



Safety, Made Easy.™

CR Handrail™

Continuous Handrail

Install Guide





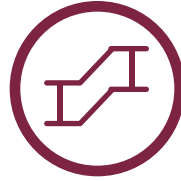
**You made
the right
choice of
railing!**



Cost-Effective



Safe & Durable



Easily Extendable



Quick to Install

**Choose
Your
Style**



SIMPLE



SEAMLESS

Time		
Difficulty		
Overall look	Basic & Functional	Aesthetically pleasing
Top Rails	With Gap	Seamless Connection

If you please prefer this look, please refer to [HR Install Guide](#)

This Manual is for this Option



Tools Required

String

An electric drill/hammer

An impact drill is preferred (although not required) for installing the concrete bolts for concrete steps, lag screws for wooden steps, or other ground attachments.

Please make sure the hardware and tools we provided will be right for your install (READ means & methods disclaimer). IT IS POSSIBLE YOU NEED DIFFERENT HARDWARE & METHODS. Please take your time to do your installation. If you are unsure or uncomfortable with the installation, we highly recommend hiring a licensed and bonded contractor.



Means and Methods Disclaimer

In no event shall CR Handrail have any responsibility, control over, charge of, responsibility, or liability for the means, methods, techniques, sequences, or procedures, or for safety precautions in connection with the installation of the railing, since these are solely CM/GC's, Subcontractor's, and Owner's responsibilities.

Each installation site differs widely ranging from the construction & condition of attachment points, local building & safety code, local construction code, and local means & methods. CR Handrail's installation guide (whether it be in text, illustration, video or in support discussion) constitute for ideal installation condition. There is no ideal installation in real life. There is no substitution for consulting a local licensed contractor, architect, engineer, nor code inspector.

CR Handrail's installation hardware and tools are provided as building material and does NOT constitute as the specific nor final installation hardware. Once again, you and your installer must make the final on-site determination to the specific means and methods of installation appropriate for your installation.



Masonry Tools & Hardware Explained



5/16 (8mm)
Anchor Bolt



5/16 (8mm)
Masonry Drill Bit

**SDS+ available
upon request*



Diamond Core
Drill Bit

*For hard stone
available upon request

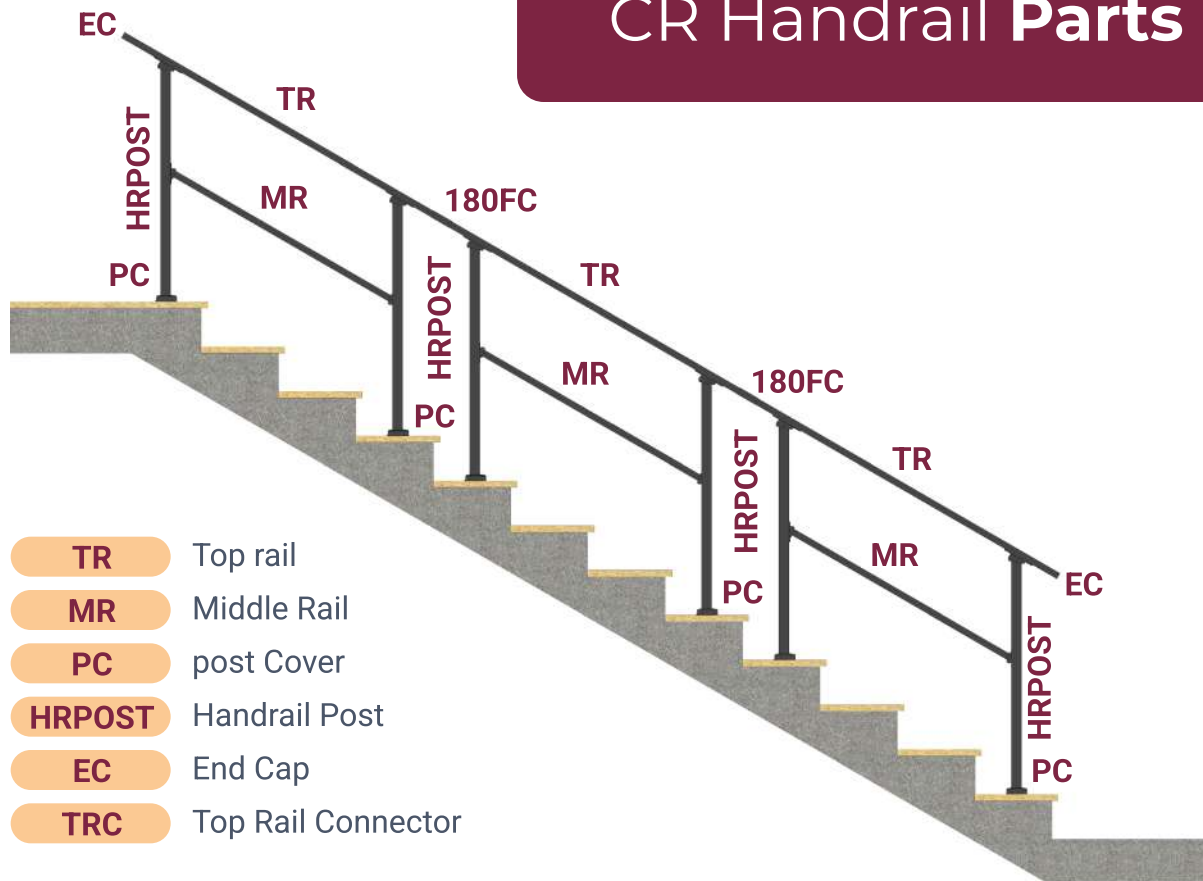
NOTE:

