

Introducing the Logitech MeetUp



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The Logitech MeetUp is Logitech's newest ConferenceCam solution. It's referred to as an all-in-one videoconferencing solution, but that term may require some explanation. First of all, all-in-one ConferenceCam doesn't include the display. An integrated display would limit options, increase prices, and shorten the product's lifespan. Nor does it include the processor. The all-in-one refers to the speaker, microphone, and camera.



Unfortunately, all-in-one video devices don't have the best reputation. That's because providing all-in-one video is actually very hard to do. It may not sound difficult – after all, most televisions combine a display with speakers, and most conference phones combine speaker with microphones. However, combining speakers, microphones, and cameras into a room solution for multiple people is difficult because the technologies are inherently incompatible.

Putting microphones near speakers creates feedback and echo. Putting speakers next to a camera can cause picture shake through vibration. The problem has two easy resolutions: separate the camera from the audio components or dumb down the components. Instead, the MeetUp takes a tougher road and pulls it off.

To fully appreciate that development, consider the options. Separating the audio devices from the camera creates a wiring mess. More importantly, it means that the people talking on the wall have their voices coming from the table. Great video and audio quality, but still a disjointed experience. The other easy path is to use dumb devices – after all, a standard-resolution camera won't be as susceptible to the speaker vibrations. If the microphones are not that sensitive, they won't pick up so much background noise.

But why compromise on audio and video on a device designed for audio and video? There's a move afoot to video-enable smaller rooms, but it's a wasted effort if the room isn't fit for purpose. Logitech is attempting to fill the niche of quality peripherals with MeetUp – a no-compromise conferencing solution intended for smaller rooms.

What's a MeetUp?

Logitech currently offers three small room conferencing products in its ConferenceCam lineup. Each provides a laptop or PC with an external microphone, speaker, and camera intended to adapt conferencing and collaboration solutions into a system for multiple people. In addition to its small room ConferenceCams, Logitech offers GROUP for medium to large rooms.

In addition to the new MeetUp, Logitech's other two small room ConferenceCam products are:

- **BCC950:** Introduced in 2012, it's intended for use on a small table or desktop and contains an HD 1080p eyeball camera mounted atop a conference saucer. Suitable for small groups. With its 78-degree field of view, it is better suited to personal use. It serves its niche well, but it's getting a bit long in the tooth.
- **ConferenceCam Connect:** Introduced in 2014, this is the current workhorse. Its cylindrical design puts a 1080p camera with a 90-degree field of view atop a speakerphone tower. It's an all-in-one solution intended for tabletop use. Reasonably accommodates groups of up to six participants.

MeetUp is the newest and most sophisticated member of the portfolio and offers improved video and sound. It's a front-of-room solution designed to be atop or below the display(s). It offers the latest video technology (4K camera with 13 megapixels) and a 120 degree field of view that's optimized for smaller rooms. It's speaker and beamforming microphone system makes it likely the best audio device Logitech has ever made — in fact one of the best we've tested.

The ConferenceCam family of products is intended to complement popular PC applications such as Skype for Business, WebEx, and Zoom. It carries compatibility certifications from those vendors and many more. ConferenceCams work well with most apps because, to the PC, they appear as simple plug-and-play USB devices (speaker, microphone, and camera). No special drivers or additional software are required.

QUICK QUESTIONS

Why Not Just Use a Laptop?

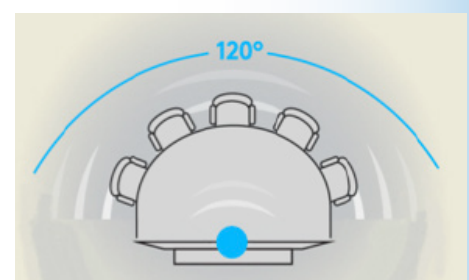
Laptops alone are not ideal for group meetings – their displays are too small, their cameras are too limited, and the audio quality is unsuitable for group situations. It's far better to create a room environment with a large display and appropriately sized audio and visual components.

Why Not Just Use a Video Room System?

While dedicated room systems continue to have their place, using PC/laptop peripherals gives a powerful, low-cost alternative for mass deployments. After some 20 years of videoconferencing, room systems have only been installed in an estimated 5-10% of the conference rooms out there. The laptop peripheral approach is suitable for mass-adoption.

Why Did Logi Create Another ConferenceCam?

Video equipment and services continue to improve. Neither of Logitech's existing small-room solutions offers 120-degree FOV, 4K video or front-of-room audio. MeetUp offers excellent audio, and it can accommodate more people, up to eight participants.



