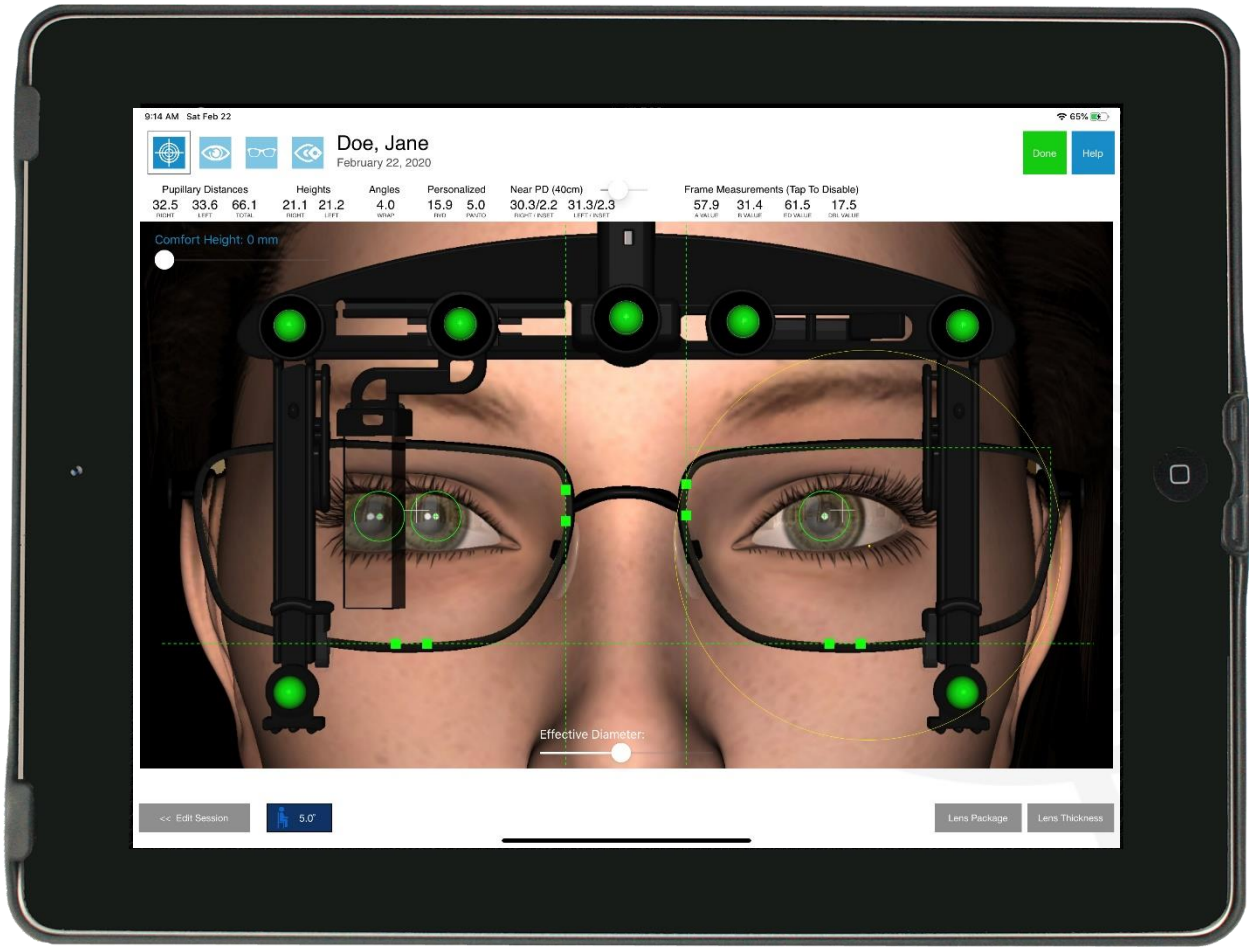
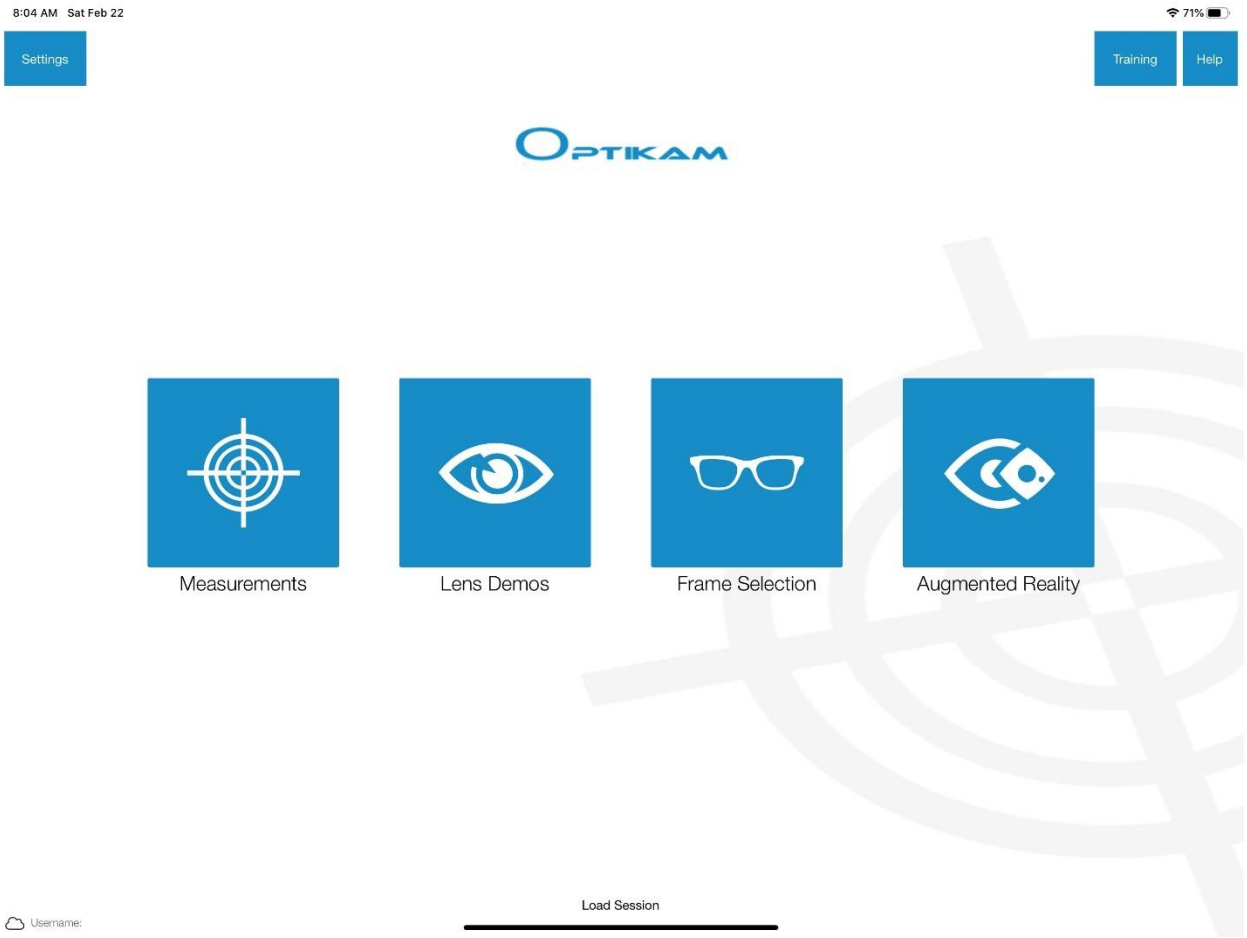


OPTIKAMPAD USER MANUAL

OPTIKAMPAD INTERFACE

The OptikamPad is your unique dispensing tool that helps in all aspects of the eyewear dispensing process.

When you launch the app, you are presented with icons of all the modules that are available on your OptikamPad software. You can start a session in a desired module by simply touching the respective icon. Once in a session, you can freely navigate to any other module without returning to the home screen by touching the module buttons on the top-left corner of the screen.

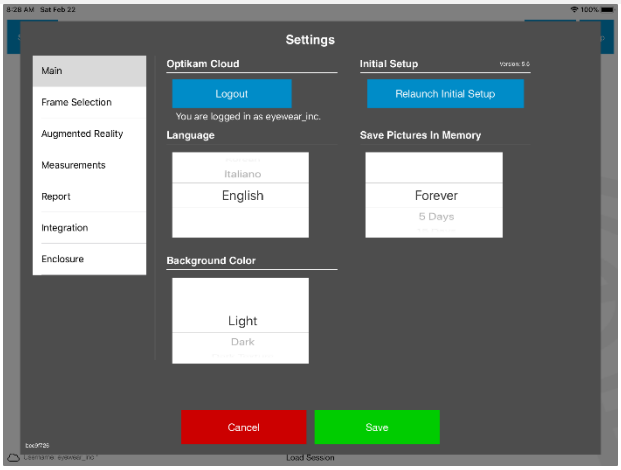


On the top-left hand side of the screen, the *Settings* button allows you to change the software's settings. On the top-right hand side, the *Help* button activates a guide on the use of the software. The Training button provides documentation and 3d Training Scenarios that are used to learn how to correctly take a measurement picture. At the bottom of the screen, the *Load Session* button displays a list of previously saved profiles. Your cloud username is displayed in the bottom-left corner of the screen.

OPTIKAMPAD SETTINGS

The Settings Panel allows the user to customize numerous OptikamPad features to fit their dispensing style. The following table provides an overview of the features that are customizable by the user.

Main



Login/Logout: Login (or change login) to customize your OptikamPad experience and take advantage of Optikam cloud services.

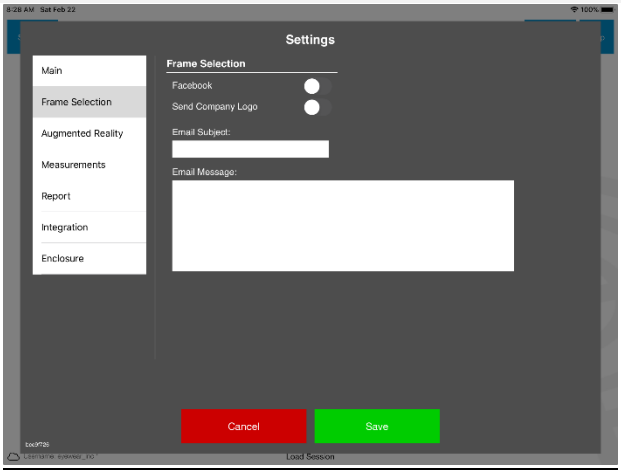
Relaunch Initial Setup: Launches the initial setup wizard.

Language: Change the language used.

Save Pictures in Memory: Select the length of time saved profiles will remain in memory before being purged.

Background Color: Sets the app background color.

