Running Scoliosis Brace Designer Software

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Prepared by Kelly Knights

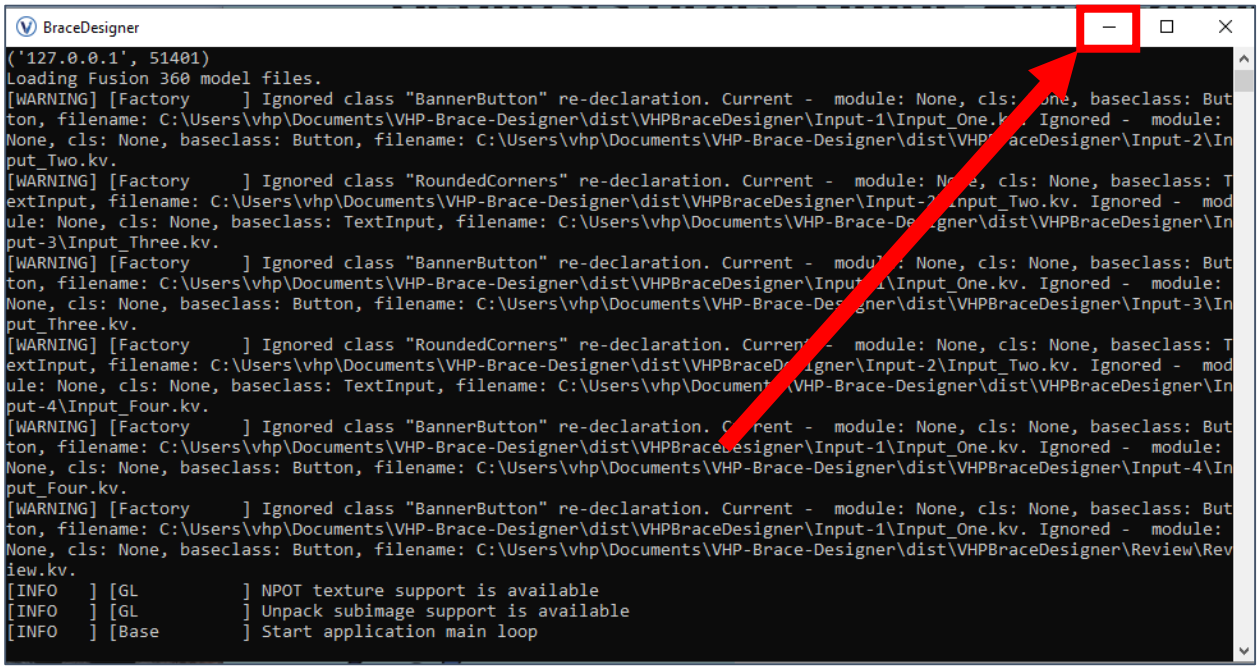
Revised by: Maggie Robinson

The following are detailed instructions on how to use the Scoliosis Brace Designer Software created by the Victoria Hand Project. If you have not installed the software yet, please see the '**Installing-Scoliosis-Software**' document.