This will be a tight fit. In fact, the specification calls for the drill bit and anchors to be the same size. Some installers use a $\frac{3}{8}$ drill bit to make the installation easier, and other installers wiggle the drill bit to bore the top of the hole slightly bigger. (We are aware of the tight fit and we must only recommend using our masonry drillbit without wiggling).

WARNING :

The strength of the anchor is dependent on the hole size & concrete integrity. A hole that's too big or concrete that's not up to standard grade can make the anchor wiggle or possibly come out. This is what can cause a rail to fail & fall over.

CR Handrail Parts



Steps Overview

1 Position

1. Position Top Rail
2. Position End Posts
3. Position Middle Posts

4. Loosely Install Posts
5. Tape String to End Posts
6. Trim Posts

2 Adjust

7. Secure Posts
8. Position Top Rails
9. Attach Middle Rails
10. Secure your handrail

3 Secure

PART

1

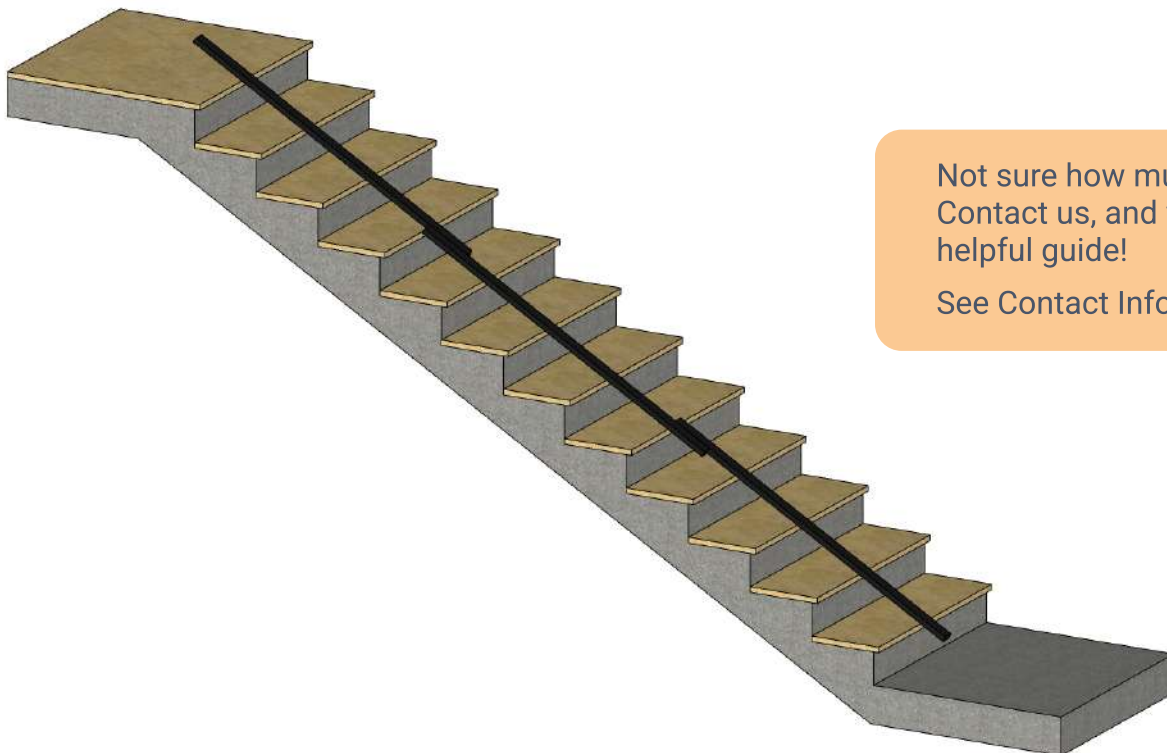
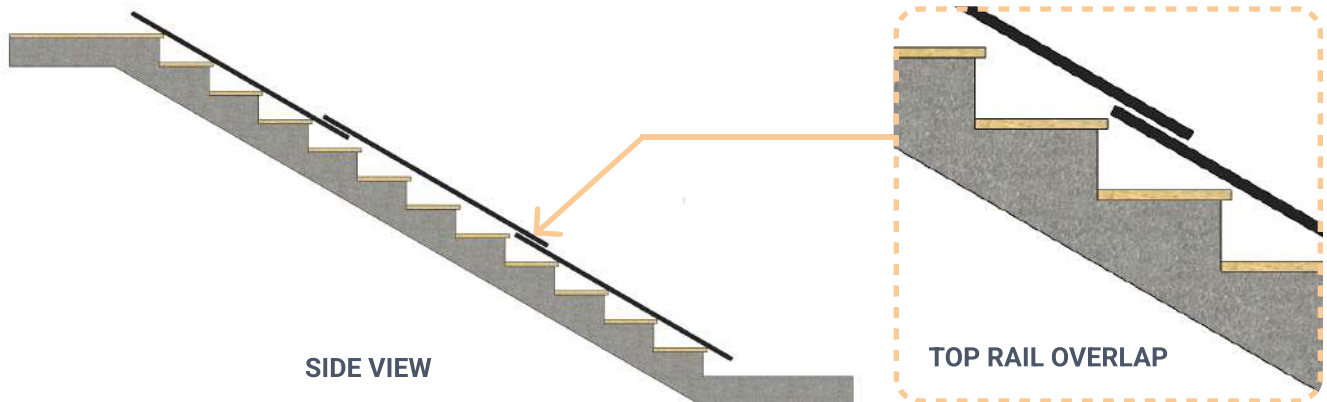


Position and Mark placement

Step 1: Position Top Rail

Position the Top Rails diagonally in parallel with your stairs.

Doing so establishes their placement, ensures a symmetrical connection between posts, and determines the post positions



Not sure how much to cut?
Contact us, and we'll be your
helpful guide!

See Contact Info at Last Page

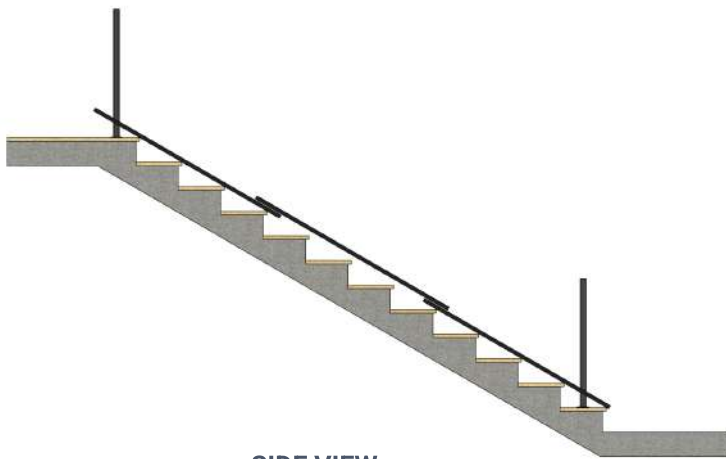
Step 2: Position End Posts

Once the top rail is determined, position and mark the post holes.

