Exhibit B-1: Samsung Galaxy Tab S8 Infringement of U.S. Patent No. 8,982,110

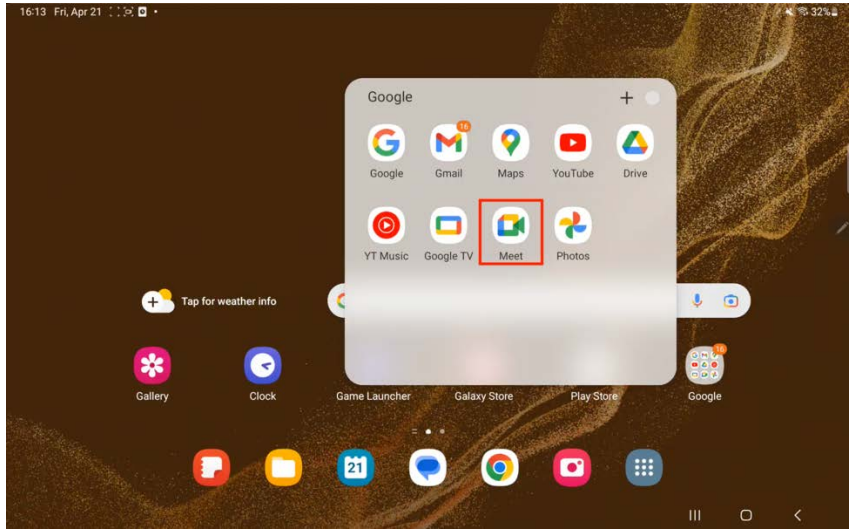
Infringement of U.S. Patent No. 8,982,110 by the Auto Framing feature of the Samsung Galaxy Tab S8 all of Defendants' smartphones, tablets, and laptop computers with Auto Framing functionality that is part of at least the native camera application and/or the preinstalled Google Duo/Meet applications and/or the preinstalled Microsoft Teams/Chat applications, including but not limited to: the entire Samsung Galaxy Tab series of devices including, for example, Galaxy Tab S8+ and Galaxy Tab S8 Ultra[1] and Samsung Galaxy Tab S9 and S9 FE series of devices[2]. Samsung advertises the Auto Framing feature for all models of its Galaxy Tab S8 devices including, for example, Galaxy Tab S8+ and Galaxy Tab S8 Ultra[3] and for all models of its Galaxy Tab S9 and S9 FE devices, including for example, Galaxy Tab S9, Galaxy Tab S9+, Galaxy Tab S9 Ultra, Galaxy Tab S9 FE, and Galaxy Tab S9 FE+[4]. The Auto Framing feature is part of the native Samsung Camera Application and the preinstalled Google Meet Application.[5] While Google Meet is an exemplary mode of infringement, the accused devices infringe in connection with any video calling or web-conference application that can utilize Samsung's Auto Framing technology, and discovery is expected to show additional applications and services which utilize this feature and therefore result in infringement.[6]

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
1 Preamble. A computerized method for operating a display system, the display	**NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING** Regardless of whether the preamble of Claim 1 is limiting, the Samsung Galaxy Tab S8 ("Galaxy Tab S8") operates a mirror, camera, and processor to operate a display system. Galaxy Tab S8's front-facing camera is

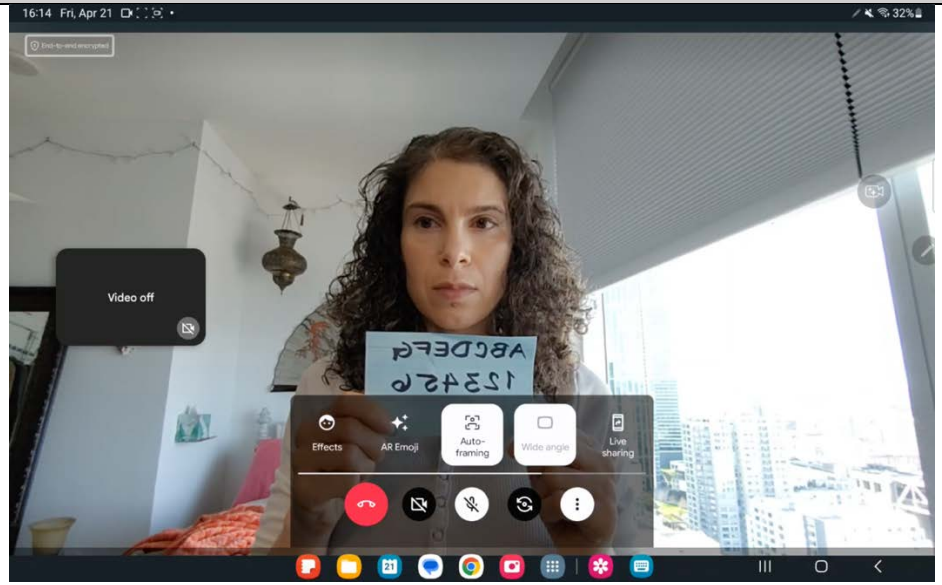
[1] https://www.samsungmobilepress.com/press-releases/breaking-the-rules-with-galaxy-tab-s8-series-the-biggest-boldest-most-versatile-galaxy-tablet-ever/
[2] https://www.samsung.com/us/tablets/galaxy-tab-s9/buy/; https://www.samsung.com/us/tablets/galaxy-tab-s9-fe/buy/
[3] https://www.samsung.com/us/tablets/tab-s8/; https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/
[4] https://www.samsung.com/us/tablets/galaxy-tab-s9/buy/; https://www.samsung.com/us/tablets/galaxy-tab-s9-fe/buy/
[5] *See e.g.*, https://www.samsung.com/us/tablets/tab-s8/; https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/; https://support.google.com/duo/answer/10385339?hl=en&ref_topic=6376099
[6] https://ts2.space/en/advancements-in-mobile-video-call-technology-samsung-galaxys-auto-framing/#gsc.tab=0

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
system having a camera, a monitor, and a processor, the method comprising:	outlined in red in the image below. Galaxy Tab S8 has a screen that serves as a monitor. Because Galaxy Tab S8 is a tablet computer, it necessarily contains a processor to operate. Galaxy Tab S8 in Video Mode with the Auto Framing feature can display images of users. This can be seen in the image below.

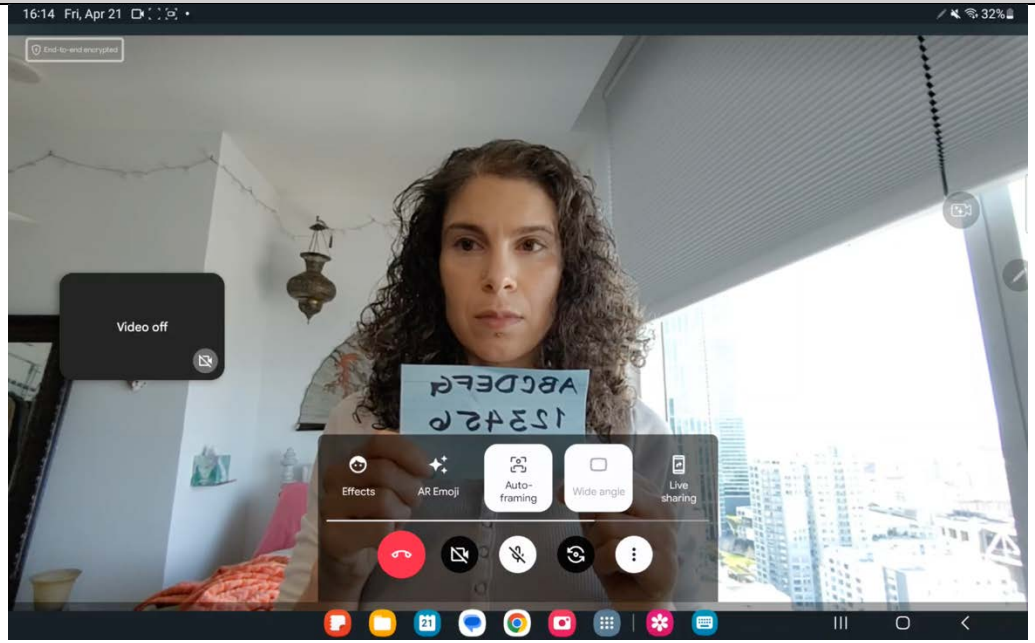
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	  The Auto Framing icon has been selected as identified by the red outline below.

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	<u>PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING</u> The Google Meet App is preinstalled in the Galaxy Tab S8. This can be seen in the image below in which the preinstalled Google Meet App icon is outlined in red.  The Google Meet App is one of the default video calling applications on the Galaxy Tab S8. Regardless of whether the preamble of Claim 1 is limiting, the Galaxy Tab S8 has a monitor, camera, and processor that can be operated through the preinstalled Google Meet App with Auto Framing to display an image that mimics a mirror. Galaxy Tab S8's front-facing camera is outlined in red in the image below.

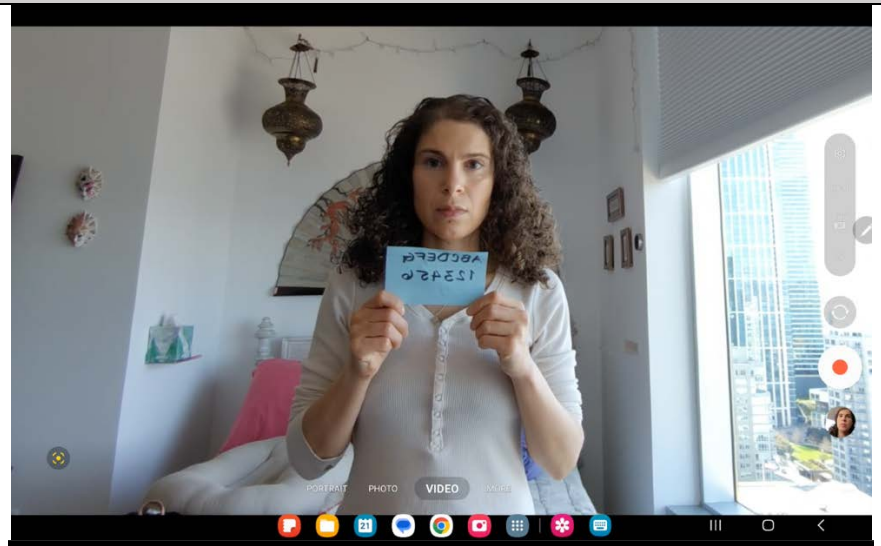
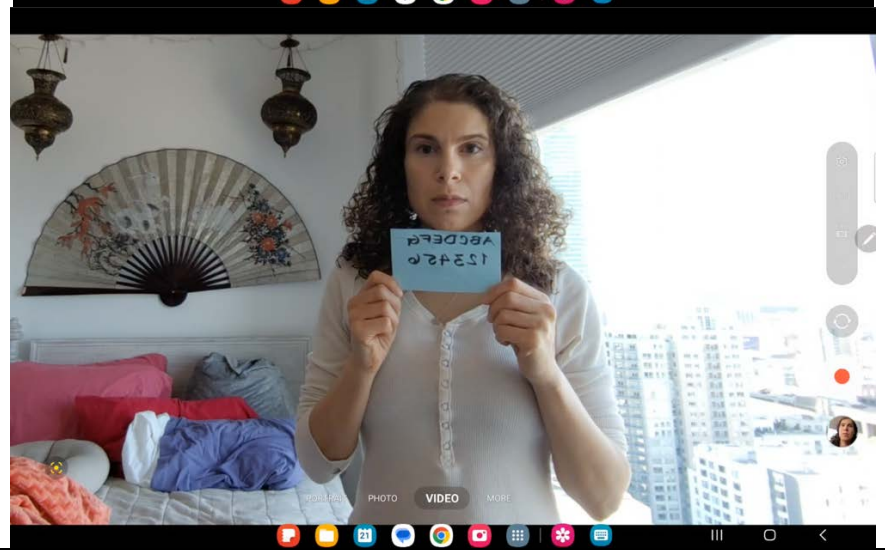
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	  The preinstalled Google Meet App with Auto Framing on the Galaxy Tab S8 can display images of users as if the Galaxy Tab S8's screen were a mirror. This can be seen in the image below.

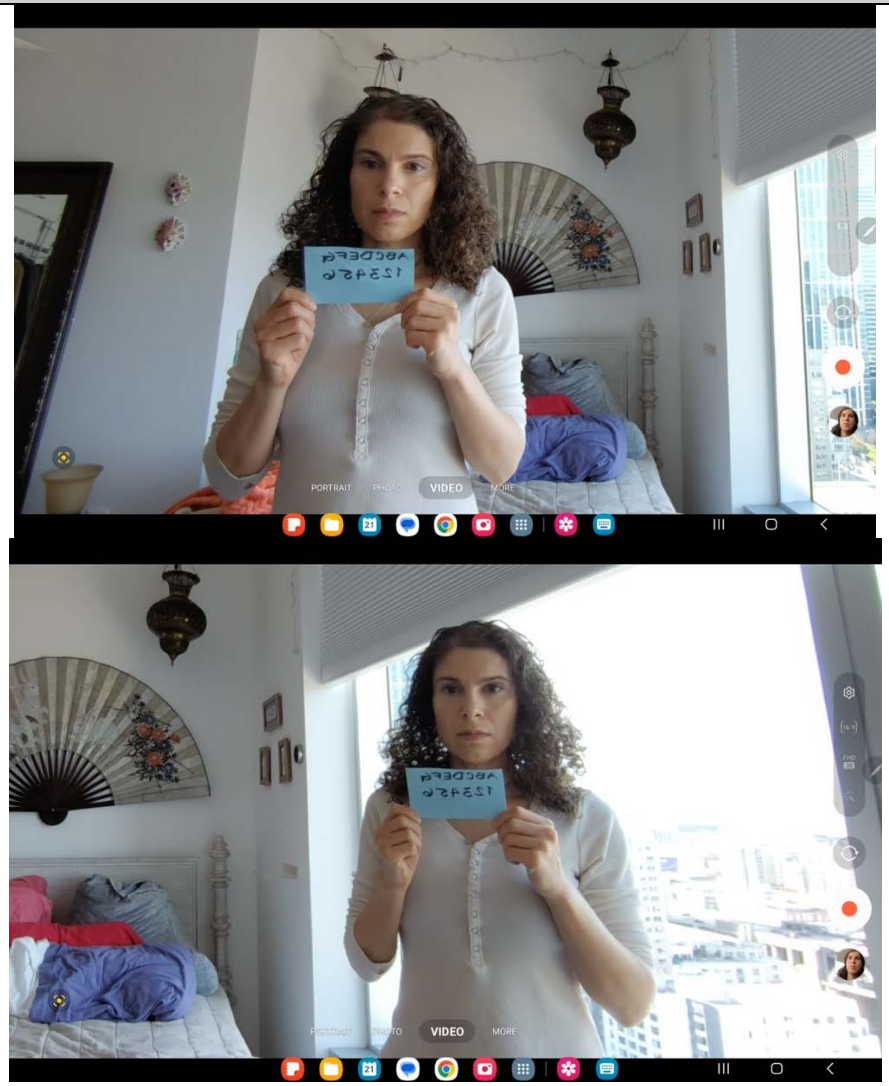
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	
1a. operating the camera to generate a stream of images of the user;	**<u>NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING</u>** Galaxy Tab S8's software in Video Mode with Auto Framing operates Galaxy Tab S8's camera which generates a stream of the user who is in front of the camera. This can be seen in the image below.