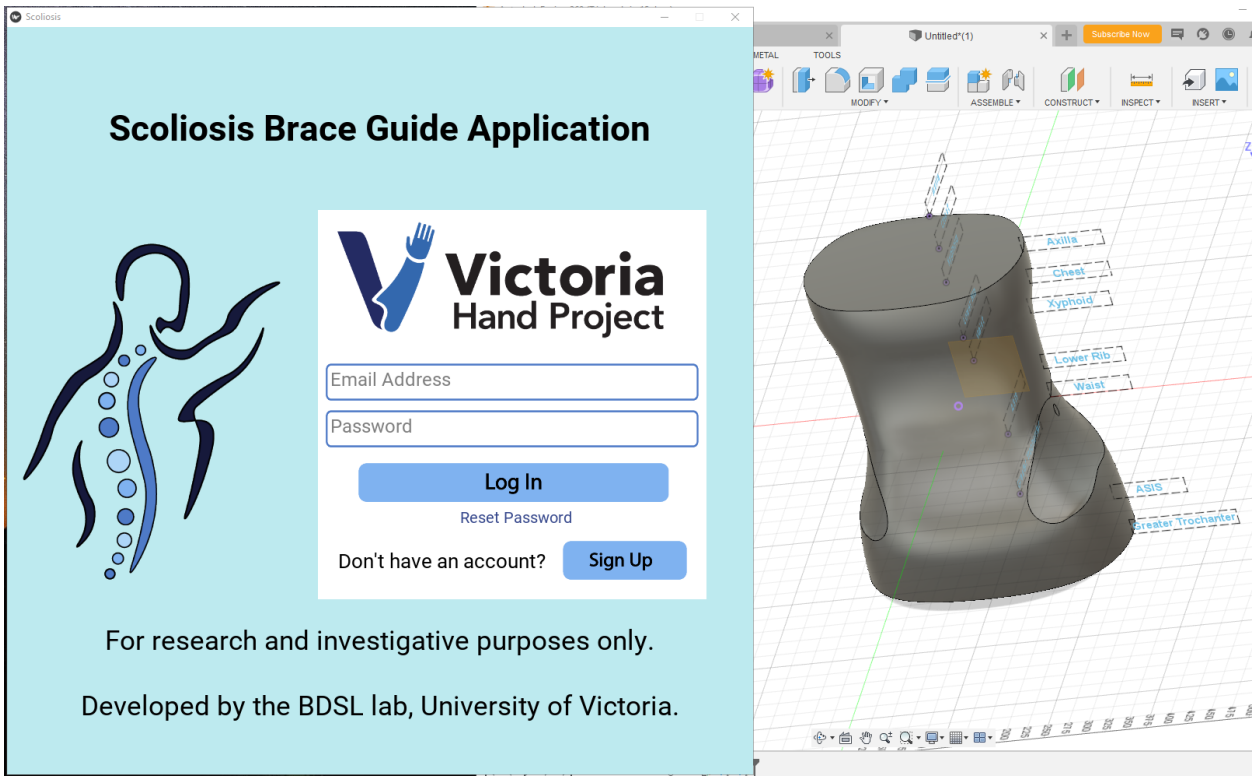
1) Open Fusion 360 – Wait for this to be fully loaded before continuing.

2) Click on the VHP shortcut to run the VHPBraceDesigner.exe executable.

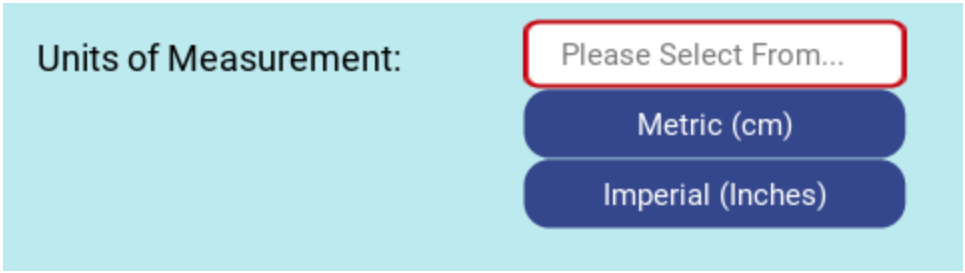
3) A dark command screen will appear, as well as the main user interface (UI). Please MINIMIZE the command prompt (do not close it).



4) A default brace should appear on the Fusion 360 screen. Move both screens to be side by side so you can see the UI (left in image below) and the default brace for preview (right in image below).