You might need to move the post appropriate to

1. ensure the post is minimum 1.5" from edge of step
2. accomplish symmetry throughout the sets of railing

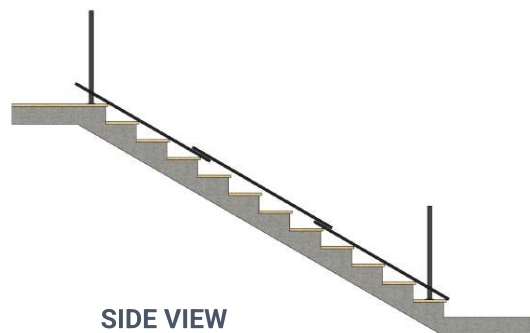
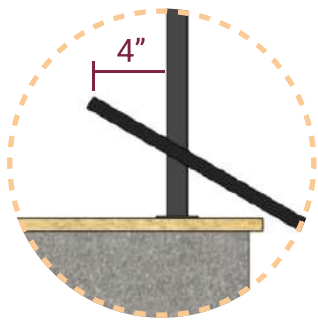
Position Outer Post Upper and Outer Lower Posts First.



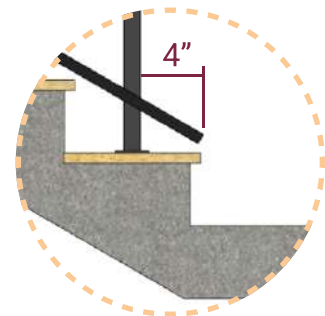
SIDE VIEW



Adjust Top Rails to extend 4" beyond the Topmost and Lowermost Posts.



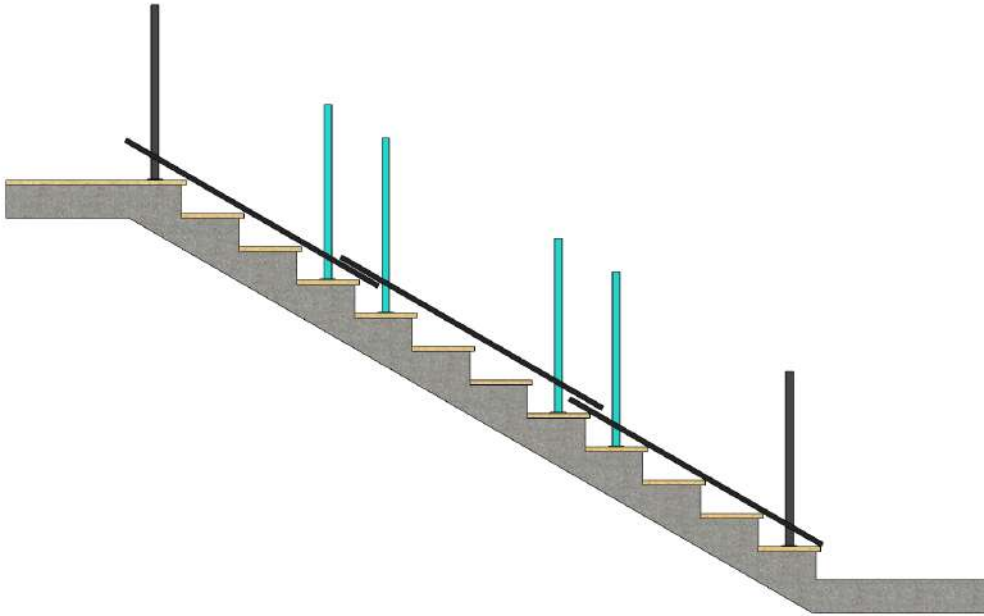
SIDE VIEW



If you cannot accomplish 4" on both sides, aesthetically, it's best that the distance to post on both ends are the same.

