



**BEST PRACTICES**

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# Zoom Smart Gallery on Poly VideoOS Systems

## Studio X50 and Studio X30

### **GETTING HELP**

For more information about installing, configuring, and administering Poly/Polycom products or services, go to the [Poly Online Support Center](#).

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# Before You Begin

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Use this guide to help you plan and prepare a video-conferencing room before using the Zoom Smart Gallery feature with a Poly Studio X50 or Poly Studio X30 system.

## Audience, Purpose, and Required Skills

This document is intended for Poly partners, resellers, and installers who are planning to use the Zoom Rooms Smart Gallery feature on their Poly VideoOS system.

You must be familiar with the following concepts before beginning:

- Current telecommunications practices, protocols, and principles
- Telecommunication basics, video conferencing, and voice or data equipment
- Knowledge and experience with audio/video (A/V) cable installation and management

## Privacy Policy

Poly products and services process customer data in a manner consistent with the [Poly Privacy Policy](#). Please direct comments or questions to [privacy@poly.com](mailto:privacy@poly.com).

## Related Poly and Partner Resources

See the following sites for information related to this product.

- The [Poly Online Support Center](#) is the entry point to online product, service, and solution support information including Video Tutorials, Documents & Software, Knowledge Base, Community Discussions, Poly University, and additional services.
- The [Poly Document Library](#) provides support documentation for active products, services, and solutions. The documentation displays in responsive HTML5 format so that you can easily access and view installation, configuration, or administration content from any online device.
- The [Poly Community](#) provides access to the latest developer and support information. Create an account to access Poly support personnel and participate in developer and support forums. You can find the latest information on hardware, software, and partner solutions topics, share ideas, and solve problems with your colleagues.
- The [Poly Partner Network](#) is a program where resellers, distributors, solutions providers, and unified communications providers deliver high-value business solutions that meet critical customer needs, making it easy for you to communicate face-to-face using the applications and devices you use every day.
- The [Poly Services](#) help your business succeed and get the most out of your investment through the benefits of collaboration.

# Zoom Smart Gallery Overview

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Zoom Smart Gallery extracts images of regions of interest (for example, a person that is speaking) from the video stream of a camera into separate, individual video streams. It also displays the single video stream showing all call participants. Zoom Rooms uses the term **Logical Camera** to describe a system's camera (for example, the Studio X50's built-in camera) and **Virtual Camera** to describe a region of interest extracted from the logical camera's image.

Poly VideoOS supports this feature using the Studio X50 and Studio X30 built-in cameras. When you enable this feature, the system creates up to two (2) virtual cameras for the Zoom Rooms application to use. For information on the supported Poly VideoOS software versions, supported cameras, and maximum number of virtual cameras, see the *Poly VideoOS Release Notes*.

## Configuring Zoom Smart Gallery

You must update your system to Poly VideoOS 3.5.1 and the Zoom Room application to version 5.7.0 or later to use the Zoom Smart Gallery feature. You don't need to make any configuration changes to your Poly system to use the Zoom Smart Gallery feature.

Use the Zoom admin portal to enable the Zoom Smart Gallery feature. You can make it the default view account wide or for specific Zoom Rooms. You can also use the system's Zoom Room controller or a device running the Zoom Room Touch interface to manually enable the feature during a meeting.

## Poly's Implementation of Zoom Smart Gallery

When you enable Smart Gallery, the Poly system continuously determines multiple regions of interest based on people found in the camera's view who are currently or have in the past been active speakers. Note that the determination of a region of interest is dependent on:

- The ability of the system to automatically detect a face in the camera's view. Best results are achieved when an individual is directly facing the camera, their face isn't obstructed by other individuals in the camera's view, and their face is consistently in the view of the camera.
- The ability of the system to automatically detect an actively speaking person in the camera's view. Best results are achieved when an individual is speaking towards the camera.
- The camera's resolution, field of view, and distance from the camera to the individual. You achieve the best results when the individual is sitting closer to the camera and isn't obstructed by other individuals in the camera's view.

When the system determines a region of interest exists, the region of interest is centered on the person and cropped from the overall camera image as tightly as possible, constrained by the camera's resolution, field of view, and the person's distance from the camera.

