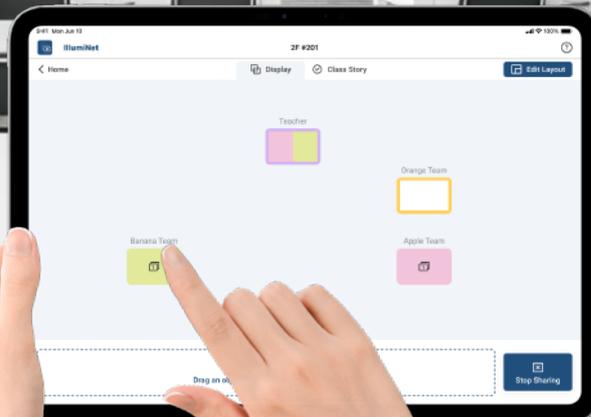
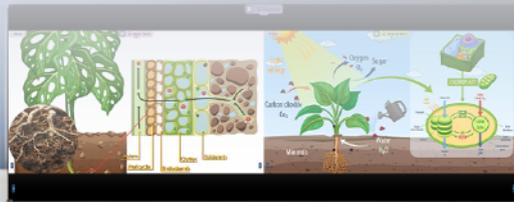


IllumiNet Matrix

Dynamic Display Matrix

Collaboration Integrator

User Manual v1



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IllumiNet Matrix

01

Product Features



A Software-Defined AVoIP

Harnessing the power of wired networks and the convenience of wireless control via an iPad App, IllumiNet enables seamless signal source switching, split-screen display, and multi-screen broadcasting. With plug-and-play deployment and full utilization of interactive touchscreens, it creates a truly smart and wireless meeting environment.



Premium Display and Connectivity Performance

Powered by Wi-Fi 6, the IllumiNet Matrix ensures optimized transmission speed and stability. It supports 4K wired input and true 4K wireless video casting and output, delivering stunning visual clarity across all displays.



Open API Integration

IllumiNet Matrix offers a standard API suite for third-party system integration, along with customizable APIs upon request. It also supports integration with MDEP (Microsoft Device Ecosystem Platform), including MTR (Microsoft Teams Rooms) systems, ensuring broad compatibility and adaptability.



Collaboration-Centric Environment

At the heart of IllumiNet is CollabSpot, a powerful collaboration engine that offers real-time screen sharing, multi-user annotation across multiple displays, individual device annotations, and instant content sharing—delivering the ultimate collaborative experience.



Flexible System Integration

IllumiNet Matrix supports UVC (USB Video Class) and UAC (USB Audio Class) interfaces, enabling seamless integration with AV control systems and modern meeting environments such as BYOD (Bring Your Own Device) and BYOM (Bring Your Own Meeting) setups.



Intuitive and Flexible Design

Designed with user experience in mind, the IllumiNet App makes multi-display workspace management easy and intuitive. With simple drag-and-drop controls and color-coded UI, configuring and managing your multi-display environment has never been easier.

Matrix



Front Side

Feature Items	Description
1 Power Button	Power on/off
2 Network Status Indicator	Display network status
3 Power Status Indicator	Display power status
4 USB 2.0	USB Type A port for mouse / keyboard / touch screen / USB camera / USB speakerphone
5 USB 3.0	USB Type A port for mouse / keyboard / touch screen / USB camera / USB speakerphone

Back Side

Feature Items	Description
6 HDMI 2.0 Input Port	Supports up to 4K 60Hz
7 LAN	Ethernet cable can be connected here
8 HDMI 2.0 Output Port	Supports up to 4k 60Hz
9 RS232 Interface	Communication Port
10 Power Input	DC 12V/2A

Setup IllumiNet Matrix

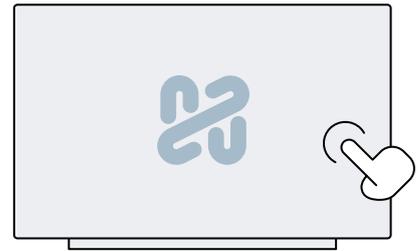
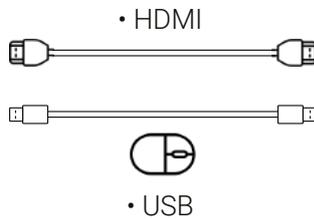
1 Power

Connect the supplied AC adapter.



2 Display

Connect the HDMI Out port to a monitor display.



3 Touchscreen and Mouse

Connect using USB to enable touchscreen and/or mouse.

4 Network

Your Matrix Unit has to be connected to the same network as your personal device.

LAN Cable



Simply connect a suitable ethernet cable from your network to the Matrix Unit.

Wi-Fi



Open the “System Settings” and you can choose which Wi-Fi to connect to.

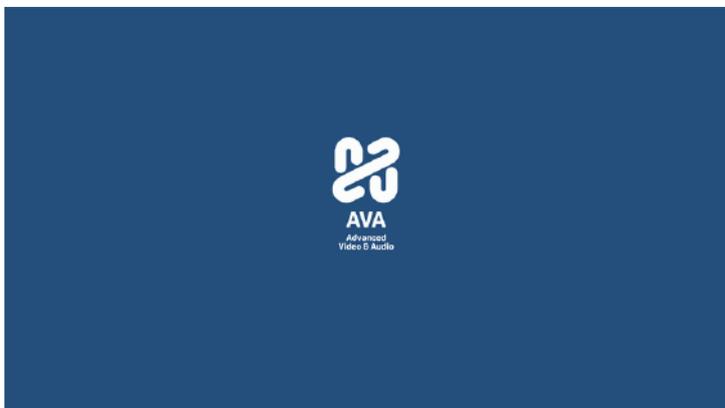
Hotspot



Open the “System Settings” and then enable hotspot. The default password is 12345678.

