Cellview Imaging WRI-1

How To Take Quality Retinal Imaging with the WRI-1

Discover high-quality
widefield retinal imaging

CELLVIEW IMAGING
ADVANCED OPHTHALMIC IMAGING SYSTEMS

Before Starting

Check the environment

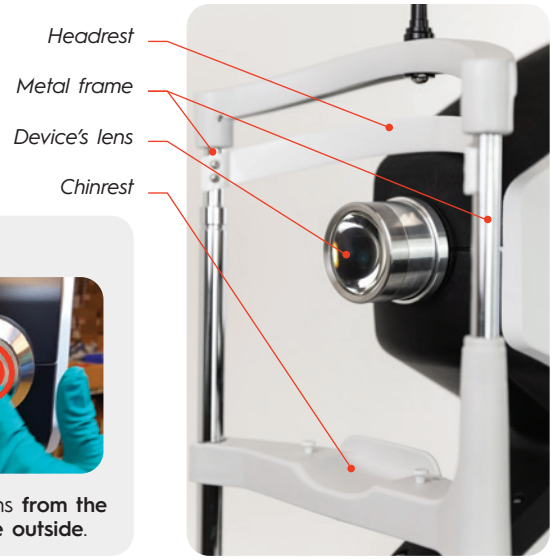
- Ambient light:
  - Avoid bright illumination in the room.
  - Avoid direct light on the device.
- Ask the patient to remove their glasses and hat if necessary.
- Check you **removed the lens cap**.

Launch the Capture software

- Turn on the device.
- Connect to WRI-1 Station, choose your clinic and create a new patient file.
- Click on **"Begin Scan"**.

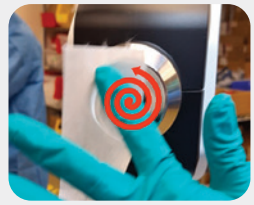
1. Clean the device properly

- Clean the chinrest, headrest, and metal frame with a soft cloth moistened with alcohol.
- We recommend to use a soft microfiber cloth to gently remove the dust and dirt on the lens between each patient.
- If the lens remains dirty, properly clean the lens with approved cleaning solution and lens paper as follow.



Tips: Properly clean the lens

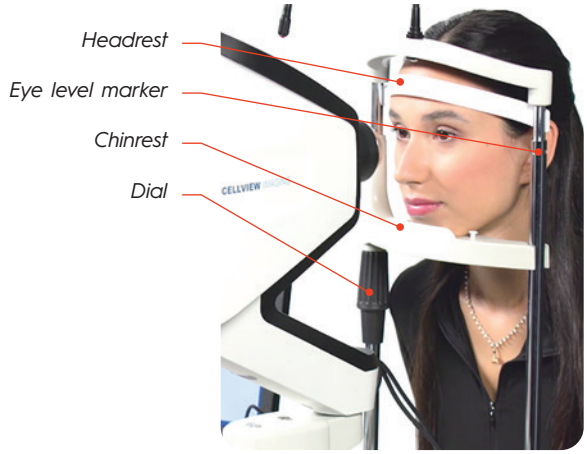
- Drops of Lens Cleaner on the optical paper.



- Clean the lens **from the center to the outside**.

2. Position the patient

- Stand beside the device to adjust the chinrest height using the dial. Align the patient's eye with the eye level marker.
- Patient's forehead should touch the headrest.
- Patient's chin should firmly press on the bottom & front of the chinrest.
- Raise/lower table as needed for comfort and proper alignment.



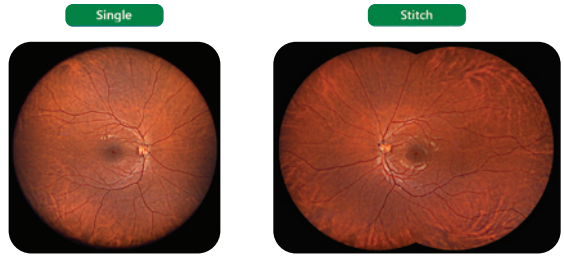
Tips: Verify the patient's posture

- Lower the height of the table slightly to allow the patient to rest their forehead against the forehead rest.
- Show the patient where to rest their arms.

3. Select the capture mode

- **Single mode:** one picture covering 133° with movable fixation target.
- **Stitch mode:** two pictures combined with pre-set fixation targets covering up to 200° horizontally.

Tips:
Use Single mode to capture the desired area of the retina, especially the extreme periphery.