The system presents the regions of interest to the Zoom Rooms application on up to two (2) virtual camera(s) based on this priority:

- The current or most recent actively speaking person in the camera's view
- The previous actively speaking person in the camera's view
- If there are no active speakers, or the active speakers leave the camera's field of view, the virtual camera(s) are stopped

As different individuals in the camera's view become the current active speaker, the regions of interest change. The Zoom Rooms application always sends the logical camera video to the Zoom meeting. As the virtual cameras appear and disappear, it also starts or stops sending additional video streams to the meeting.

# Room Layout Examples

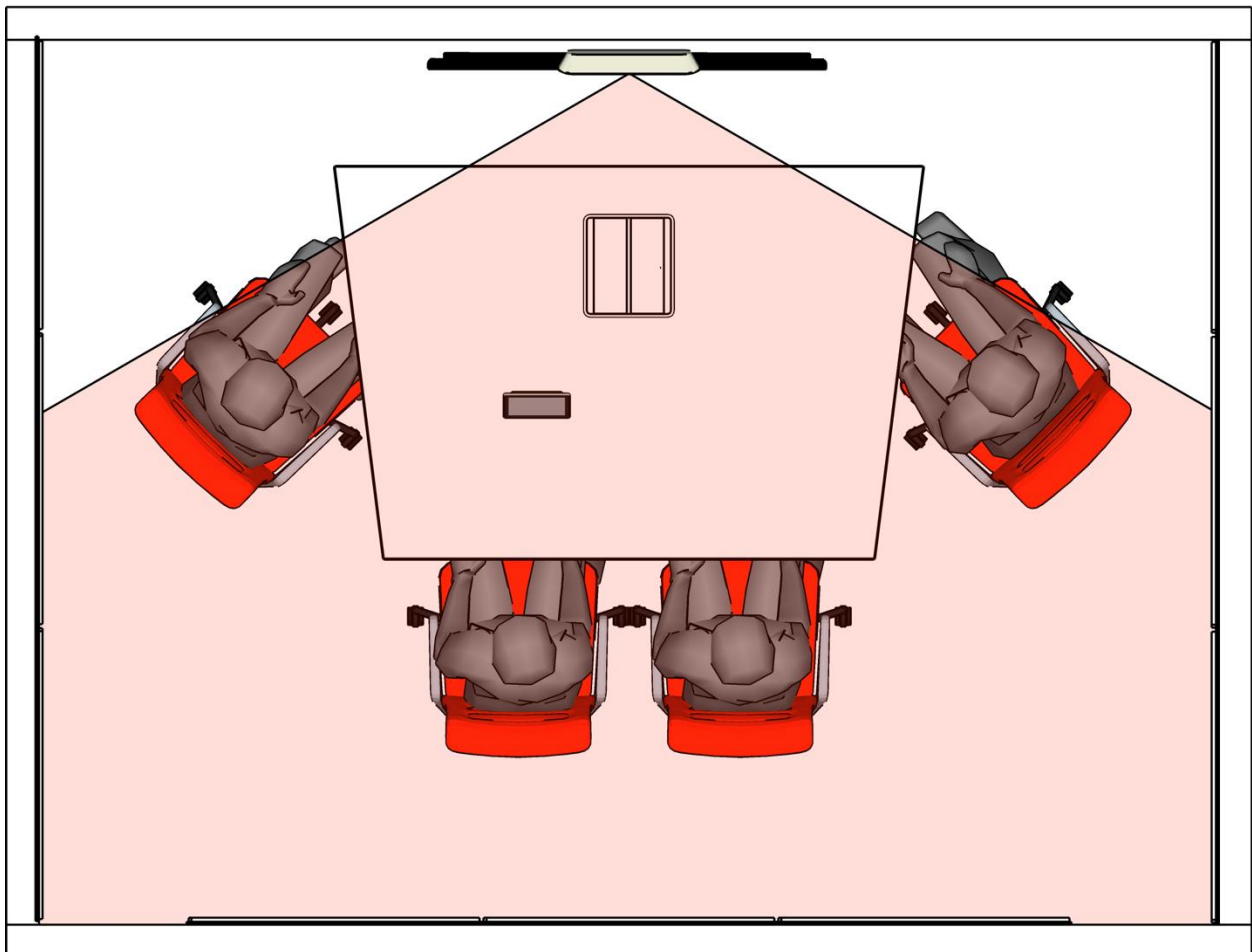
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The following diagrams offer example room layouts for conference rooms intended for use with the Zoom Rooms Smart Gallery feature. The ability of a system to properly determine regions of interest and tightly frame individual(s) in those regions of interest is highly dependent on multiple variables, as described in previous sections.