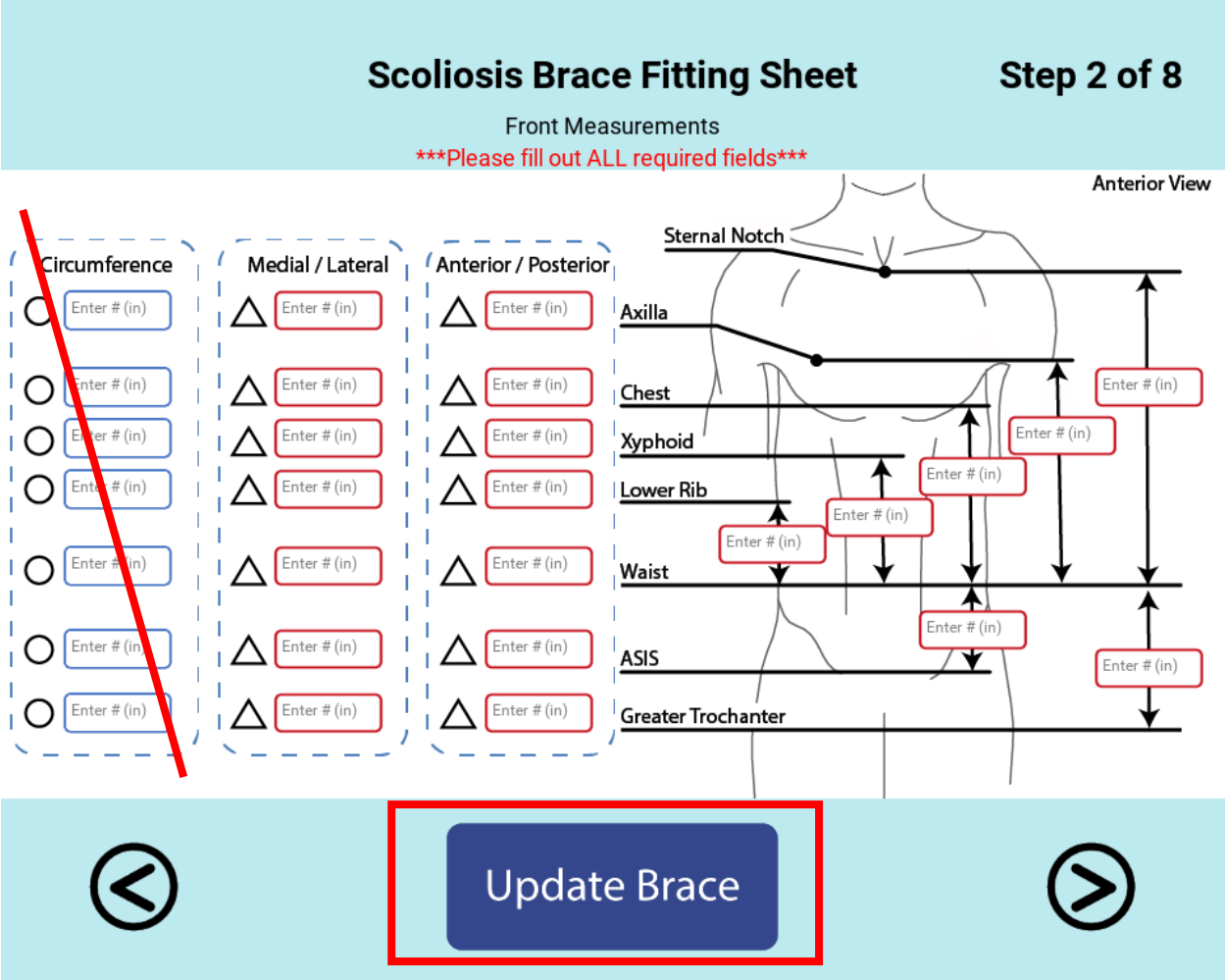


5) Click '**Log In**' and then '**New Brace**'. For Demo purposes, you can skip entering the patient information, but you must choose the Units of Measurement.