Frame Selection

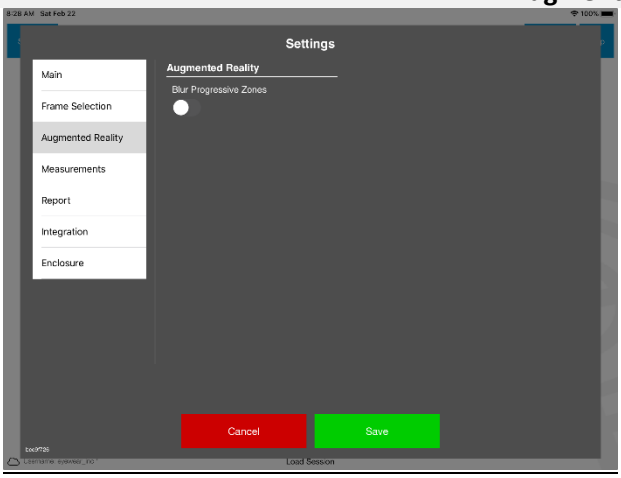


Facebook: Enables the use of the iPad Facebook feature whenever a frame selection profile is saved.

Email Subject/Message: Represents the subject and message body of frame selection e-mails sent to customer account.

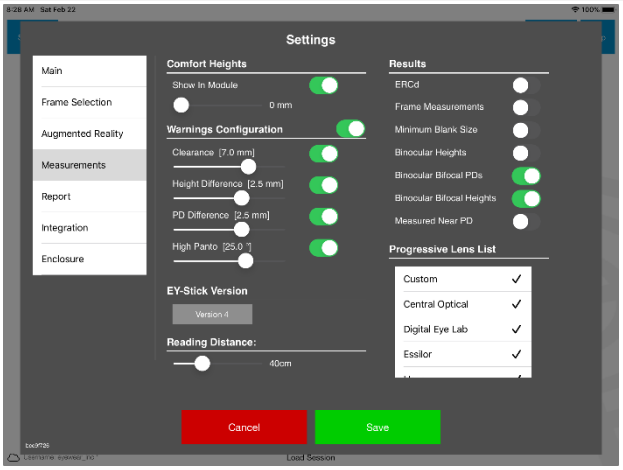
Send Company Logo: Includes your company logo in the Emailed Frame Selection images.

Augmented Reality



Blur Progressive Zones: Enables Augmented Reality live video mode progressive lens clear/blur zone simulation based on iPad tilt. See Blur Simulation in the Augmented Reality section.

Measurements

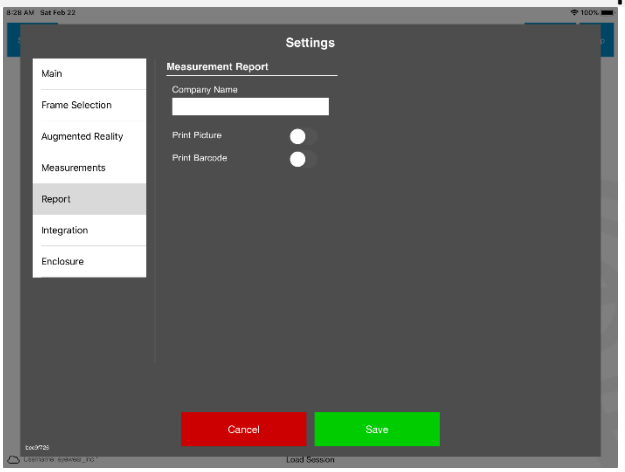


Comfort Heights: [0 – 3mm, Default: 0mm] Automatic drop in height from pupil centre.

Warnings Configuration: (Measurement Warning Panel)
Clearance: [0 – 10mm, Default: 8mm]: Pupils to bottom of the lens clearance measurement warning limit
Height Difference: [0 – 4mm, Default: 2.5mm] Height Left to Height Right difference warning limit.
PD Difference: [0 – 4mm, Default: 2mm] PD Left to PD Right difference warning limit.
High Panto: [15 – 30°, Default: 20°] High pantoscopic tilt warning limit.

ERCd: Displays ERCd instead of RVD by default. The result can be toggled between ERCd and RVD by tapping on it.
Frame Measurement: Turn on frame measurements by default.
Minimum Blank Size: Alternate ED calculation that takes fitting cross decentration into account.
Binocular Heights: Calculate Left and Right heights the same.
Binocular Bifocal PDs: Calculate Left and Right PDs the same for Bifocal lenses.
Binocular Bifocal Heights: Calculate Left and Right heights the same for Bifocal lenses.
Measured Near PD: Enable measuring of Near PD.
Progressive Lens List: Select manufacturer progressive lens lists available in Lens Package overlay feature.

Report



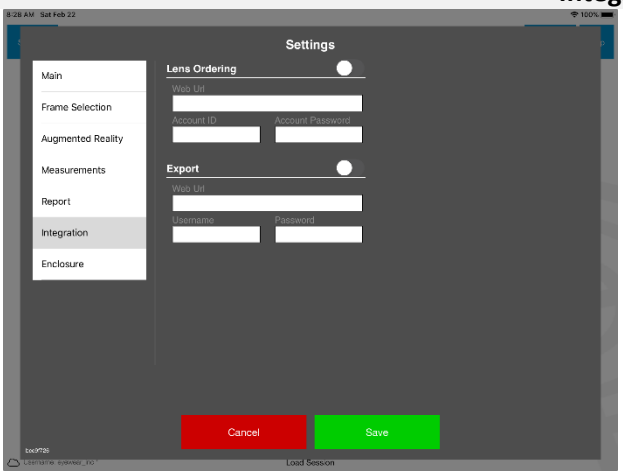
The Report tab configures the Measurement Report PDF that can be generated when saving a measurement session.

Company: Enter your company name.

Print Picture: When enabled the patient's picture will be included in the Measurement Report PDF

Print Barcode: When enabled a barcode containing the patient's measurements will be included in the Measurement Report PDF
.

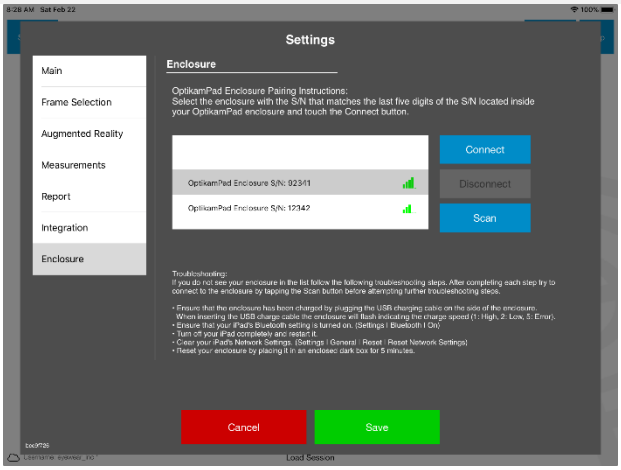
Integration



Lens Ordering: Enter third party lens ordering integration information.

Export: Enter third party Point-of-sale measurement results export integration information.

Enclosure



Enclosure list: Displays the list of available enclosures.

Connect: Connect to the enclosure selected in the list. The light on the selected enclosure will illuminate. Confirmation that the correct enclosure has been selected is required.

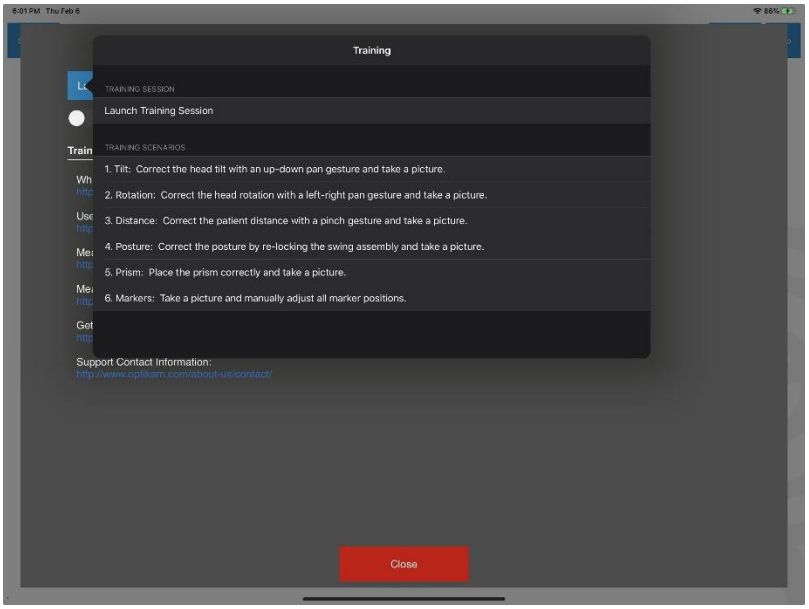
Disconnect: Disconnect from the selected enclosure. The enclosure will no longer be marked Assigned.

Note: The on-screen troubleshooting instructions should be followed if an issue occurs connecting to the enclosure..

OPTIKAMPAD TRAINING

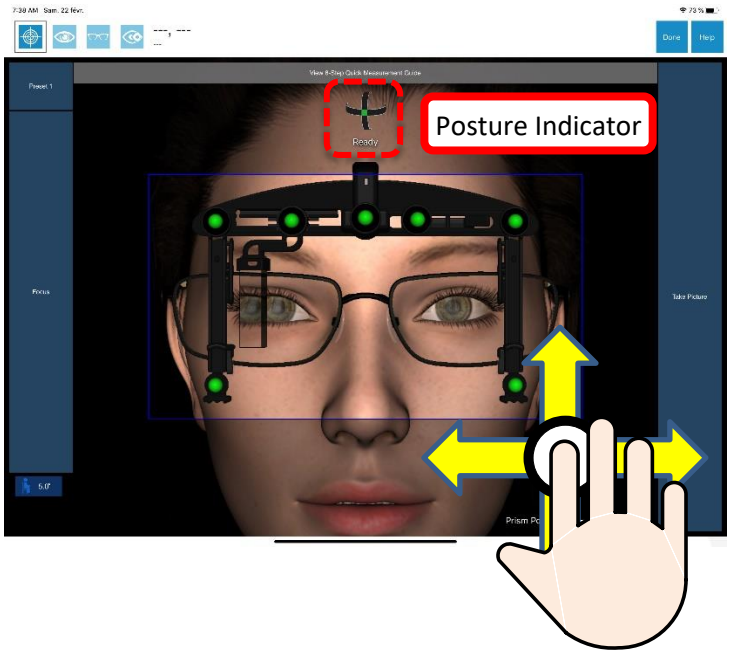
The Training panel is launched by tapping the Training button at the top-right corner of the main screen. The Training panel contains documentation and a training video that helps the user learn how to use the app.

The 3D Training Session allows you to practice taking a measurement picture with the help of a 3D patient animation. You can select the to launch the free-flowing Training Session or select one of the Training Scenarios to practice a specific OptikamPad skill. The training sessions can be saved and reviewed by a manager.



Touch and drag left or right on the 3D patient to rotate the patient's head. Dragging up and down tilts the head up and down. You will notice that the Posture Indicator (highlighted below) will change while you are dragging.