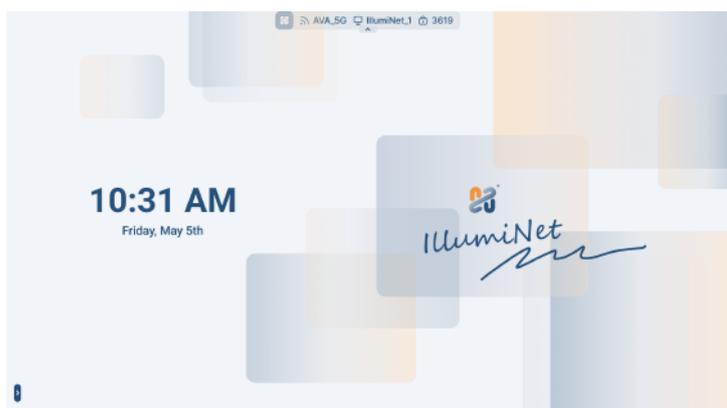
5 Startup

The Matrix Unit starts automatically when power is connected.

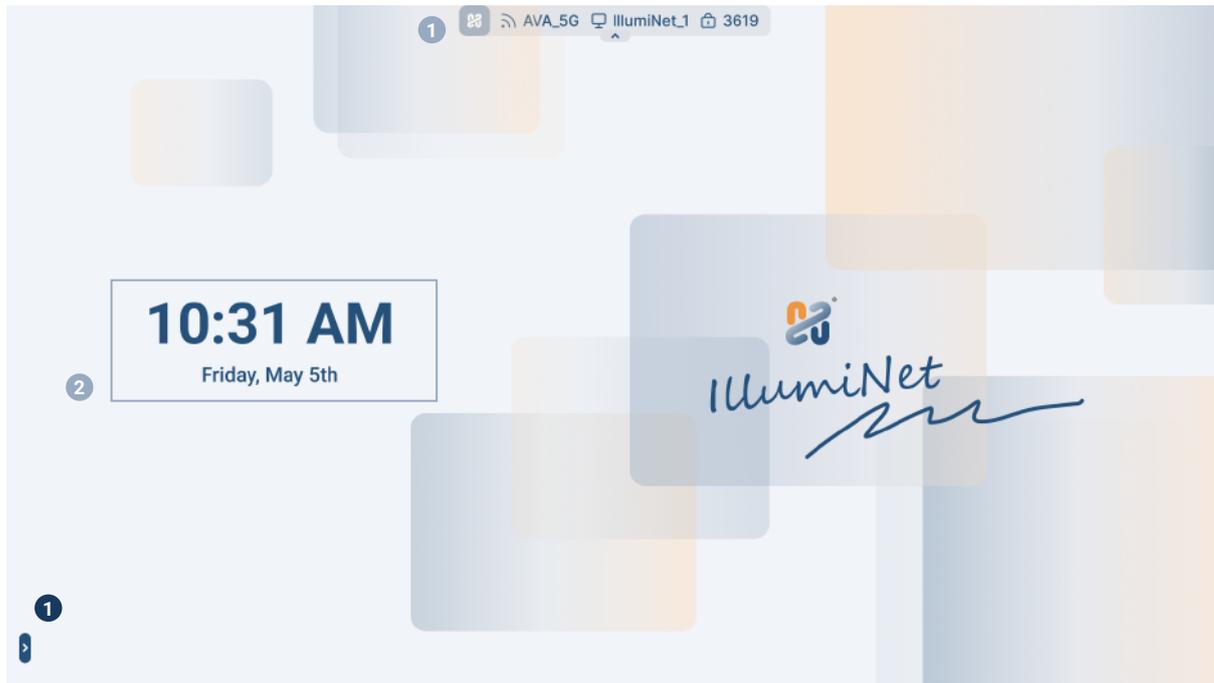


6 Standby Screen

A normal default display screen is featured below for your reference.



Standby Screen Functions



Feature Item	Description
1 Screen Toolbar	IllumiNet Matrix Screen Toolbar
Display Information	Description
1 Status Bar	IllumiNet Matrix Status Bar
2 Date & Time	Shows the current date and time

Status Bar

Click the logo to return to the standby screen

WiFi Name

IllumiNet Device Name

Login Code



Hide Status Bar



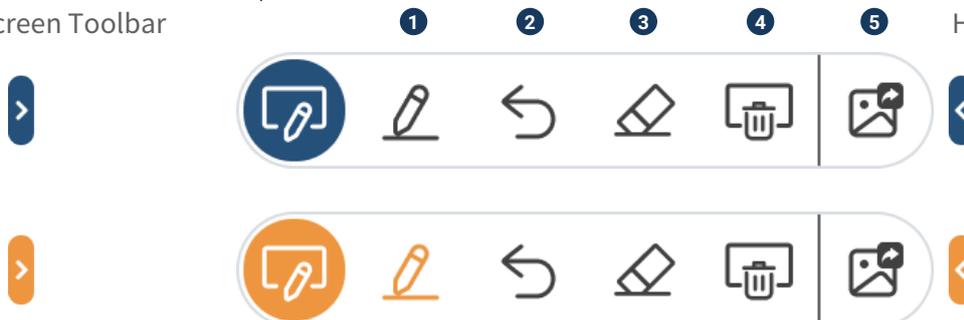
Show Status Bar

IllumiNet Matrix Screen Toolbar



Show Screen Toolbar

Hide Screen Toolbar



CollabSpot Mode

When any personal device enables the CollabSpot's dual direction control and starts annotating, the toolbar icon will turn orange and automatically switch into pen mode

Description

- 1 Turn annotation mode on. The pen icon will turn orange when in use
- 2 Undo the last action
- 3 Turn erasing mode on. The eraser icon will turn orange when in use
- 4 Deletes all annotation from the screen
- 5 Screenshot and share current screen

01

IllumiNet Matrix Device Settings

Collaboration Space Setup

1 Collaboration Space Requirements

1. Ensure that the collaboration space is equipped with IFPDs (Interactive Flat Panel Displays) or displays with touch functionality.
2. A dedicated Wi-Fi router should be available within the collaboration space.
3. Collaboration participants (e.g., students or meeting attendees) should bring their preferred personal devices such as laptops, tablets, or phones.