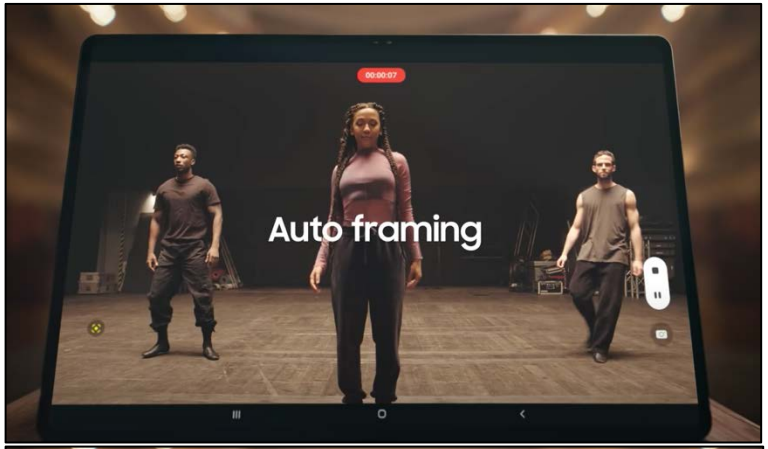
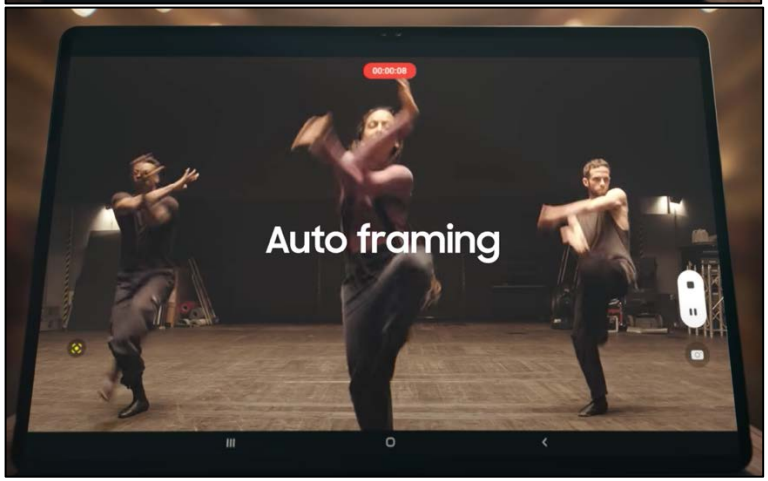
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	   <u>PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING</u> Google Meet App software with Auto Framing operates the Galaxy Tab S8's camera which generates a stream of images of the user who is in front of the camera. This can be seen in the image below.

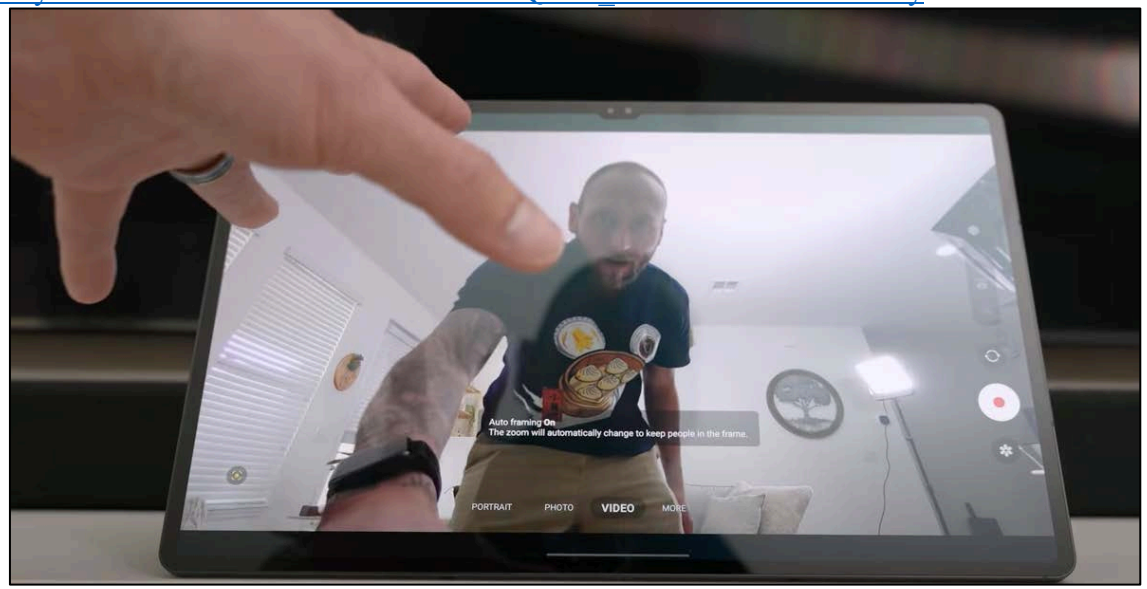
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	
1b. operating the processor to detect the presence of the user in the stream of images;	**<u>NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING</u>** Galaxy Tab S8's software operates Galaxy Tab S8's processor which detects the user in the video stream. Samsung advertises that the camera of Galaxy Tab S8 in Video Mode with the Auto Framing feature, is "An ultra-wide front camera with high resolution and auto framing puts your best face forward every time." https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/ Additionally, Samsung advertises that with Galaxy Tab S8 a user can "Upgrade your selfie game with a camera that automatically adjusts to keep you in the frame." https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/ In the image below, when the user turns on the Auto Framing feature in the image below, a notice appears stating: "Auto framing On The zoom will automatically change to keep people in the frame."

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	  Galaxy Tab S8's camera detecting and tracking a user can be seen in the images below. Galaxy Tab S8's camera pans and zooms to keep the user in frame and provide a continuous field-of-view.

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 (“Galaxy Tab S8”)
	 

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 (“Galaxy Tab S8”)
	

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	This can also be seen in the image below from the Galaxy Tab S8 Ultra which has the same Auto Framing feature as all the Galaxy Tab S8 devices.   https://www.youtube.com/watch?v=iTXEJQlMjMI&ab_channel=Samsung

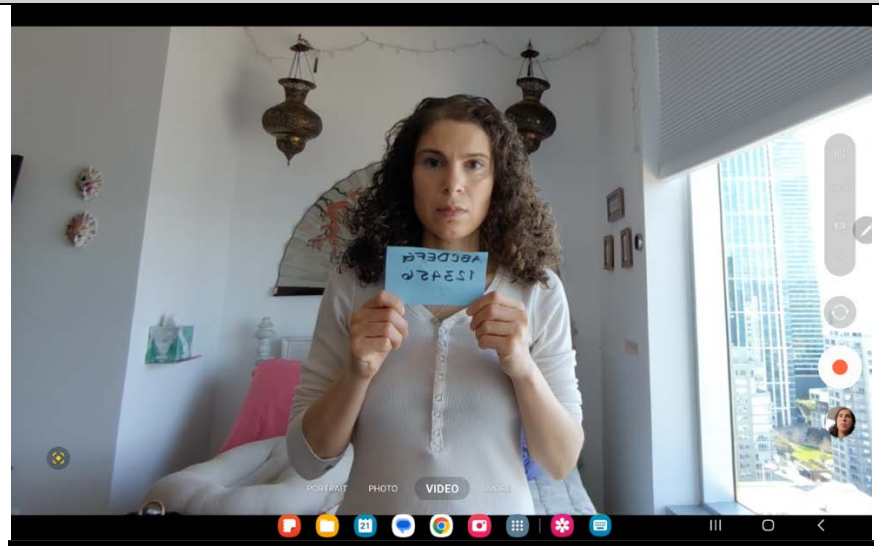
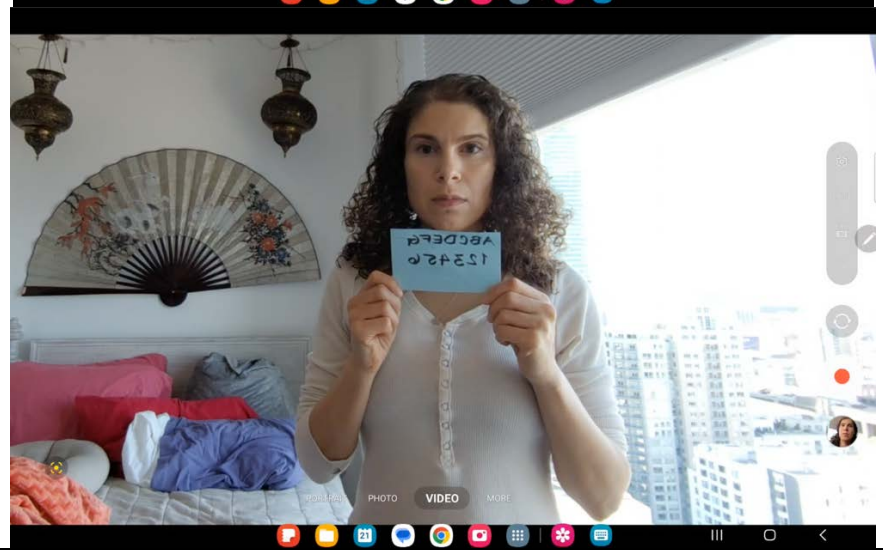
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	This can also be seen in the image below taken with the Galaxy Tab S8 Ultra in Video Mode with Auto Framing. All Galaxy Tab S8 devices have the same Auto Framing feature. When the user turns on the Auto Framing feature in the image below, a notice appears stating: "Auto framing On The zoom will automatically change to keep people in the frame." https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey  https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey **PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING** The preinstalled Google Meet App's software operates Galaxy Tab S8's processor which detects the user in the video stream when using the Auto Framing feature. The Auto Framing feature in the Google Meet App uses the Galaxy Tab S8's camera to pan and zoom to keep a user in the frame and provide a continuous field-of-view. This can be seen in the images below.

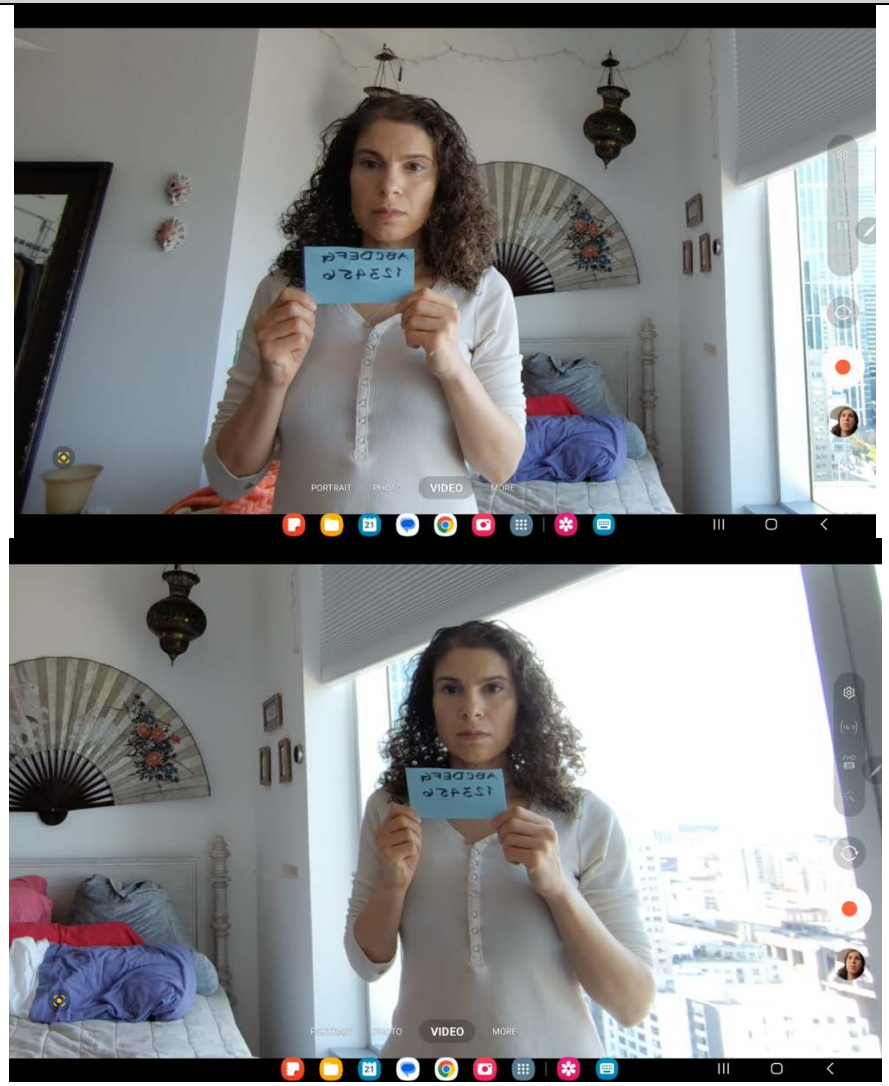
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")

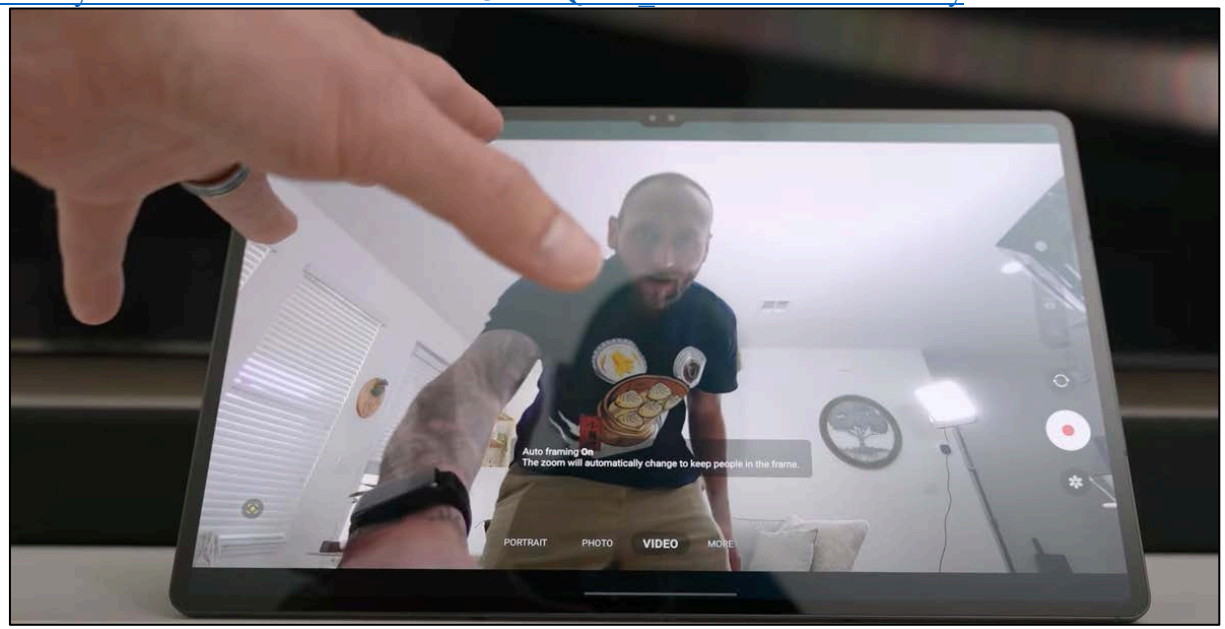
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 (“Galaxy Tab S8”)

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
1c. operating the processor to apply adaptive transformation mapping to the stream of images captured by the camera to generate modified images that appear to be captured from a different point of view of the camera's actual point of view; and,	**NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING** On information and belief, Galaxy Tab S8's software in Video Mode with the Auto Framing feature operates the Galaxy Tab S8's processor to apply adaptive transformation mapping to the video stream to modify the images to appear to be captured from a different point of view. Samsung advertises that with Galaxy Tab S8 has: "An ultra-wide front camera with high resolution and auto framing puts your best face forward every time." https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/ This process of transformation mapping creates a smooth video stream even as the user moves farther or closer to the camera or moves in and out of the camera's point of view. Specifically, the Auto Framing feature allows a user to "Upgrade your selfie game with a camera that automatically adjusts to keep you in the frame." https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/ When the user turns on the Auto Framing feature in the image below, a notice appears stating: "Auto framing On The zoom will automatically change to keep people in the frame."

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	  The Galaxy Tab S8's ability to apply adaptive transformation mapping to the video stream to modify the images to appear to be captured from a different point of view can be seen in the images below.