This method allows a user to quickly learn how to use the Posture Indicator to eliminate Head Rotation and Tilt to properly take an image with OptikamPad.



MEASUREMENTS

From ONE picture, OptikamPad can obtain the following measurements:

- Monocular Pupillary Distance (PD)
- Monocular Pupillary Distance (PD)
- Multifocal Seg Heights
- Pantiscopic Tilt (panto)
- Vertex Distance (RVD)
- Wrap (face form tilt)
- Near PD
- A, B, ED and DBL values

AS-WORN MEASUREMENTS

The OptikamPad software will produce “as-worn” measurements. These “as-worn” measurements take monocular PDs more accurately by taking into account how the frame sits on the customer’s face. This is in contrast with the pupilometer, which captures PDs anatomically and does not take into account frame fit and nose-pad adjustments.

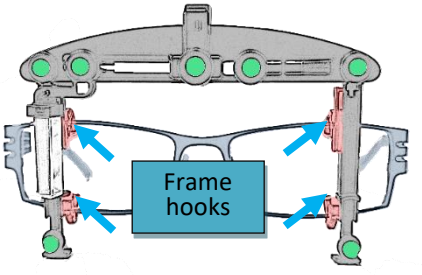
Optikam’s OPD also measures “as-worn” seg. height measurements through its unique way of capturing the patient’s natural posture. By means of the electronic sensors in the OPD, the optician can very quickly capture the patient’s natural head posture without being at the same eye level as the patient. This enables an optician of any height to properly and accurately measure patients of varying heights. In fact, the patient can even be sitting while the optician is standing when taking the picture.

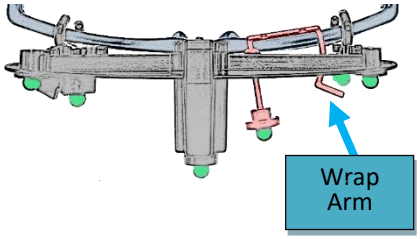
OPD

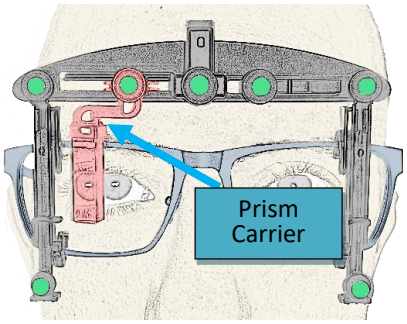
The OPD is the device used to capture all the advanced optical eyewear measurements using one single frontal image. The OPD captures personalized frame fit measurements, taking into account how the frame sits on a person’s face.

It is critical to properly fit the frame in the way it would be dispensed prior to performing the measurement with the OPD.

The OPD consists of 3 main elements:

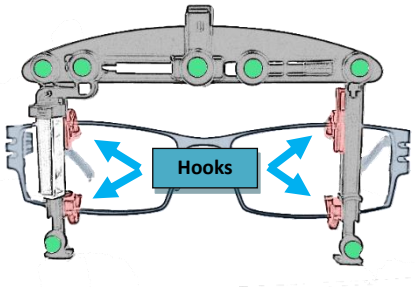






Placing the OPD on Frame

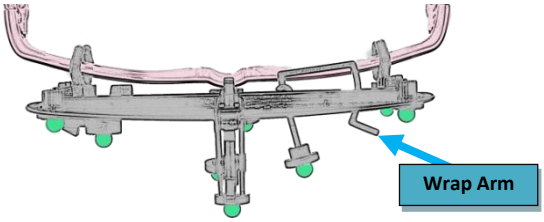
Place the OPD top hooks on the top of the frame and adjust the bottom legs by sliding them so that they hook securely on the bottom of the frame.



Note: It is important to fit the frame and adjust the temples and nose pads before beginning the measurement process.

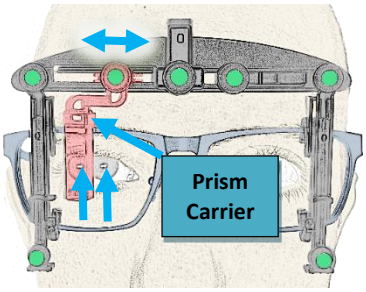
Adjusting the Wrap Arm

The wrap arm consists of a pivoting ledge located at the back of the OPD. Looking from above, rotate the ledge back and forth until the ledge is parallel with the curvature of the eyewear. This will measure the frame wrap angle.



Prism Adjustment

The vertex-distance prism carrier can be moved left and right by applying a light pressure on the thumb rest. Simply move the prism to the left of the iris until the pupil is visible in the center of the prism when directly facing the customer. Also, make sure that the prism is not obstructing the frontal view of the patient's pupil.



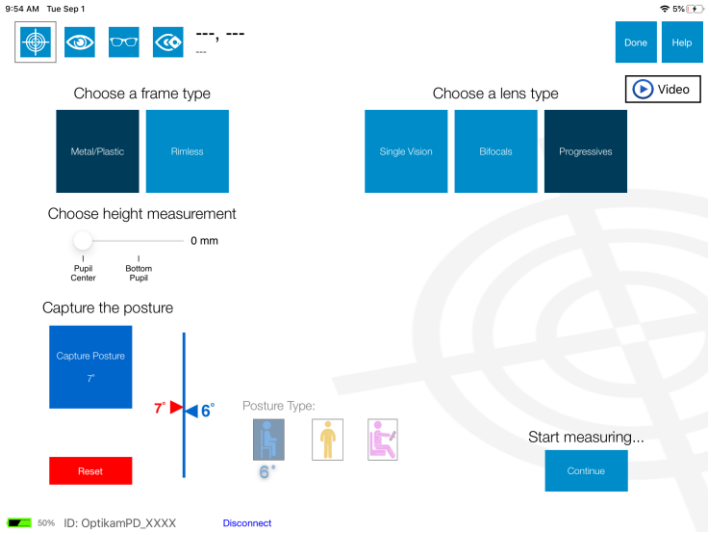
Capturing the Natural Posture

When entering the measurement module, select the frame type, the lens type and then select the OPD from the Device List to connect to it.

Ensure that the customer is in their natural posture using standard opticianry techniques. The customer's posture should be observed, and if needed adjusted and re-captured.

Touch the Capture Posture button to record the current posture. The Posture Indicator Bar assists in the capture process as it shows the current live posture in Red and the captured posture in Blue.

When done, tap the Continue button to proceed to taking the picture.



The patented OPD ensures precise measurements by recreating the customer's natural posture. Note that capturing different postures will result in getting different heights. Your professional judgment should be used in ensuring that the patient is in their natural posture when capturing the posture.

MEASUREMENT MODULE

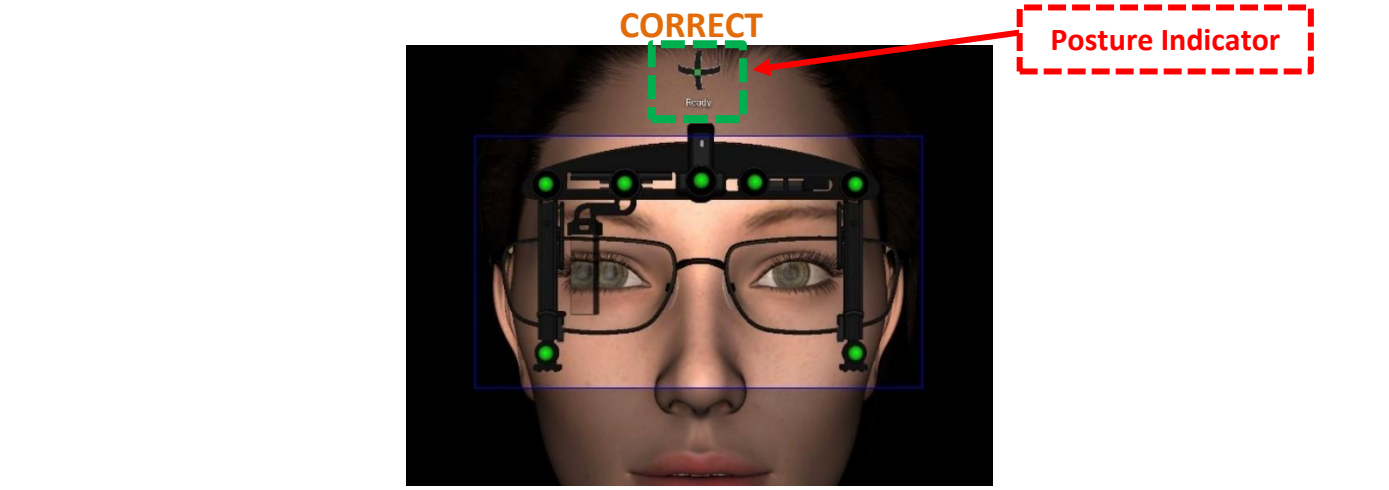
The measurement module allows you to quickly capture all of the advanced optical eyewear measurements using a single frontal image.

Picture Capturing

When entering the measurement module, select the frame type, the lens type, capture the posture and then touch the *Continue* button.

A live video feed is displayed with *Focus* and *Take Picture* buttons on each side of the video. Touch the *Focus* button to ensure that the video feed is in focus. Touching the *Focus* button triggers the flash, allowing you to see if the corneal reflection is visible in the middle of the prism.

Follow the on-screen Posture Indicator and instructions (highlighted below) when taking a picture to recreate the captured posture (head tilt). This ensures that the patient's primary line of sight is being used when capturing the image.



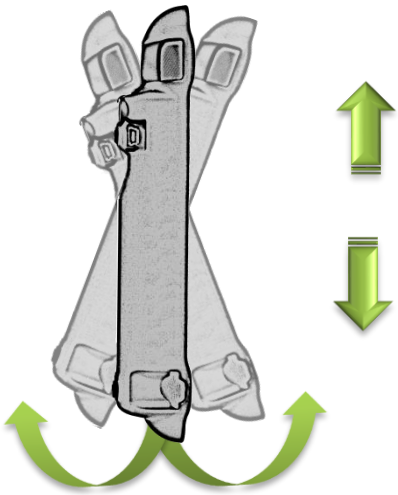
Resolution: Ask patient to raise their chin

Resolution: Ask patient to lower their chin

Alternate Positioning Method: iPad Tilting

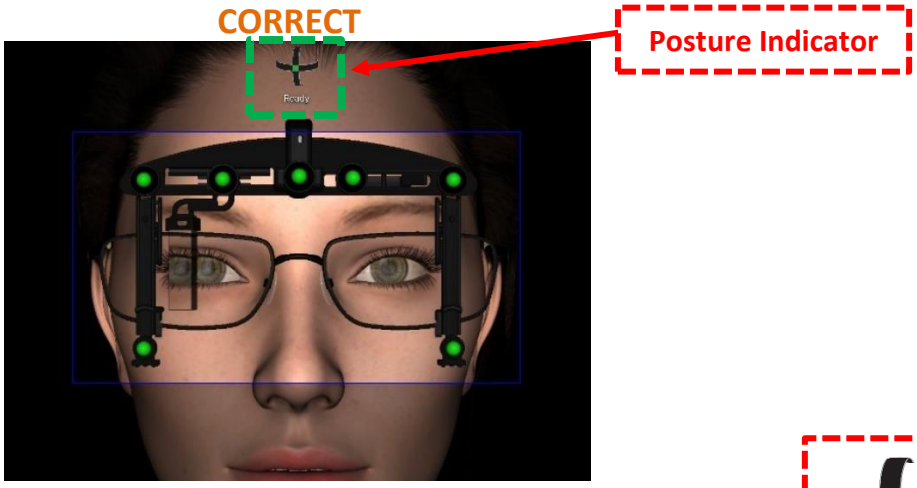
As an alternative to asking the patient to raise or lower their chin, the iPad can be tilted by the operator to re-create the captured posture.

