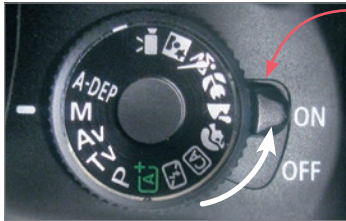# VECTRA H1

Capturing Images to an SD Card

(Capture to the VECTRA H1 camera's SD card and then transfer the images to the VECTRA patient chart.)
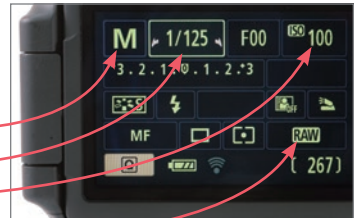
1. USING THE H1 CAMERA

1 Make sure the SD card is properly inserted into its slot on the VECTRA H1 camera.
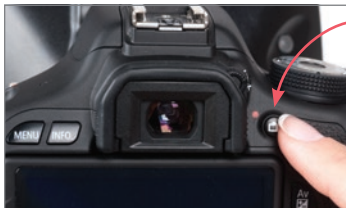
2 Rotate the power switch (top of the camera) to **ON**.

3 Make sure the settings displayed on the back of the camera are as follows:

> **M** (manual mode)
> **1/125** (shutter speed)
> **ISO 100**
> **RAW** (image file format)

(For more on camera settings, see Appendix B.)

4 Press the ⬛ **live view** button to the right of the viewfinder. *The camera will automatically suspend operation after 4 minutes of inactivity. Press ⬛ again to resume.*

5 Turn on the ranging lights by pressing the button on the right of the lens housing (**ON** glows green). *The ranging lights will automatically turn off after 1 minute of inactivity. Press the ranging lights button again to restart.*

6 When the ranging lights are converged and the target area is centered in the left side of the split screen preview, press the shutter release to capture the image.

2. CAPTURE 3D IMAGES FOR STITCHING

✅ **Consistent patient positioning** is the most important aspect of capturing medical images. Follow consistent methods to ensure consistent patient positioning.

✅ **The patient should remain completely still throughout the 3 image captures.**

patient preparation
- Remove all jewelry near the area of interest.
- Remove sweat, oils, or anything shiny from the skin.
- Remove all make-up for facial imaging.
- Make sure the patient's hair and clothing is secured away from the face, ears and neck.

for best results
- For facial images, the patient's eyes should be open, gaze fixed straight ahead, not looking up or down, mouth closed, relaxed facial expression.

- For the right and left views of the face, the camera should be angled upward toward the patient's head to optimize chin and neck detail.

- Capture the images in the specified order: right side, front, left side.

- Center the target area in the left side of the split screen in the LCD. Aim the ranging lights toward the middle of the field of interest at a representative area of focus (i.e., not at the tip of the nose, since it's closer than the rest of the face). The ranging lights converge into a single green dot when the camera is at the correct shooting distance (approximately 14 inches/35cm).

- The flashes should recharge as you move into place for the next capture.

✔ **For follow-up images:** Review the baseline image before initiating image capture, to assist in positioning the patient correctly.

THE PATIENT SHOULD REMAIN COMPLETELY STILL THROUGHOUT THE 3 IMAGE CAPTURES.

capture 1: RIGHT side

Position camera at a 45° angle from the front toward the RIGHT side of the face.
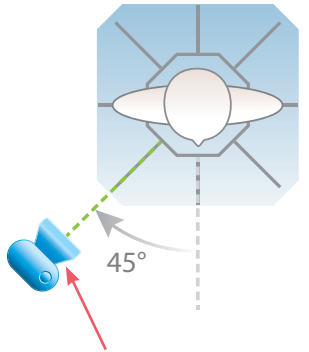
45°