Step 3: Position Middle Posts

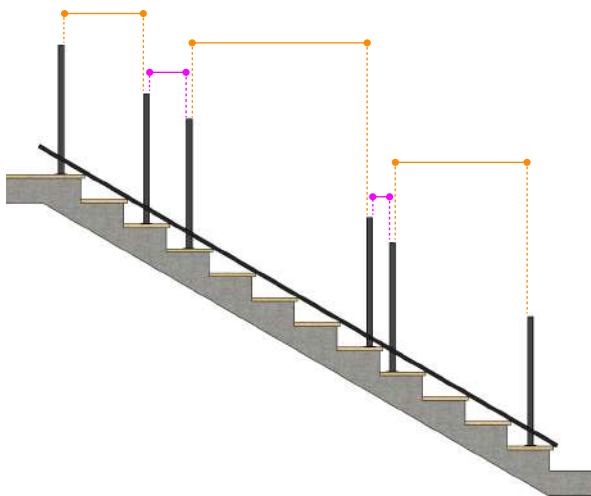
Position Middle Posts where the Top Rail (TR) Overlaps.



AESTHETICS & SYMMETRY

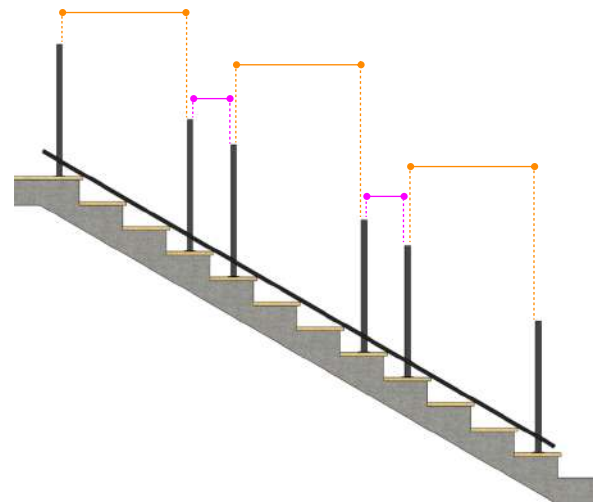
Distance between Kits are NOT Symmetrical

Note: the system will still work (as long as it does not exceed the kit's TR length) but it is not ideal for aesthetic.

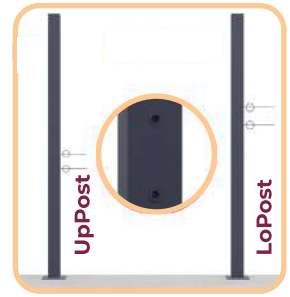
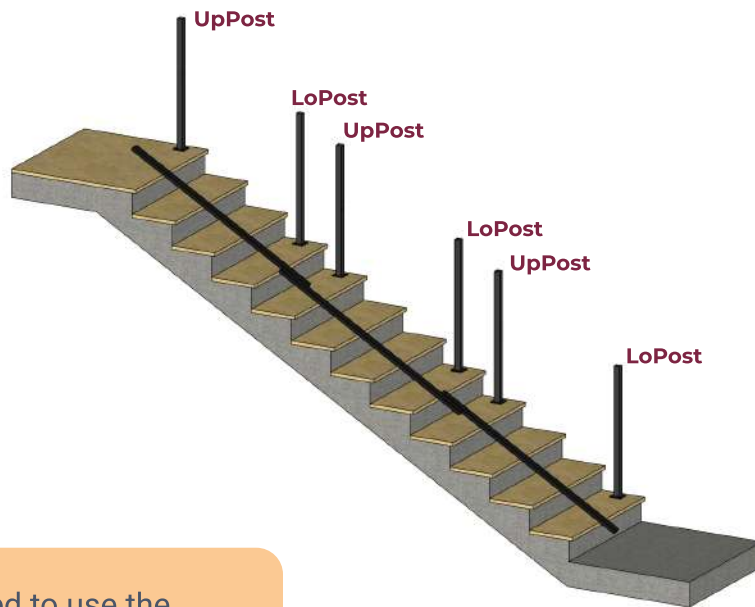


Distance between Post are Symmetrical

-among the kits
-between kits



Make sure to CORRECTLY position **LoPost** and **UpPost**



Do not feel the need to use the pre-drilled holes. New holes can be made on either Top rail or Post on the later steps of this manual.