Note:
The iPad may need to be raised or lowered to keep the customer in view.

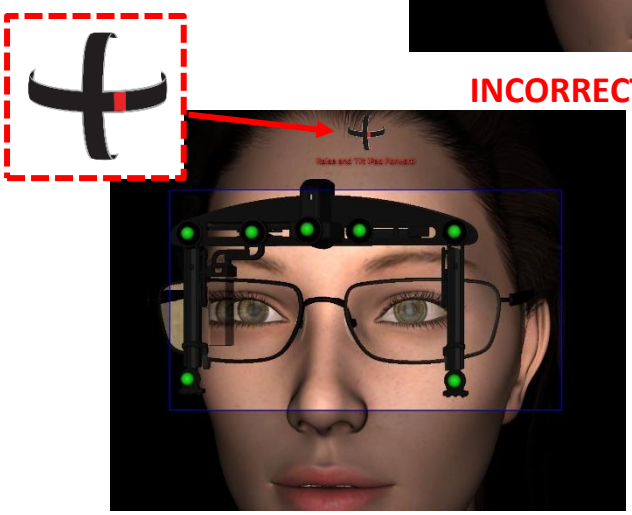


Correct Head Rotation

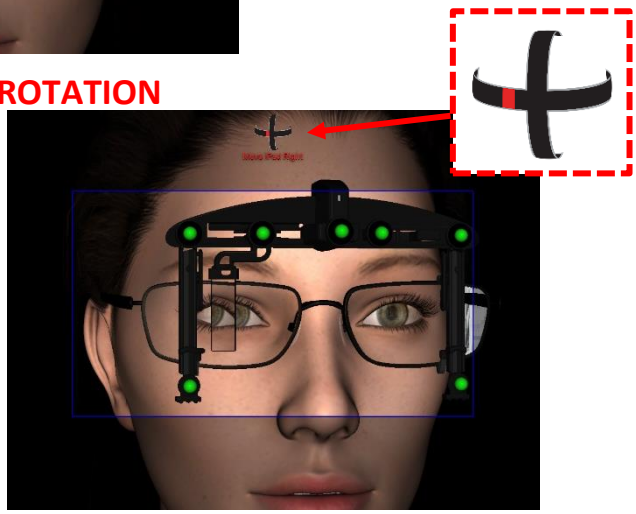
Next, make sure that no head rotation by following the on-screen Posture Indicator and instructions (highlighted below) when taking a picture to eliminate head rotation.



INCORRECT HEAD ROTATION



Resolution: Turn the iPad left



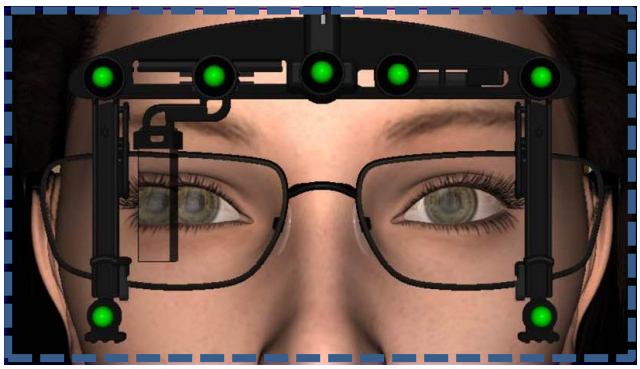
Resolution: Turn the iPad right

Patient Placement

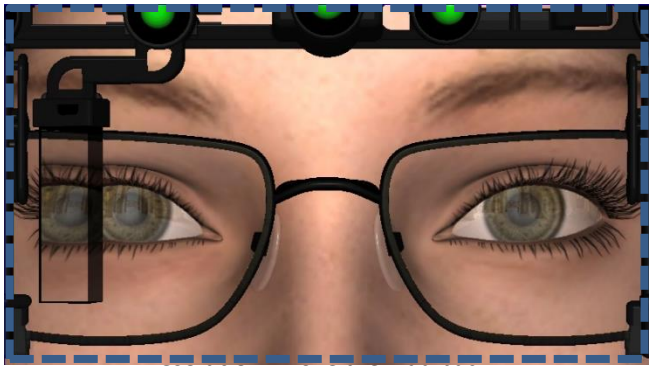
You must also make sure that the OPD and the customer's eyewear is fully visible within the blue rectangle. Once they are in alignment, ask the patient to look at the iPad's camera lens and touch the *Take Picture* button while making sure to hold the iPad still. Alternatively, keep the "Take Picture" button pressed, position and stabilize the tablet, then release the "Take Picture" button when ready.

The image below represents what a correct picture placement looks like prior to taking the picture.

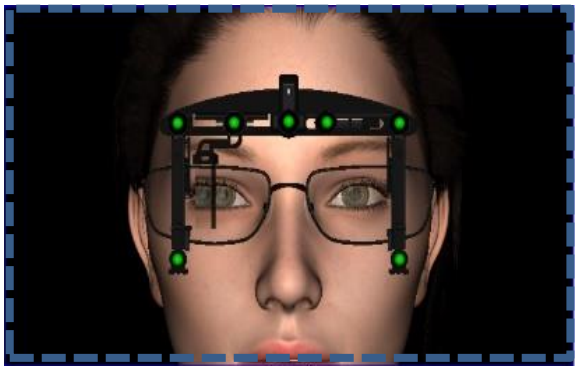
CORRECT PLACEMENT



INCORRECT: SENSORS NOT IN VIEW



INCORRECT: PATIENT TOO FAR



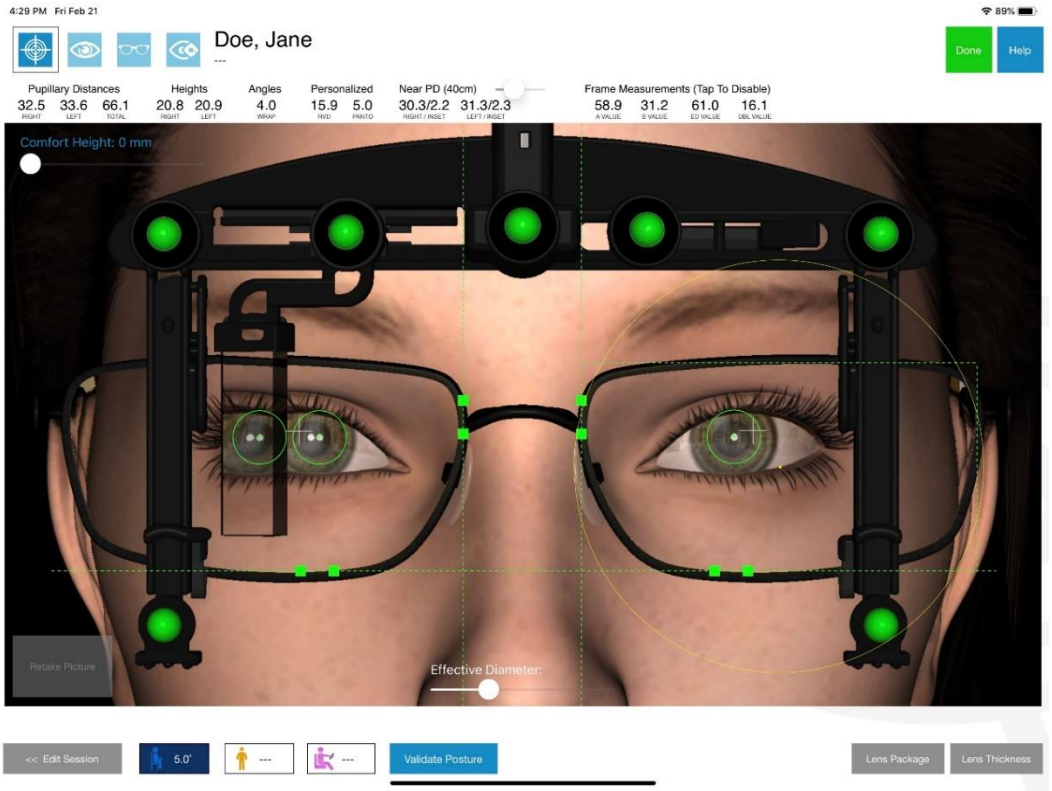
In summary, before taking the picture ensure that:

- The entire eyewear and OPD visible inside rectangle.
- The Posture Indicator displays that there is no head tilt.
- The Posture Indicator displays that there is no head rotation

Image Verification

Once the picture is taken, the measurement picture is displayed. Please take a moment to analyze the image to verify that the pre-fit was properly performed.

On the measurement image, the software draws the following measurement markers: a horizontal line, two vertical lines, two pupil markers, and a marker on the reflection of the pupil inside of the prism.



The OptikamPad software attempts to automatically place all markers in their correct position and will display in Red markers not automatically detected. Please perform the following verifications.

- Verify that the horizontal line is placed on the inner edge of the frame where the frame and the lens come together.
- Verify that the vertical lines are placed on each side of the bridge, ensuring that the same reference point is used on both sides. Do not use the nose pads as a reference point, as they change with the fitting.
- Verify the markers on the pupils. Note that on the side where the prism is located, two reflections are formed on the pupil. Verify that the marker is on the nasal most reflection. This also applies to the pupil reflection inside of the prism. On the left eye, verify that the marker is positioned on the corneal reflection.

Posture Validation (Optional)

Touching the Validate Posture button on the Results screen activates the live posture mode. A gaze marker near the patient's eyes will indicate in real time where the customer is currently looking through the lens.

If the gaze marker is far away from the recorded white Fitting Cross location, the user can replace the posture by touching the Capture button, which will modify the calculated Fitting Heights.

Note: Different posture types can be captured to demonstrate the viability of the progressive zones for multiple activities or to highlight the need for an additional specialty progressive pair.

Explanations of Errors and Warnings

When capturing a measurement image, possible Errors and Warnings may appear. Below, is a complete listing of each with their respective description.

Picture Taking Error Analysis

OptikamPad may reject the image based on one of the following reasons:

Head Rotation Error	The customer's face was rotated left or right beyond acceptable limits
Head Tilt Error	The customer's face was tilted up or down beyond acceptable limits
Detection Error	The OPD was not within the blue rectangle when the picture was taken.
Red X on Wrap Sensor	Wrap arm indicates negative wrap angle. (Wrap arm not set properly)
Red X on Prism Sensor	Picture taken with prism in the parked position.

