

Virtual Demo Studio Setup



Equipment List

- **ATEM Mini Pro Video Switcher**
 - Power Cable (included)
- **USB-C Cable**
- **Lumens Ladibug Document Camera (optional for product detail)**
- **Cameras (Canon VIXIA HF G50 or Other Clean HDMI Output camera)**
 - Extra Batteries or power source
 - (2x) Mini “C” HDMI to HDMI Cables (Canon Cameras)
- **Mini Wireless Lavalier Microphone for iPhone and Laptop**
- **(2x) Camera Tripods**
- **LED Lights 2-Panel Kit**
- **Laptop for Virtual meeting**
- **External HDMI Display (optional but recommended)**
- **Ethernet cable for better connection in the office or as an alternate to USB-C**



Studio Setup

Step 1:

Download User Manual for the **ATEM Mini Pro**. **Install ATEM Switchers Software on producer laptop.**

Step 2:

Familiarize yourself with the camera settings with the **Canon VIXIA HF G50 Manual**

Cameras must be set to Movie Mode and a resolution of FHD (1080) 30 FPS

Step 3:

Use the **Mini HDMI to HDMI cables** to connect the **cameras** to the **HDMI inputs** of the **ATEM Mini Pro**

Step 4:

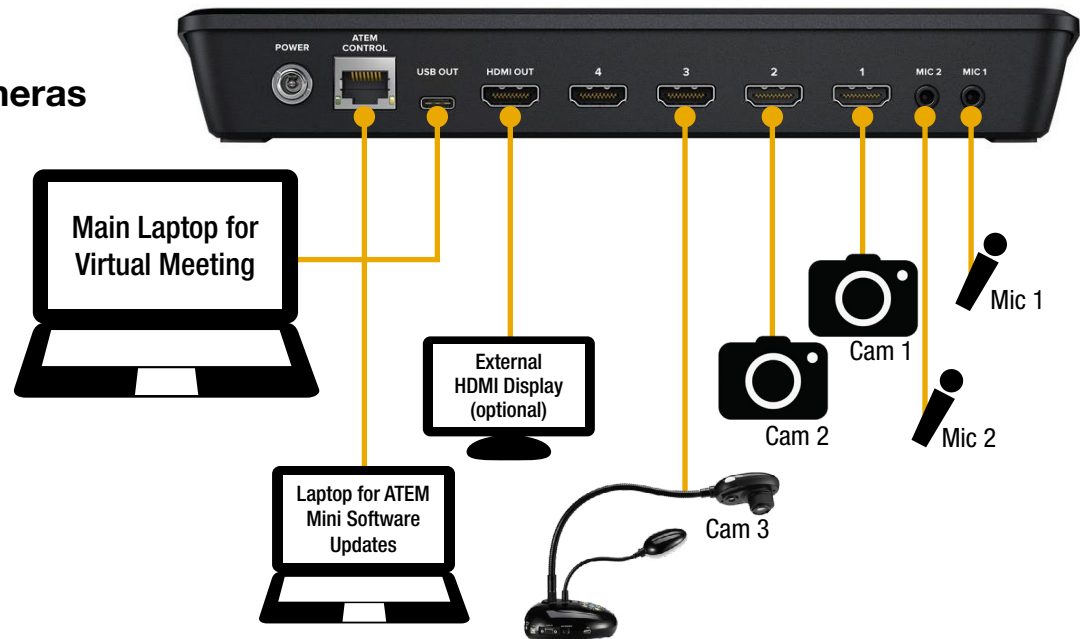
Use the **USB-C cable** to connect to the **main laptop** for the virtual meeting and to use the **ATEM Software Control App** for additional functions

Step 5:

Connect any external microphones to **Mic 1 and 2**

(Optional):

- Connect any external displays to **HDMI Out**
- Use **ATEM CONTROL** to connect an ethernet cable (if you use the USB port to record to a hard drive) to a laptop to control the switcher virtually with more options and settings.



Using the Video Switcher

Cameras

AFV stands for **Audio Follows Video** and you can turn this on for any camera that has a microphone, the audio will come from the active camera

Use on-camera microphone by selecting the **ON** button above the camera input. You can use 1 camera as the microphone during the demo to eliminate differences in microphone quality.

