

Fig. 1

1. Place artificial feature magnets on your beam randomly at 3' or 1 m spacing. Placement does not need to be exact.
2. Stand in position 1a and place the QR target on your beam with the arrowhead facing away from you and the material going off to the right. (see Fig. 1). This will be your anchor point. Select Fab-Assist or Auto-Fab and look at the target for 3 seconds. You may need to use your 90° or 180° turn controls to adjust your model so that it's the same orientation as your beam. (see Fig. 3)
3. Press the start mapping button and then slowly walk along the side of the beam that you are working on while looking through the device at the beam.
4. Return to position 1a. Using the right hand controls, align the model to be flush with the front edge of your beam using the front and back slider. (see Fig. 2)
5. Crouch into position 1b (see Fig.1) and bring your model down using the up/down joystick on your controls (see Fig. 2) until it's flush with the top of your beam.
6. Move around the front end of your in beam, position 2a (see Fig. 4), and line up your model using your right and left controls. At this point you can also evaluate the rotation of the model and adjust with the roll control if necessary (see Fig. 5) while in position 2b. (see Fig. 4)

7. Once your beam is aligned in all areas mentioned in steps 3-5, go back to position 1a and look at the bottom left corner and make sure everything is still aligned. If, not adjust accordingly.
8. Once completely aligned then it is time to walk to the Back End and complete the Back End alignment.

IMPORTANT: Make sure you walk slowly and keep your tablet facing the beam as you walk.