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 (“Galaxy Tab S8”)
	 

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	

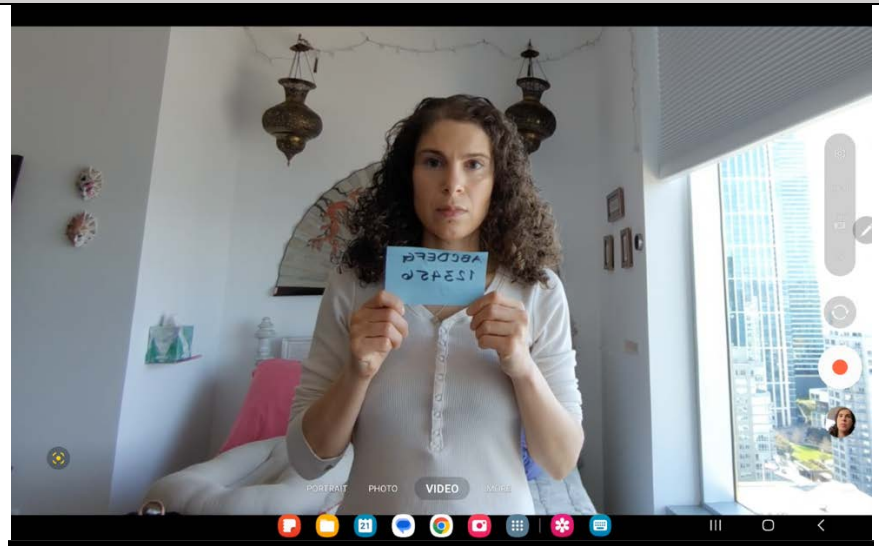
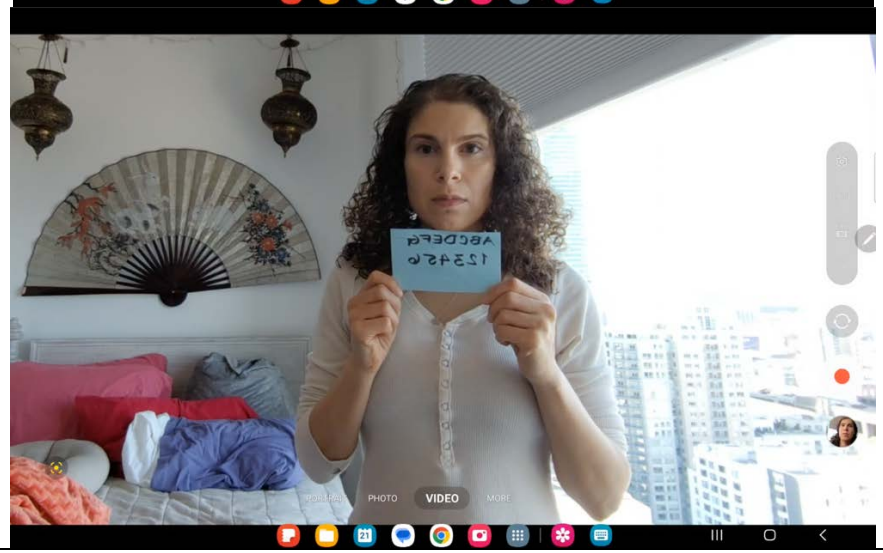
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	Galaxy Tab S8 modifies the video stream to zoom in or zoom out as people leave or enter the frame. "Advanced hardware meets software with Samsung's auto-framing technology that automatically keeps you in focus during a call, while also zooming in or out to include new participants as they join you." https://www.samsungmobilepress.com/press-releases/breaking-the-rules-with-galaxy-tab-s8-series-the-biggest-boldest-most-versatile-galaxy-tablet-ever/ This can also be seen in the image below taken with the Galaxy Tab S8 Ultra in Video Mode with Auto Framing. All Galaxy Tab S8 devices have the same auto framing feature. When the user turns on the Auto Framing feature in the image below, a notice appears stating: "Auto framing On The zoom will automatically change to keep people in the frame." https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey  https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey

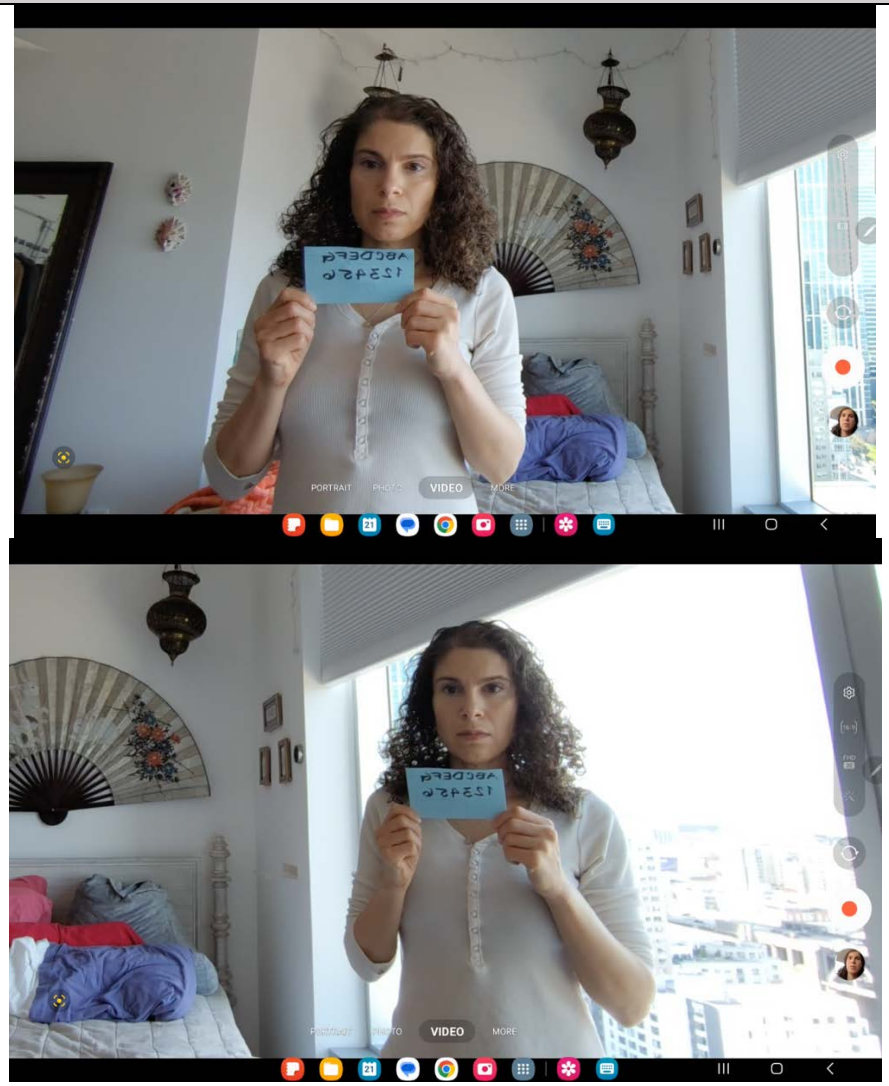
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	<u>PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING</u> On information and belief, the Google Meet App's software with the Auto Framing feature operates the Galaxy Tab S8's processor to apply adaptive transformation mapping to the video stream to modify the images to appear to be captured from a different point of view. The Google Meet App's ability to apply adaptive transformation mapping to the video stream to modify the images to appear to be captured from a different point of view can be seen in the images below.

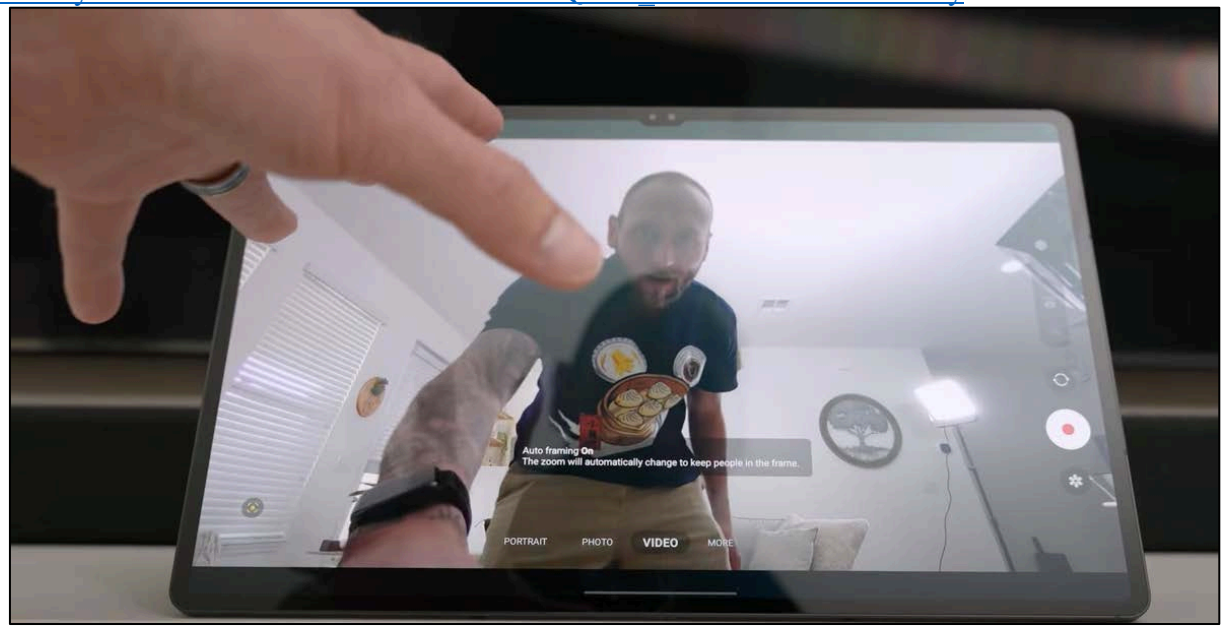
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")

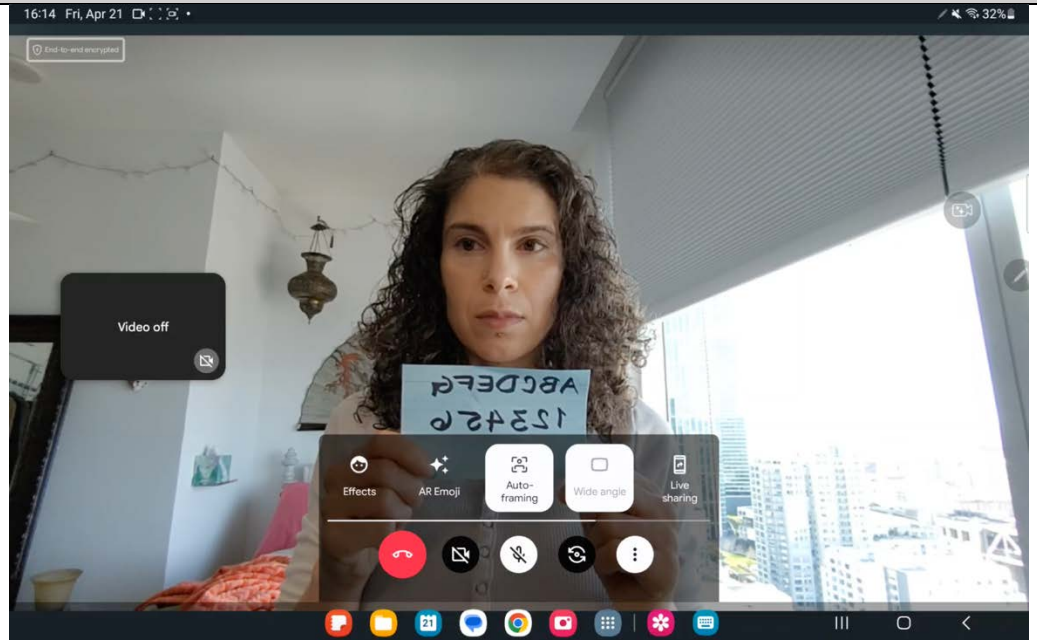
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
1d. displaying the modified images on the monitor;	**<u>NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING</u>** Galaxy Tab S8's software with the Auto Framing feature directs the modified video stream to be displayed on Galaxy Tab S8's monitor. This is seen in the image below.

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	  Galaxy Tab S8's Auto Framing feature modifies the video stream to zoom in or zoom out as people leave or enter the frame. This is seen in the images below.

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 (“Galaxy Tab S8”)
	 

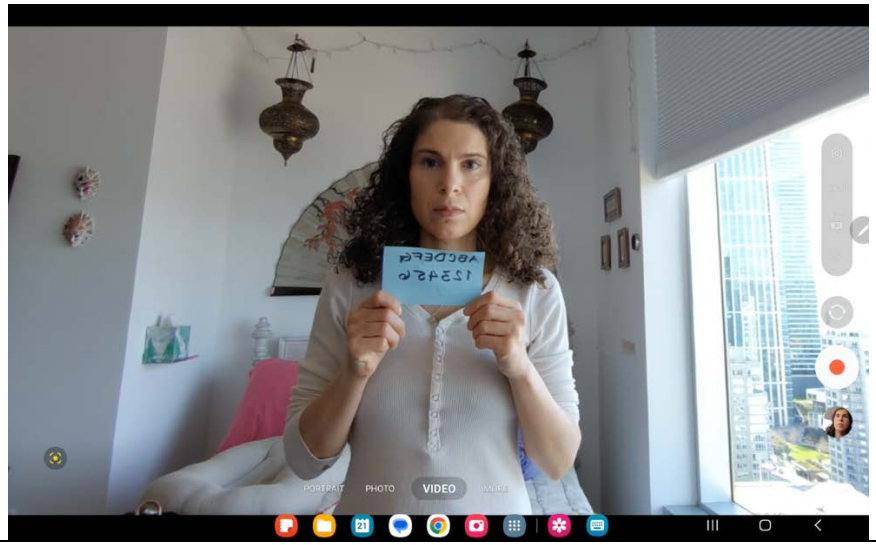
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	

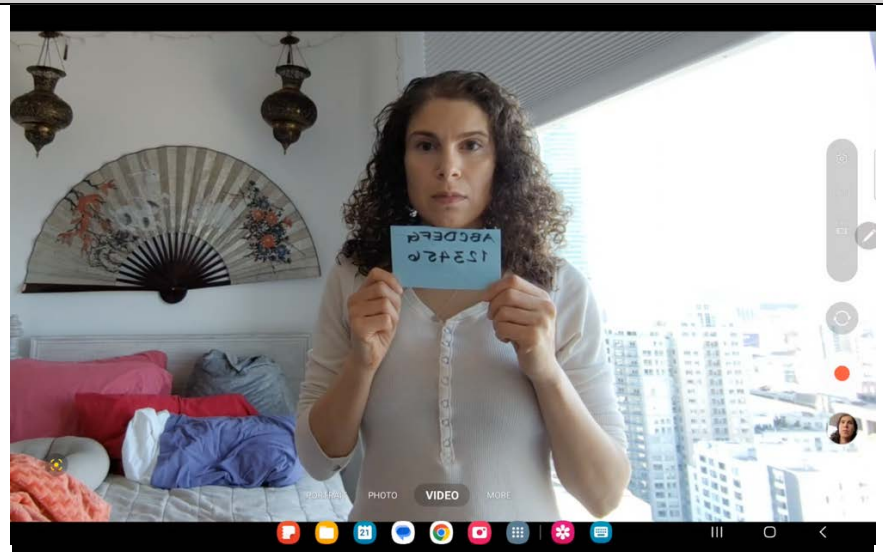
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	This can also be seen in the image below taken with the Galaxy Tab S8 Ultra in Video Mode with Auto Framing. All Galaxy Tab S8 devices have the same Auto Framing feature. When the user turns on the Auto Framing feature in the image below, a notice appears stating: "Auto framing On The zoom will automatically change to keep people in the frame." https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey  https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey **PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING** The Google Meet App's software with Auto Framing directs the modified video stream to be displayed on Galaxy Tab S8's monitor. This is seen in the image below.

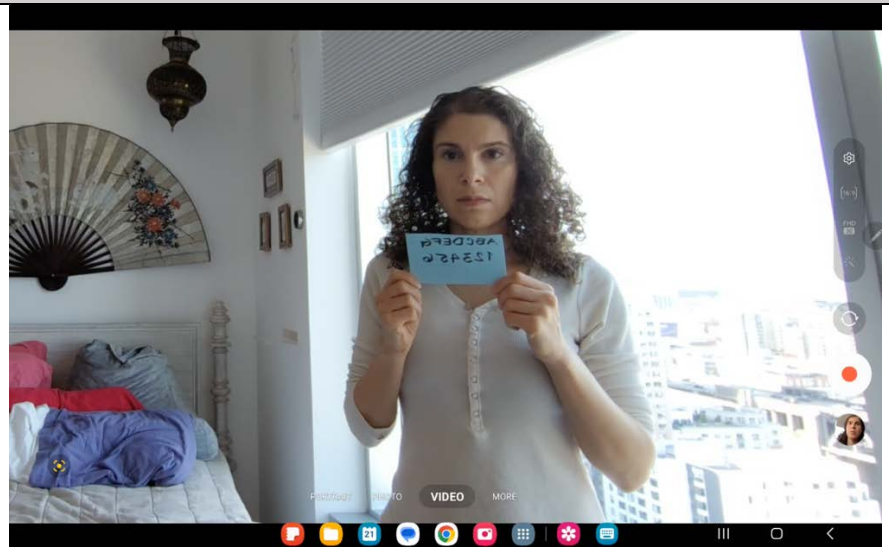
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	 The Google Meet App with Auto Framing modifies the video stream to zoom in or zoom out as people leave or enter the frame. This is seen in the images below.