MeetUp is a welcome addition to a growing market segment: small conference rooms and huddle spaces. Visual communications are increasing due to the rising popularity of distributed teams, inexpensive meeting services, and the collaboration effectiveness of screen sharing. With a list price at about \$900, it's a fairly cost-effective way to video-enable small and informal meeting rooms for effective video and collaboration.

Having employees use their laptops to power huddle room conferencing environments simplifies training and implementation. Shared room systems get complicated for several reasons. For example, as they need to be secured, yet accessible, they require secure integration into security directories and calendaring systems. Using personal devices requires no additional measures or training.

That doesn't mean, however, that the MeetUp won't be used for dedicated room systems. No doubt, several vendors will leverage the MeetUp with dedicated PCs such as the Intel NUC. Still, the MeetUp is not a complete room system; it's an option for the audio and visual peripherals.

The Audio Imperative in Video

Audio is the most crucial aspect of videoconferencing technology. It's not intuitive, and buyers and vendors alike commonly overlook it. Obviously, poor-quality video will dramatically reduce the effectiveness of a video call, but even if the video fails completely, meetings can continue. On the other hand, when the audio is problematic meetings will often end prematurely. Case in

point: radio is alive and well, but the silent film era ended long ago.

Most agree that audio is important, but it's too easy for buyers (and vendors alike) to settle for "good enough." However, the difference between low-quality and high-quality audio can make a significant difference in the overall experience, and more importantly, the effectiveness of video interactions.

Poor audio requires more mental effort for listeners to interpret the speaker. It's impossible to give 100 percent to whatever is being discussed when the brain is being taxed to merely understand the words – similar in concept to struggling to understand someone with a heavy accent. This is why meetings with low-quality audio can be so exhausting.

Cameras have wonderful specs for resolution and megapixels, but audio is harder to measure. Most video technologies and services support wide-band or HD audio, but microphones and speakers are harder to objectively quantify. This is one factor contributing to why people often consider video more important than audio, but it really should be the other way around.

It's been a long journey of audio improvements through early radio, television, and telephone networks. Speakerphones now commonly place (multiple) microphones right next to the speaker – something that was previously impossible without terrible feedback.

MeetUp utilizes the newest technologies as well as some traditional old-school tricks to pull off what it does.

A Closer Look

External

MeetUp is a single capsule device, 15.5" wide and about 4" high. It has a large, moveable lens in the center with a matte-finish grille covering the speaker and



microphones. The device sports a built-in bracket that can be used for shelf-top or wall-mounted installations. An available kit for set-top installation uses a display's VESA mounts.



There are three small ports on the back of the MeetUp: the USB-C port for connection to a computer, a port for an optional expansion microphone, and a DC power input. A single button on the back, for pairing the remote control, sits alongside an anti-theft Kensington security slot. The unit's single LED light shines white when ready or red when the microphone is muted.

Also included is a 3.25-inch-square wireless remote. It looks more similar to a coaster than a traditional remote because, like a coaster, it's used while sitting on the table. It uses RF instead of IR, so it doesn't need to be pointed at the device. The remote offers basic controls such as pan, tilt, and zoom; three presets; volume; and some basic call controls.



MeetUp comes with everything needed to set up a room system (except a display and a computer). The package includes a 5-meter USB-A to USB-C cable, power adapter, and coin-style batteries for the remote.

Overall, MeetUp appears well designed. It's mostly metal with some plastic bits that blend in. The mounting bracket is a clever design that swivels for either wall or countertop use and has no plans to let go of the MeetUp. It looks nice, and neither the unit nor the remote is intimidating.



Inside

Inside the MeetUp’s housing, some impressive technology backs up its sleek appearance. The camera offers 4K resolution and a 13-megapixel sensor (similar to the previously announced BRIO) combined with a wide lens giving it a 120-degree field of view.

Most video cameras offer narrower fields of view that are more appropriate for personal use (webcam) or larger rooms. The MeetUp is targeted at the burgeoning huddle room environment. Smaller rooms often have the table closer to the camera, so a wider field of view is necessary. If 120 degrees isn’t wide enough, the MeetUp’s motorized pan gives an additional 50 degrees of view, allowing the MeetUp to cover a total 170 degrees of left-to-right visibility.

What appears to be missing from the camera is an optical zoom. Conventional wisdom holds that digital zoom compromises quality. While that’s an undeniable fact, it isn’t relevant with the MeetUp. Since the MeetUp’s camera has 4K resolution, the 5x zoom will rarely compromise native 1080p resolution. With MeetUp, digital zoom becomes a feature that reduces moving parts and costs while improving reliability.