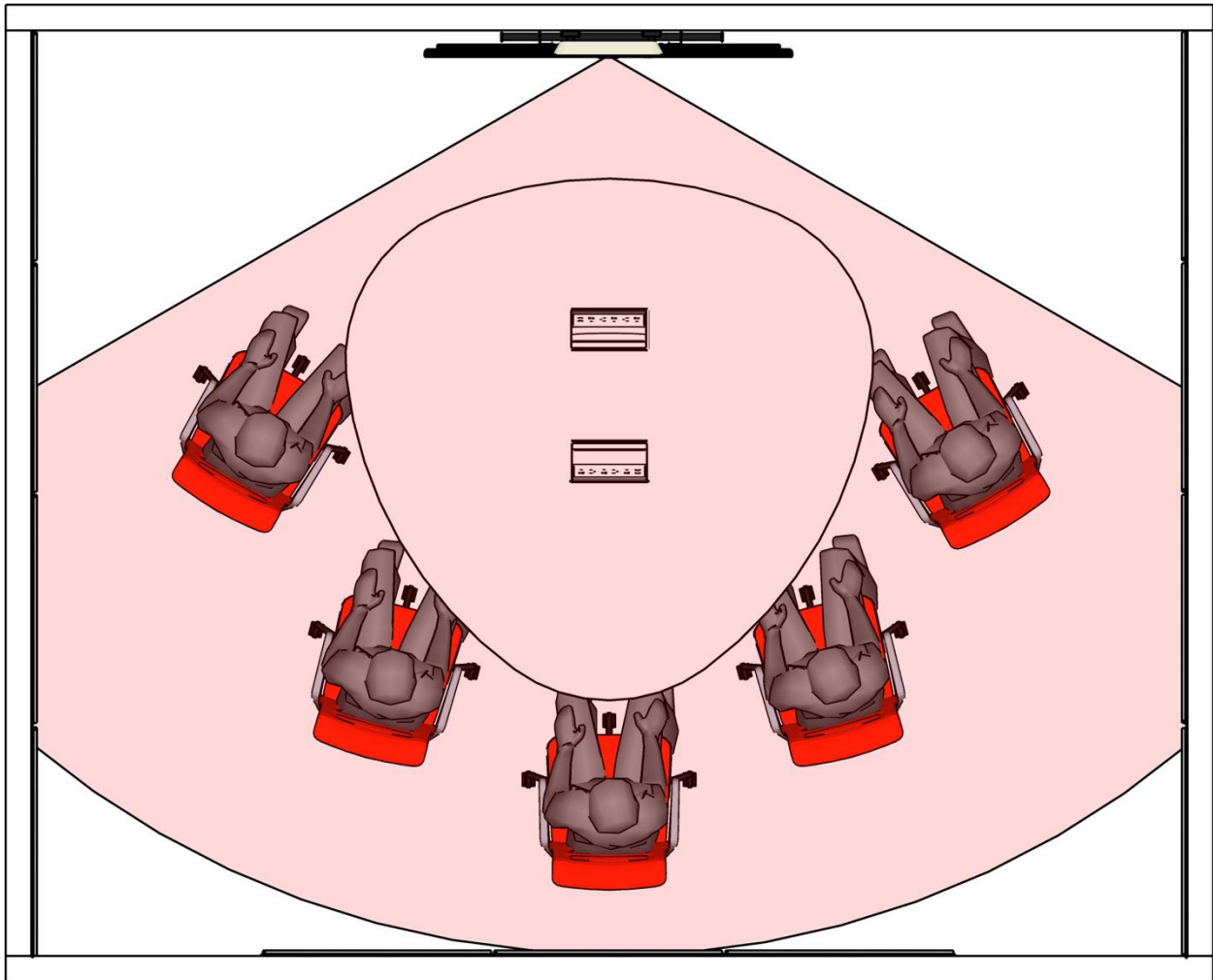
## Studio X30 Best Room Layout Experience