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")

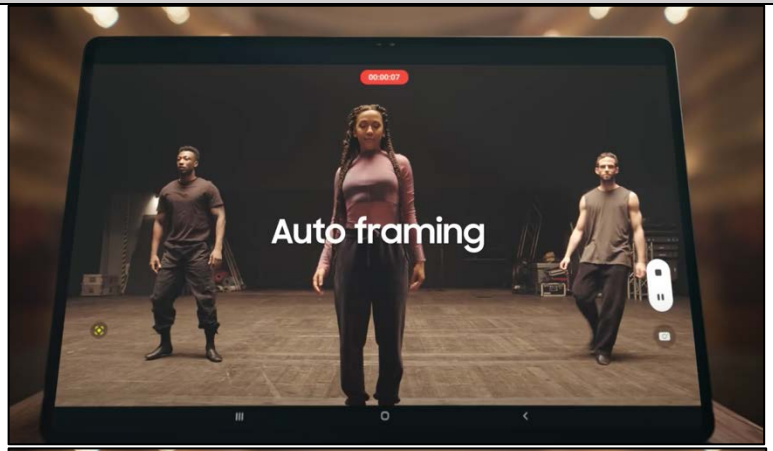
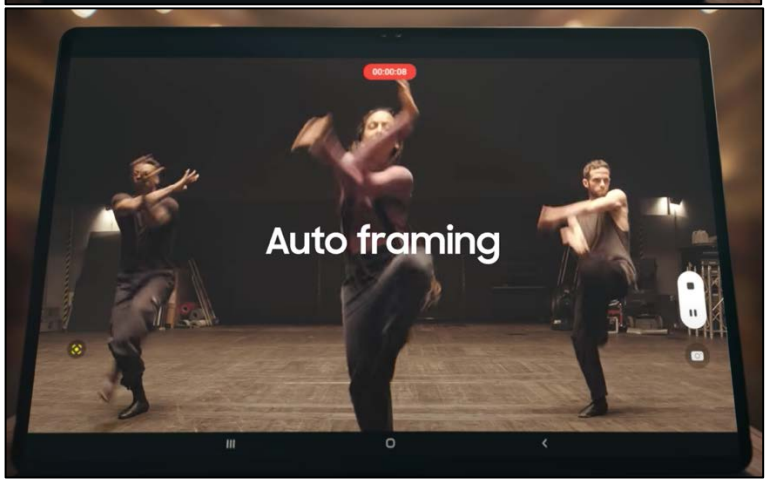
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
1e. wherein the different point of view corresponds	**<u>NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING</u>**

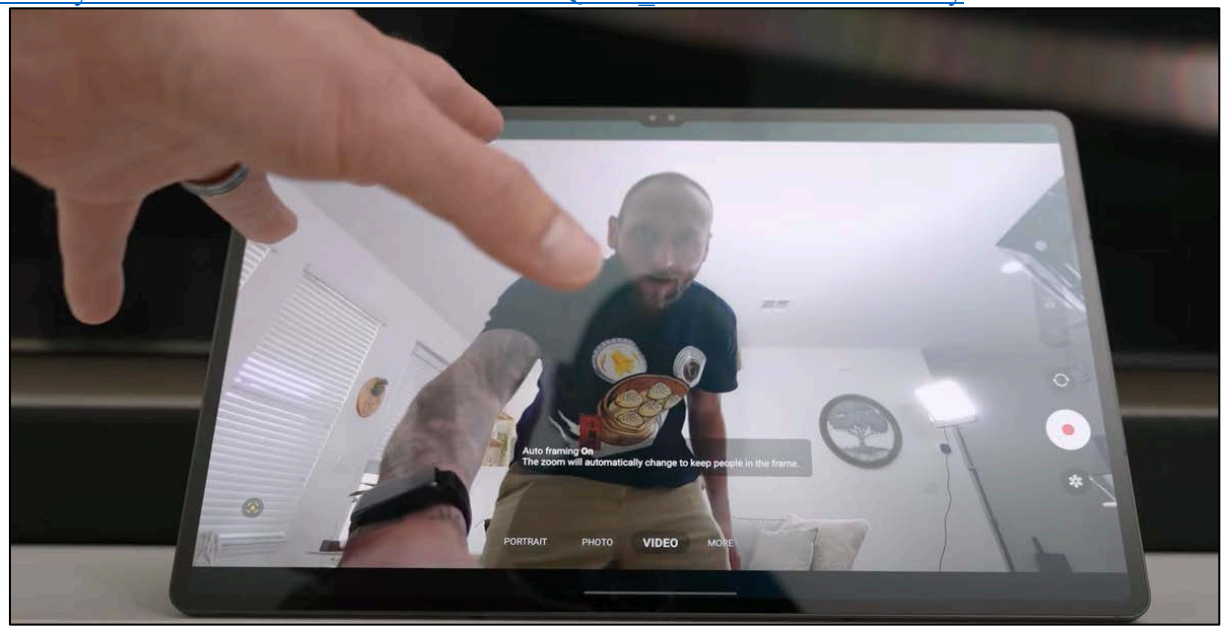
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
to an image taken from a different angle and a different distance than the actual images captured by the camera; and	On information and belief, the modified video stream includes generated images that appear to be from a different angle and distance than the actual images Galaxy Tab S8's camera captured. This is how Galaxy Tab S8's "ultra-wide front camera with high resolution and auto framing puts your best face forward every time." https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/ Galaxy Tab S8's Auto Framing feature modifies the video stream to zoom in or zoom out as people leave or enter the frame. This is seen in the images below. 

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 (“Galaxy Tab S8”)
	

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	 Galaxy Tab S8's software with the Auto Framing feature operates the camera to pan and zoom to keep the user in frame and provide a continuous field-of-view. "Upgrade your selfie game with a camera that automatically adjusts to keep you in the frame." https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/

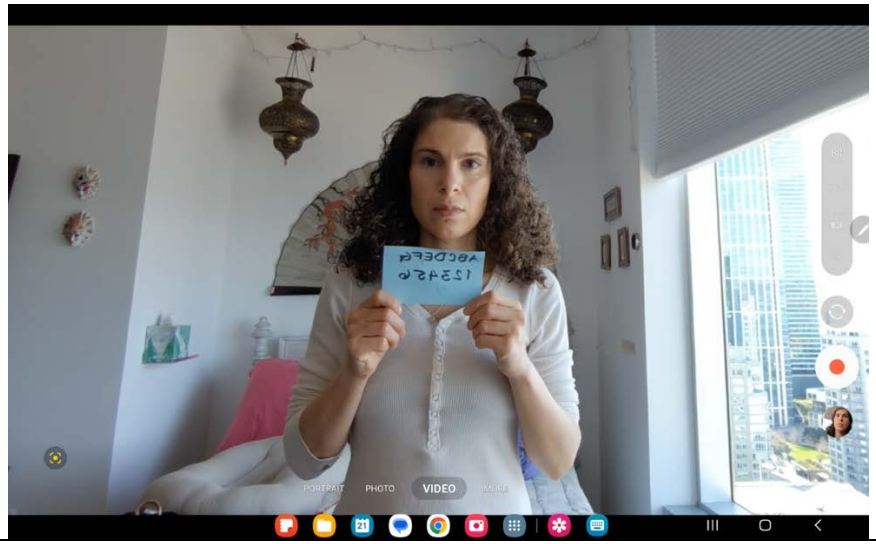
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	  This can also be seen in the image below taken with the Galaxy Tab S8 Ultra in Video Mode with Auto Framing. All Galaxy Tab S8 devices have the same Auto Framing feature.

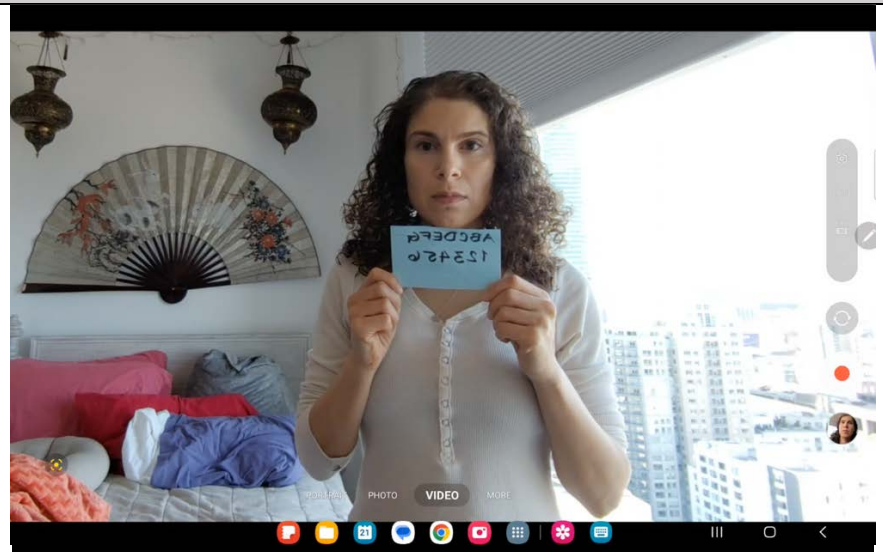
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	  https://www.youtube.com/watch?v=iTXEJQlMjMI&ab_channel=Samsung In the image below from the Galaxy Tab S8 Ultra, which has the same Auto Framing feature as all the Galaxy Tab S8 devices, when the user turns on the Auto Framing feature in the image below, a notice appears stating:

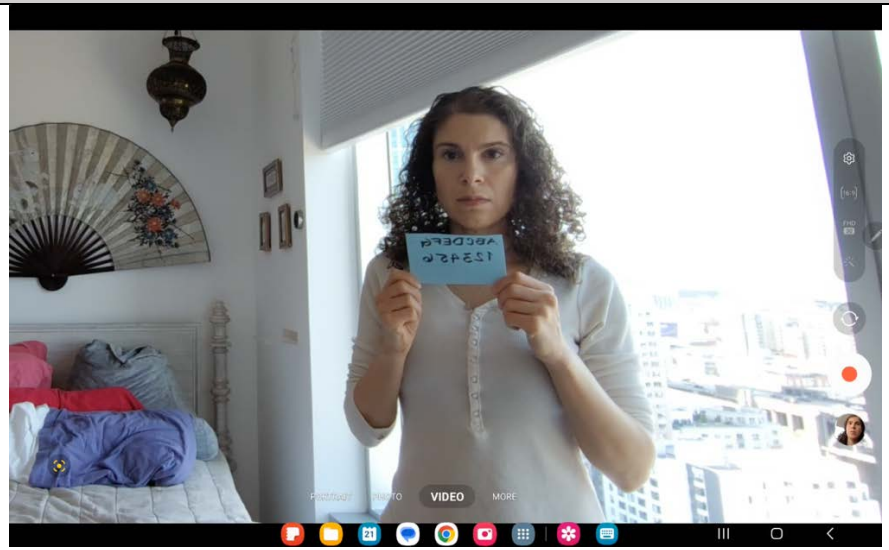
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	"Auto framing On The zoom will automatically change to keep people in the frame." https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey  https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey **PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING** On information and belief, the modified video stream in the preinstalled Google Meet App with Auto Framing includes generated images that appear to be from a different angle and distance than the actual images the Galaxy Tab S8's camera captured. The Google Meet App with Auto Framing modifies the video stream to zoom in or zoom out as people leave or enter the frame. Google Meet App's software with the Auto Framing feature operates the camera to pan and zoom to keep the user in frame and provide a continuous field-of-view. This is seen in the images below.

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")

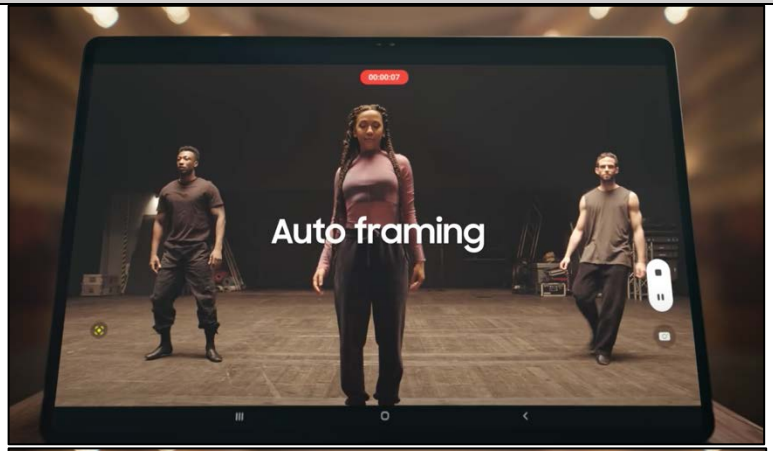
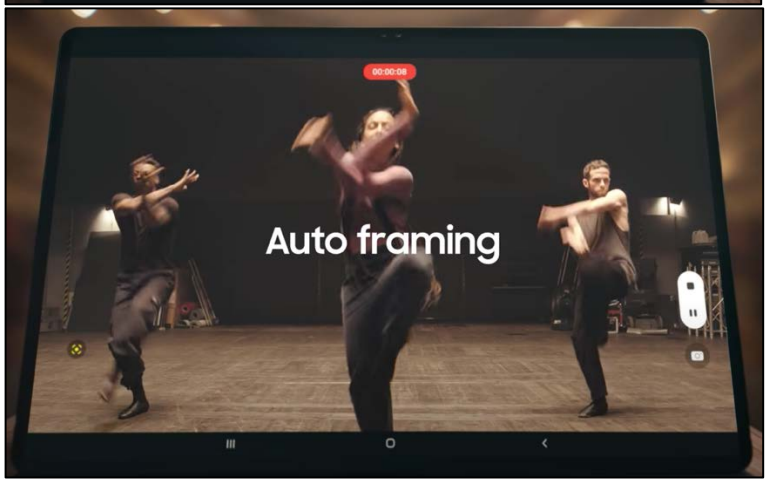
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
1f. wherein during mirror tracking mode the processor	**<u>NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING</u>**

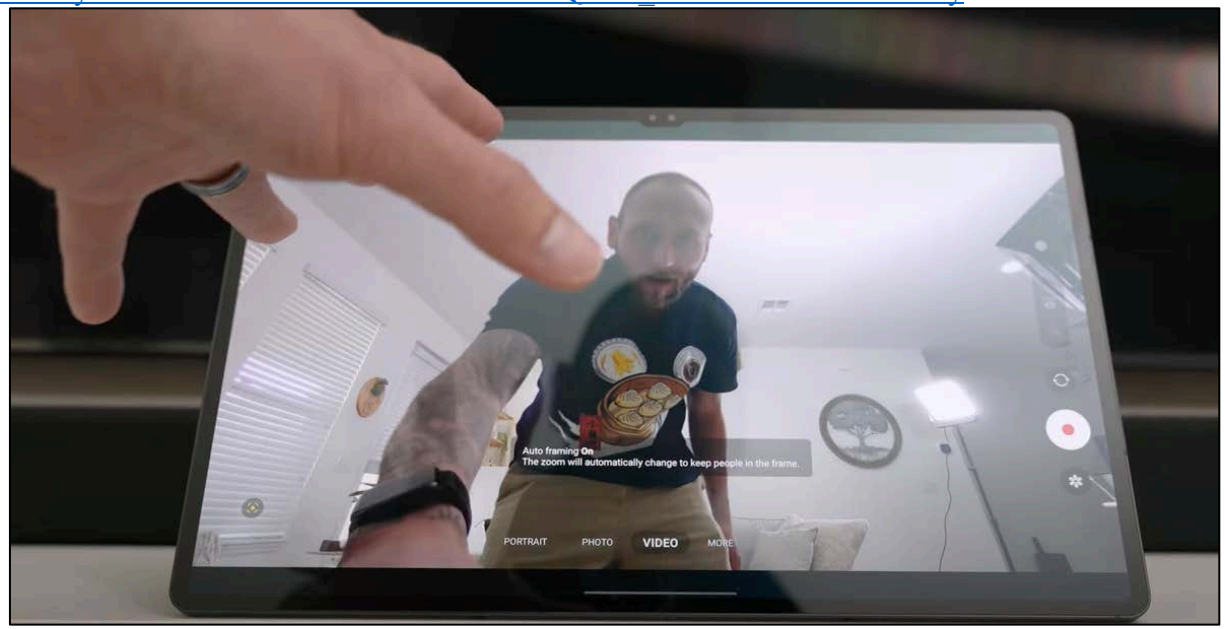
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
utilizes the angle of the images captured by the camera and applies parametric input for a mapping transformation that changes imaging perspective of the images captured by the camera.	The user is displayed in mirror mode as can be seen in the images below. The video stream output that the Galaxy Tab S8 provides indicates that Galaxy Tab S8 software applies parametric input to modify the images in the video stream, changing them to a perspective different than that actually captured by the camera. This modified video stream is what is displayed to the user. Galaxy Tab S8's Auto Framing feature modifies the video stream to zoom in or zoom out as people leave or enter the frame. This is seen in the images below. 