2 Control Device Requirements



The main control user (e.g., teacher or meeting host) must have an iPad with the IllumiNet App installed.

3 Connecting Devices to the Collaboration Space

Collaboration participants can connect their devices to the appropriate IllumiNet Matrix assigned to their group using their preferred method—either wirelessly or via HDMI input. You can connect wirelessly through three methods, Hardware (AT-C and AT-H), Software (AVACAST App), or Native (Airplay, Google Cast, etc).

4 IllumiNet Matrix

Each IllumiNet Matrix should be connected to the classroom's Wi-Fi router via a wired Ethernet connection. Once connected, the device name and IP address of each Matrix unit will be displayed in the IllumiNet iPad App.



01

IllumiNet App Settings

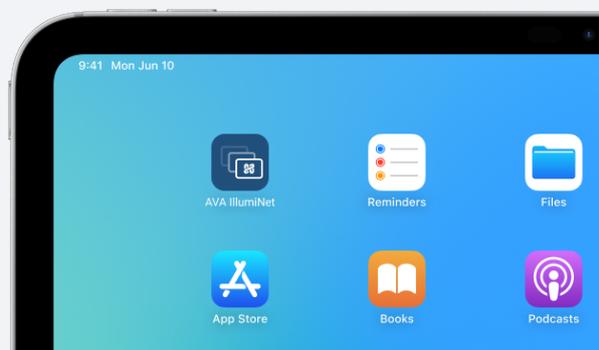
Initial Setup

1. Download the IllumiNet App from the App Store on your iPad.
2. Connect the iPad to the Wi-Fi router used by the IllumiNet Matrix units within the collaboration space.

App Store Link :

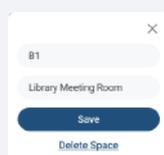
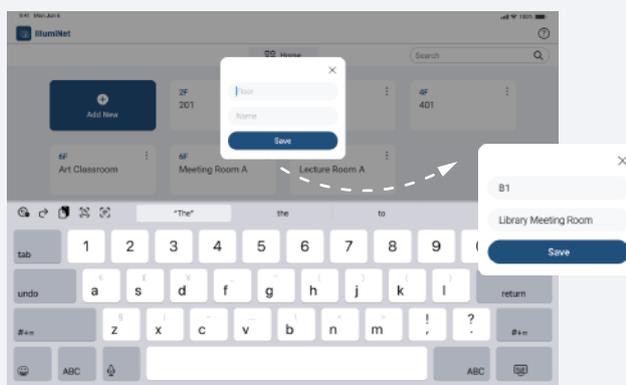
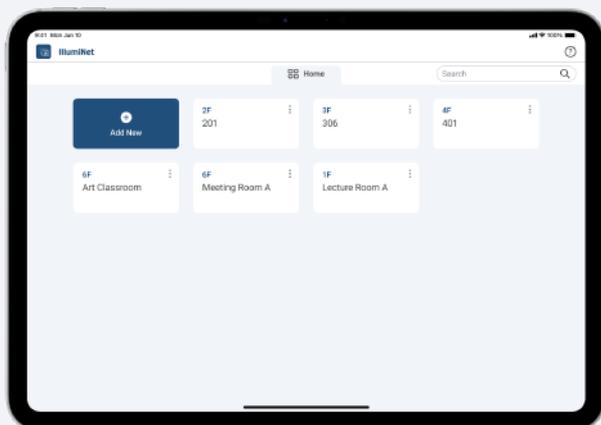