The following figures show seating layouts that position individuals so that they're facing and speaking directly towards the Studio X30's built-in camera. The Studio X30's built-in camera also has a clear line of sight to each individual in the conference room across its wide field of view (as indicated in red shading), without the potential for an individual to be obstructed by another individual. With the individuals seated closely to the Studio X30, the Studio X30's built-in camera is able to best frame an actively speaking individual.

Figure 1 - Poly Studio X30 Huddle Room Layout



**Figure 2 - Poly Studio X30 Small Conference Room Layout**



## **Studio X50 Best Room Layout Experience**

The following figures show seating layouts that position individuals so that they're facing and speaking directly towards the Studio X50's built-in camera. The Studio X50's built-in camera also has a clear line of sight to each individual in the conference room across its wide field of view, without the potential for an individual to be obstructed by another individual. With the individuals seated closely to the Studio X50, the Studio X50's built-in camera is able to best frame an actively speaking individual.

Figure 3 - Poly Studio X50 Medium Conference Room Layout

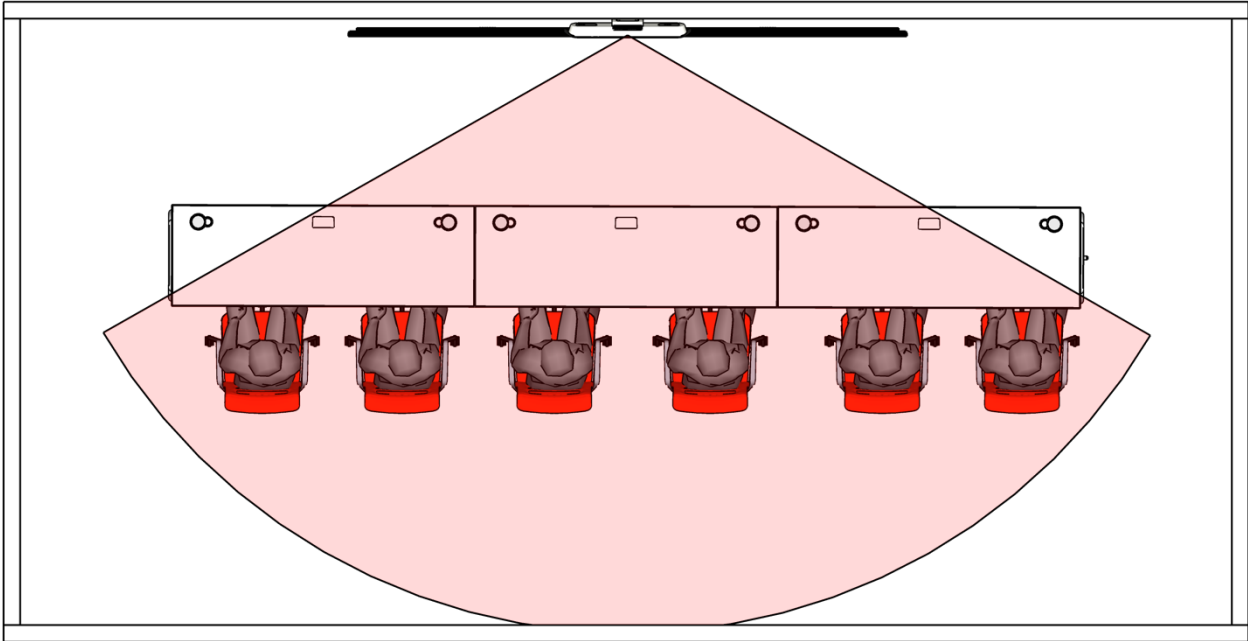
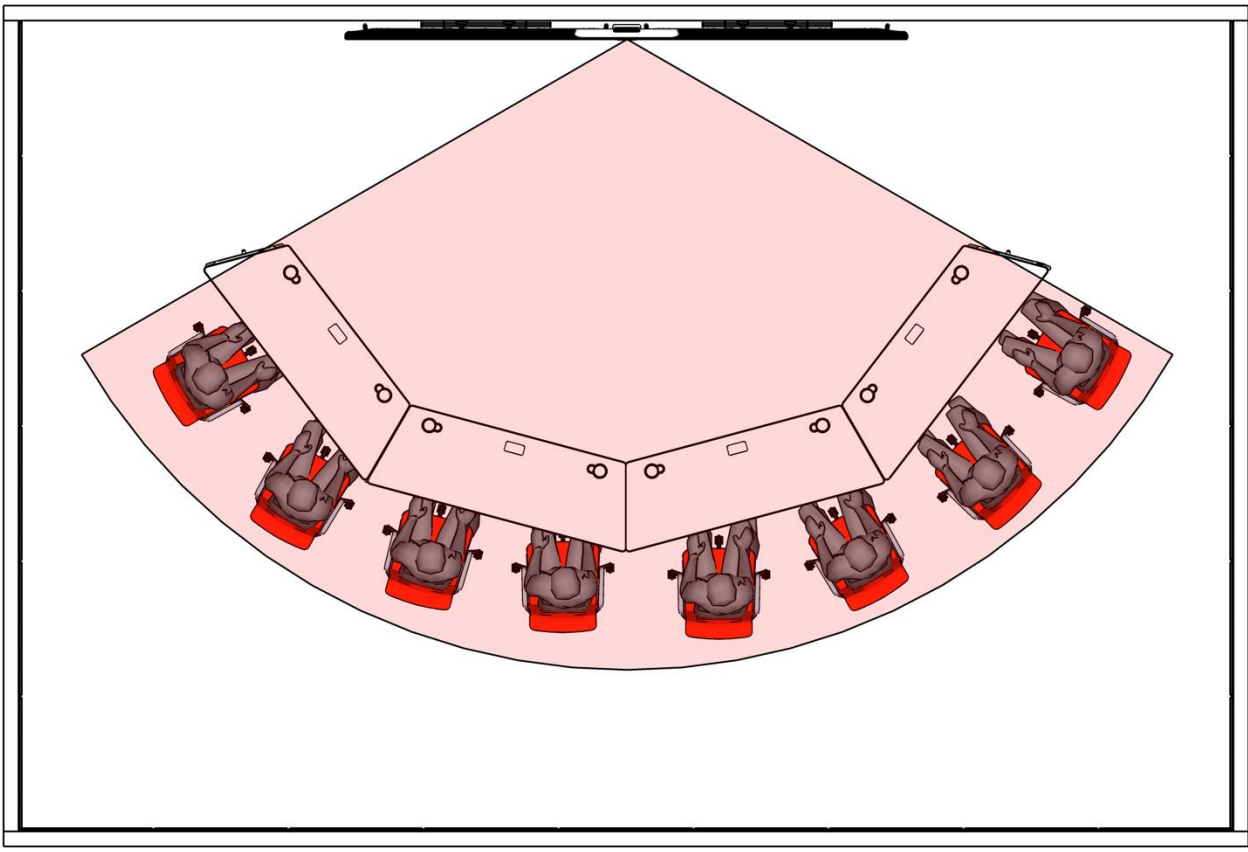


Figure 4 - Poly Studio X50 Medium Conference Room Layout (Alternative)





# Alternative Camera Placement

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Where possible, Poly recommends using room layouts that follow the Best Room Layout examples. When that's not possible, Poly recommends adjusting the existing room layout to enhance the Zoom Smart Gallery experience.

Key considerations for the best possible Zoom Smart Gallery experience are provided in [Poly's Implementation of Zoom Smart Gallery](#).

Existing room layouts may be adjusted by a variety of actions, including:

- Moving the displays and Poly system to a new location.
- Changing the orientation of the conference room table, or using a different table.
- Limiting the number of chairs around the table, to encourage users to sit closer to the camera.