PART

1

Complete!



PART 2



Adjust Placement

Step 4: Loosely Install Posts

Post should be at least 1.5" (4cm) away from edges. Ensure the post baseplate is parallel with edges.



Use the CR Handrail pencil to measure the depth of the hole with the flat end of the pencil

This is only for rough measurements. This is to ensure the hole is deep enough.

WOOD
Smaller Drill bit



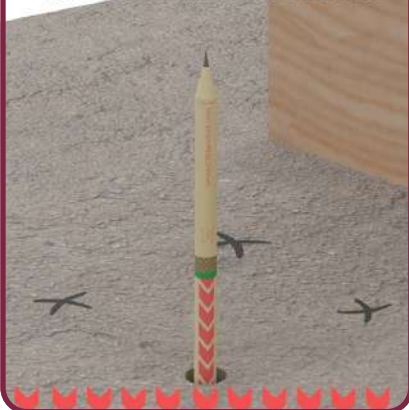
CONCRETE
Larger Drill bit



HOLE NOT DEEP ENOUGH



KEEP DRILLING DEEPER



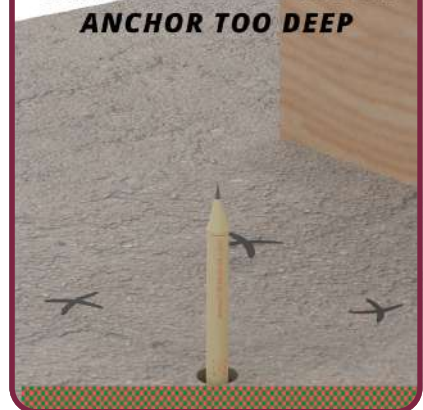
PERFECT DEPTH



HOLE TOO DEEP



CAREFUL NOT TO INSERT ANCHOR TOO DEEP



Tip: holes must be deep enough or will have a serious issue.

FOR CONCRETE

Once the holes are made and depth verified, hammer the anchors into the holes.



Tip: Hammer the anchor with 2 washers and 2 nuts (with nut at the very tip) to prevent over insertion.



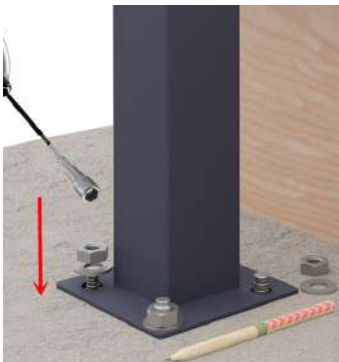
Periodically Double Check!

Put the post onto the anchor and physically verify the washer and nut has only enough thread for the full height of the nut to screw on.



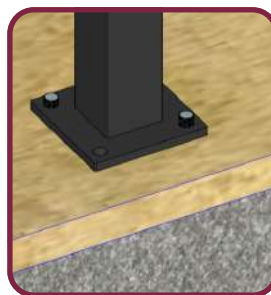
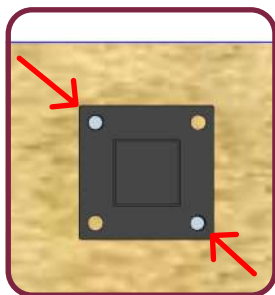
FOR WOOD

1. Position the posts over predrill holes.
2. Install a 2 washer & 2 lag screw.



FOR CONCRETE

1. With all the nuts & washers removed, put the posts onto the anchor bolts. Install 2 washer & 2 lag screw.
2. Hand-tighten a washer and nut over each anchor bolt.