IllumiNet



Create a New Collaboration Space

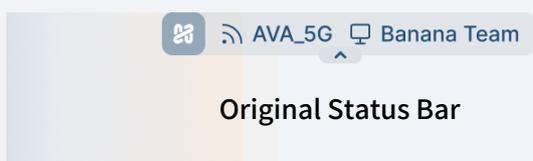
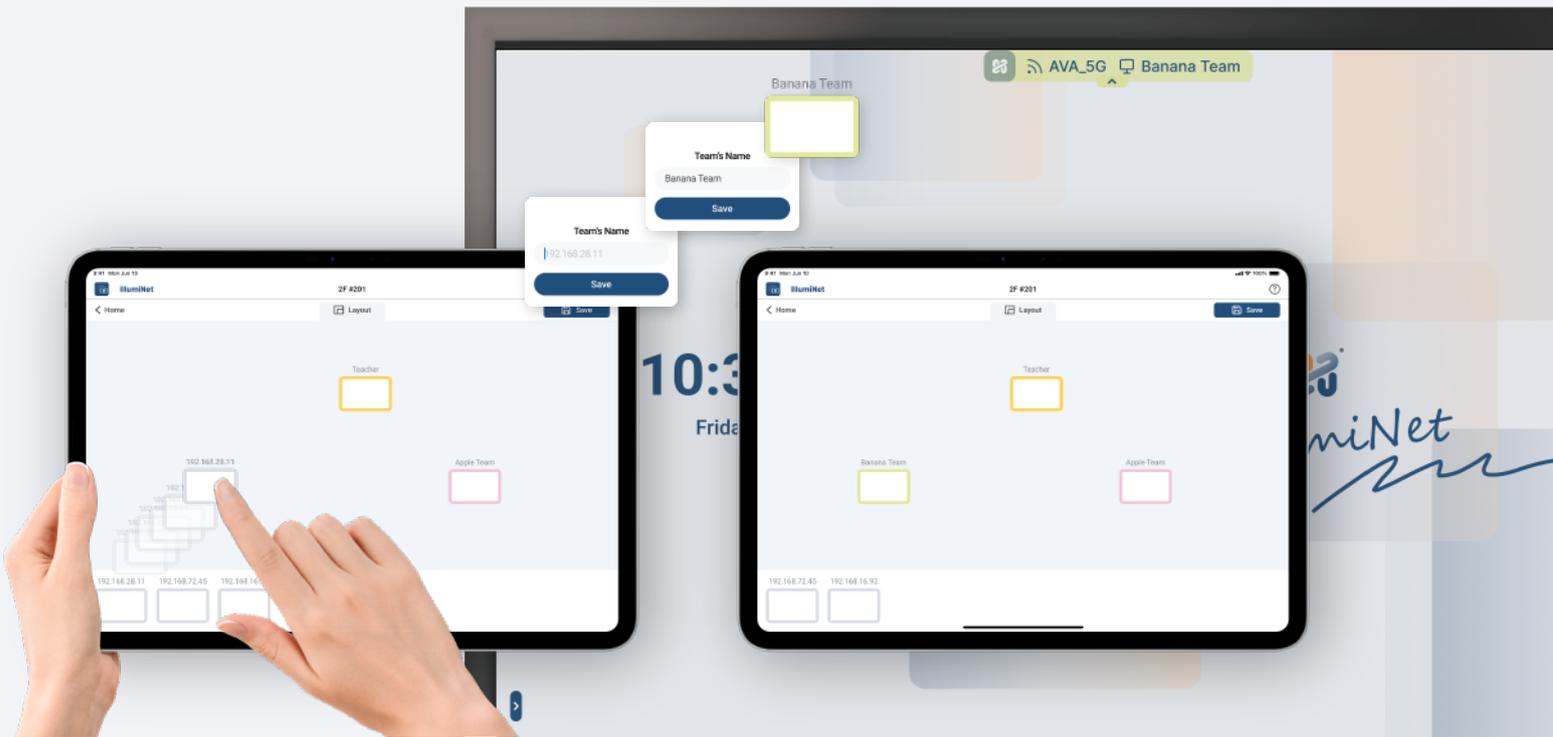
IllumiNet allows you to save multiple space layouts, enabling easy management of different collaboration spaces. You can create and switch between various layouts as needed.



Naming and Arrangement

The control user can use the iPad to add each IllumiNet Matrix to the collaboration space and assign custom names. Simply press and hold a Matrix device from the list at the bottom, then drag it into the layout area above to add it. Devices can be arranged freely to match the actual physical layout of the space.

Once added, each IllumiNet Matrix is automatically assigned a color based on the order in which it was added. This color is displayed both on the iPad and on the floating info bar at the top of each Matrix's main display.



Original Status Bar



Status Bar Change Color

Example:

The control user renames three IllumiNet Matrix units as follows:
Apple Group (Pink) / Teacher (Orange) / Banana Group (Green)

Colors are assigned in the order the devices are added.



IllumiNet Status Description

The screenshot shows the IllumiNet app interface with the following elements:

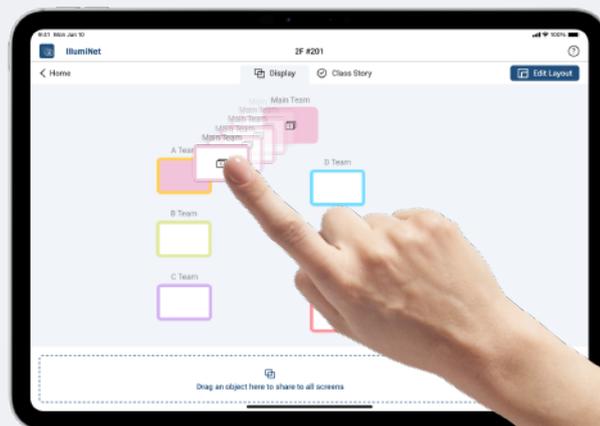
- Header:** 9:41 Mon Jun 6, IllumiNet logo, 2F #201, and a help icon.
- Navigation:** Home, Display, Class Story, and Edit Layout buttons.
- Status Indicators:**
 - Offline Status:** A yellow box with a warning icon labeled "Banana Team". Description: "The IllumiNet Matrix is either not connected or experiencing network issues."
 - Casting:** A purple box with a casting icon labeled "Orange Team". Description: "A user is currently casting to this IllumiNet Matrix display."
 - HDMI:** A pink box with an HDMI icon labeled "Apple Team". Description: "An HDMI device is connected to the IllumiNet Matrix."
 - Standby:** A yellow box labeled "Teacher". Description: "The IllumiNet Matrix is on standby."
 - Split View:** A blue box with two icons labeled "Lemon Team". Description: "Both casting and HDMI input are active on this IllumiNet Matrix display simultaneously."
- Sharing Bar:** A dashed box with a share icon and the text "Drag an object here to share to all screens", and a "Stop Sharing" button.

01

Projecting your screen

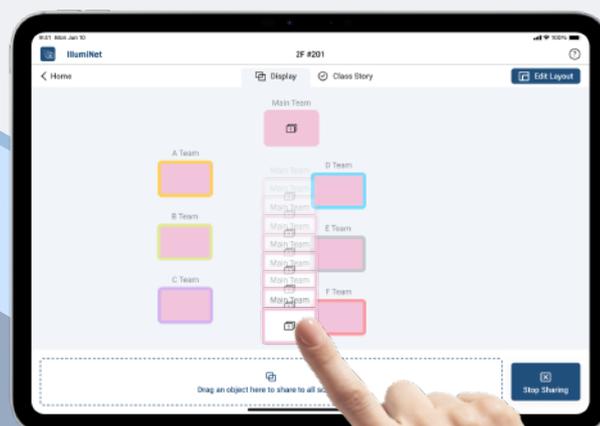
To share a screen from one device to another

1. Drag the IllumiNet Matrix icon on the iPad and drop it onto another Matrix device to share its screen directly.



To share a screen to all devices

1. Drag the IllumiNet Matrix icon to the “Share to All” area at the bottom of the screen.
2. This will cast the selected Matrix’ s screen to all IllumiNet Matrix devices within the collaboration space.