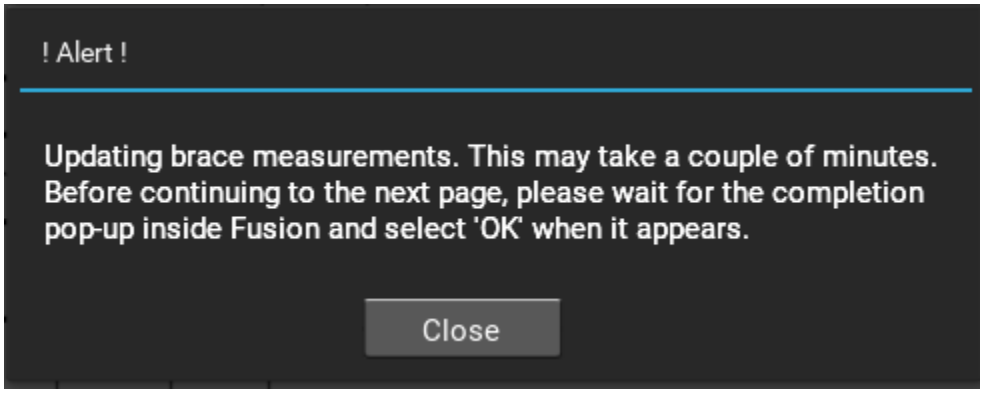


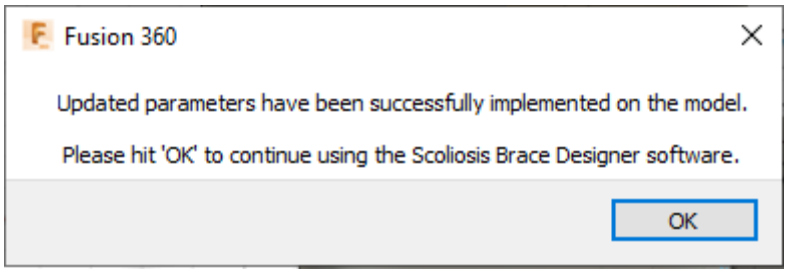
Click the  button to advance to the next steps.

6) Enter the Front Measurements of the brace you would like to generate. At this time, the software **DOES NOT** require the circumference measurements. The software DOES require Medial-Lateral, Anterior-Posterior and Superior-Inferior measurements. To generate a preview on the Fusion screen, press the '**Update Brace**' button. You may need to wait approximately 5 minutes to see your changes reflected on the Fusion screen. ***PLEASE MAKE SURE TO CLICK UPDATE BRACE BEFORE ADVANCING TO THE NEXT PAGE***

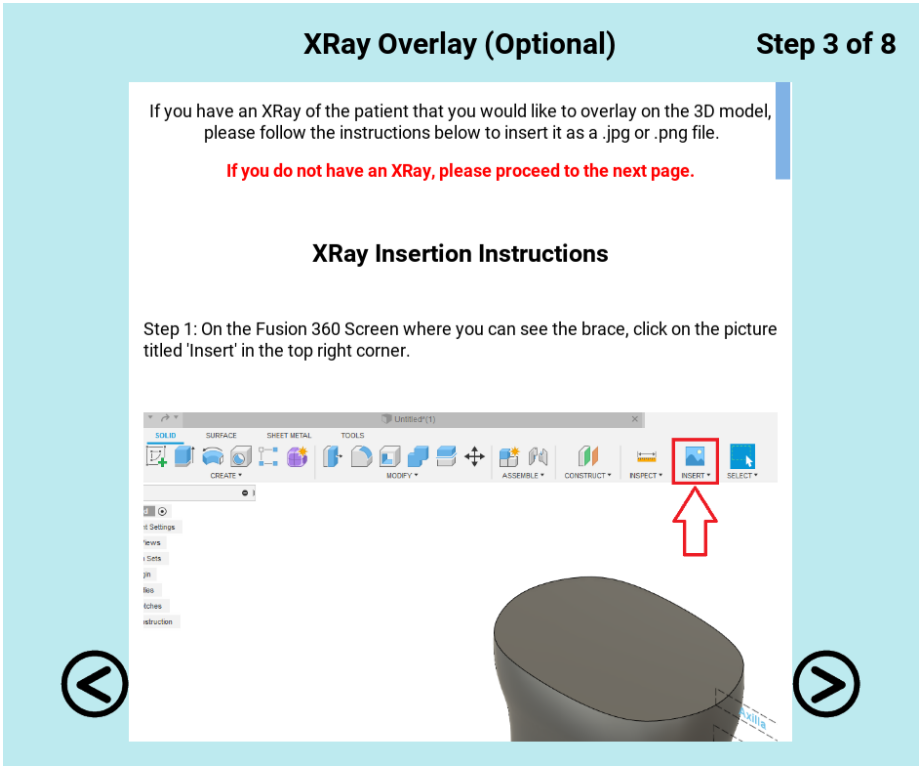


After the Update Brace button has been pressed a pop up will appear in the UI (first image below) reminding you to wait for a pop up in Fusion. The pop up in Fusion will appear when the changes have been implemented and it is safe to proceed (second image below). Click “Ok” in Fusion, and “Close” in the UI.