1 Stand at 45 degrees from the direction the patient is facing (photographer moves left of patient).

2 Hold the camera level with the patient's chest (about 12 inches below the middle of the patient's face).
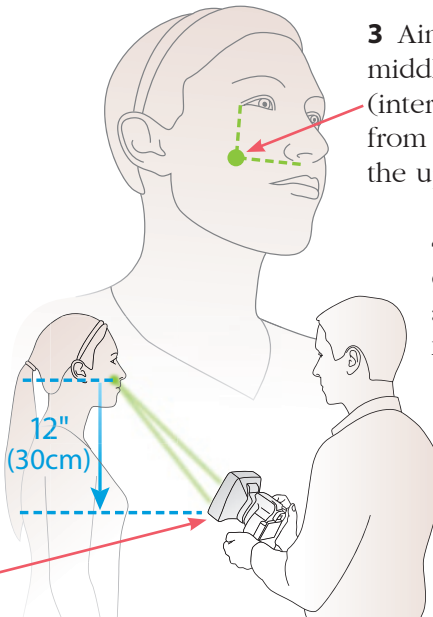
3 Aim the green dots at the middle of the patient's cheek (intersection of imaginary lines from the lateral canthus and the upper lip).

4 Converge the green dots to a single point by adjusting camera distance from the patient.
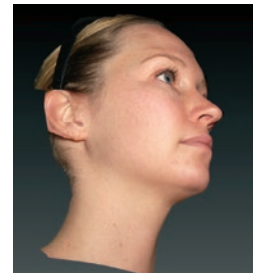
5 Capture image.

12"
(30cm)

Camera at patient's chest level, about 12 inches (30cm) below mid-face, and angled upward.

ranging lights at mid face
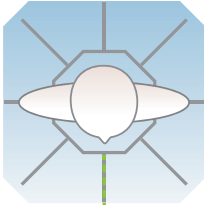
live preview during right view capture

captured 3D image

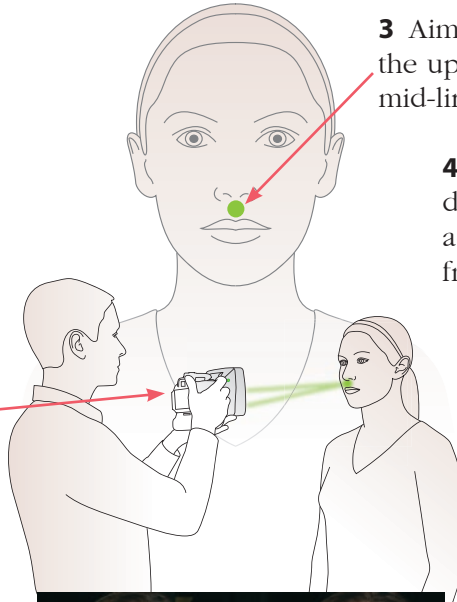**THE PATIENT SHOULD REMAIN COMPLETELY STILL THROUGHOUT THE 3 IMAGE CAPTURES.**

capture 2: FRONT

1 Stand directly in front of the patient.

2 Hold the camera level with the patient's nose.

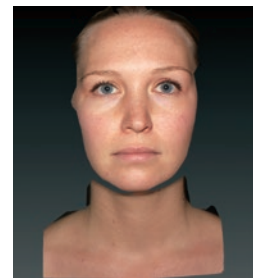**3** Aim the green dots between the upper lip and nose, at the mid-line of the patient's face.

4 Converge the green dots to a single point by adjusting camera distance from the patient.

5 Capture image.

Position camera directly in FRONT of the face.

Camera level with patient's nose.

ranging lights at center of upper lip, just below nose

live preview during front view capture

captured 3D image

THE PATIENT SHOULD REMAIN COMPLETELY STILL THROUGHOUT THE 3 IMAGE CAPTURES.