IllumiNet Status Description

9:41 Mon Jun 6 100%

IllumiNet 2F #201

[Home](#) [Display](#) [Class Story](#) [Edit Layout](#)

Split View
Two IllumiNet Matrix screens are being shared simultaneously to a single screen.

Main Team (Split View icon)

Screen Sharing
When an IllumiNet Matrix unit is sharing its screen, its icon will appear as a solid color on the iPad.

Screen Receiving
When a IllumiNet Matrix unit is receiving a screen share, its icon will adopt the color of the source Matrix.

Split View (Detailed)
The left side shows content being cast from this IllumiNet Matrix unit; the right side shows content from another IllumiNet Matrix unit.

Casting
Someone is currently casting to this IllumiNet Matrix display.

A Team (Yellow icon)

B Team (Green icon)

C Team (Purple icon)

D Team (Blue icon)

E Team (Blue icon)

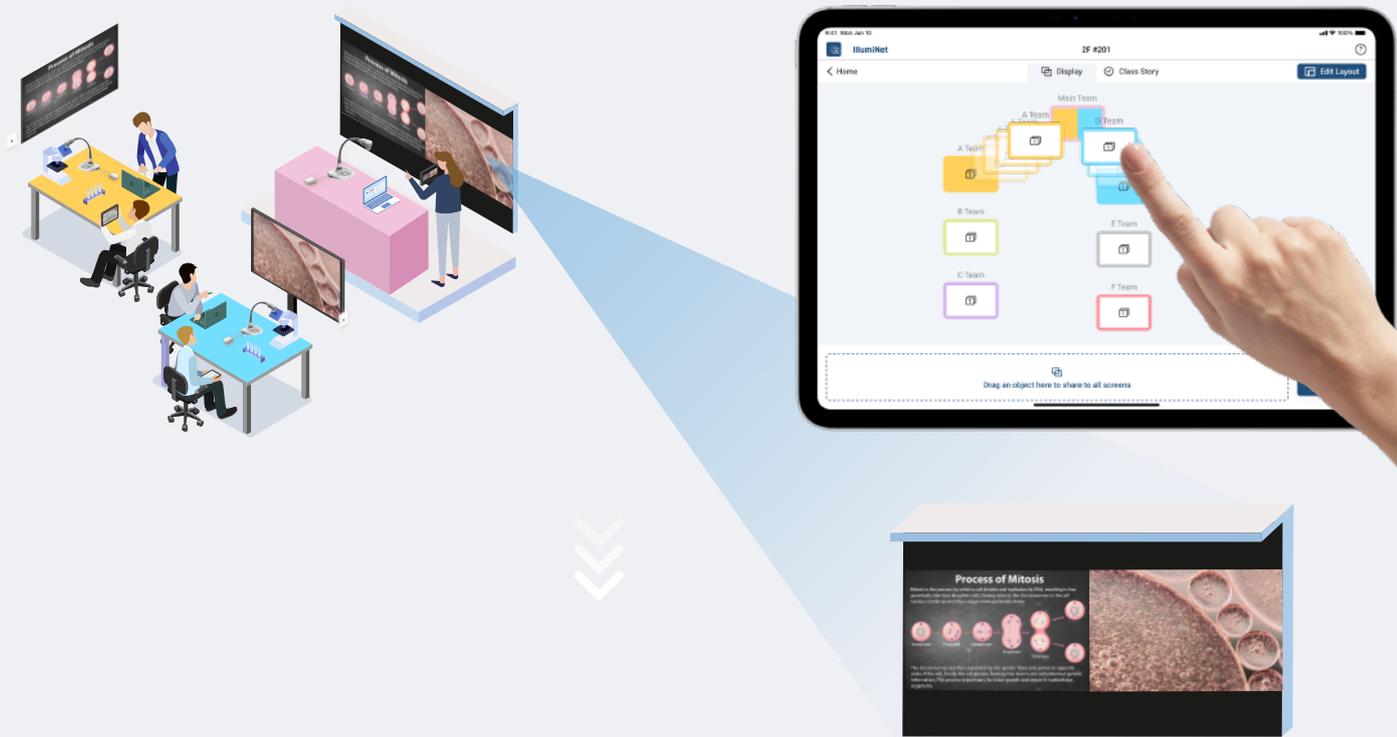
F Team (Red icon)

Drag an object here to share to all screens

[Stop Sharing](#)