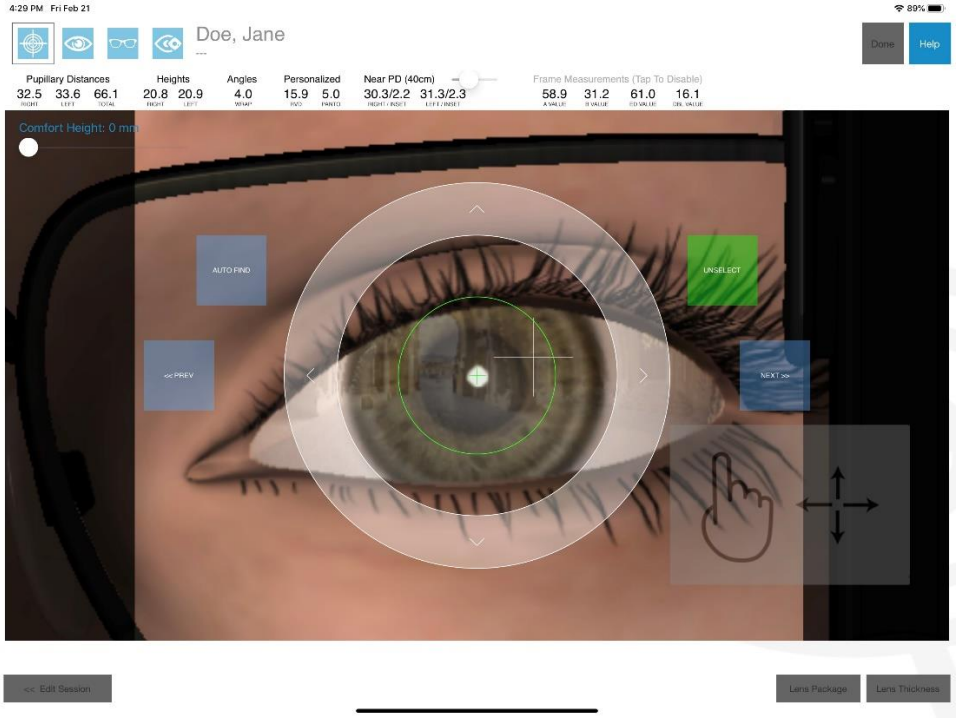
NOTE: The picture must be re-taken to continue the measurement process. (If Wrap and RVD measurement necessary)

Once the picture is taken correctly, OptikamPad may generate the following warnings: (visible in the top left corner of the image)

Warning	Description	Possible Action
Verify Fitting (PD)	PD_L and PD_R differ beyond the set warning limit. (Default PD difference: 2.5mm)	• Verify pre-fit.
Verify Fitting (Height)	H_L and H_R differ beyond the set warning limit. (Default Height difference: 2.5mm)	• Verify OPD is properly seated on the frame. • Verify pre-fit.
Verify Clearance	The clearance between the pupils and the bottom of the frame is below the set warning limit. (Default Clearance: 8mm)	• Verify pre-fit. • Verify natural posture.
Verify Panto	The customer pantoscopic tilt is beyond the set warning limit. (Default High Panto: 20°)	• Verify OPD is properly seated on the frame. • Verify natural posture.
Minimum Height Check	Lens package does not satisfy the minimum fitting height.	• Select a different lens package
RVD out of Range	Pupil is not visible within the prism or the marker is not placed on the corneal reflection	• Retake picture or reposition the pupil reflection
Warnings do not indicate error but simply suggest areas that should be checked.		
NOTE: OptikamPad warning limit values can be changed or disabled in Settings → Measurements → Warning Configuration.		

Marker Placement

If you spot a displaced marker, adjust its position by first selecting the marker. Selecting a marker is done by touching the two square anchors in the case of the lines, or on the crosshairs in the case of the pupils.



Once a marker is selected, there are three ways to adjust its position.

- Drag outside of the directional ring to slide the marker in place
- Tap anywhere inside the ring to move the maker to a specific spot
- Use the arrows to make fine adjustments.

Quickly navigate through the different markers using the *Next* and *Previous* buttons on each side of the picture. When all of the markers have been set, return to the full view mode by touching the *Unselect* button. Now you have all of the measurements needed to order your lenses.

Frame Measurements

Frame measurements can also be captured by touching on *Tap to Enable Frame Measurements*. This displays a green corner shape and a yellow circle.

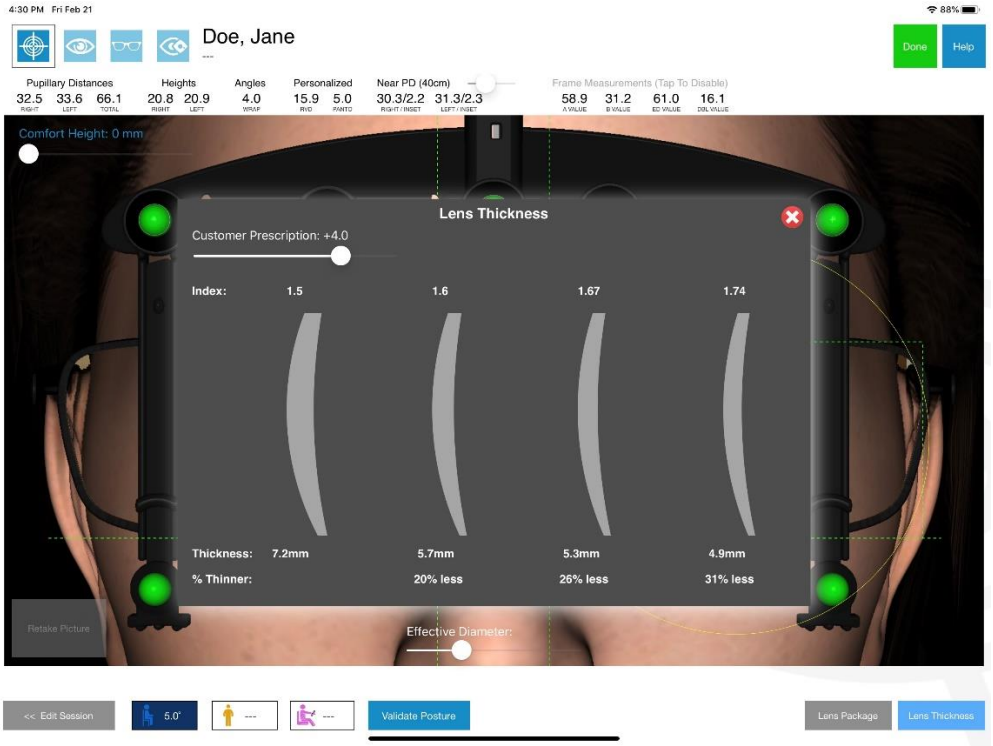
Perform the following steps to obtain Frame Measurements:

- Place the green corner such that the horizontal segment is placed at the top of the lens and the vertical segment is placed on the temporal side of the lens. This completes the boxing of the lens.
- Change the size of the yellow circle by dragging the Effective Diameter slider at the bottom right hand side of the screen so that the lens fits inside the smallest sized circle.

The A, B, ED and DBL frame measurements are displayed on the right side of the results bar.

Lens Thickness

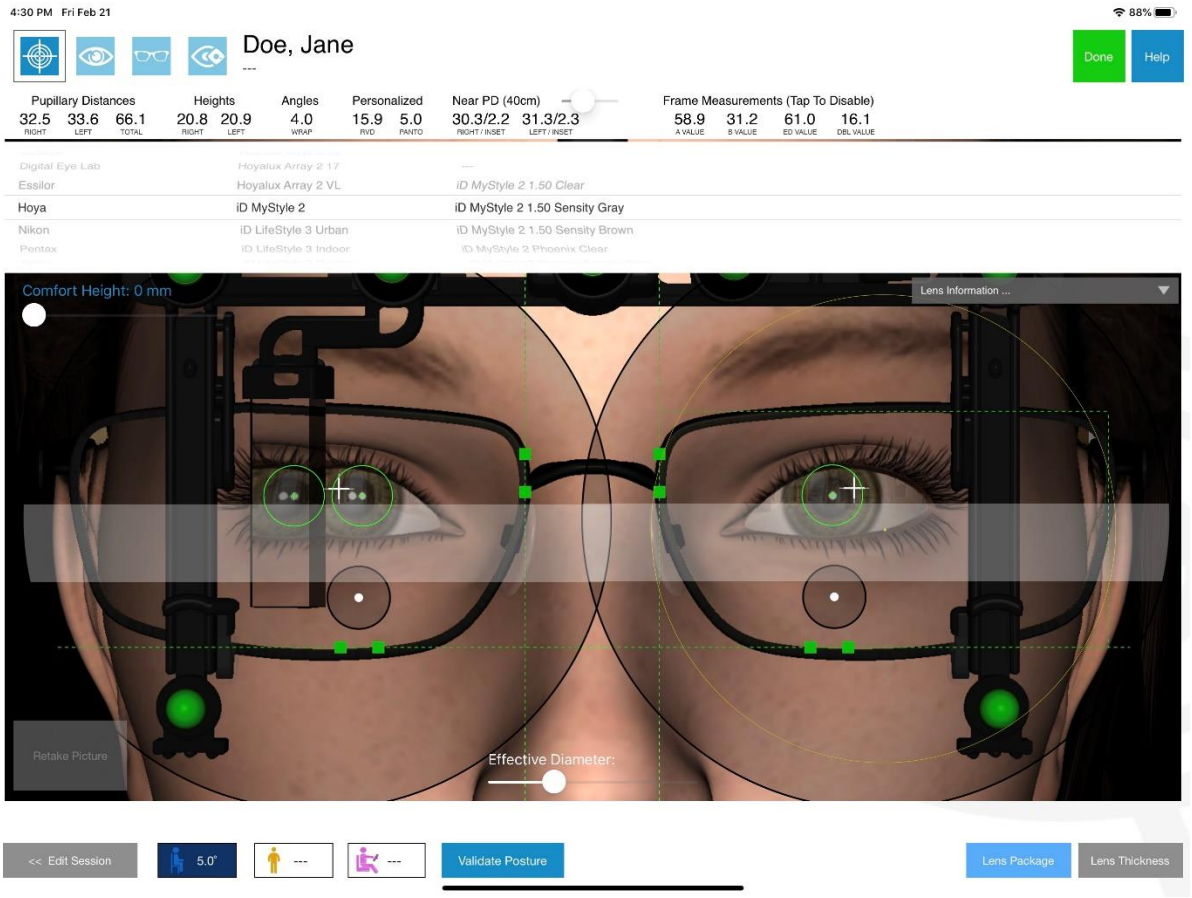
Now that the Frame Measurements are complete, the Lens Thickness button becomes available in full view mode. In the *Lens Thickness* demo, drag the Rx slider to select the patients' approximate prescription.



This displays the difference in thickness between a 1.5, 1.6, 1.67 and 1.74 lens using the patient's Pupillary Distance measurements and their frame measurements. Exit by touching the 'X' button at the top-right hand side of the *Lens Thickness* window.