The MeetUp’s microphones use a technique known as broadside beamforming that uses advanced algorithms to separate the active speaker from background noise. We found it picked up audio nicely and clearly, better than many table-top solutions even though the microphones were farther away.

Using multiple microphones for beamforming is common, but implementation and effectiveness vary. Beamforming is all about acting upon tiny differences each microphone detects. Logitech’s software analyzes these differences to isolate the active speaker – at any location and any frequency – and then deadens remaining sounds. MeetUp even passed the potato chip test by muffling bag and crunch sounds. (Finally, a video solution that acknowledges you can’t eat just one!)

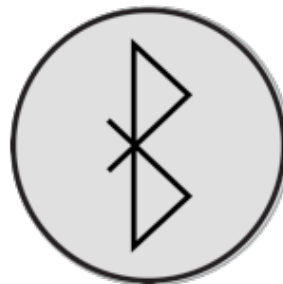


When facing MeetUp, the custom-tuned speaker is on the left side, contained within a mechanically isolated chamber. Speakers in all-in-one devices create challenges in echo-cancellation and image shake. Speakerphones usually solve this with simple insulation to deaden vibration, but that wouldn't be sufficient with MeetUp's larger room speaker, beamforming microphones and 4K camera that's just a few inches away. Instead, a mechanically isolated chamber ensures sound vibrations don't interfere.

On the right side (behind the grille), three microphones are configured in a horizontal array. As MeetUp is designed for a front-of-room location, the microphones are optimized to pick up sound from its front. This placement also mitigates interference from echoes bouncing off the wall behind it.

Lastly, the MeetUp also supports Bluetooth. The primary use case will be the mobile app for a remote control, but that seems like a cumbersome extravagance compared to the actual remote, though it provides a backup solution for a lost remote or dead batteries.

The MeetUp is evidence that audiovisual peripherals are evolving – as is Logitech. MeetUp offers a symphony of improvements over previous ConferenceCams including speaker chamber isolation, beamforming algorithms, improved full duplex performance, automatic gain improvements, and more. Combine this with a 4K/13-megapixel/120° camera, and the result is trailblazing performance for less than \$1,000.



Test-Drive Findings

Setting up MeetUp is quick and easy. You are likely going to spend more time mounting the unit than configuring it. We simply placed it on the countertop in front of the TV. MeetUp requires a USB connection plus separate power. There are no drivers and no software to install. MeetUp connects to the PC with a single connection. Note: The PC's video connection goes directly to the display unit, not to MeetUp.

There are only a few things to do on the PC after connecting it to MeetUp, and all are optional. One is to select MeetUp as the default microphone, speaker, and camera. Users may also want to program the camera presets. Also within settings,

users may want to make some camera adjustments. If you need more detail on the setup, you can consult the handy startup guide with pictures.

MeetUp worked seamlessly with each of the applications tested, including WebEx, Skype for Business, and Zoom – each saw MeetUp instantly.

We tested MeetUp in a standard front-of-room installation. We threw at it high, low, belligerent, and soft voices. We even had a mock argument that perhaps went a little too far. The microphones picked up everything – well, at least everything we intended it to pick up. The artificial noise and music in the background were properly deadened.

The picture quality is very good, and the 120-degree field-of-view is very appropriate for a smaller room. The camera picked up everyone at the table without requiring the use of the mechanical pan. We were impressed with the digital zoom and could read 30-point font 10' away.



The remote worked perfectly – from the tabletop. The buttons have a nice feel, and the layout is reasonable. It's a bit odd that the Bluetooth button is so prominent, as it's used only for pairing, although pressing it won't accidentally unpair anything. The intent is to facilitate easy pairing with a mobile device. MeetUp can support its own remote plus one smartphone as a remote.

Overall, MeetUp performed very well and exceeded our expectations. We were concerned that it should offer stereo speakers instead of just one, but later sided with Logitech. A stereo upgrade would offer a negligible improvement in huddle room settings but would increase the unit's size and cost.

We also wanted to recognize Logitech for looking to the future with a USB-C port, yet acknowledging the future hasn't yet arrived yet, so providing a USB C-A conversion cable. It's a refreshing change from the built-in obsolescence creed.

Overall, we believe the Logitech MeetUp to be a champion in quality and value. For any organization using laptop-based audio or videoconferencing solutions, it will be an attractive alternative to room-based systems.



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