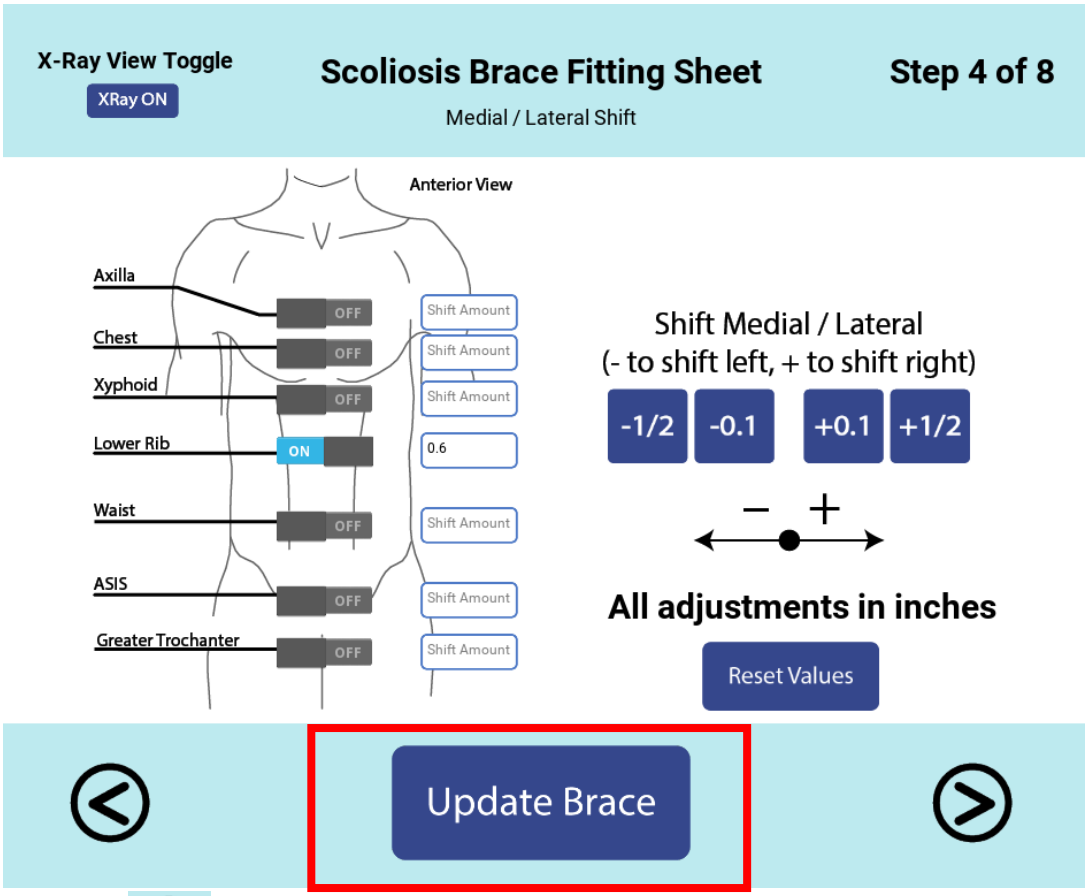




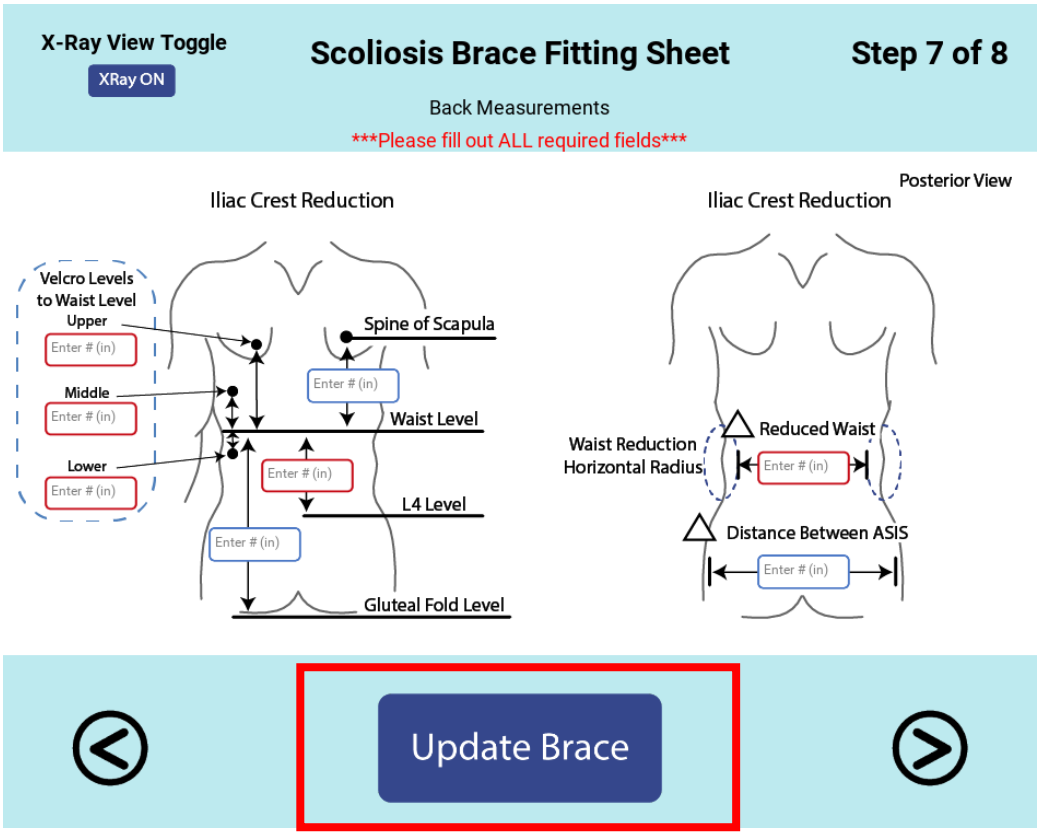
7) The next page (Step 3) will provide you with instructions on how to overlay an X-Ray image (optional). Scroll through these instructions if an X-Ray overlay is desired.