Switch between cameras by selecting the **input buttons 1-4**



CUT/AUTO/FTB (Fade to Black)

Select the **CUT** button to have quick cuts when you switch camera

Select **AUTO** to use the **DURATION** and **EFFECT** buttons to add a fade to each camera switch

Select **FTB** to fade the screen to black while any camera is selected

Using the Video Switcher

MIC 1 & MIC 2

Select the **ON** button to use a microphone with a 3.5mm input

Use the **UP** and **DOWN** buttons to control the input volume levels

PICTURE IN PICTURE

Picture in picture superimposes a second source over your broadcast video source in a small box you can position and customize. Make sure your video to be inside the box is plugged into **HDMI input 1**.

VIDEO OUT FUNCTIONS

Use this button set to customize the view when you utilize an additional HDMI Display or TV (recommended) to view your video inputs and outputs. **Buttons 1-4** show each of those inputs only. **M/V** Shows all inputs and the output on one screen. **PGM** shows the outputted video only. See next page for details.



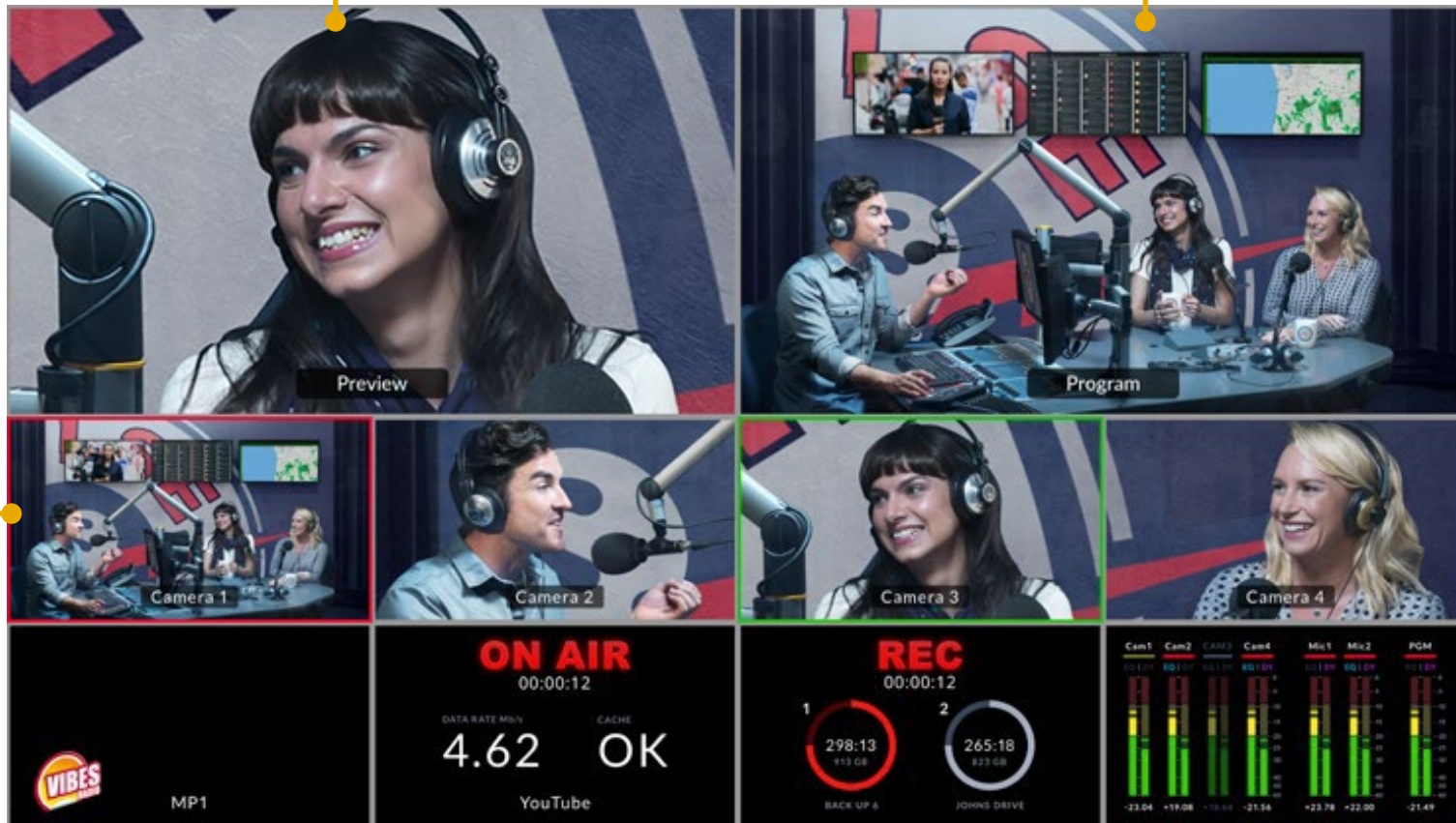
Video Out Screen (External HDMI Display - M/V Setting)

Preview

The preview view lets you monitor the source currently switched to the preview output.