Lens Packages

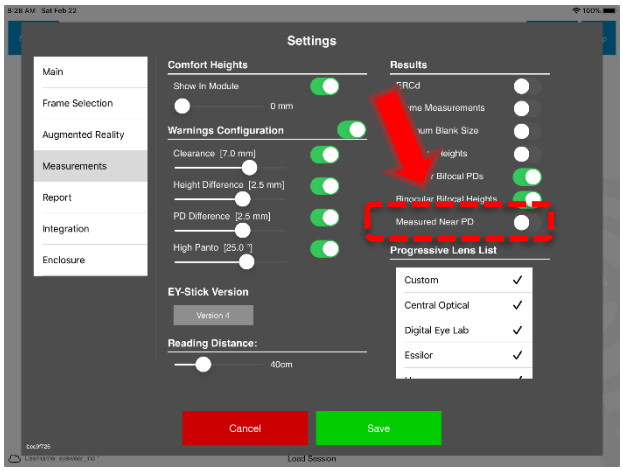
You can also touch the Lens Package button to verify whether the chosen Lens Package respects the minimum fitting height and whether the lens cuts-out correctly.



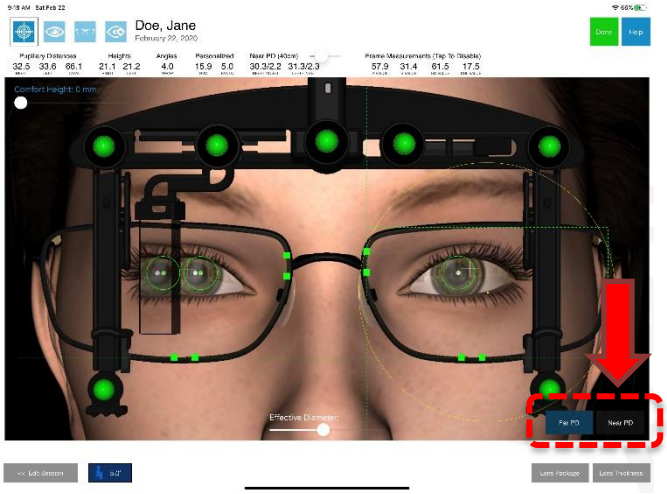
Near PD Measurements

Near PD measurements are calculated based on the Far PD picture by default. Optionally, a Near PD measurement can be performed with a 2nd front camera picture.

Enable NearPD measurements in the Settings panel

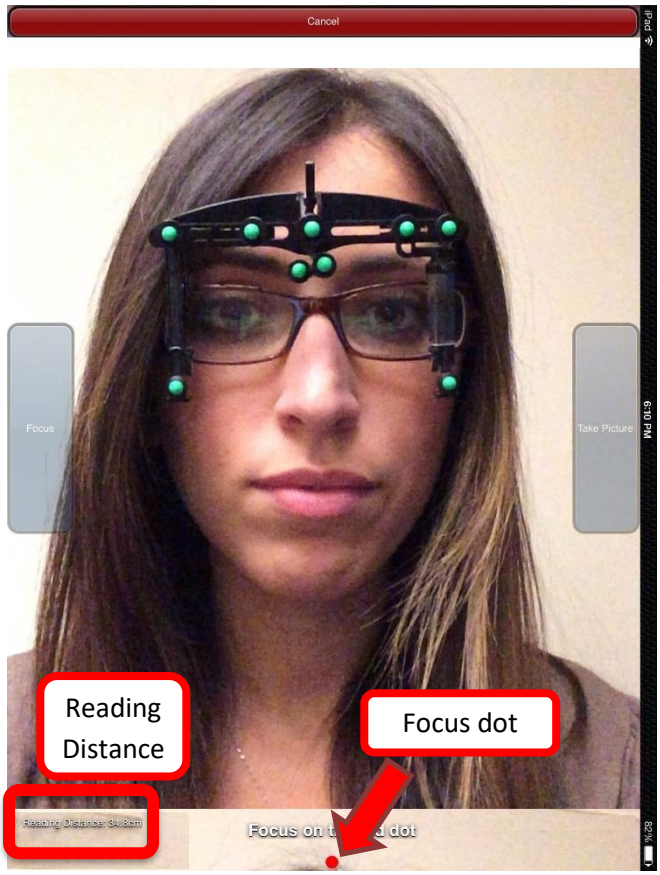


Tap the NearPD button to perform measurement



Move the prism all the way to the left, it will not be required for Near PD measurement.

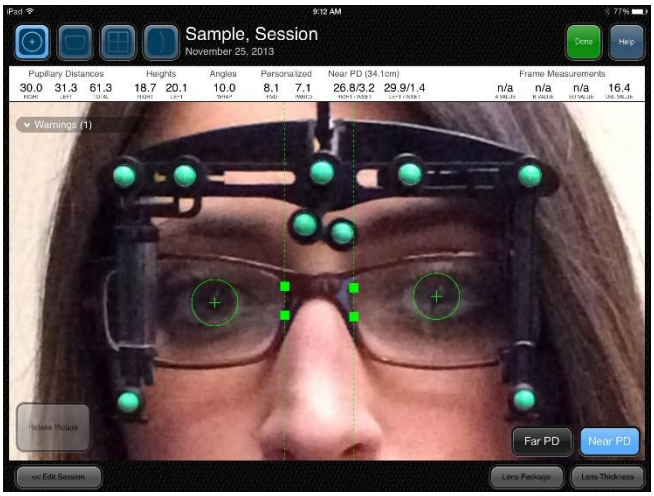
Hand the iPad to the customer. Have them hold it as if they are reading a book. Tap the focus button to auto-focus the camera and adjust the image for lighting conditions.



Instruct the customer to move the iPad closer or further away from their face until the correct reading distance is indicated in the bottom left corner of the screen.

Each time the reading distance is changed, the customer must hold still for three seconds to allow OptikamPad to re-calculate the new value.

Ensure that the customer is focusing on the red dot at the bottom of the screen. When ready, tap the Take Picture button.

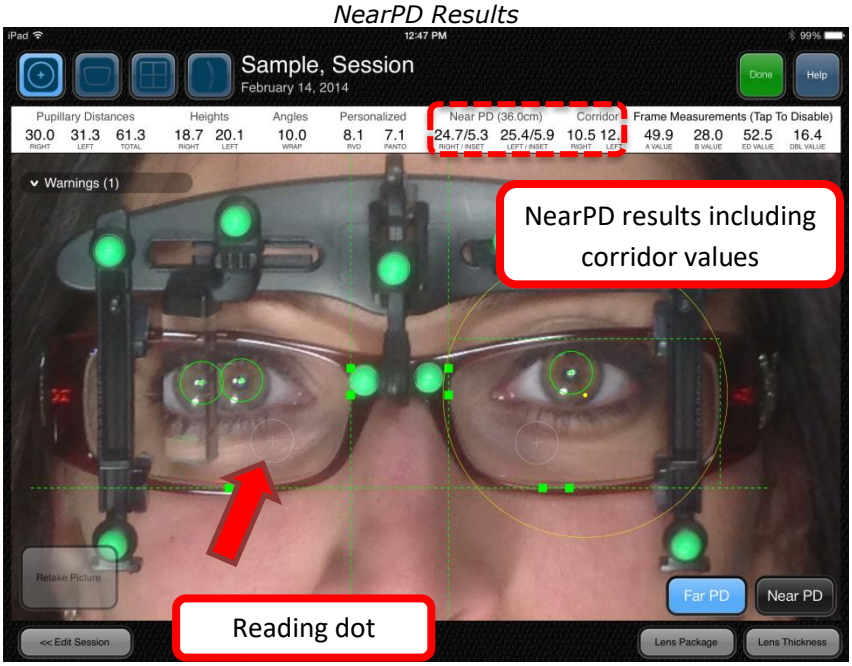


Verify that the vertical lines are placed on each side of the bridge, ensuring that the same reference point is used on both sides. Do not use the nose pads as a reference point, as they change with the fitting.

Verify that the pupil markers are placed at the center of each pupil. Tap the Lighten button to increase the image contrast. This will make the iris more distinguishable from the background image.

The Near PD results including the Near PD corridor measurements are displayed in the results panel at the top of the screen. Tap the Near PD result to toggle between NearPD (measurement based solely on NearPD picture) and Proportional Near PD (NearPD measurement derived from FarPD monocular and NearPD convergence values). Additionally, the reading dot is overlaid on the FarPD picture.

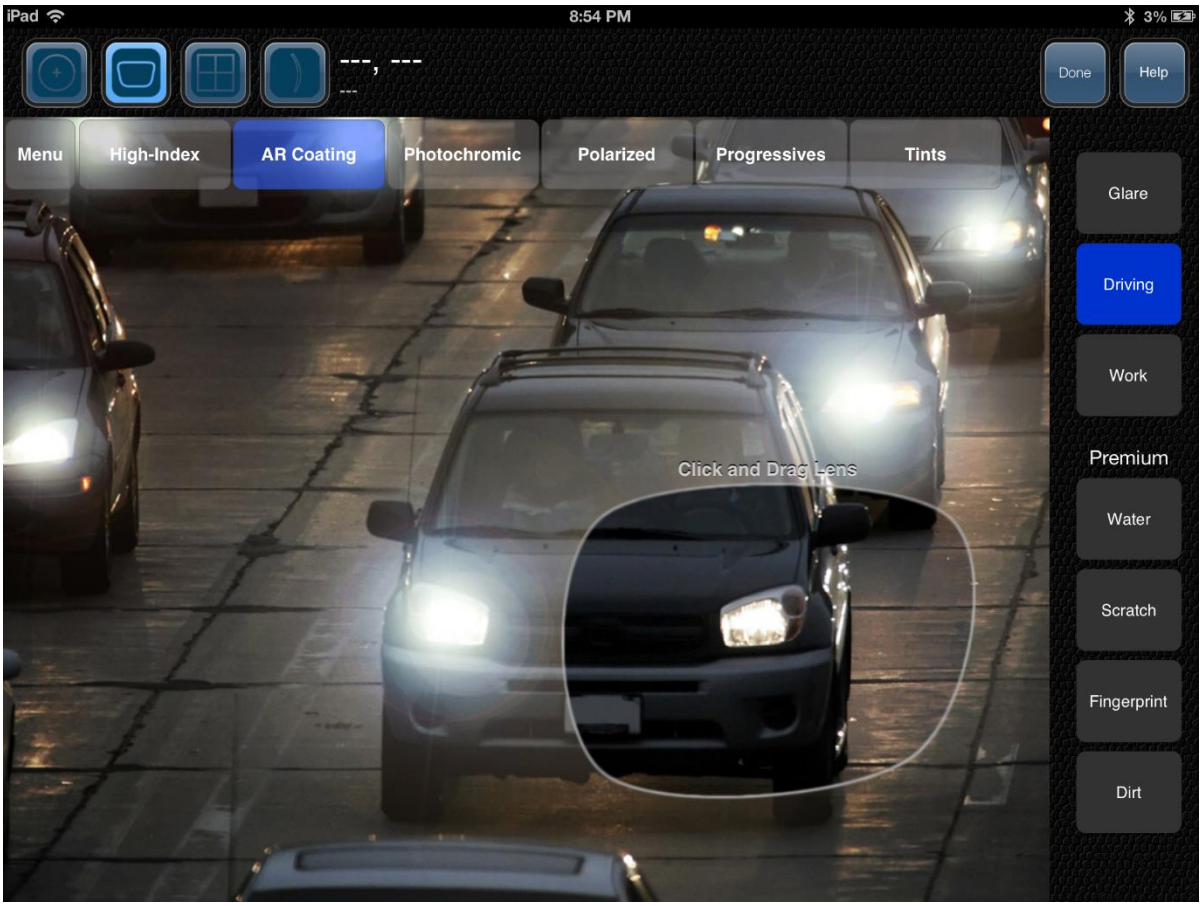
NearPD Results



LENS DEMOS

The Lens Demos module allows you to demonstrate the advantages of premium lens options in a quick and interactive way. The demos can be navigated by touching the lens options at the top and sub-options on the right hand side.