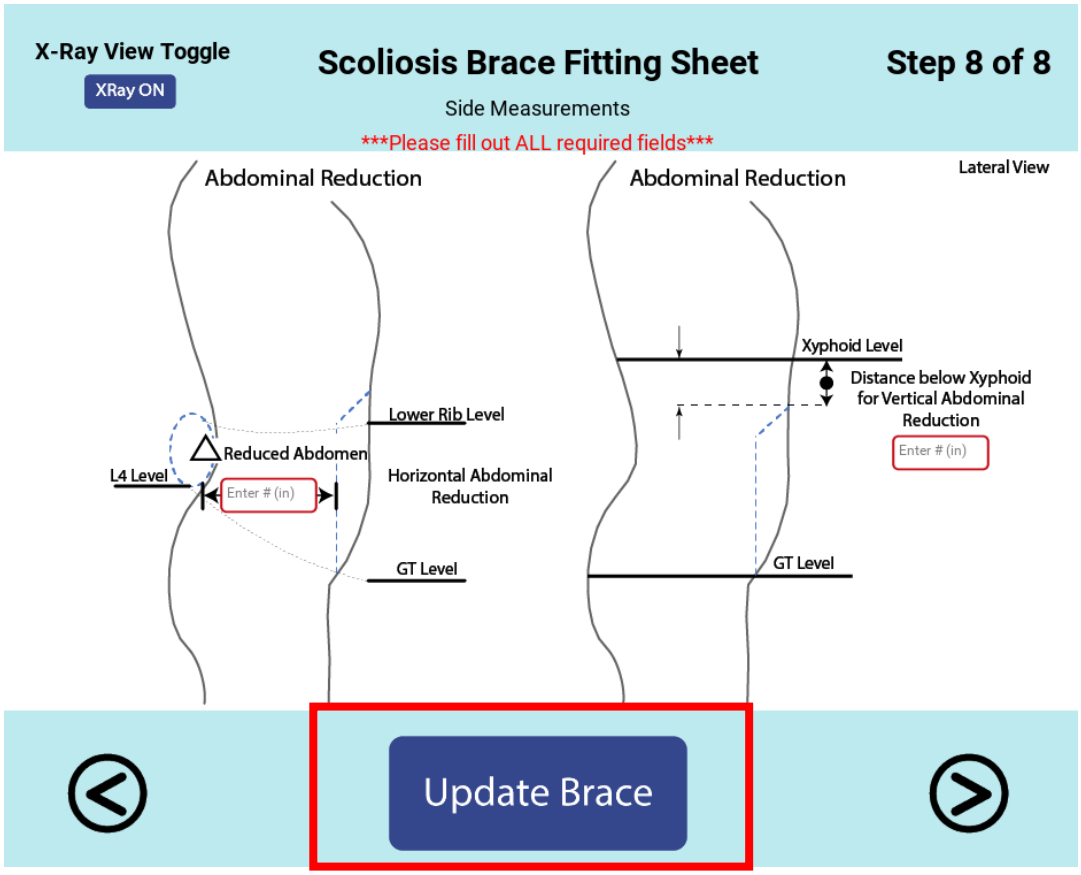
8) The next 3 pages (Step 4,5,6) will allow twists and shifts (Medial/Lateral Shift, Anterior/Posterior Shift, Twist Adjustment). To twist/shift toggle on the desired level and then enter the desired value, or use the quick measurement buttons t o change all toggled measurements. **Be sure to press Update Brace once the values have been entered.**