Fig. 2

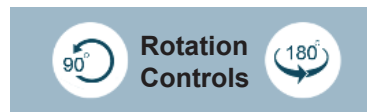


Fig. 3

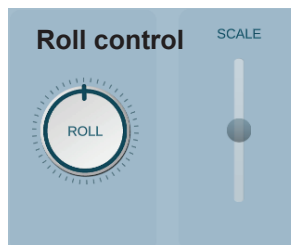


Fig. 5

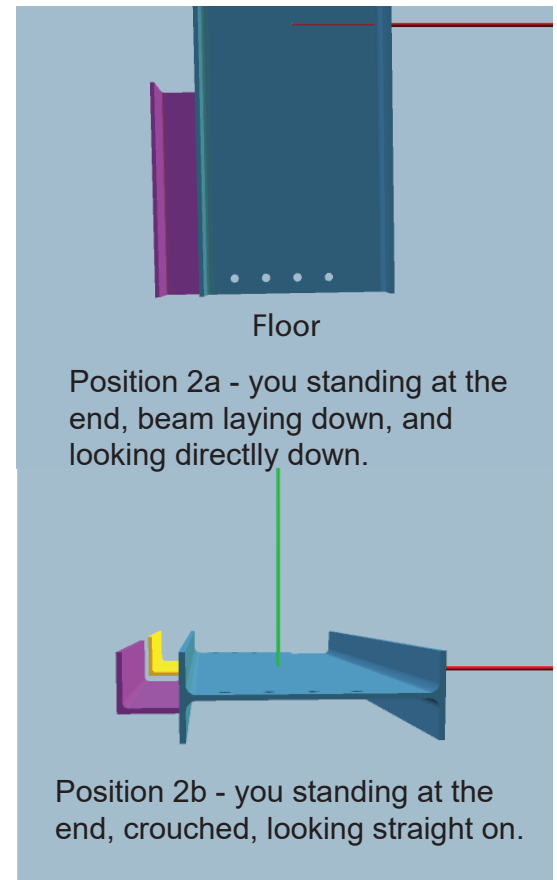


Fig. 4

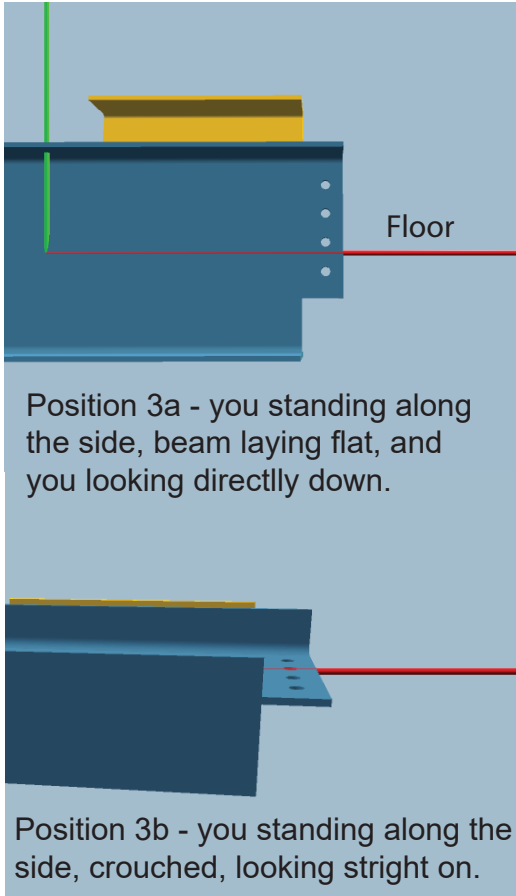


Fig. 6

12. Now that you have your scale, pitch, and yaw lined up slowly head back to your Front End and make any small adjustments as needed following the the Front Alignment instructions. Once complete head back to the Back End of the beam and adjust one final time following the Back End instructions.

13. Complete! ¹ Now you are free to inspect the assembly for conformity by comparing the model to the beam. ² Be sure to focus on inspection and try to not get distracted by the alignment.

Notes:

¹ You should only need to go back and forth four times and the alignment should not take longer than 2 minutes. Be sure to contact us for a coaching session if you are not achieving satisfactory results.

² The iPad Pro is accurate to 1/2" over 15' or 12mm over 5m and the HoloLens is accurate to 1/16" over 30' or 1.5mm over 10m.

7. Now that you're at the back end of your beam, move to position 3a (see Fig. 6) where you will scale the beam to its proper size. To do this use the scale slider (see Fig. 7) to bring your model flush with the back edge of your beam.

IMPORTANT: Do not use any of the right-hand controls on THIS side of the beam, no matter how tempting.

8. Next you will need to move to position 3b (see Fig. 6) and crouch down. Here you will adjust the pitch until your model is flush with your beam. (see Fig. 7) Note: if you get the pitch correct it will dramatically improve the perspective.

9. Now you will want to move to position 4a so you are directly behind your beam. (see Fig. 8) Here you will adjust the yaw of your model with the joy stick control (see Fig. 7) to be flush with the centered with the beam.

10. Now move to position 4b (see Fig. 8) to check to make sure the pitch is still correct, if not adjust, and to make sure the rotation is correct (if not, adjust with roll)

11. Finally, move back to position 3a and look at the bottom right corner to make sure scale and yaw are still aligned. (if not, adjust as needed)

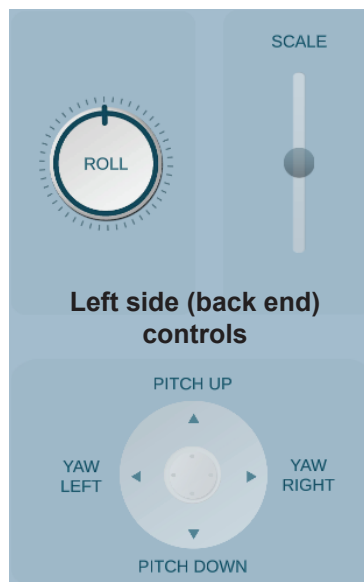


Fig. 7

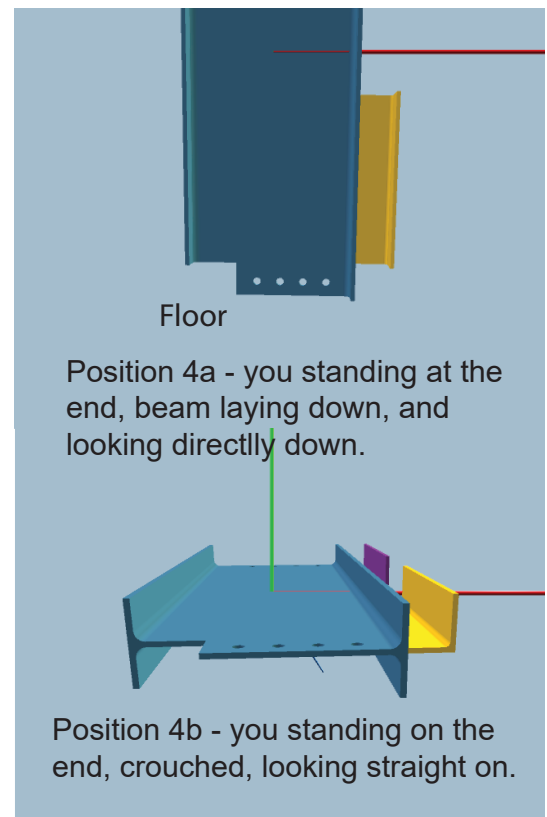


Fig. 8