Program View

The program view displays what is currently switched to the program output. This view will always show exactly what you are broadcasting.



All Camera Inputs

See up to 4 camera or other HDMI inputs in Multiview

Mic Levels

Always check you mic volumes before starting broadcast (peaks in yellow are good, red is too loud)

Canon VIXIA HF G50 Camera Setup

HDMI Display Format

You'll first need your Canon Camcorder, with "clean HDMI out." **Clean HDMI out** means that the output from the camera doesn't have all the camera info in the view.

Video Mode

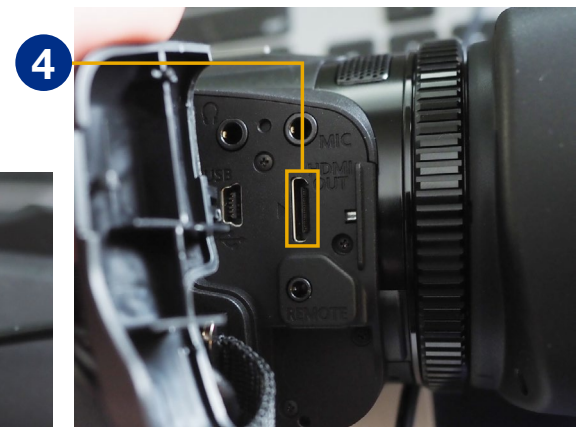
Change your camera's settings for **Output Onscreen Displays** to **OFF**. This setting is accessed by first pressing the **Menu** button (1) on the right rear of the camera. Use the **LCD touch screen** to select the **display icon** (2), then press the "2" to get to the second page of the menu, then press the **Output Onscreen Displays** item to set the onscreen display to **Off** (3).

HDMI Connection

Use the Mini HDMI (Type C) to HDMI cable to plug the camera into the video switcher. The HDMI port is located under a plastic panel on the front grip side of the camera.(4)

Power

Use the included DC power adapter to charge the included battery (while on camera) and provide AC power to the camera (5).