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	 Galaxy Tab S8's software with the Auto Framing feature operates the camera to pan and zoom to keep the user in frame and provide a continuous field-of-view. "Upgrade your selfie game with a camera that automatically adjusts to keep you in the frame." https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/. This is seen in the images below.

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	 This can also be seen in the image below with the Galaxy Tab S8 Ultra in Video Mode with Auto Framing. All Galaxy Tab S8 devices have the same Auto Framing feature.

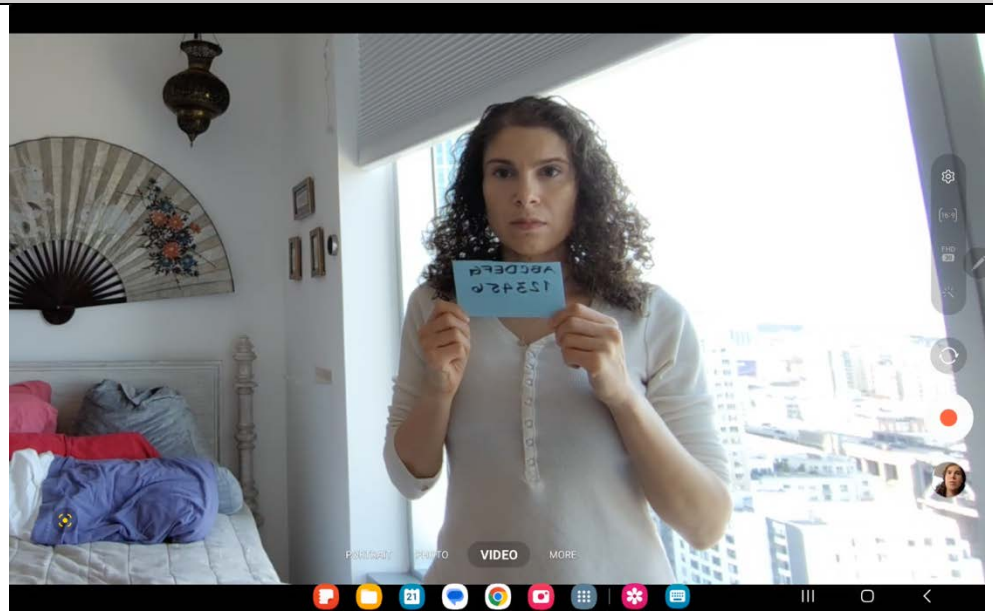
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	  https://www.youtube.com/watch?v=iTXEJQlMjMI&ab_channel=Samsung In the image below from the Galaxy Tab S8 Ultra, which has the same Auto Framing feature as all the Galaxy Tab S8 devices, when the user turns on the Auto Framing feature in the image below, a notice appears stating:

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	"Auto framing On The zoom will automatically change to keep people in the frame." https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey  https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey **PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING** The user is displayed in mirror mode in the preinstalled Google Meet App on the Galaxy Tab S8 as can be seen in the images below. The video stream output that the Google Meet App provides indicates that Google Meet App software applies parametric input to modify the images in the video stream, changing them to a perspective different than that actually captured by the camera. This modified video stream is what is displayed to the user. The preinstalled Google Meet App with Auto Framing modifies the video stream to zoom in or zoom out as people leave or enter the frame. The preinstalled Google Meet App's software with

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	the Auto Framing feature operates the camera to pan and zoom to keep the user in frame and provide a continuous field-of-view. This is seen in the images below.

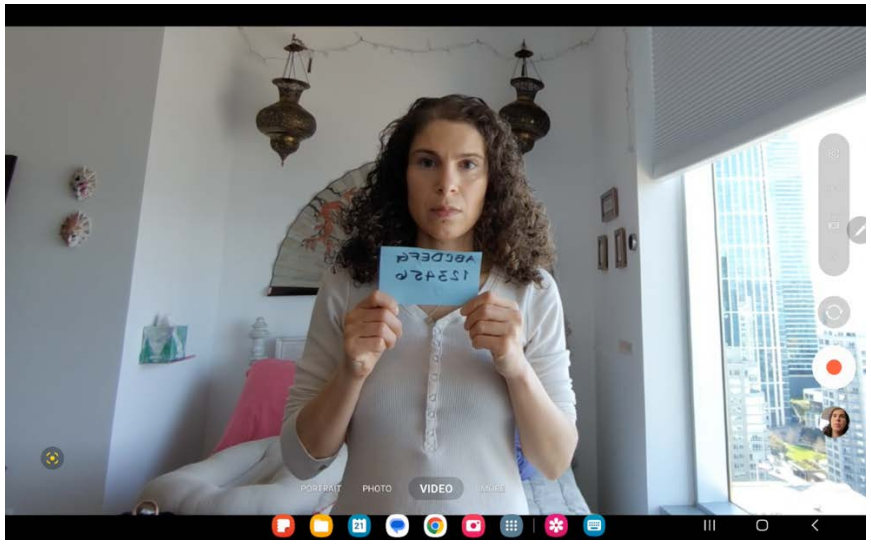
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 (“Galaxy Tab S8”)

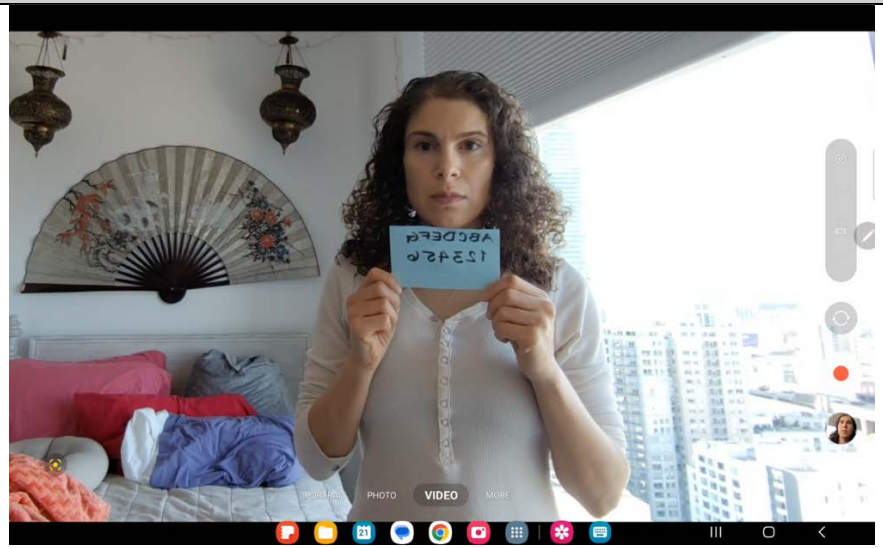
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
2. The method of claim 1,	The evidence and explanation of Claim 1 above is incorporated herein by reference.
2a. wherein the mapping transformation comprises a combination of at least two of the following transformations: vertical flips about a vertical axis, a projection transformation, rotation, resize, two-dimensional	**<u>NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING</u>** Galaxy Tab S8 displays the mirror image of the user meaning that the user's image is flipped about a vertical axis. This can be seen in the image below. On information and belief, Galaxy Tab S8's Auto Framing feature uses eye alignment correction to adjust the focus of the user's eyes to be more natural. This constitutes a projection transformation and can be seen in the image below.

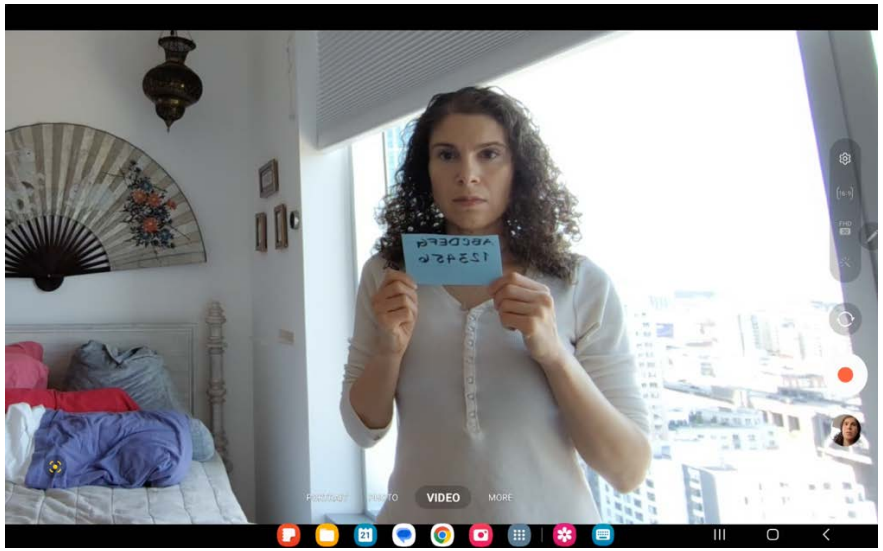
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
offset, optic distortion correction, and polynomial mapping on part or entire captured image.	 **<u>PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING</u>** The Google Meet App with Auto Framing displays the mirror image of the user on the Galaxy Tab S8's display, meaning that the user's image is flipped about a vertical axis. This can be seen in the image below. On information and belief, the Auto Framing feature uses eye alignment correction to adjust the focus of the user's eyes to be more natural. This constitutes a projection transformation and can be seen in the image below.

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
3. The method of claim 1,	The evidence and explanation of Claim 1 above is incorporated herein by reference.
3a. wherein during idle mode the camera continuously sends captured images to the processor,	**<u>NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING</u>** On information and belief, in Video Mode with the Auto Framing feature, Galaxy Tab S8's camera continuously sends captured images to the Galaxy Tab S8 processor the entire time the Galaxy Tab S8 camera is operating. **<u>PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING</u>** On information and belief, the Google Meet App with Auto Framing directs Galaxy Tab S8's camera to continuously send captured images to the Galaxy Tab S8 processor the entire time the Galaxy Tab S8 camera is operating the Google Meet App with Auto Framing.

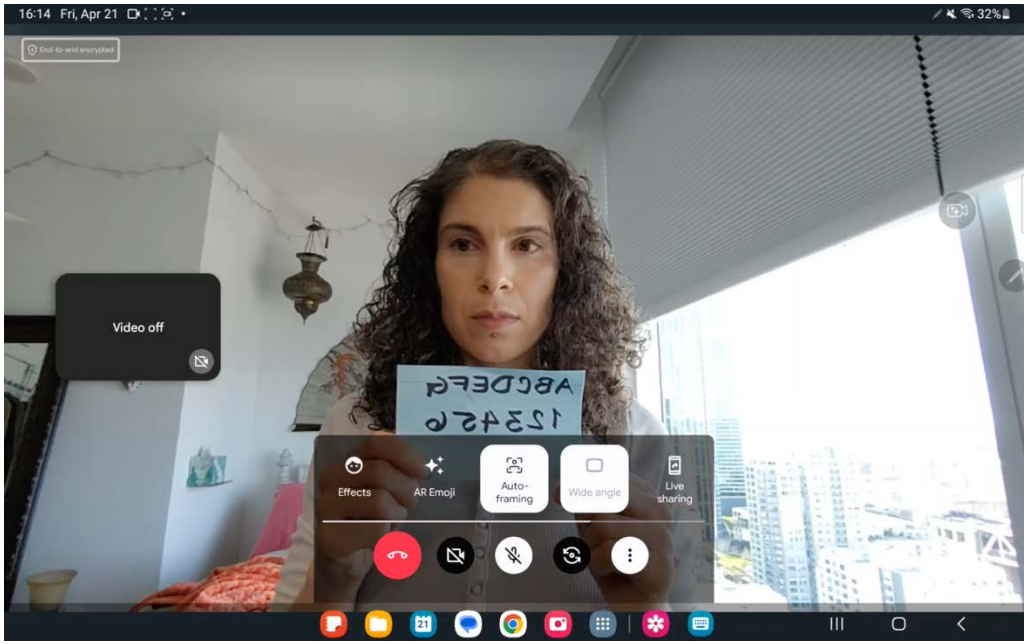
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
3b. and the user presence is identified by the processor detecting a body part in the images.	**NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING** On information and belief, the Auto Framing feature operates the generally the same way on all Samsung devices that have this feature. The Auto Framing feature identifies a user's body part in the images. *See* https://www.pcworld.com/article/617498/samsung-readies-its-next-wave-of-gorgeous-oled-notebooks-the-galaxy-book2.html (Galaxy Book2 360: "auto framing, which hunts for your face"); https://blogs.windows.com/windowsexperience/2022/02/27/samsung-announces-galaxy-book2-pro-series-delivering-mobile-first-pc-experiences-security-advances/ (Galaxy Book2 360: "Auto framing feature requires face detection and recommends you to take off the mask."); https://news.samsung.com/us/new-galaxy-book2-pro-series-mwc-2022-work-anywhere-flexibility-security/ (Galaxy Book2 360: "Auto Framing feature requires face detection and may not work properly if the user is wearing a face mask."); https://www.samsungmobilepress.com/feature-stories/diving-into-the-fold-samsung-experts-explain-the-galaxy-z-fold2s-innovative-camera-and-flex-mode/ (Galaxy Z fold2: "Auto framing harnesses machine learning to track the body and face of a subject within the frame and adjust the camera focus accordingly."); https://www.xda-developers.com/samsung-galaxy-s22-advanced-auto-framing/ (Galaxy S22: "With Advanced Auto Framing, Samsung is taking it to the next level by even framing your shot for you automatically based on the position of your subject. The phone will lock focus onto your subject and automatically adjust the zoom range to either get closer to the subject or move farther away from it. If you're shooting a video of a person, the phone will punch in and lock focus on the face to create a portrait-like effect."); https://www.samsung.com/global/galaxy/what-is/auto-framing/ (Samsung foldable phones: "The camera can detect when people enter or leave the frame of view. When only one person is in view, the camera remains focused on them and tracks their movement to keep the shot centered, and if another person enters the frame, the camera widens its view to include the second person as well"); https://www.youtube.com/watch?v=x7MNRznk6OI&t=1s&ab_channel=SamsungGalaxyUPH (Galaxy Z: "This feature (Auto Framing) stably tracks the body and face of a subject within the frame and automatically adjusts the focus without the need to move the device around.")

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	  

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 (“Galaxy Tab S8”)
	

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	 **<u>PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING</u>** On information and belief, the Google Meet App with Auto Framing identifies at least a user's face in the images. Google Duo, which was rolled into Google Meet[7], was described as having the following features: "Keep yourself centered on Duo video calls using Auto-framing." https://support.google.com/duo/answer/6376137?hl=en "Auto-framing mode, which centers your face during video calls even if you've pointed the camera at a weird angle." https://nerdschalk.com/how-to-enable-auto-framing-on-google-duo/

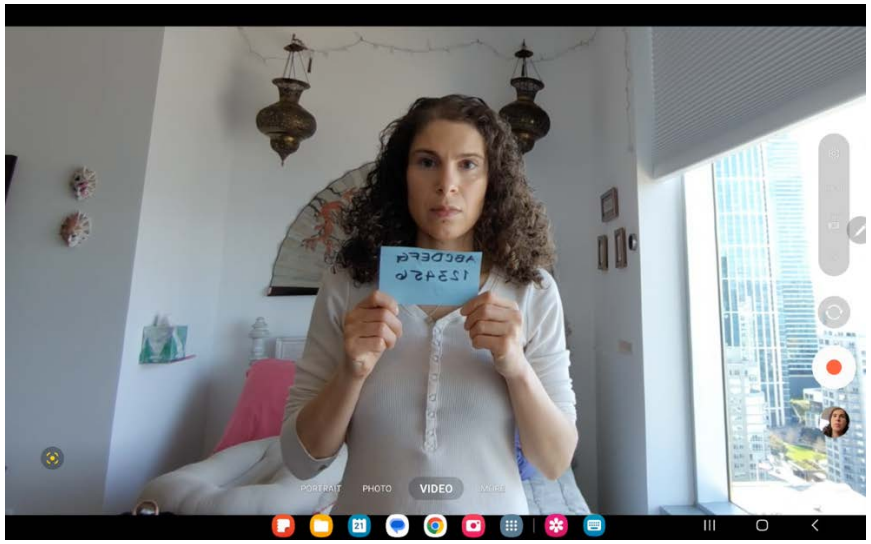
[7] https://www.theverge.com/2022/8/3/23290225/google-meet-duo-video-calling-messaging (The preinstalled Google Duo application was renamed Google Meet in 2022); https://www.sammobile.com/news/google-duo-merger-meet-starts-android/ (same); https://www.itworldcanada.com/article/the-google-meet-and-google-duo-merger-officiallybegins/496827 ("Google Duo will be rebranded as Google Meet, and will include all Google Meet features, combining video calls and meetings on mobile and web in 'one connected solution'.").