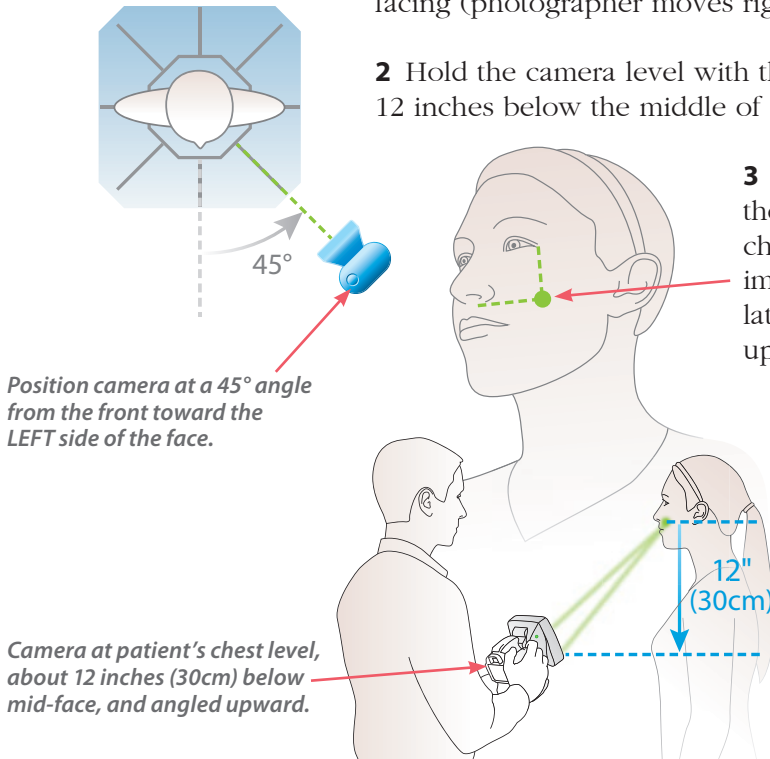**capture 3: LEFT side**

1 Stand at 45 degrees from the direction the patient is facing (photographer moves right of patient).

2 Hold the camera level with the patient's chest (about 12 inches below the middle of the patient's face).

3 Aim the green dots at the middle of the patient's cheek (intersection of imaginary lines from the lateral canthus and the upper lip).

Position camera at a 45° angle from the front toward the LEFT side of the face.

4 Converge the green dots to a single point by adjusting camera distance from the patient.

5 Capture image.

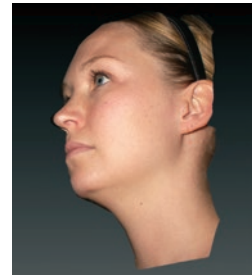*Camera at patient's chest level, about 12 inches (30cm) below mid-face, and angled upward.*

12"
(30cm)

ranging lights at mid face

live preview during left view capture

captured 3D image

3. TRANSFER IMAGES TO THE VECTRA PATIENT CHART

retrieve images

1 After the desired H1 images have been captured and the camera has returned to live preview mode, rotate the power switch (top of the camera) to **OFF**.

2 Remove the SD card from the camera: Open the cover and press on the edge of the SD card until it pops up.

3 Insert the SD card into the appropriate slot on the VECTRA computer or connected card reader.

open a patient chart
(*see VECTRA H1 User Guide Chapter 2*)

1 Turn on the computer.

2 Double-click the 🅥 VECTRA icon on the Windows desktop to open the software.

3 Click the 🔍 **look up patient** button in the upper right corner of the VECTRA home screen.

4 Enter search criteria such as the patient's name, date of birth, and/or ID number.

5 Click 📄 **show matches** (or press the "Enter" key) to display matching records.

6 Click 📖 **open chart** (or double-click a row or press the "Enter" key) to open the selected chart.

✅ If the correct chart is not found, click ➕ **new patient** to create a new patient chart.

**To create a new patient chart without first searching for an existing chart:**

1 Click the 🗂 **new patient** button in the upper right corner of the VECTRA home screen.

2 Enter patient information.

3 Click 📖 **open chart**.

import images

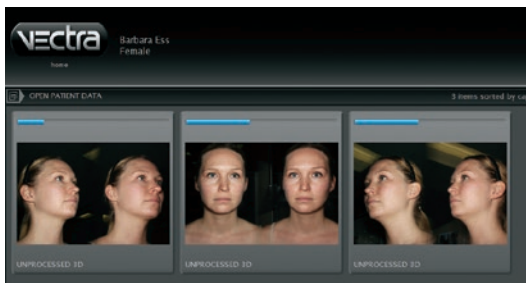**1** Click **import file**.