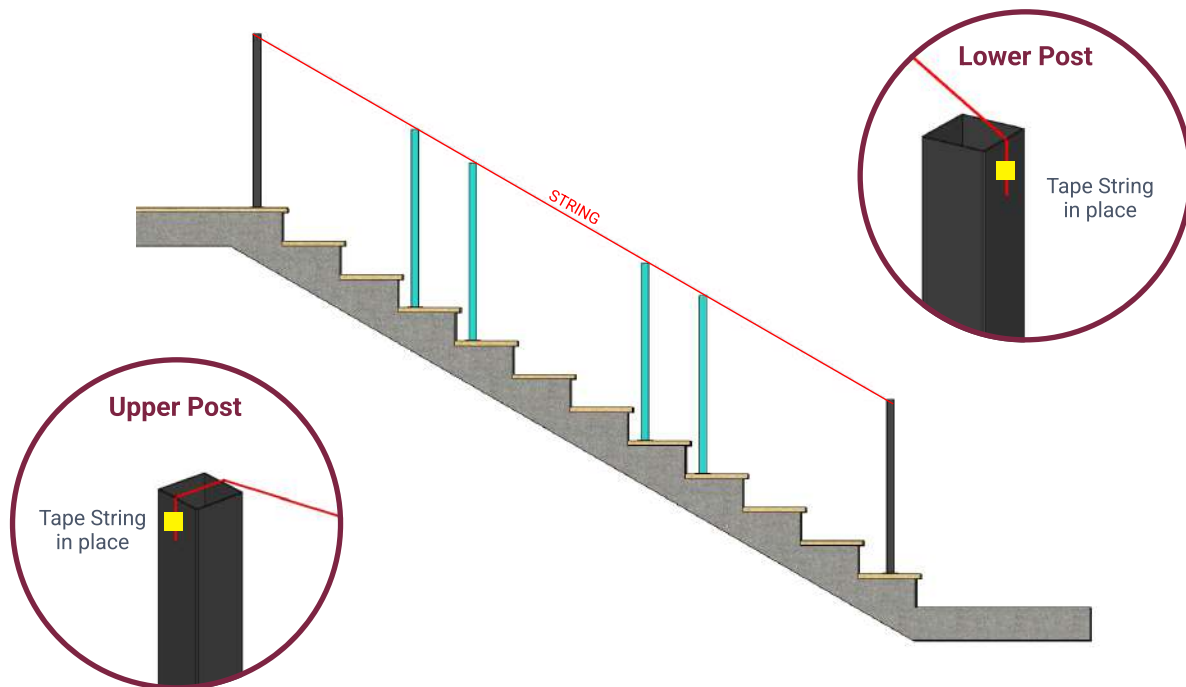
NO NEED to fully secure the Posts yet.

Install 2 lag screws/anchors **ONLY** diagonally opposite baseplateholes.

This is just to make sure the Posts will not move when while we are measuring for the railings.

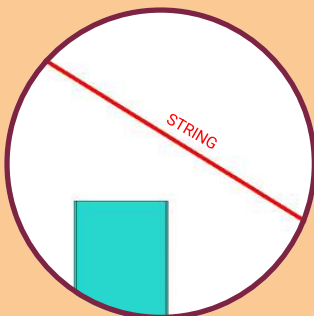
Step 5: String to Posts

Secure a string with tape from the top to the bottom post to guide the slope of the Top Rail. Ensure it's taut to prevent sag.



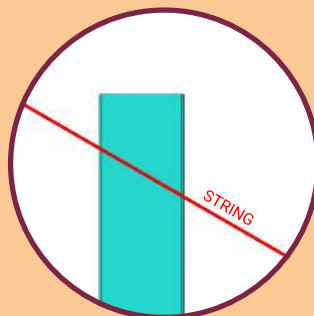
IF MIDDLE POSTS...