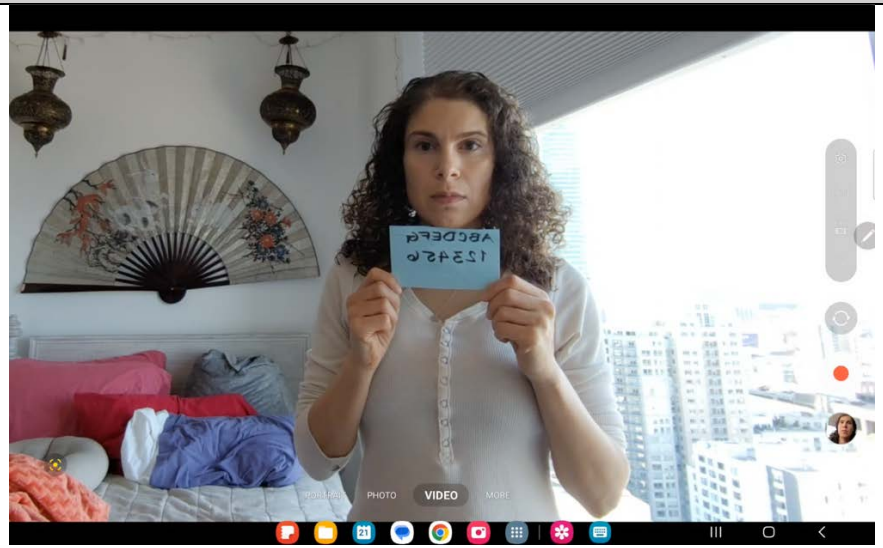
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	

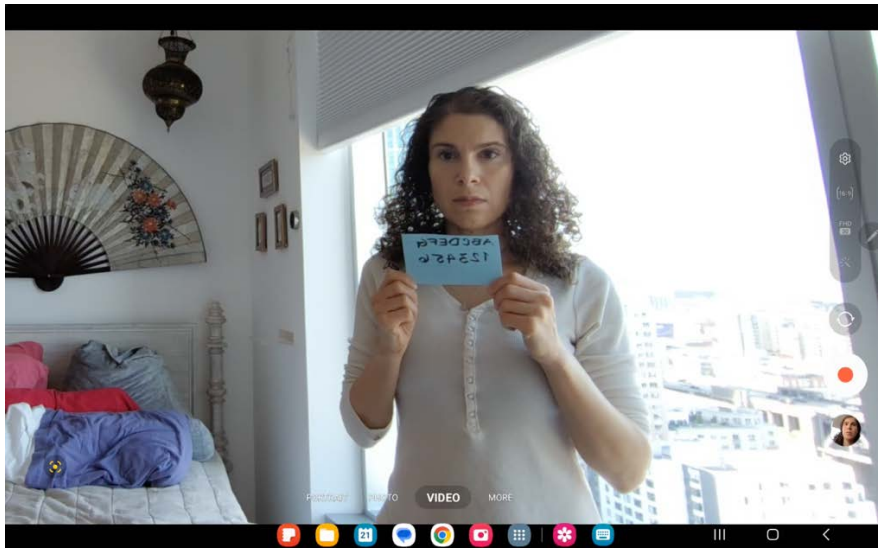
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
4. The method of claim 3,	The evidence and explanation of Claim 3 above is incorporated herein by reference.
4a. wherein the body part comprises one of legs, face, eyes, and hands.	**NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING** On information and belief, the Auto Framing feature operates generally the same way on all Samsung devices that have this feature. The Auto Framing feature from Samsung identifies a user's body part such as the user's legs, face, eyes, or hands. *See* https://www.pcworld.com/article/617498/samsung-readies-its-next-wave-of-gorgeous-oled-notebooks-the-galaxy-book2.html (Galaxy Book2 360: "auto framing, which hunts for your face"); https://blogs.windows.com/windowsexperience/2022/02/27/samsung-announces-galaxy-book2-pro-series-delivering-mobile-first-pc-experiences-security-advances/ (Galaxy Book2 360: "Auto framing feature requires face detection and recommends you to take off the mask."); https://news.samsung.com/us/new-galaxy-book2-pro-series-mwc-2022-work-anywhere-flexibility-security/ (Galaxy Book2 360: "Auto Framing feature requires face detection and may not work properly if the user is wearing a face mask."); https://www.samsungmobilepress.com/feature-stories/diving-into-the-fold-samsung-experts-explain-the-galaxy-z-fold2s-innovative-camera-and-flex-mode/ (Galaxy Z fold2: "Auto framing harnesses machine learning to track the body and face of a subject within the frame and adjust the camera focus accordingly."); https://www.xda-developers.com/samsung-galaxy-s22-advanced-auto-framing/ (Galaxy S22: "With Advanced Auto Framing, Samsung is taking it to the next level by even framing your shot for you automatically based on the position of your subject. The phone will lock focus onto your subject and automatically adjust the zoom range to either get closer to the subject or move farther away from it. If you're shooting a video of a person, the phone will punch in and lock focus on the face to create a portrait-like effect."); https://samlover.com/2022/06/13/samsung-galaxy-z-fold2-5g-june-firmware-camera-features-improved-and-available-soon-in-usa/ (Samsung foldable phones: "The camera can detect when people enter or leave the frame of view." https://news.samsung.com/za/the-galaxy-s22-ultra-captures-s-a-digital-disruptors-on-must-see-glamour-cover (Galaxy S22 "When only one person is in view, the camera remains focused on them and tracks their movement to keep the shot centered, and if another person enters the frame, the camera widens its view to include the second person as well"); https://www.youtube.com/watch?v=x7MNRznk6OI&t=1s&ab_channel=SamsungGalaxyUPH (Galaxy Z:

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	"This feature (Auto Framing) stably tracks the body and face of a subject within the frame and automatically adjusts the focus without the need to move the device around.") 

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	

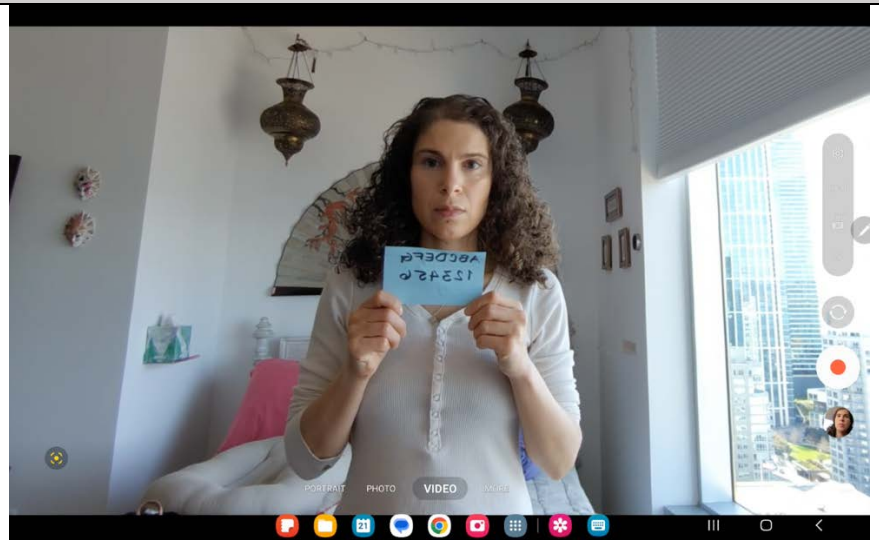
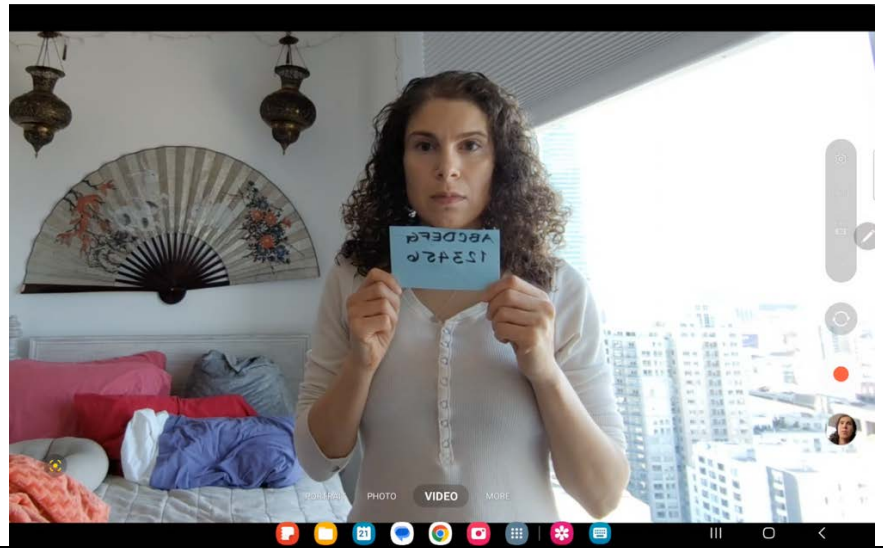
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	 **<u>PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING</u>** On information and belief, the Google Meet App with Auto Framing identifies at least a user's face in the images. Google Duo, which was rolled into Google Meet[8], was described as having the following features: "Auto-framing for Google Duo calls makes it easier for you to be centered on 1:1 or group calls on your Samsung device. Auto-framing identifies faces in view during calls. Zoom levels are adjusted and faces are centered automatically."

[8] https://www.theverge.com/2022/8/3/23290225/google-meet-duo-video-calling-messaging (The preinstalled Google Duo application was renamed Google Meet in 2022); https://www.sammobile.com/news/google-duo-merger-meet-starts-android/ (same); https://www.itworldcanada.com/article/the-google-meet-and-google-duo-merger-officiallybegins/496827 ("Google Duo will be rebranded as Google Meet, and will include all Google Meet features, combining video calls and meetings on mobile and web in 'one connected solution'.").

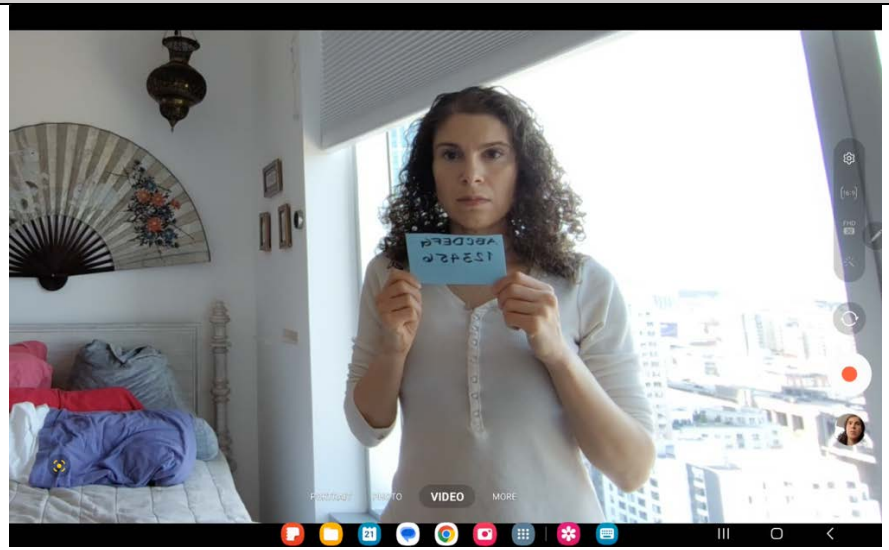
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	https://support.google.com/duo/answer/10385339?hl=en&ref_topic=6376099&sjid=17931370716591735677-NC; "Auto-framing mode, which centers your face during video calls even if you've pointed the camera at a weird angle." https://nerdschalk.com/how-to-enable-auto-framing-on-google-duo/.

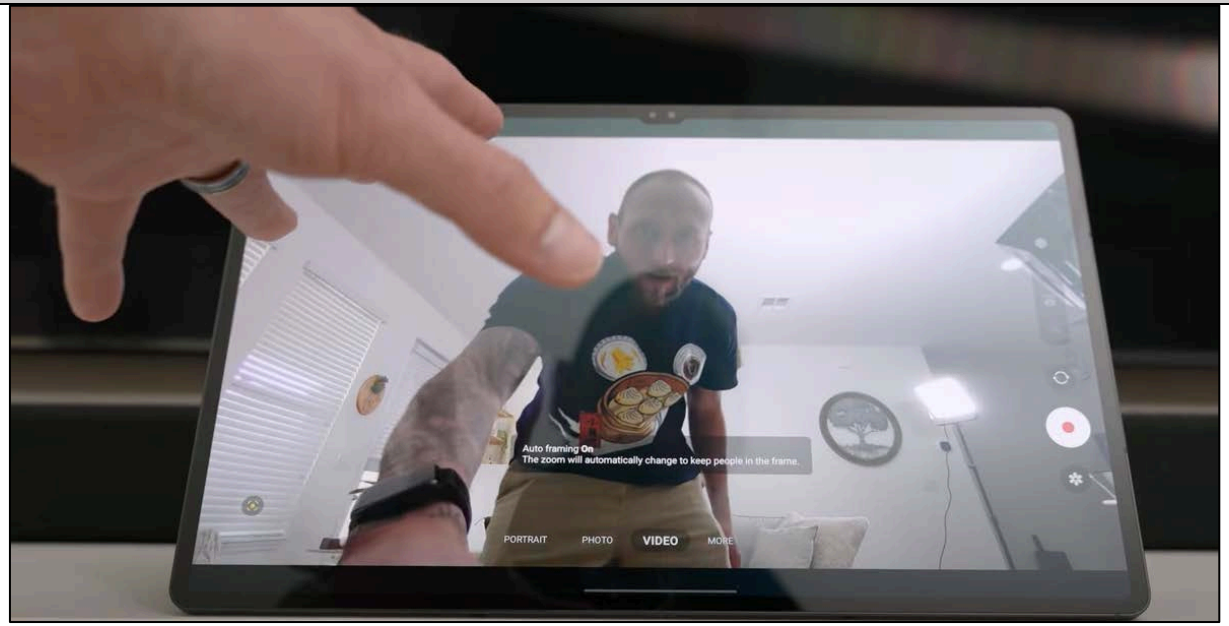
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
5. The method of claim 1,	The evidence and explanation of Claim 1 above is incorporated herein by reference.
5a. further comprising receiving user input and operating the processor to vary image magnitude or field-of-view of the modified images according to the user input.	**<u>NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING</u>** User input includes the user's movements captured by the camera. Galaxy Tab S8's software with the Auto Framing feature directs Galaxy Tab S8's processor to modify the video stream to keep the user in focus. Galaxy Tab S8's camera pans and zooms to keep the user in frame and provides a continuous field-of-view. Specifically, "Upgrade your selfie game with a camera that automatically adjusts to keep you in the frame." https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/ This is seen in the images below.

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 (“Galaxy Tab S8”)
	 

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	 This can also be seen in the image below taken with the Galaxy Tab S8 Ultra in Video Mode with Auto Framing. All Galaxy Tab S8 devices have the same Auto Framing feature. When the user turns on the Auto Framing feature in the image below, a notice appears stating: "Auto framing On The zoom will automatically change to keep people in the frame." https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	 https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey **PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING** User input includes the user's movements captured by the camera. The Google Meet App software with Auto Framing directs Galaxy Tab S8's processor to modify the video stream to keep the user in focus. This can be seen in the images below.