Touching the MENU button expands and collapses the list of lens options.



The following demos are available:

- High-Index
- AR Coating
- Photochromic Lenses
- Polarized Lenses
- Progressive Lens Designs
- Color Tints

Touching and dragging the lens in each demo will interactively showcase lens benefits in various settings.

FRAME SELECTION

The Frame selection module enables customers to see how they look like in different eyewear. The side-by-side image comparison exposes the customer to frames of different styles, resulting in an increase in multiple-frame sales.

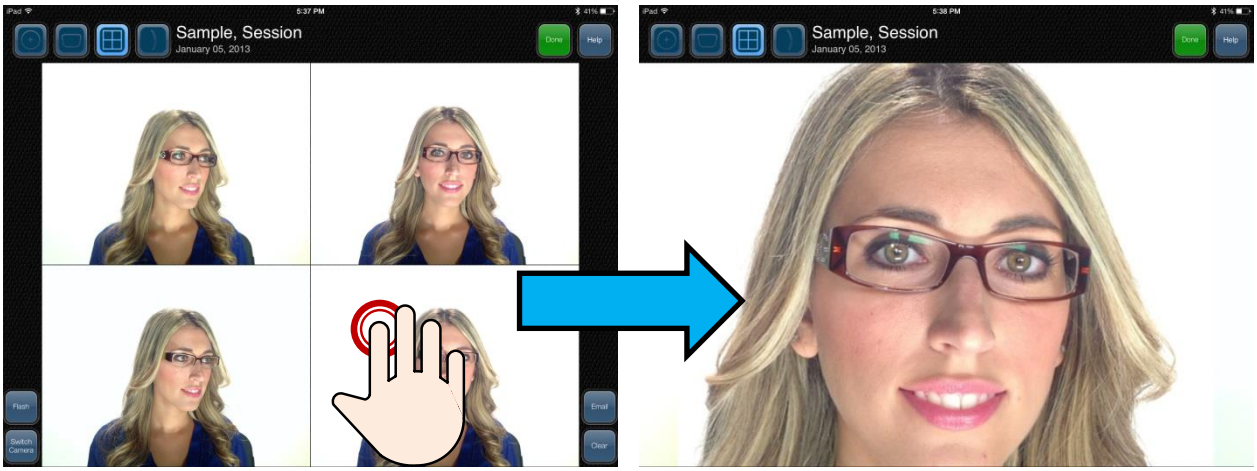
To use this module, simply touch one of the four quadrants to activate live video. Once the patient is in view, touch on the live video feed once ready to capture the image. This process may be repeated in the other quadrants.

You can Email customers their pictures by touching the Email button located at the bottom right hand side of the screen. An e-mail account must first be configured on the iPad in order to use this function.

You can clear the pictures by touching the clear button.

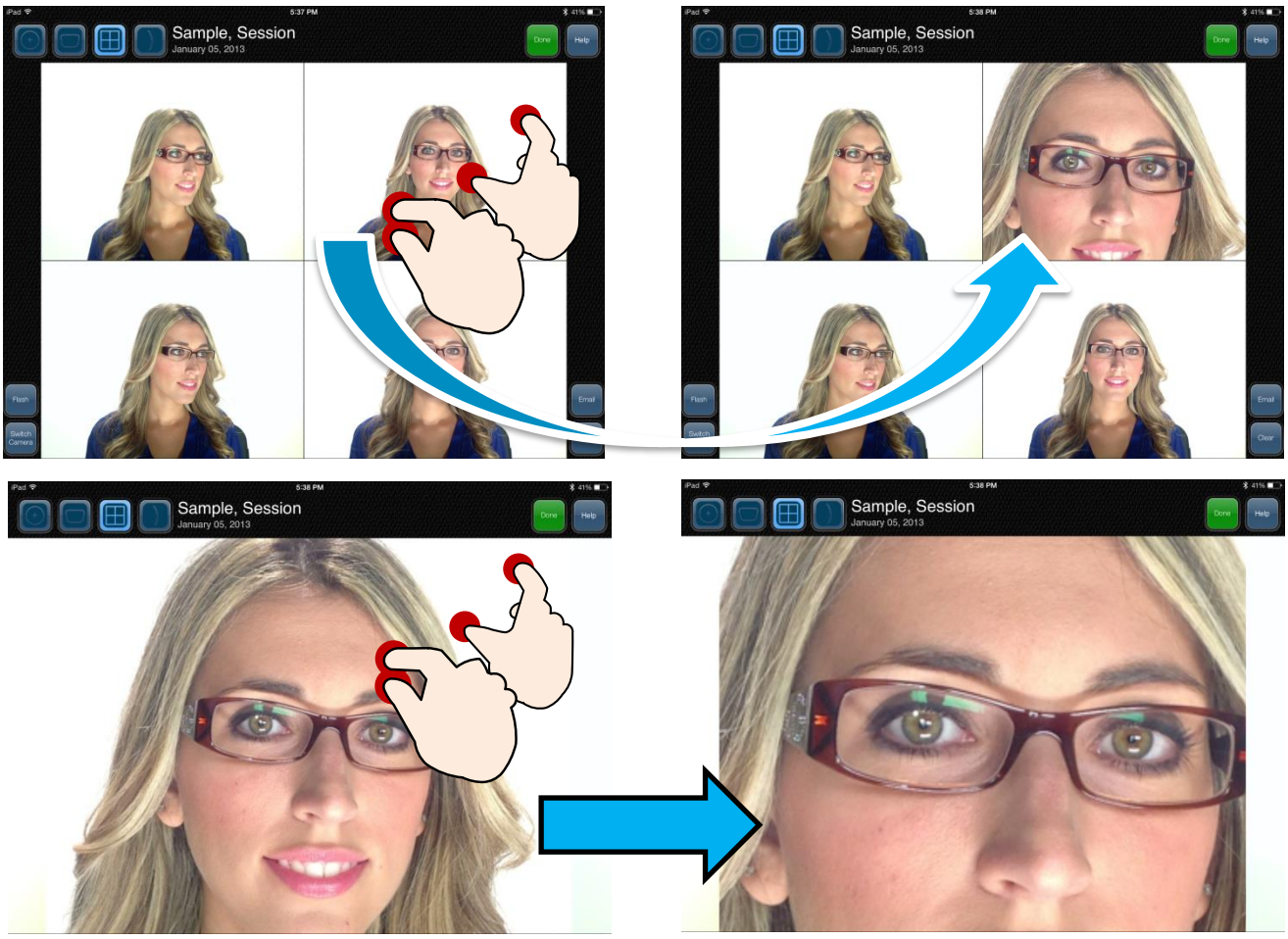
Full Screen

Full-screen is performed with a double-tap on any of the four quadrants. When in full view, swipe the images to scroll through them. Split screen view is returned to by double tapping the full screen image.



Pan & Zoom

Pinch gestures can be used to zoom in an image in one of the 4 quadrants or a full screen image.



AUGMENTED REALITY

When launching the Augmented Reality module you are presented with two live video windows. Below each video window, several lens options can be selected: the lens type, the coating, the tints and colors. This live simulation showcases the benefits of various lens options using your office setting. Point the iPad around different parts of your office to highlight various lens benefits.

Scenes

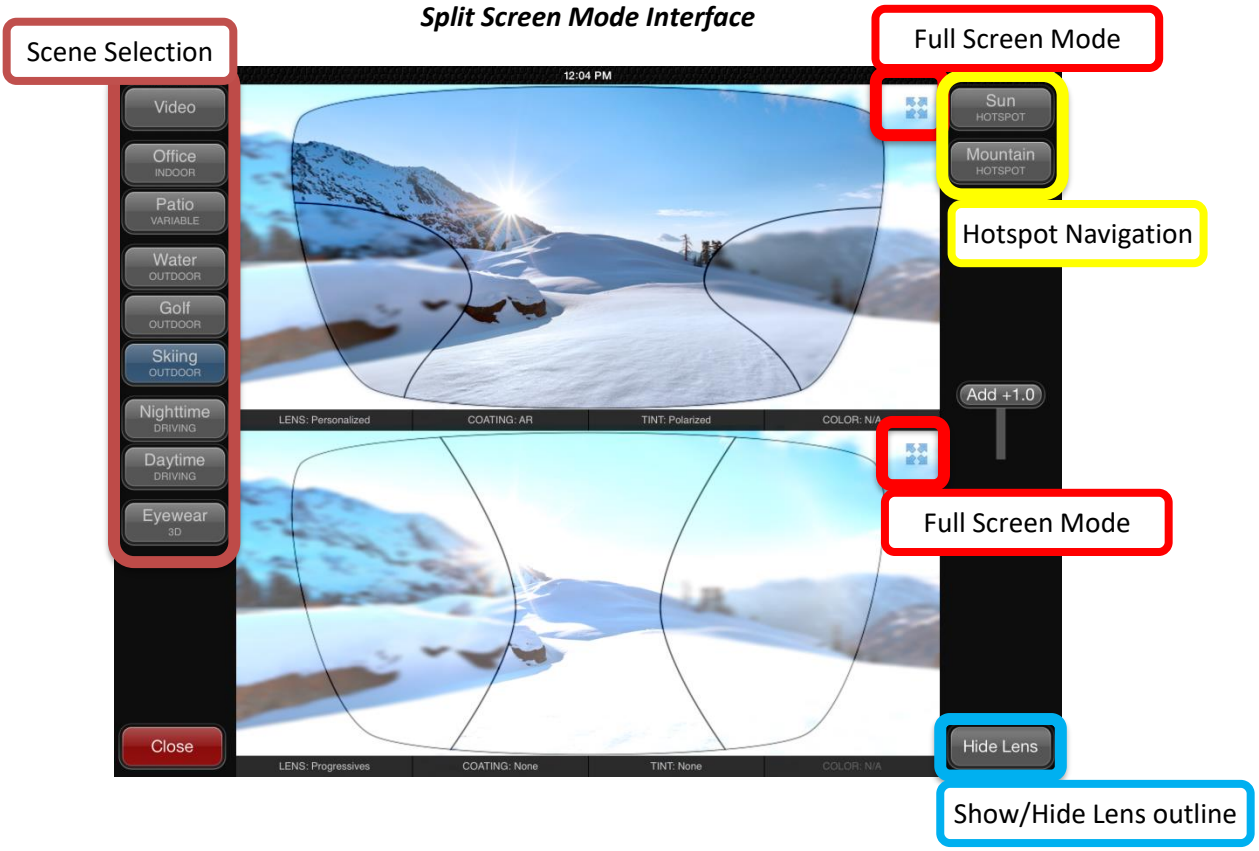
You can select pre-loaded scenes which simulate lens options in a 3D environment using the buttons on the left side of the screen.