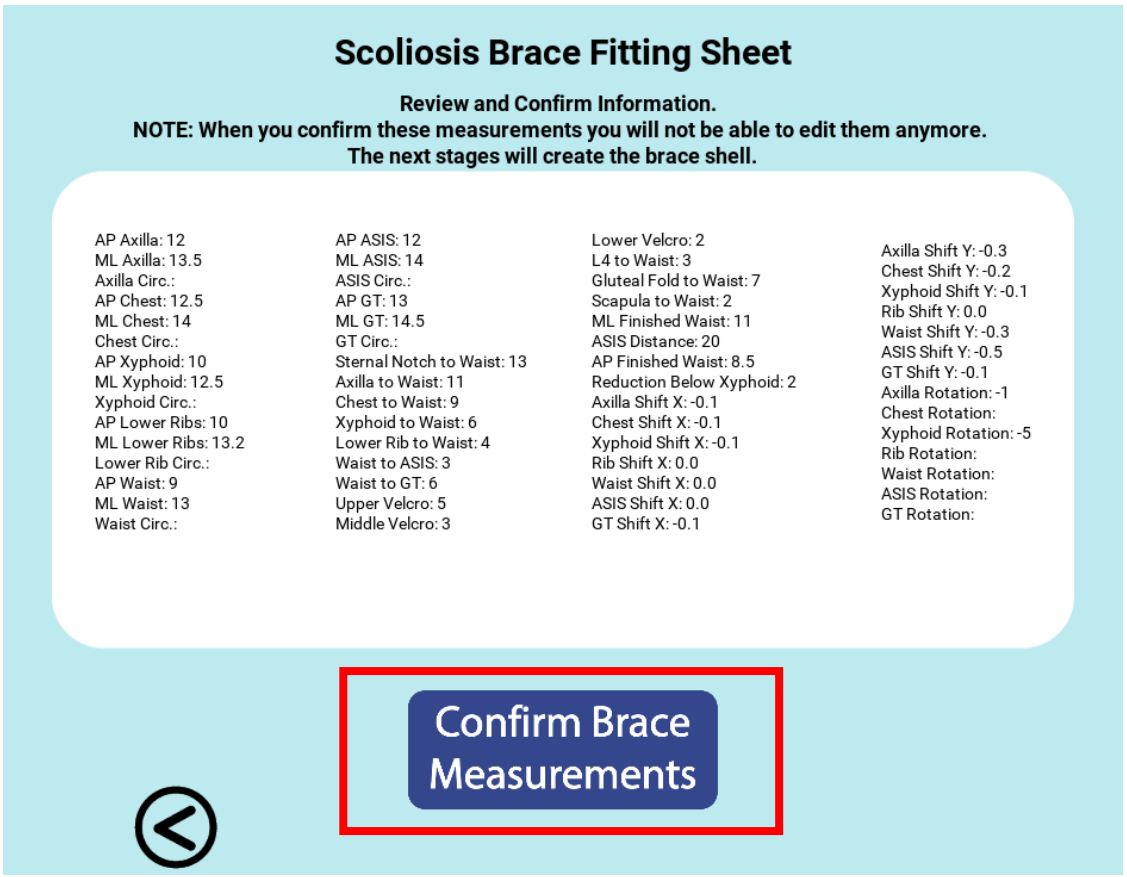
9) Click the  button to advance to Step 7 (Back Measurements). Velcro Levels to Waist Level (upper, middle, lower), L4 to Waist Level, and Reduced Waist are required. **Be sure to press Update Brace once the values have been entered.**