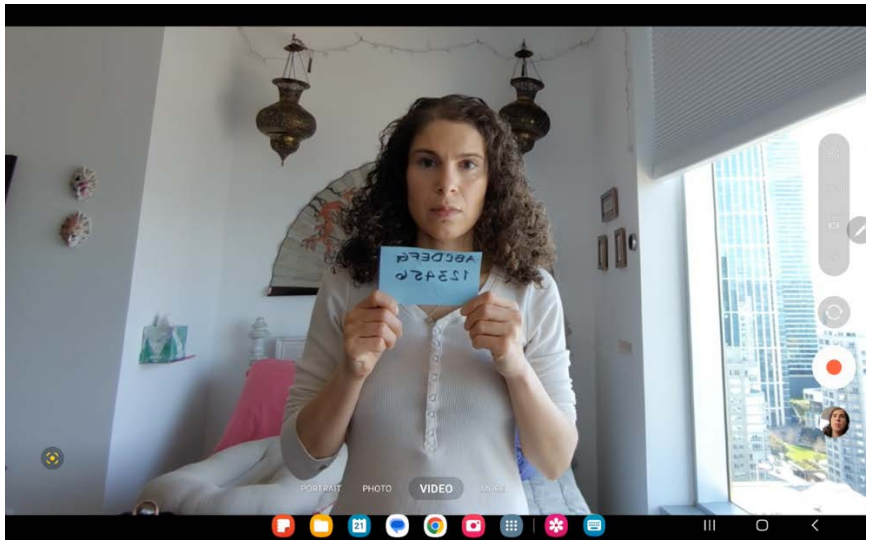
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")

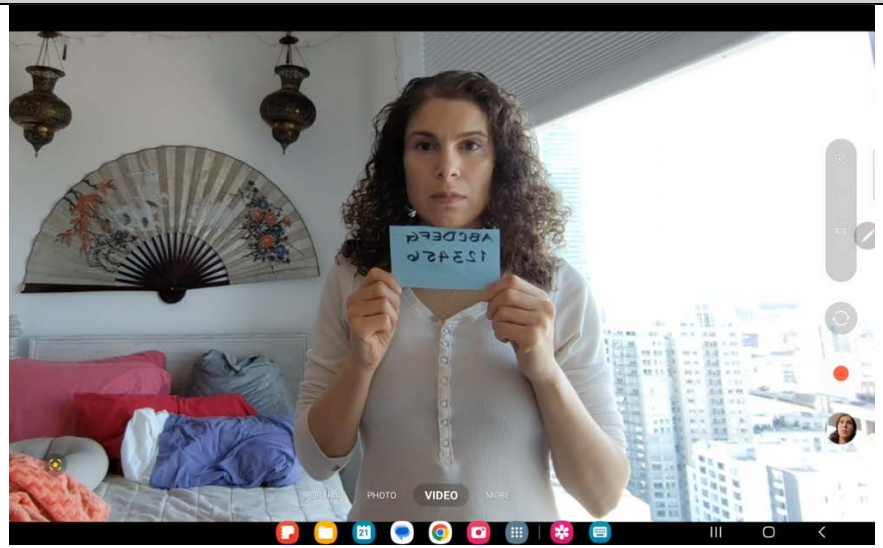
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")

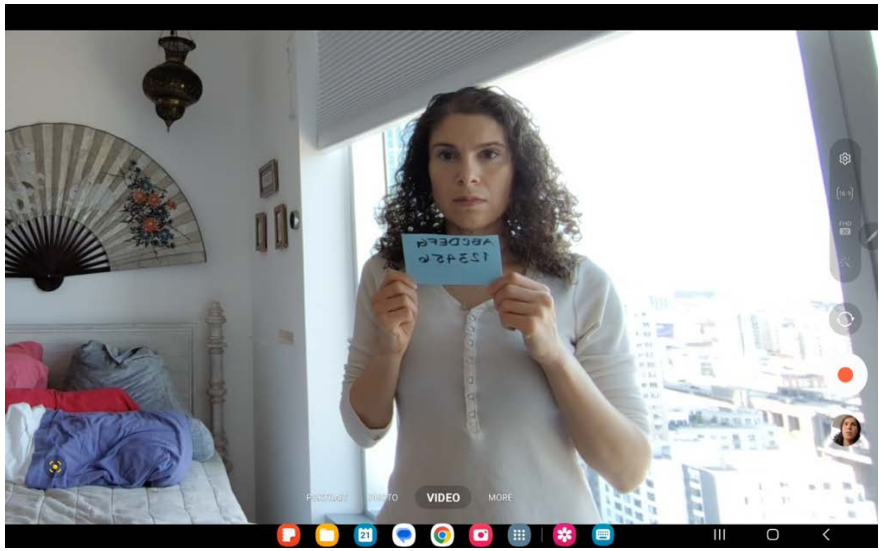
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	This can also be seen in the image below taken from the Google Duo App with Auto Framing, which was rolled into Google Meet[9], using the Galaxy Tab S8 Ultra. All Galaxy Tab S8 devices have the Google Duo App with Auto Framing preinstalled. The Auto Framing feature of Galaxy Tab S8 is available on video calling with the Google Duo App. Samsung advertises that it has "partnered with Google Duo to bring you higher-quality video calls". https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/ As can be seen in the images below, the Galaxy Tab S8's camera pans and zooms to keep the user in frame and provide a continuous field-of-view during a video call. https://www.youtube.com/watch?v=UG3ZfkQ2jnk&ab_channel=CNETHighlights

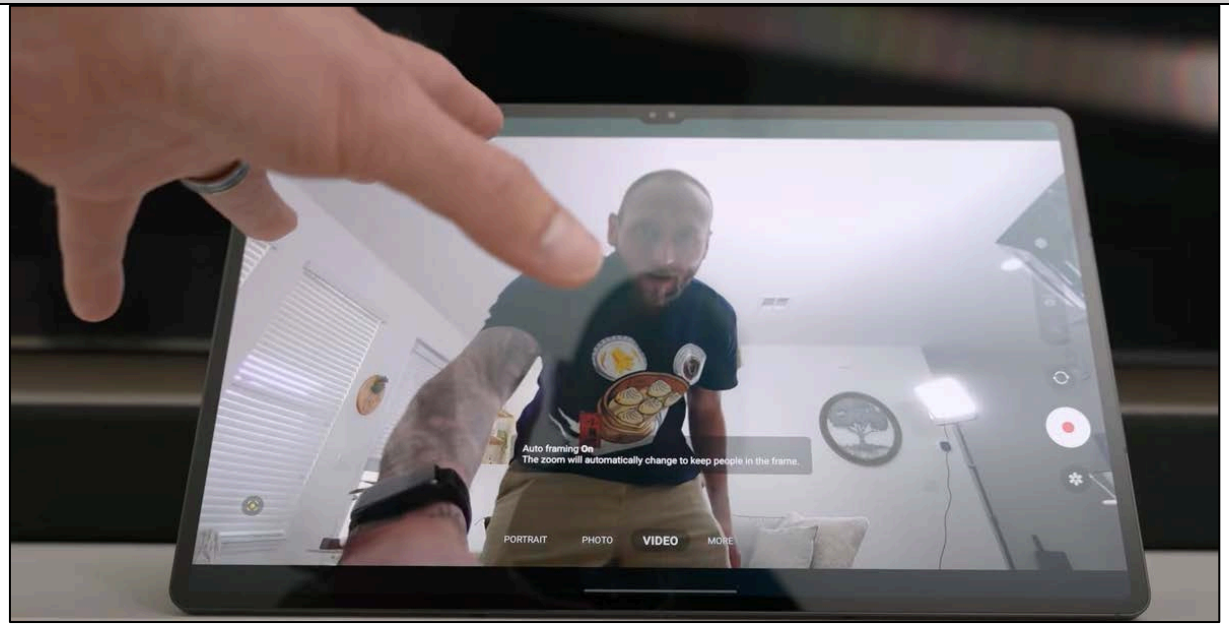
[9] https://www.theverge.com/2022/8/3/23290225/google-meet-duo-video-calling-messaging (The preinstalled Google Duo application was renamed Google Meet in 2022); https://www.sammobile.com/news/google-duo-merger-meet-starts-android/ (same); https://www.itworldcanada.com/article/the-google-meet-and-google-duo-merger-officiallybegins/496827 ("Google Duo will be rebranded as Google Meet, and will include all Google Meet features, combining video calls and meetings on mobile and web in 'one connected solution'.").

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	 https://www.youtube.com/watch?v=UG3ZfkQ2jnk&ab_channel=CNETHighlights
6. The method of claim 5,	The evidence and explanation of Claim 5 above is incorporated herein by reference.
6a. wherein the processor varies the image magnitude or field-of-view mapping to display a partial or full body of the user in	**NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING** User input includes the user's movements captured by the camera. Galaxy Tab S8's software with the Auto Framing feature directs Galaxy Tab S8's processor to modify the video stream to keep the user in focus. Galaxy Tab S8's camera pans and zooms to keep the user in frame and provide a continuous field-of-view. Specifically, "Upgrade your selfie game with a camera that automatically adjusts to keep you in the frame." https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/ Galaxy Tab S8 varying the image magnitude and the

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
the modified images.	field-of-view mapping can be seen in the images below in which the camera adjusts to show the user's partial or full body. 

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	 This can also be seen in the image below taken with the Galaxy Tab S8 Ultra in Video Mode with Auto Framing. All Galaxy Tab S8 devices have the same Auto Framing feature. When the user turns on the Auto Framing feature in the image below, a notice appears stating: "Auto framing On The zoom will automatically change to keep people in the frame." https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	 https://www.youtube.com/watch?v=heiKkW32HHQ&ab_channel=JonathanCasey **PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING** The preinstalled Google Meet App varies the image magnitude and the field-of-view mapping as can be seen in the images below.

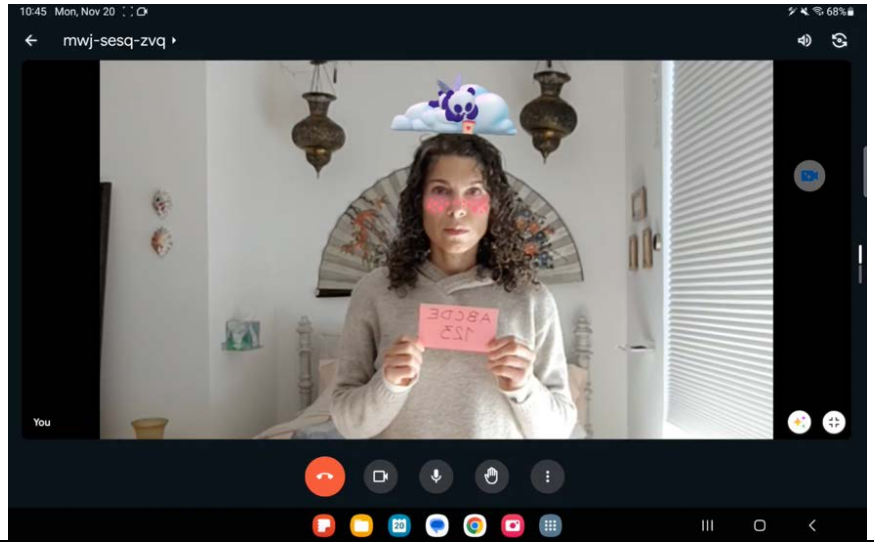
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")

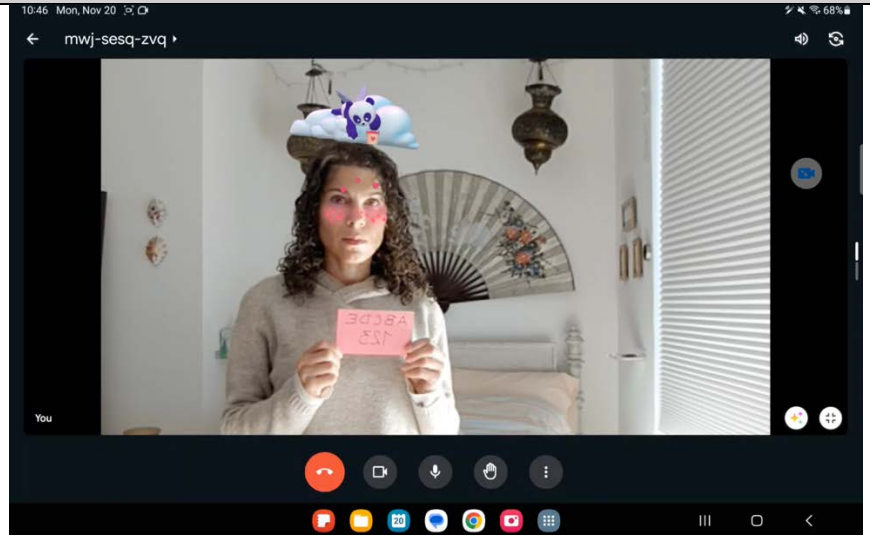
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	This can also be seen in the image below taken from the Google Duo App with Auto Framing, which was rolled into Google Meet[10], using the Galaxy Tab S8 Ultra. All Galaxy Tab S8 devices have the Google Duo App with Auto Framing preinstalled. The Auto Framing feature of Galaxy Tab S8 is available on video calling with the Google Duo App. Samsung advertises that it has "partnered with Google Duo to bring you higher-quality video calls". https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/ As can be seen in the images below, the Galaxy Tab S8's camera pans and zooms to keep the user in frame and provide a continuous field-of-view during a video call. https://www.youtube.com/watch?v=UG3ZfkQ2jnk&ab_channel=CNETHighlights

[10] https://www.theverge.com/2022/8/3/23290225/google-meet-duo-video-calling-messaging (The preinstalled Google Duo application was renamed Google Meet in 2022); https://www.sammobile.com/news/google-duo-merger-meet-starts-android/ (same); https://www.itworldcanada.com/article/the-google-meet-and-google-duo-merger-officiallybegins/496827 ("Google Duo will be rebranded as Google Meet, and will include all Google Meet features, combining video calls and meetings on mobile and web in 'one connected solution'.").

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	 https://www.youtube.com/watch?v=UG3ZfkQ2jnk&ab_channel=CNETHighlights
10. The method of claim 1,	The evidence and explanation of Claim 1 above **as to the Google Meet Application** is incorporated herein by reference.
10a. further comprising operating the processor to augment the modified images by overlaying virtual objects on a user's	**PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING** The Google Meet App can overlay virtual objects on a user's image as seen in the images below. *See also*, https://www.androidauthority.com/google-duo-effects-fi lters-1103348/ ; https://www.makeuseof.com/google-duo-features/

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
image appearing within the modified images.	 

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	
11. The method of claim 1,	The evidence and explanation of Claim 1 above is incorporated herein by reference.
11a. further comprising operating the processor to transmit the modified image over a network.	**<u>NATIVE SAMSUNG CAMERA APPLICATION IN VIDEO MODE WITH AUTO FRAMING</u>** Galaxy Tab S8's processor can transmit the modified video stream over the Internet or other network connection via, for example, texts or emails. All Galaxy Tab S8 devices are Wi-Fi capable.

