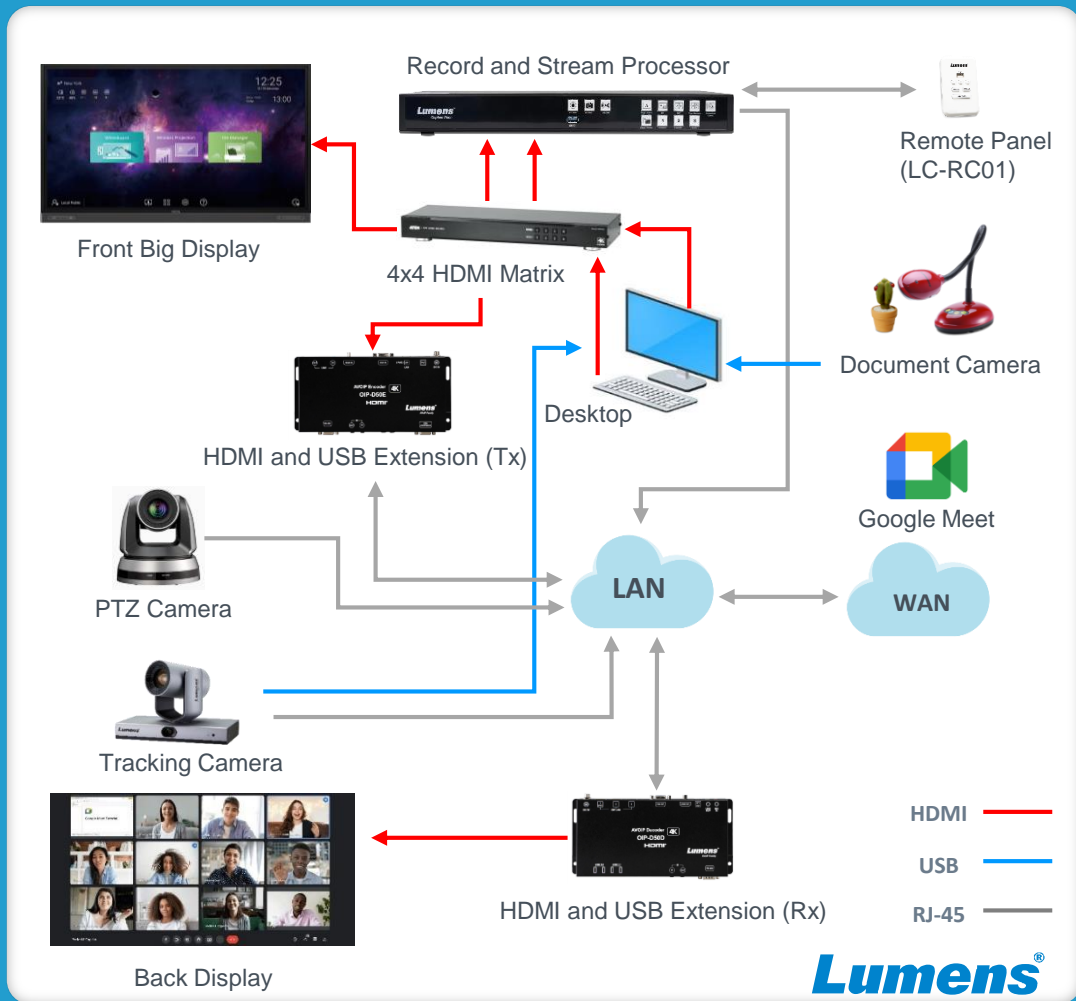
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Record and stream the activity in classroom

- General **video conferencing software** usually has low resolution and image quality, and can only see one camera at a time.
- The LC200 supports simultaneous recording of 4 video sources with full HD resolution, which can record the teaching materials, video conference video and the original video of the tracking camera and other PTZ Camera.
- Students watching after class can choose to watch videos from **different perspectives**.
- Teacher can start and stop the record with remote control panel (LC-RC01), and copy the video files to USB flash drive.
- Lumens LC200 can do schedule record, stream to video server , and backup video files to storage server (FTP/NAS/Panopto..etc).
- Teacher can use the videos recorded by LC200 to do video post-production.