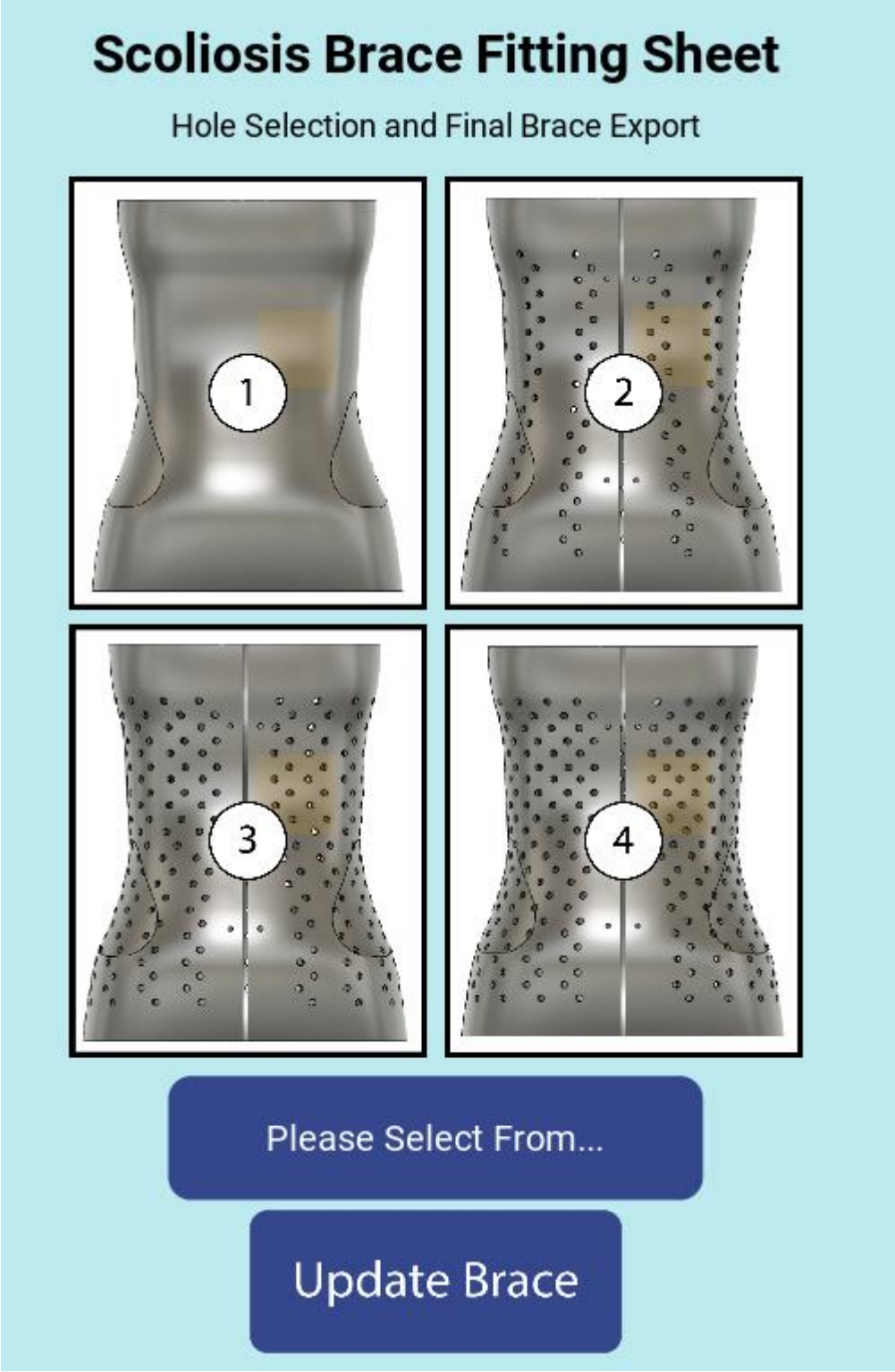
10) Click the  button to advance to the next page (Side Measurements). At this time, all fields are mandatory. **Be sure to press Update Brace once the values have been entered.** This update should be close to instantaneous on Fusion.



11) Click the  button to advance to the next page. You are able to review the values you entered on this page. Click '**Confirm Brace Measurements**' then advance to the next page.



12) The final step is to choose the desired hole pattern and export the final brace. Once a hole type is chosen you cannot make any further changes or return to previous steps. Chose the hole type from the drop down menu then click '**Update Brace'**.



13) Click the  button then click 'Create Brace Shell' to save a .csv and .stl file for reference later. Name the file and click 'Save' **Be sure not to exit the UI until the pop up has appeared in Fusion.**

14) You are done! Your custom brace has been generated. Thank you very much for your time, and we look forward to hearing your feedback.