4. Provide clear instructions to the patient

Request the patient to:

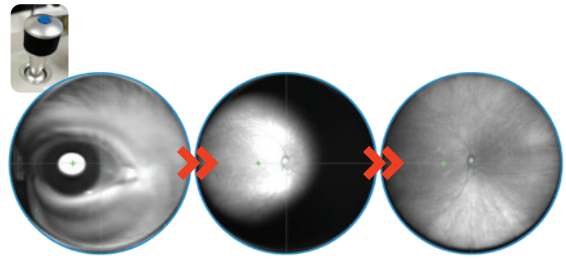
- Keep their forehead touching the headrest.
- Keep their chin firmly pressed on the bottom & front of chinrest.
- Look at the fixation target.
- Stay as stable as possible.
- Avoid speaking.
- Do not blink when instructed to do so.

Tips: Inform the patient

- Explain the process and what the patient has to do to limit speaking opportunities.
- Or ask the patient to clench their teeth.
- The more the patient is guided, **the faster and more efficient** the photo-taking process is.

5. Align the device properly

- Launch the IR live image by clicking on the joystick button (device's base) or on the **"Start"** button (monitor).
- Align the **fixation target** in the center of the patient's pupil.
- Move the device forward until the blue circle is filled.



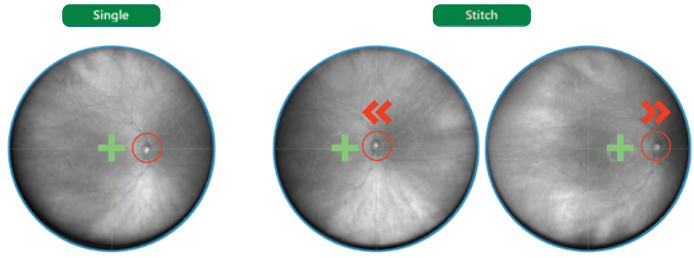
Tips: Pay attention to the position of the device in relation to the patient's face

- Distance of the device:
  - **Too far:** the patient's retina doesn't fill the blue circle and black part remains on the edge.
  - **Too close:** a white halo of reflection appears in the center and a circular shadow appears around the edges.
- Swivel the device from left to right to:
  - Overcome **prominent anatomical features** (nose, brow ridge).
  - Go through **intraocular opacities** (cataract, floaters...).
  - Help in visualizing the **extreme peripheral regions** of the retina.
- **Don't worry about the eyelashes** during alignment to avoid tiring the patient.

Left / Right swivel

6. Check the patient's gaze

- The patient's optic nerve head should follow the fixation target when he/she actually looks at it.
- Look at the optic nerve head's position to check the patient's fixation.



Centered fixation target
Optic nerve head just close to the center

Fixation target on the periphery
Off-center optic nerve head

Tips: Help the patient to see the fixation target (which appears "outside" of the device for peripheral capture)

- The fixation target is:
  - In the **same direction** horizontally: if it appears left on the screen, patient looks at the left side.
  - **Inverted** vertically: if it appears at the top on the screen, patient looks at the bottom.
  - Stitch Mode fixation target: always in the left side for the 1st picture and right side for the 2nd one.
- If needed:
  - Enable the "**Blinking**" mode in Settings: the fixation target will flicker.
  - Ask the patient to **hide the opposite eye** (without closing it) with their hand.
  - Slowly move the fixation target from the center toward the periphery to guide the patient.

7. Adjust the focus

- Press the joystick button (on the device's body) or click on the "**Focus**" button (monitor).

Tips: Inform the patient

- Still don't pay attention to the eyelashes.
- Ask the patient to look at the fixation target to stabilize its gaze.

8. Take the picture

- Ask the patient to open their eyes as wide as possible without blinking.
- Press the joystick button (device's body) or click on the "**Capture**" button (monitor).

Tips: Anticipate patient's blink

- After asking the patient to open wide, wait about one second before pressing the Capture button.

9. Accept and wait for the next picture

- Ask the patient to close their eyes a few seconds before taking the second picture.
- **Single mode:** Either "**Start**" a new capture or "**Save & Review**" to close the Capture software.
- **Stitch mode:** Accept the first image taken: live IR starts again and repeat the steps from point 4.