Lighting Setup

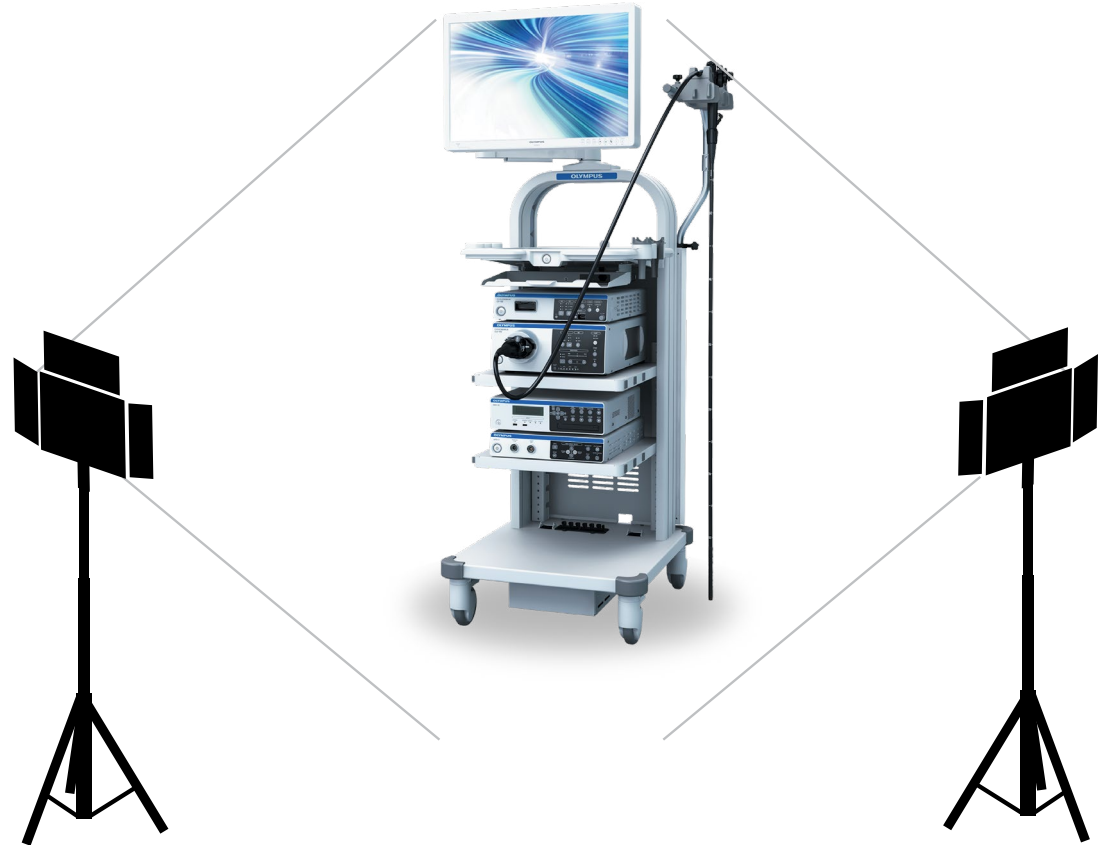
LED Light Panel Setup

The LED light panels should be setup on either side of your subject to provide even light. Make sure the lights are far enough from your subject to eliminate harsh highlights or dark shadows.

Color Temperature

The LED light panels can be adjusted between 2300-6800K. Setting your Kelvins in-camera to match the light's temperature tells the camera what the light in the footage is missing.

So when your camera is interpreting 3200K light, which is very orange, it knows to add blue to the image (or pull orange out) to balance it and make white look white.



Set the LED light panel's color temperature by rotating the left dial on the rear control section of the light. Set the intensity (10-100%) with the right dial.

Adjusting Camera White Balance

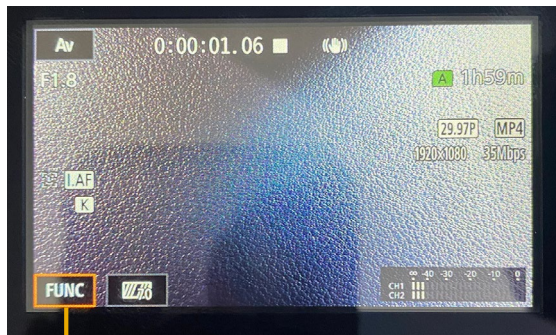
Canon Cameras

This function can only be used when the shooting mode is set to P, TV, AV or M. Select M on the switch next to the T-W zoom button on top of the camera (1).

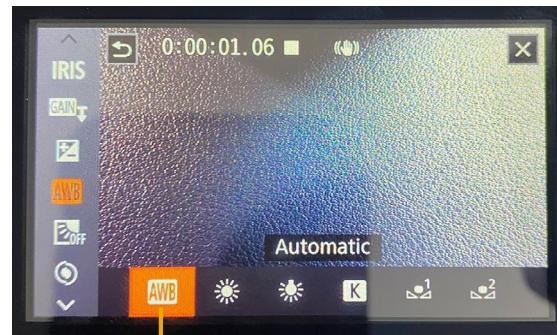
Use the touch screen display to select [FUNC](2), then select [AWB](3). Once the color temperature options appear at the bottom of the touch screen, select [K](4). Since the default color temperature of the [K] custom color temperature is set to 5600K, you may leave it set at that temperature. To adjust the [K] setting, click the settings button on the screen (5) and use the slider on the screen to select your desired temperature (6).