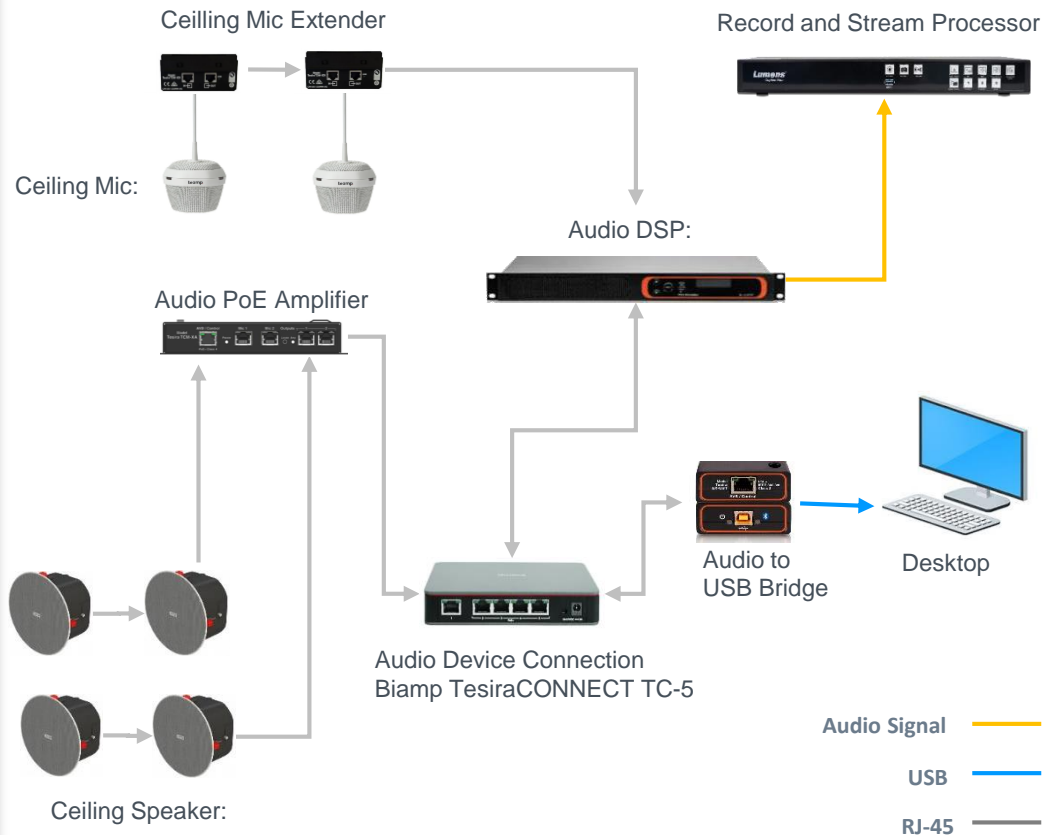**Lumens**®

Configuration for Video Device

Includes Video Device

- **Conference**
  - Google Meet
- **Record and Stream processor**
  - Lumens LC200
- **HDMI Matrix**
  - ATEN VM0404HA
- **PTZ & Tracking Camera**
  - Lumens VC-TR1
  - Lumens VC-TA50
- **PTZ Camera**
  - Lumens VC-A51P
- **Document Camera**
  - Lumens DC125
  - Lumens DC136
  - Lumens DC-F80
  - Lumens DC172
- **HDMI Extension**
  - Tx: Lumens OIP-D50E
  - Rx: Lumens OIP-D50D
- **USB Extension**
  - Lumens CAB-AOCU-ML (15 meter)
  - Lumens Virtual Camera (up to 100 meter)
- **Desktop**
  - With 2 HDMI output
  - USB port x3

Record and Stream Processor

Remote Panel (LC-RC01)

Front Big Display

4x4 HDMI Matrix

Document Camera

HDMI and USB Extension (Tx)

Desktop

Google Meet

PTZ Camera

LAN

WAN

Tracking Camera

Back Display

HDMI and USB Extension (Rx)

HDMI

USB

RJ-45

Configuration for Audio Device

- Includes Audio Device

- **Audio DSP**
  - Biamp TesiraFORTÉ AVB VT4 *1

- **Audio Device Connection**
  - Biamp TesiraCONNECT TC-5 *1

- **Audio to USB Bridge**
  - Biamp EX-UBT *1

- **Audio PoE Amplifier**
  - Biamp Parlé TCM-XA *1

- **Ceilling Microphone**
  - Biamp TCM-1 *2

- **Ceilling Microphone Extender**
  - Biamp PARLÉ TCM-1EX *2

- **Ceiling Speaker**
  - Biamp Desono C-IC6 WHITE *4

Ceilling Mic Extender

Record and Stream Processor

Ceiling Mic:

Audio DSP:

Audio PoE Amplifier

Audio to USB Bridge

Desktop

Audio Device Connection
Biamp TesiraCONNECT TC-5

Ceiling Speaker:

Audio Signal

USB

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