You can move around the scene by touching and dragging on the picture. Performing a pinch gesture will zoom in and out of the scene.

Hotspots

In each scene, a list of Hotspots are available on the right side of the screen that allow you to instantly pan the lens to specific location. This allows you to quickly illustrate lens benefits in meaningful areas of the scene.

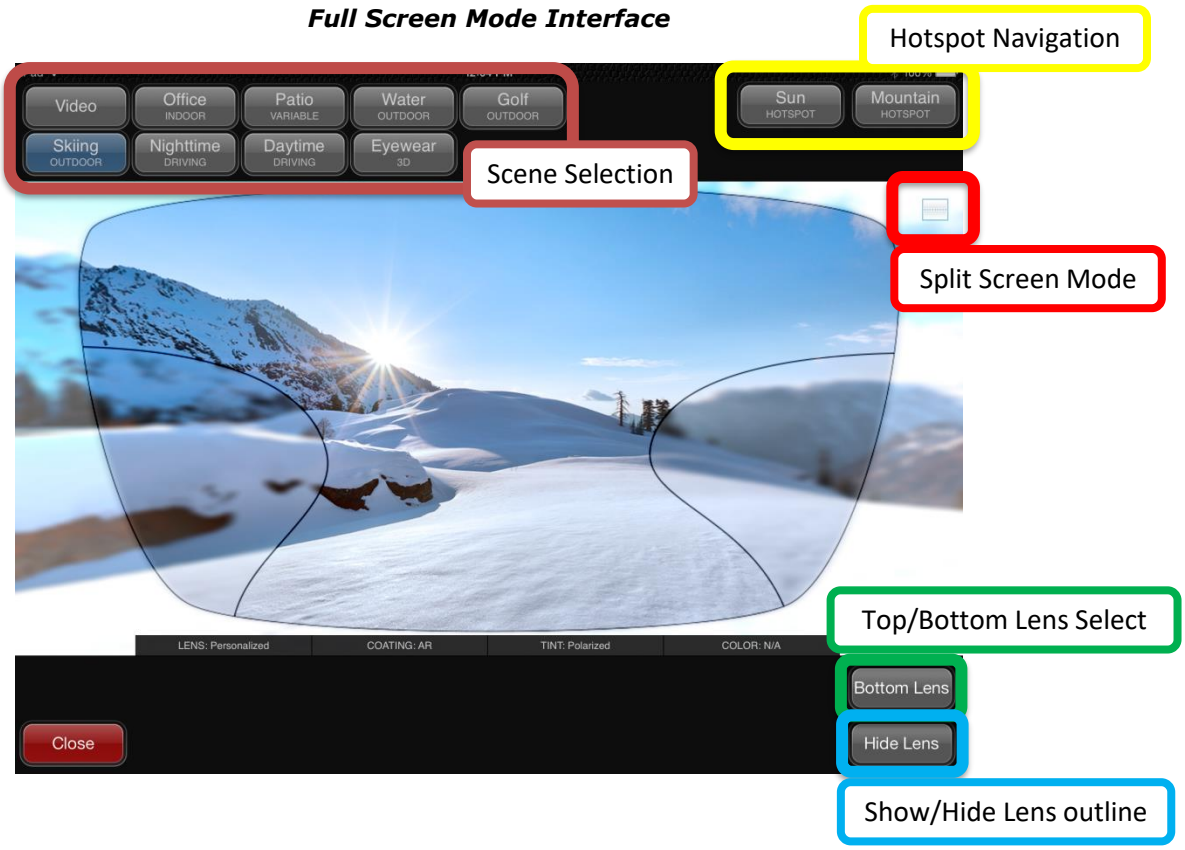
Split Screen Mode Interface



Full-Screen

Tapping the Full Screen icon will enlarge one of the lens views to full-screen. The user can quickly be shown the differences between the top and bottom lenses by tapping the Top Lens/Bottom Lens buttons. Split screen mode is returned to by tapping the Split Screen button.

Full Screen Mode Interface



3D Eyewear Scene

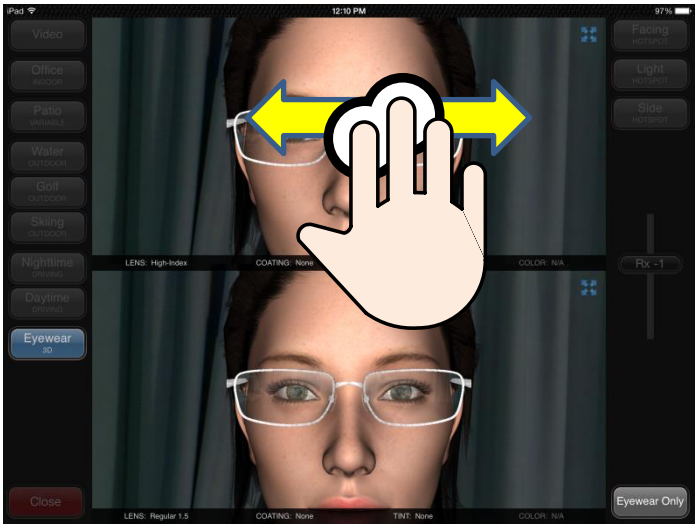
Tapping the "*Eyewear3D*" button will launch the 3D Eyewear scene that helps showcase the benefits of High-Index lenses, AR coating and color tints.

3D Eyewear

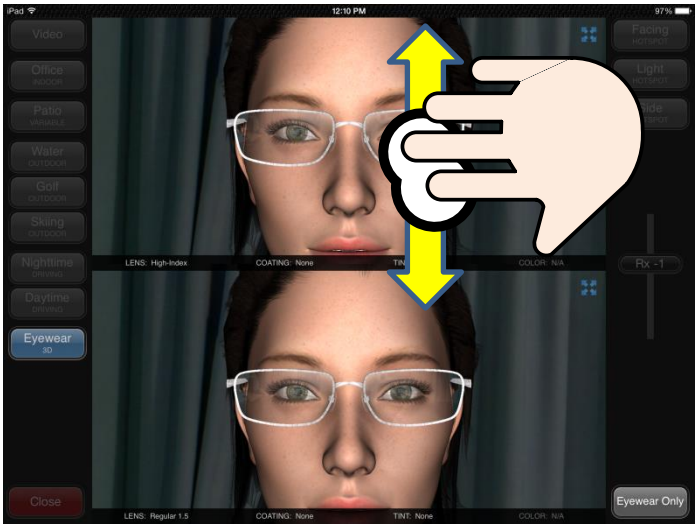
3D Eyewear frame **color** can be changed by performing a right or left two-finger swipe gesture on top of the 3D image.

3D Eyewear frame **type** can be toggled between rimless and metal by performing an up or down two-finger swipe gesture on top of the 3D image.

Two-finger swipe left or right to change frame color

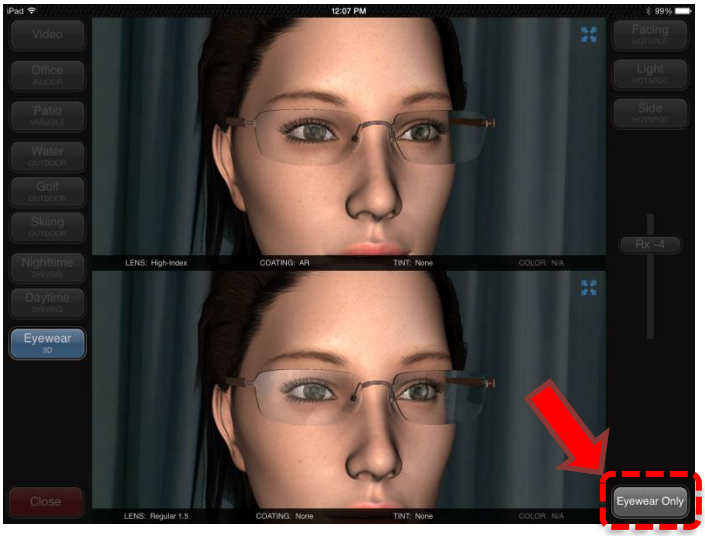


Two-finger swipe up or down to change frame type



3D Eyewear can be displayed without the patient by taping on the ‘Eyewear Only’ button.

3D Eyewear with patient

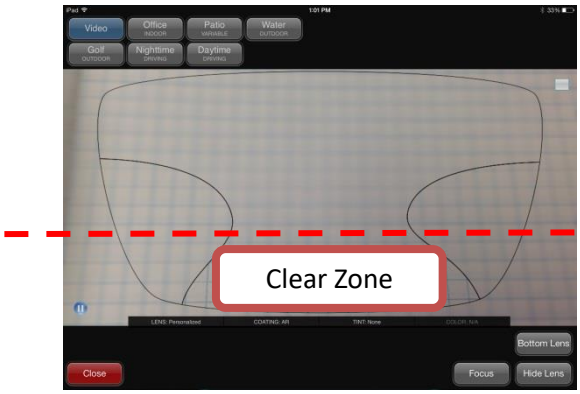
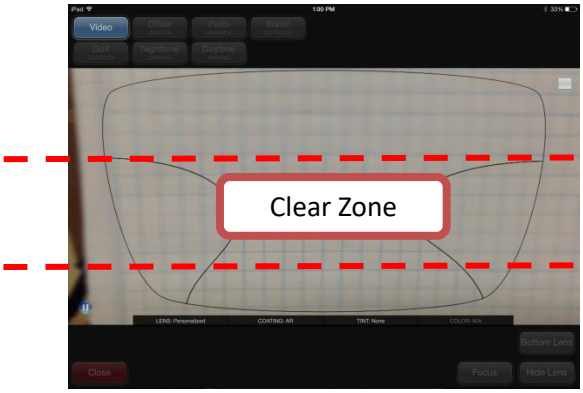


3D Eyewear without patient

To exit the Augmented Reality module tap the Close button located at the bottom-left corner of the screen.

Blur Simulation

This feature must be enabled in Settings → Augmented Reality. It simulates the progressive lens blur/clear zones based on iPad tilt. This simulation is only available in Augmented Reality live video mode.

iPad Tilt	Zone blurring
Reading Distance 	
Mid Distance 	
Far Distance