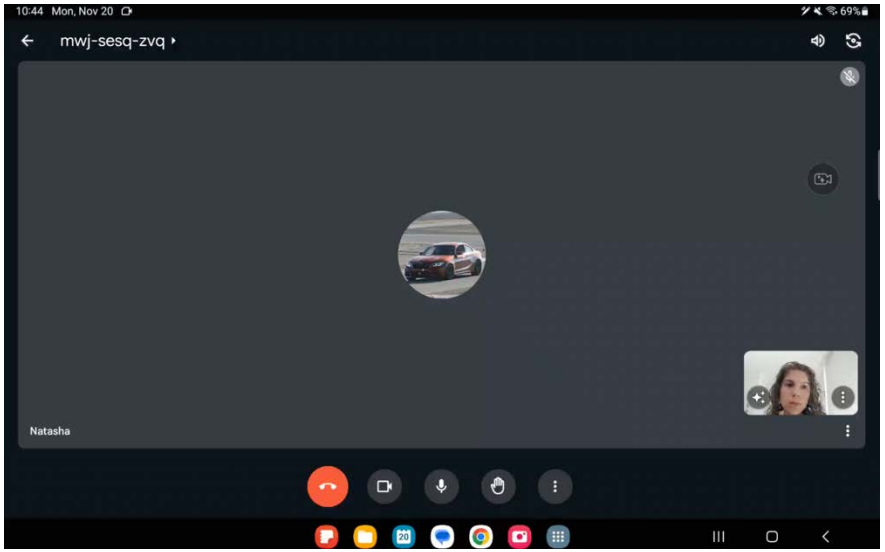
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 (“Galaxy Tab S8”)
	Compare The Models[a] NEW **Galaxy Tab S8 Ultra** Color Graphite Connectivity Wi-Fi 6, Bluetooth v5.0 Battery 11,200mAh RAM + Storage 8GB (RAM) + 128GB 12GB (RAM) + 256GB 16GB (RAM) + 512GB Micro SD Card Up to 1TB Processor Qualcomm Snapdragon 8 Gen 1 Display 14.6" Super AMOLED Dimension 12.85" x 8.21" x 0.22" Weight 1.60 lb. NEW **Galaxy Tab S8+** Colors Graphite Silver Pink Gold Connectivity Wi-Fi 6 or 5G + Wi-Fi 6 , Bluetooth v5.0 Battery 10,090mAh RAM + Storage 8GB (RAM) + 128GB 8GB (RAM) + 256GB Micro SD Card Up to 1TB Processor Qualcomm Snapdragon 8 Gen 1 Display 12.4" Super AMOLED Dimension 11.22" x 7.28" x 0.22" Weight 1.27 lb NEW **Galaxy Tab S8** Colors Graphite Silver Pink Gold Connectivity Wi-Fi 6, Bluetooth v5.0 Battery 8,000mAh RAM + Storage 8GB (RAM) + 128GB 8GB (RAM) + 256GB Micro SD Card Up to 1TB Processor Qualcomm Snapdragon 8 Gen 1 Display 11.0" LTPS LCD Dimension 9.99" x 6.51" x 0.25" Weight 1.10 lb https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/ **PREINSTALLED GOOGLE DUO APPLICATION WITH AUTO FRAMING**

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	Galaxy Tab S8's processor can transmit the modified video stream over the Internet or other network connection via the preinstalled Google Duo App. All Galaxy Tab S8 devices are Wi-Fi capable.

Compare The Models[a]

	NEW Galaxy Tab S8 Ultra	NEW Galaxy Tab S8+	NEW Galaxy Tab S8
Color	Graphite	Colors Graphite Silver Pink Gold	Colors Graphite Silver Pink Gold
Connectivity	Wi-Fi 6, Bluetooth v5.0	Wi-Fi 6 or 5G + Wi-Fi 6 , Bluetooth v5.0	Wi-Fi 6, Bluetooth v5.0
Battery	11,200mAh	10,090mAh	8,000mAh
RAM + Storage	8GB (RAM) + 128GB 12GB (RAM) + 256GB 16GB (RAM) + 512GB	8GB (RAM) + 128GB 8GB (RAM) + 256GB	8GB (RAM) + 128GB 8GB (RAM) + 256GB
Micro SD Card	Up to 1TB	Up to 1TB	Up to 1TB
Processor	Qualcomm Snapdragon 8 Gen 1	Qualcomm Snapdragon 8 Gen 1	Qualcomm Snapdragon 8 Gen 1
Display	14.6" Super AMOLED	12.4" Super AMOLED	11.0" LTPS LCD
Dimension	12.85" x 8.21" x 0.22"	11.22" x 7.28" x 0.22"	9.99" x 6.51" x 0.25"
Weight	1.60 lb.	1.27 lb	1.10 lb

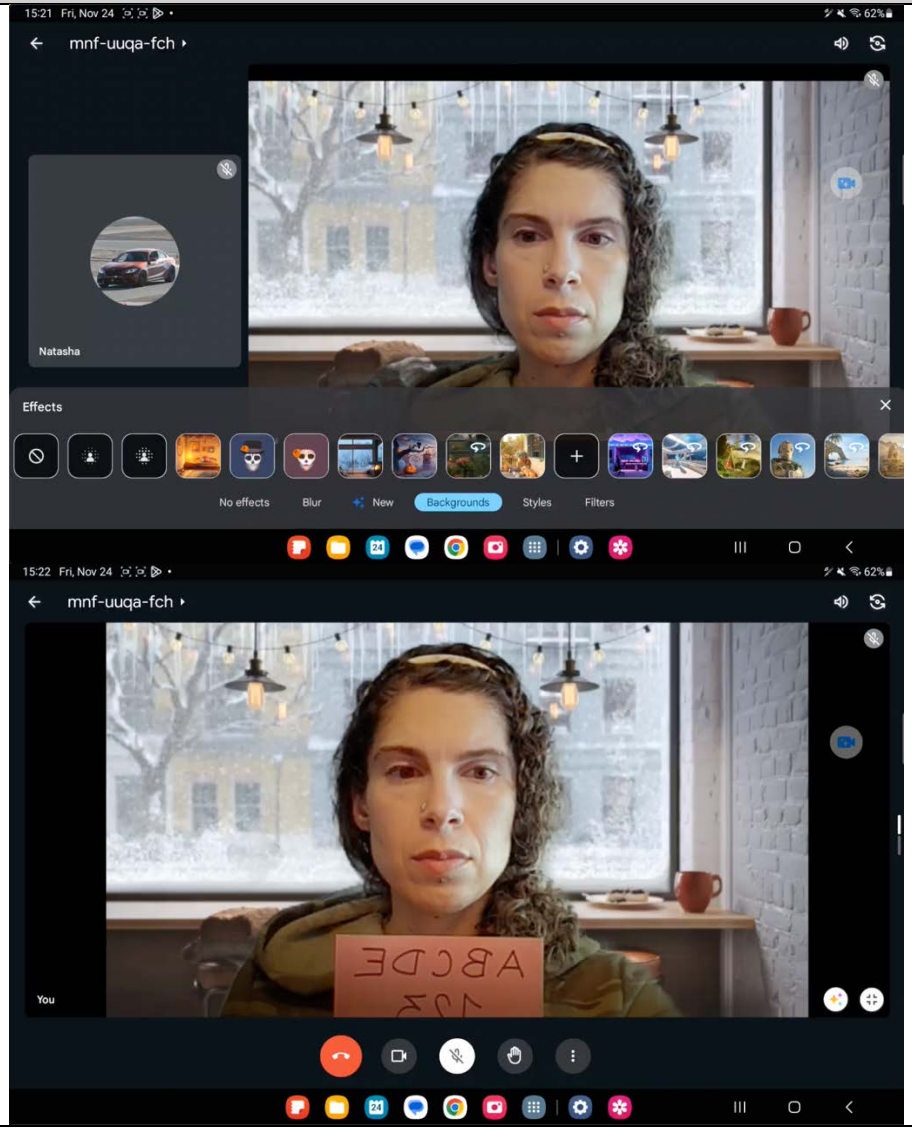
https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/

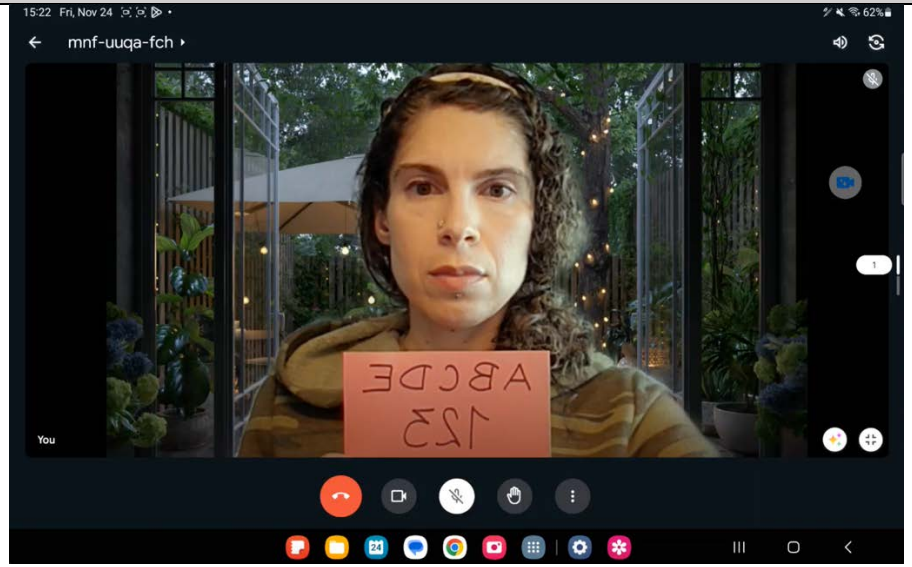
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
12. The method of claim 1,	The evidence and explanation of Claim 1 above as to the Google Meet Application is incorporated herein by reference.
12a. further comprising displaying the modified image on a remote screen for video telepresence.	**PREINSTALLED GOOGLE MEET APPLICATION WITH AUTO FRAMING** The Google Meet App is the default video calling application on the Galaxy Tab S8. *See also*, https://support.google.com/duo/answer/10385339?hl=en&ref_topic=6376099 The Google Meet App using Auto Framing displays the modified video stream from a first user's Galaxy Tab S8 to a second device for video telepresence. This can be seen in the image below. 

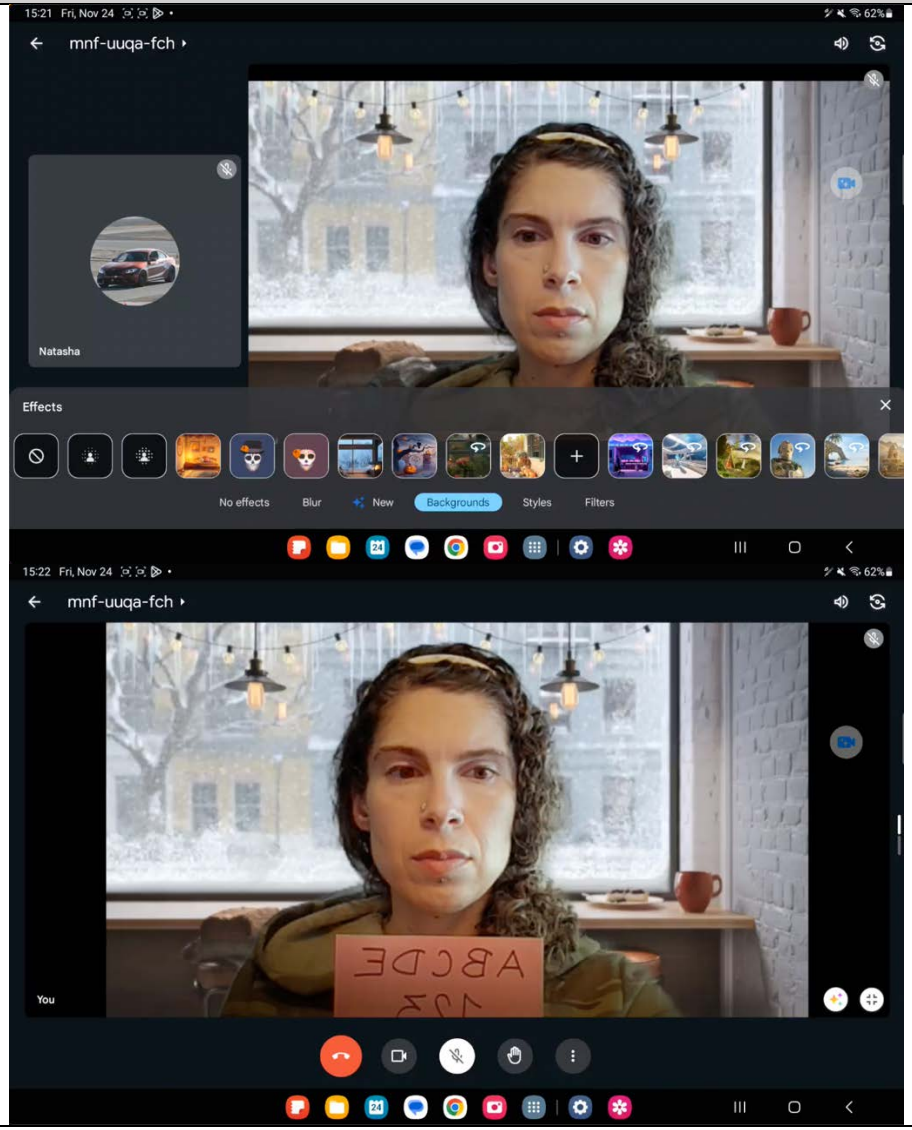
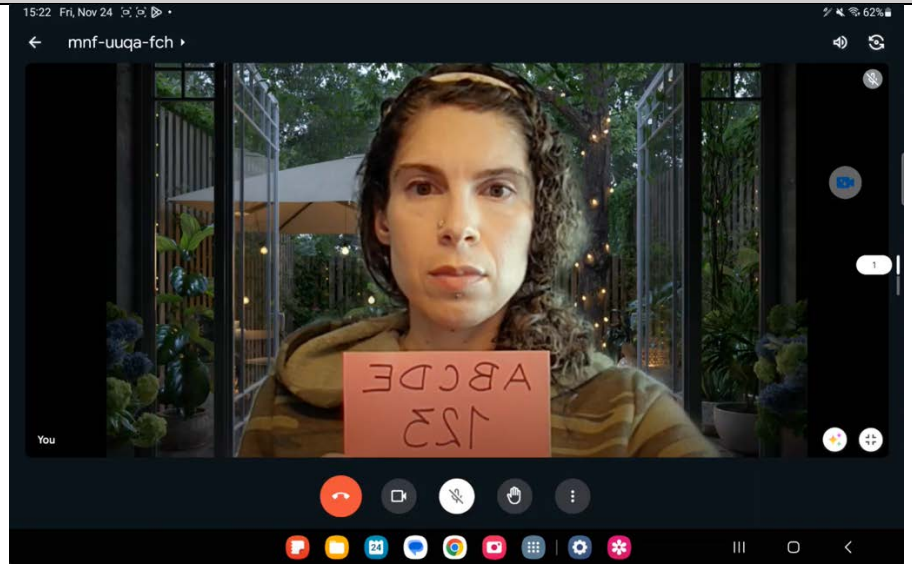
U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	This can also be seen in the image below taken from the Google Duo App with Auto Framing, which was rolled into Google Meet[11], using the Galaxy Tab S8 Ultra. All Galaxy Tab S8 devices have the Google Duo App with Auto Framing preinstalled. The Auto Framing feature of Galaxy Tab S8 is available on video calling with the Google Duo App. Samsung advertised that it "partnered with Google Duo to bring you higher-quality video calls". https://www.samsung.com/us/tablets/galaxy-tab-s8/buy/ As can be seen in the images below, the Galaxy Tab S8's camera pans and zooms to keep the user in frame and provide a continuous field-of-view during a video call. https://www.youtube.com/watch?v=UG3ZfkQ2jnk&ab_channel=CNETHighlights

[11] https://www.theverge.com/2022/8/3/23290225/google-meet-duo-video-calling-messaging (The preinstalled Google Duo application was renamed Google Meet in 2022); https://www.sammobile.com/news/google-duo-merger-meet-starts-android/ (same); https://www.itworldcanada.com/article/the-google-meet-and-google-duo-merger-officiallybegins/496827 ("Google Duo will be rebranded as Google Meet, and will include all Google Meet features, combining video calls and meetings on mobile and web in 'one connected solution'.").

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	 https://www.youtube.com/watch?v=UG3ZfkQ2jnk&ab_channel=CNETHighlights
16. The method of claim 1,	The evidence and explanation of Claim 1 above as to the Google Meet Application is incorporated herein by reference.
16a. wherein the processor operates on the images from the camera to generate background segmentation, and	**PREINSTALLED GOOGLE MEET APPLICATION** By using the Google Meet App on Galaxy Tab S8, a user can implement the Background Effects feature that operates on the video stream to generate images for background segmentation. This can be seen in the image below where the background has been augmented to replace the images that were originally there.

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
replaces segments on the images by replacement segments.	

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	
17. The method of claim 16,	The evidence and explanation of Claim 16 above as to the Google Meet Application is incorporated herein by reference.
17a. wherein the replacement segments comprise virtual background or background that was captured in a different setting.	**<u>PREINSTALLED GOOGLE MEET APPLICATION</u>** By using the Google Meet App on Galaxy Tab S8, a user can implement the Background Effects feature that operates on the video stream to create a virtual background. This is seen in the images below.

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 ("Galaxy Tab S8")
	

U.S. Patent No. 8,982,110 Claim Language	Samsung Galaxy Tab S8 (“Galaxy Tab S8”)