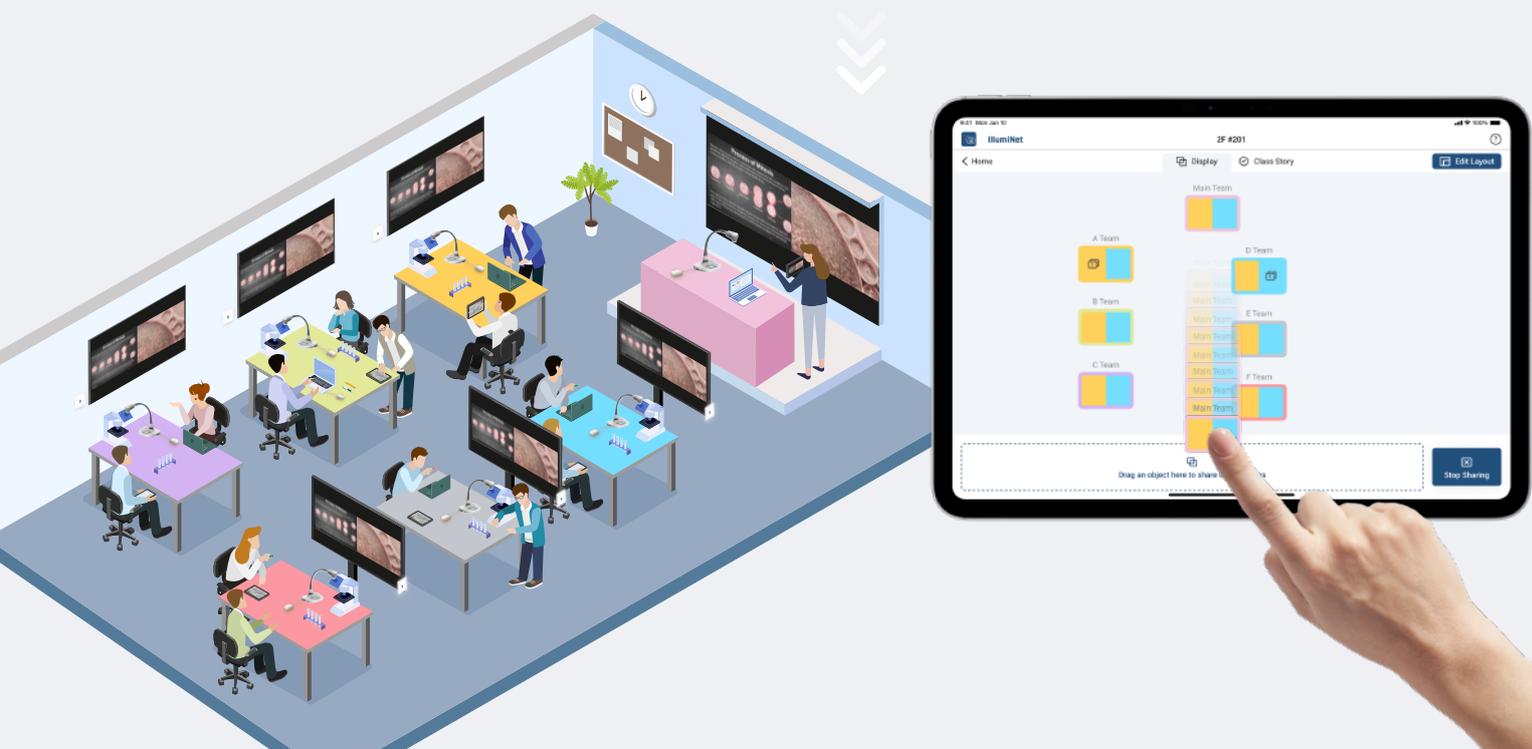
Share Screens from Two IllumiNet Matrix Devices to Another

1. To enable split-screen sharing, drag two IllumiNet Matrix devices (the casters) onto the same IllumiNet Matrix (the receiver) via the iPad interface. This will display both sender screens side by side on the receiver device.