Tips: In Stitch Mode, no focus requested for the 2nd picture

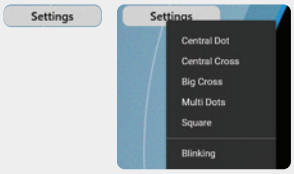
- When taking the second picture of the Stitch mode, there is no need to start again the IR live image and no need to Focus again. Press once the joystick (device's base) or the "Capture" button to take the picture. Make sure the device **is properly distanced to focus on the retina**.

10. Terminate the process

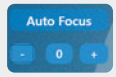
- Click on "**Save and Review**" to close the Capture software and save the data.

Last few more tips

Change the fixation target
On "Settings" Menu, change the size of the fixation target.



Manual Focus and Gain
Disable Auto-Focus and Auto-Gain features to overcome specific cases such as high myopia or cataract.



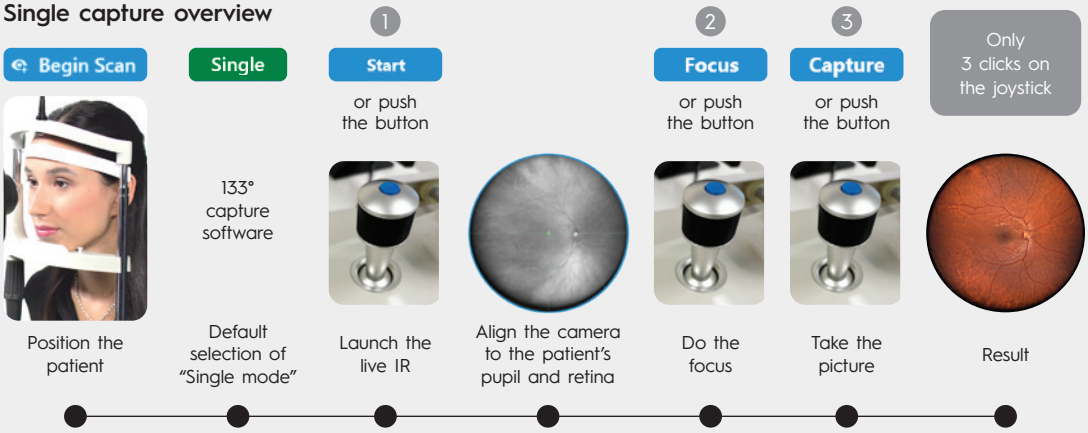
Manual Focus: -X to +X

Manual Gain: Low / Medium / High

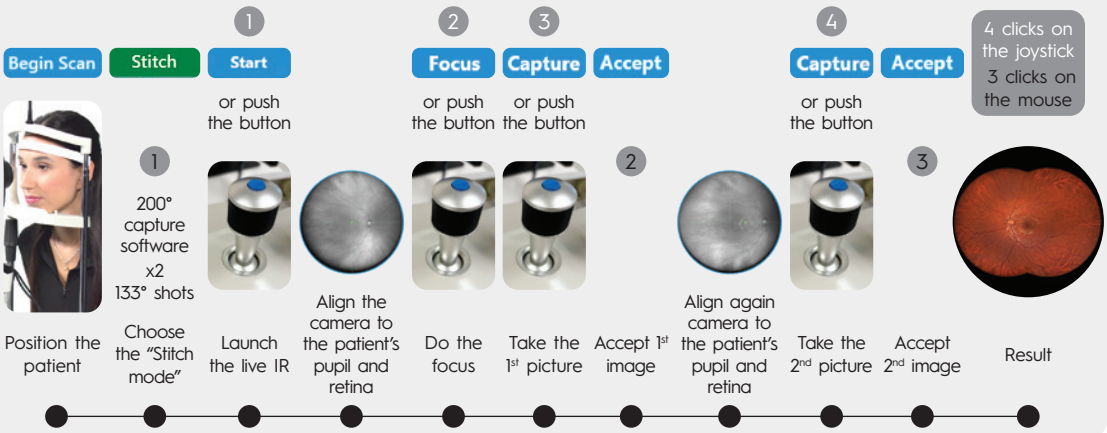
Follow-up (Single mode)
Review the previous pictures taken in the "Scan History" menu. Select the image and the fixation target of the picture will be replaced at the same location.

Overviews of the capture process

Single capture overview



Stitch capture overview



Cellview is a EU Class I medical device intended for Optometry. CE marked. Manufacturer: Cellview.
This product is an FDA Class II medical device, 510(k)-exempt under 21 CFR 886.1120, subject to the limitations in 21 CFR 886.9. For professional use only, read attentively the instructions for use. As improvements are made, these specifications are not contractually binding and may be modified without prior notice.

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