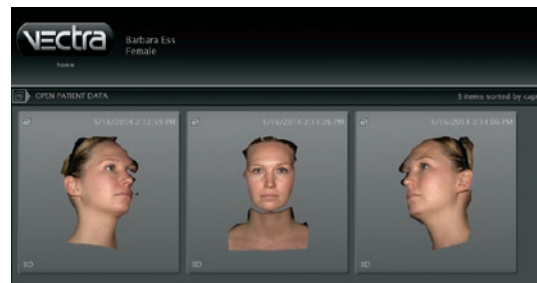**2** Navigate to the CR2 files on the SD card (Removable Disk).

3 Click on the first file to select, then hold down the **shift** key and click on the third file so that all three are selected.
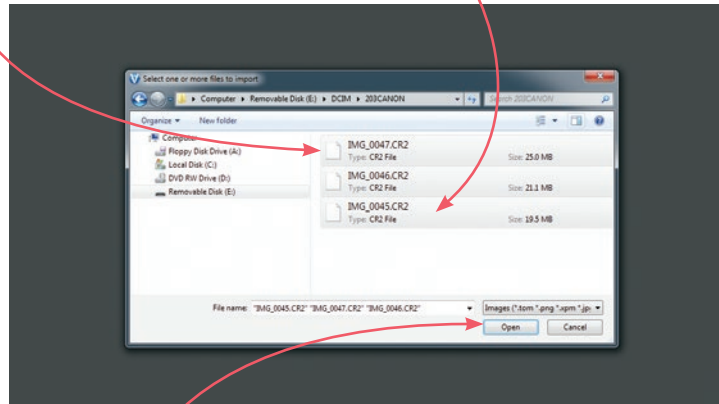
4 Click **Open**. The CR2 files are imported into the open VECTRA patient chart and the software processes the images.

processing in progress

processing complete

4. STITCHING

1 Select the 3 captures for stitching: Click on the first thumbnail (right view) to select it, then shift-click to select the other thumbnails in order. (*See chapter 2 for more about using the VECTRA patient chart.*)

⚠ The thumbnails must be selected in the correct order: first **RIGHT** view, then **FRONT**, and **LEFT** view last.

2 Click ▶ **stitch images**. VECTRA software automatically stitches the three captures into a single 3D image. The individual captures are displayed while they are being processed.

The completed image is displayed in Face Sculptor.

if auto-stitch fails If VECTRA software is unable to locate the required facial features, it will display an error message over the captured images.


First check to see whether all three images are in the specified order: right, front, left. If not, click **OK** in the error message and then click ⊠ **cancel stitch** to open the patient chart. Select the images in the correct order.

If the order is correct, check to see whether the poses are correct, eyes are open and mouth is closed for all three images. If not, click ⊠ **cancel stitch** and recapture the images.

If images appear to be properly captured, click **OK** in the error message to manually identify the landmarks.

1 The location for the first landmark is displayed in the icon below the first image. Position the tip of the cursor arrow over the appropriate anatomical location in the first image as shown, and click once to place the landmark. As each location is clicked, the icon updates to highlight the next landmark to be placed. Each of the 3 captures requires its own set of landmarks.
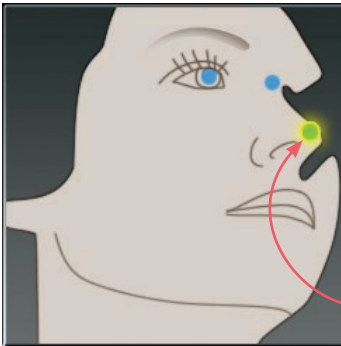
2 Repeat until each of the requested landmarks has been placed. If you wish to change the position of a landmark, position the tip of the cursor arrow over it. The cursor changes to an ⊕ open hand when it's close enough to the landmark. Click and drag (the cursor changes to a ⊕ grabbing hand). Release the mouse button when the landmark is in the correct position.

3 When you are satisfied with the manual landmarks, click ⊞ **retry stitch**. VECTRA software completes the automatic stitching process and displays the completed image in Face Sculptor.

technical support

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