Broadcast Split-Screen View to All IllumiNet Matrix Devices

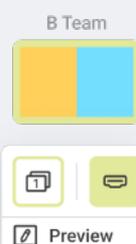
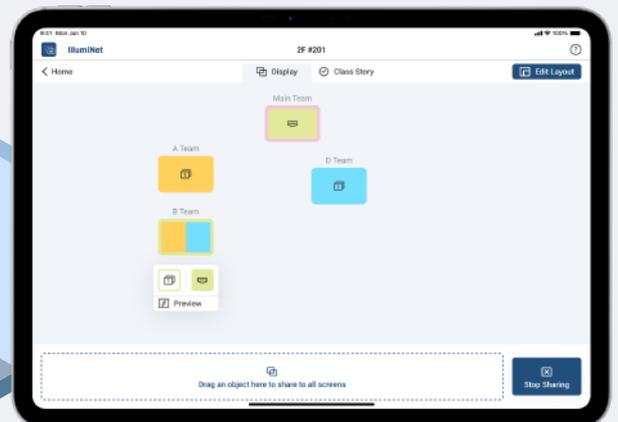
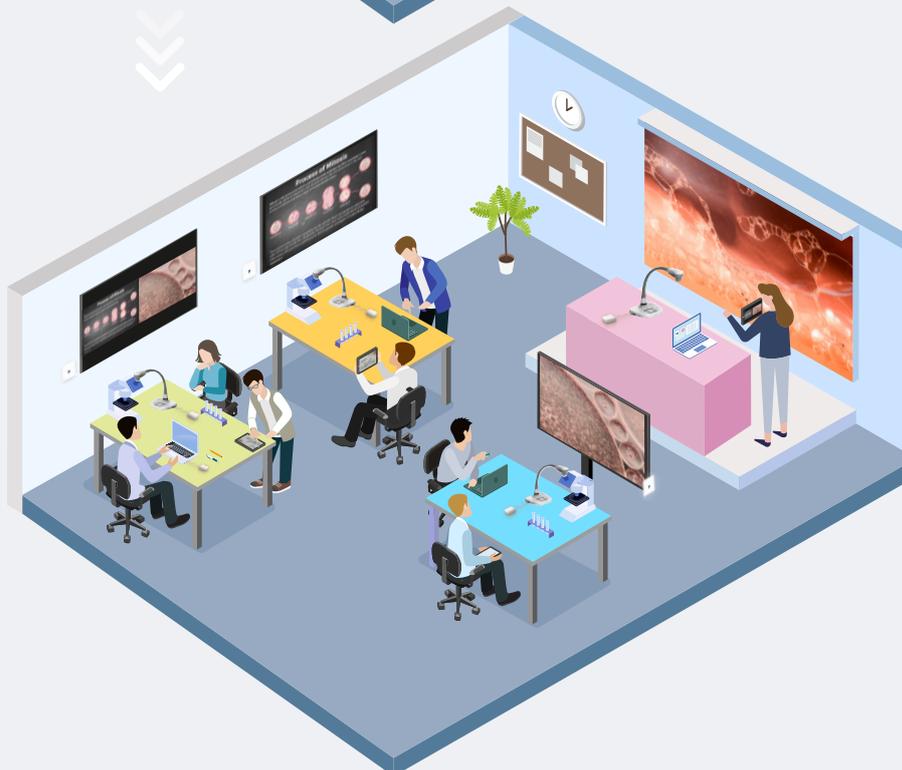
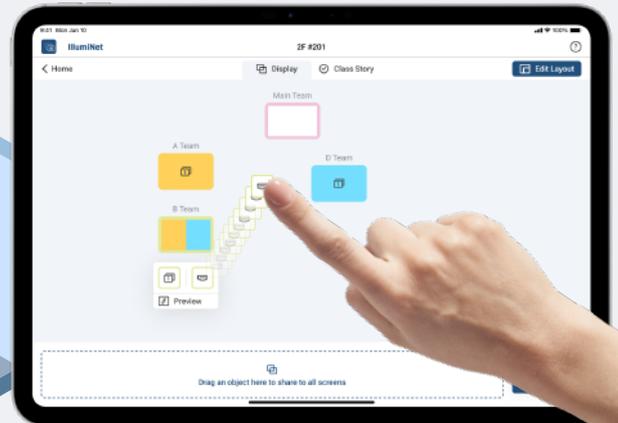
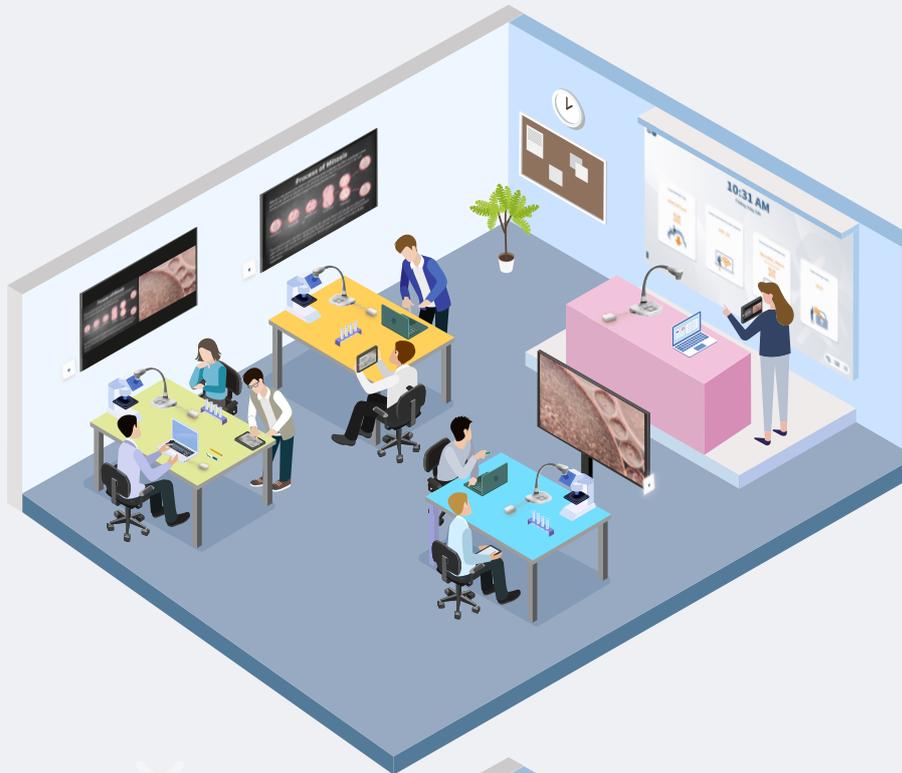
1. Drag the receiver's icon to the "Share to All" area at the bottom of the screen.
2. All IllumiNet Matrix devices—except the original senders—will display the split-screen view from the receiver.
3. The caster devices will instead show the content from the other sender, creating a mirrored collaboration view.



Share the Screen of a HDMI-Connected Device to Another IllumiNet Matrix

You can share the screen of a HDMI-connected (but not currently casting) personal device connected to another IllumiNet Matrix display.

1. Tap on an IllumiNet Matrix icon on the iPad to view the list of personal and HDMI devices currently connected to it.
2. Drag the desired device to another IllumiNet Matrix to begin sharing its screen.
3. Once shared, the selected personal device will be marked as “sharing in progress.”