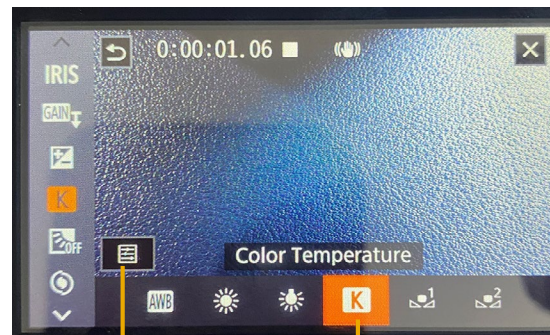
1



2



3



5

4




6

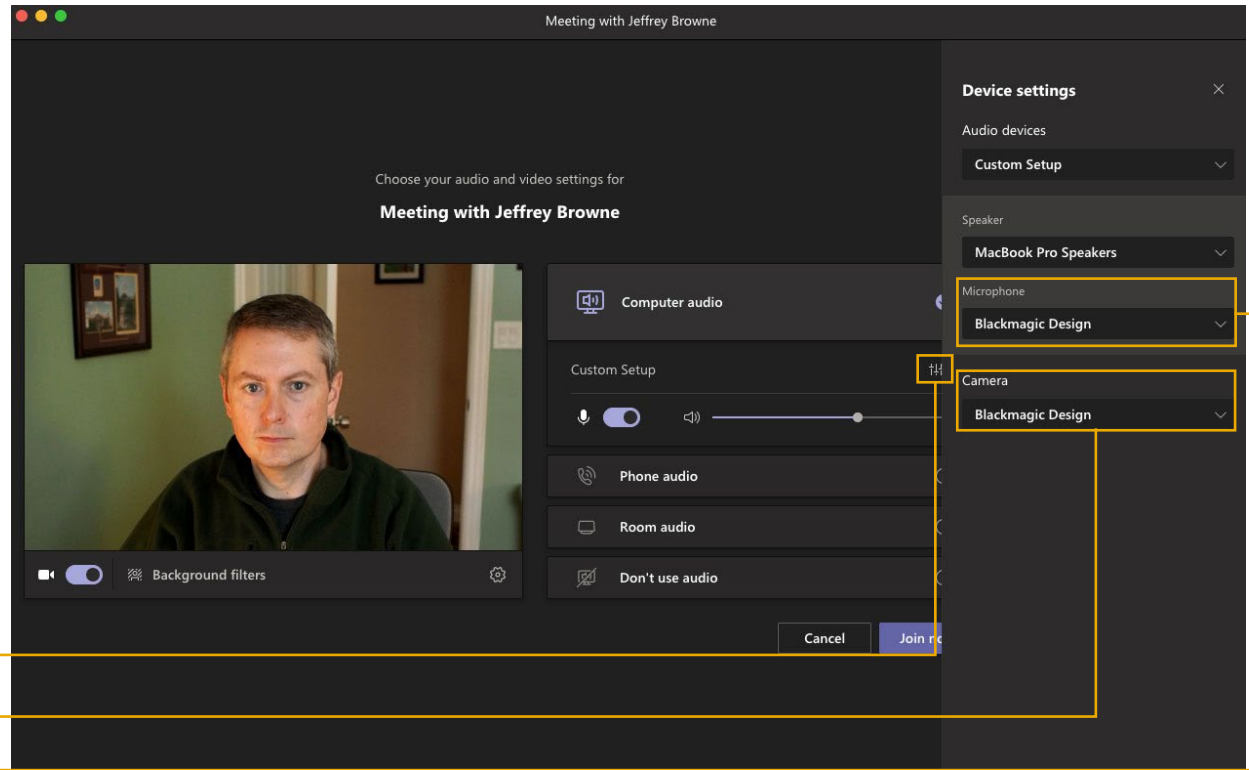
Putting it All Together

Connect your Computer

- Plug ATEM Mini's webcam output into your computer's **USB** input. Now your computer will recognize **ATEM Mini** as a webcam so you can select it as the webcam source in your streaming program, such as **Teams** or **Zoom**.
- Power on ATEM Mini and Camera
- If in an office, connect to the network via an ethernet cable.

Test Your Setup

- Test out the connections by opening the **Microsoft Teams app**, navigate to the calendar, then click on the **Meet now** button in the upper right.
- Click on the **settings** button  to the right of the **Custom Setup**
- Select **Blackmagic Design** as the Camera
- Select **Blackmagic Design** as the Microphone
- Use the **Spotlight for Everyone** feature to show your demo to the audience as full screen.



Other Considerations

- Use an additional display to show the subject what is currently being shown in the demo to the audience.
- Use the ATEM Software Control App to add still images for screen holds, control input volumes and setup green screen variables.
- Although it may seem like a good idea, laptop inputs showing powerpoint slides sent through the switcher are easily affected by bandwidth limits and will sometimes be blurry because Teams treats screen sharing with higher quality.
- You can connect an external hard drive to the USB-C connection on the ATEM Mini to record everything that comes through the switcher (1080p only). This will not record the meeting from Teams or Zoom.