02

Simultaneous Real-Time Collaboration

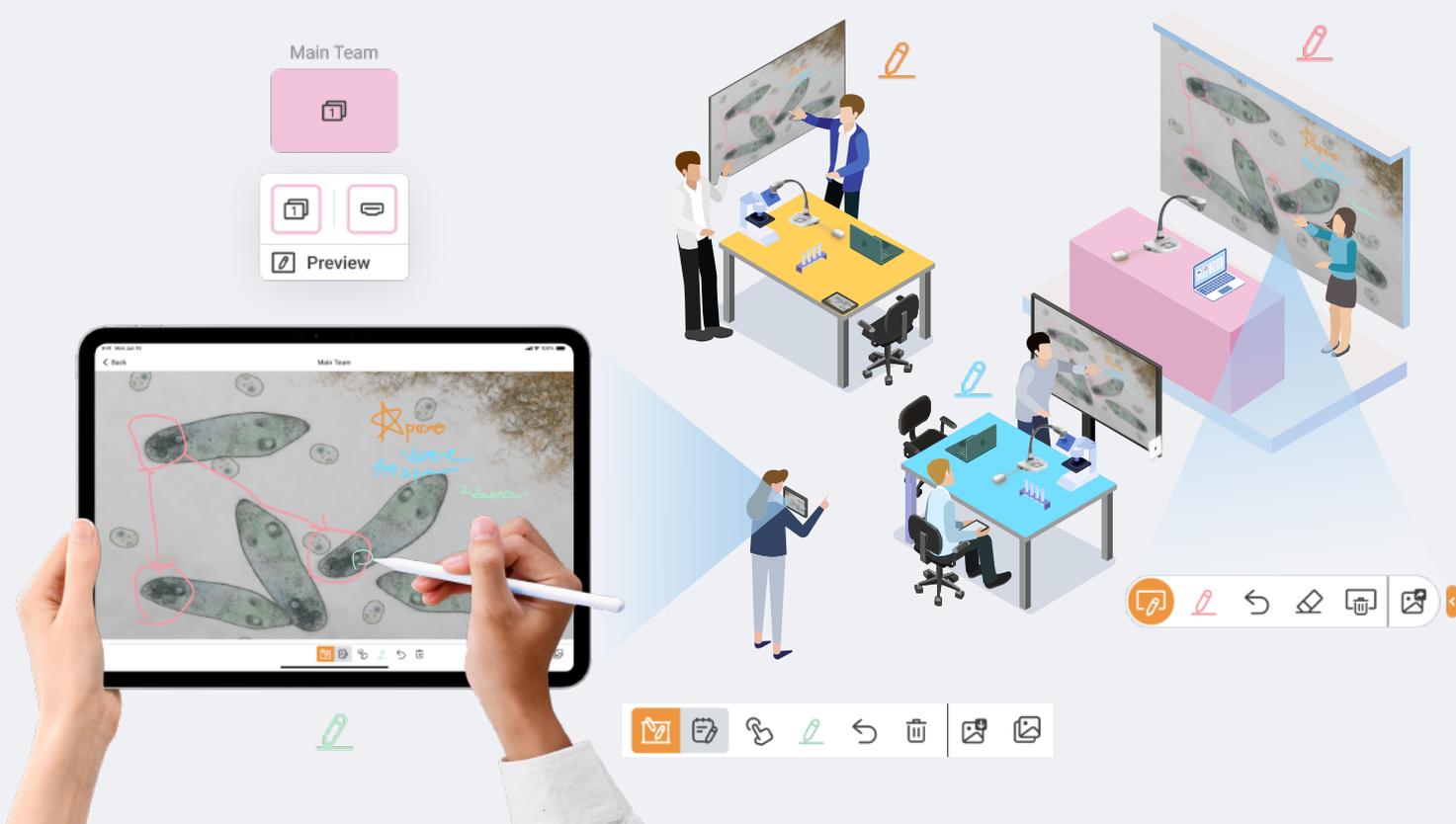
Simultaneous Real-Time Annotation on IllumiNet Matrix

IllumiNet Matrix supports simultaneous real-time annotation across multiple devices during screen sharing.

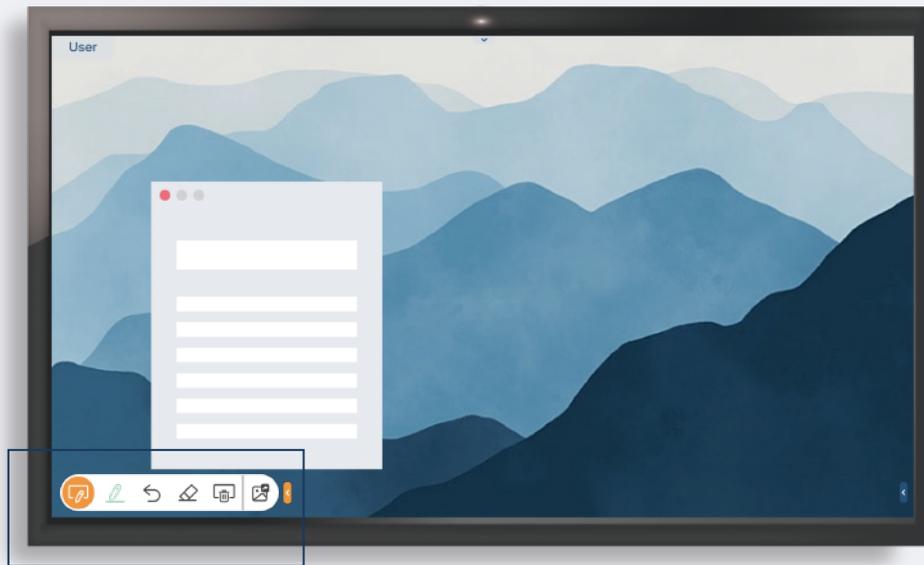
1. After sharing a screen from one IllumiNet Matrix (the sender), tap the pen icon in the lower-left toolbar of any receiving IllumiNet Matrix to activate collaborative annotation.
2. Annotations made on the shared screen will be synchronized across all participating IllumiNet Matrix devices. Each device is assigned a unique annotation color, and up to 20 devices can annotate simultaneously.

Control and Collaborate Using Your iPad

1. You can also use the iPad to control any IllumiNet Matrix and join the collaboration using the two-way control feature. Tap the desired IllumiNet Matrix on the iPad, then select Preview to view its current screen.
2. Tap the pen tool within the preview window to annotate directly on the selected IllumiNet Matrix screen.



IllumiNet Matrix Collaborative Annotation Toolbar



Show Screen Toolbar



Hide Screen Toolbar



Collaboration Mode

When the receiving IllumiNet Matrix activates the pen tool, or when any personal device launches the CollabSpot feature and begins annotating, the toolbar turns orange, indicating collaboration mode is active.

Annotation Tools

- 1 **Pen Tool** : Select the pen to draw directly on the screen.

Each device is assigned a unique color in the following order :

The receiving device activates collaborative mode by enabling the pen tool.

- 2 Undo the last action
- 3 Turn erasing mode on. The eraser icon will turn orange when in use
- 4 **Clear All** :

Sender : Clears all annotations on the screen.

Receiver : Clears only annotations made by that device.

- 5 Screenshot and share current screen



Up to 20 IllumiNet Matrix devices can participate in collaborative annotation simultaneously.

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