MORE THAN 1/4"
LOWER THAN STRING



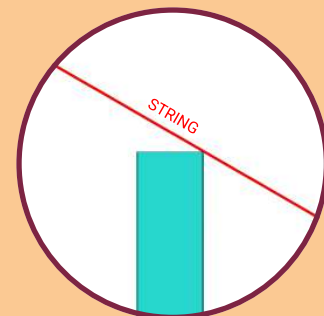
proceed to step 6A

HIGHER THAN STRING



proceed to step 6B

LESS THAN 1/4"
LOWER THAN STRING

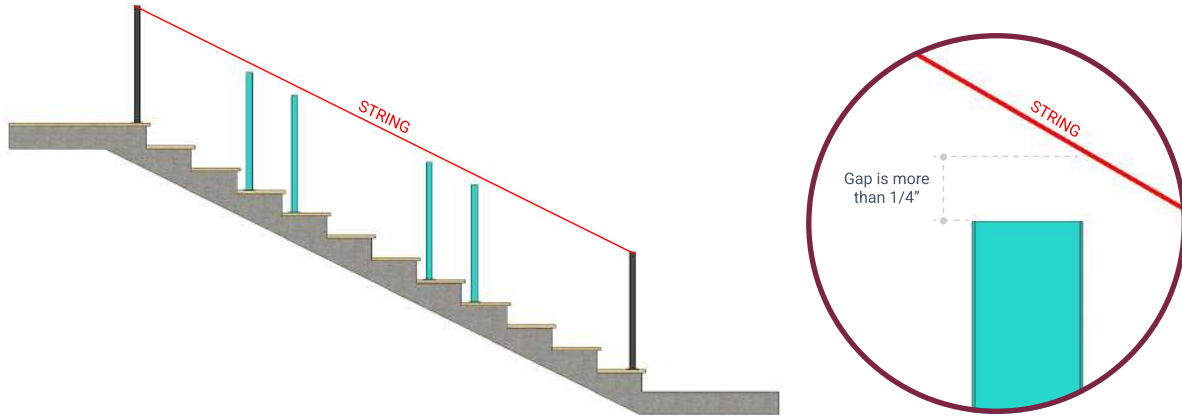


PERFECT
LEVEL

proceed to step 7

Step 6: Trim Post

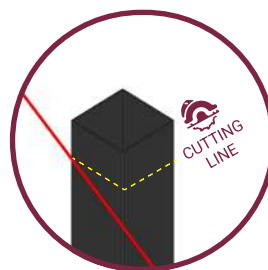
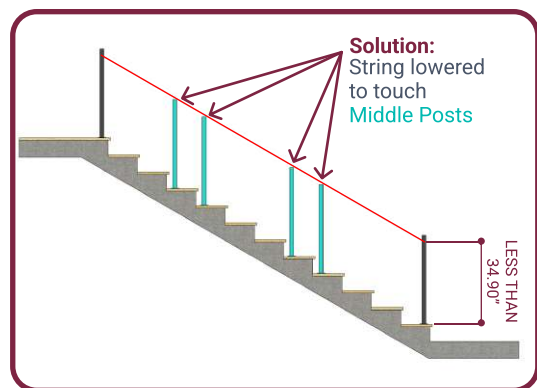
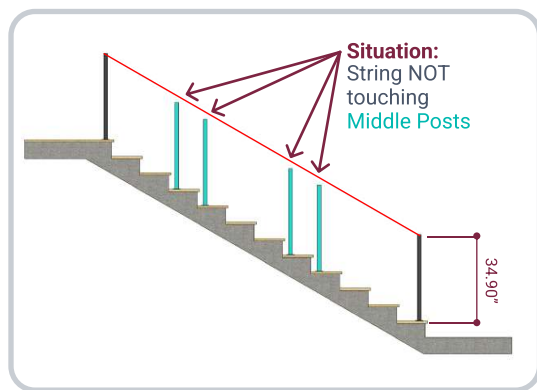
Step 6A: If **Middle Posts** are more than 1/4" Lower than String:



Choose a solution from the two options below.

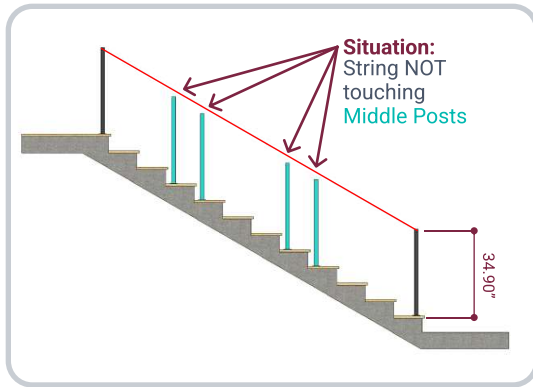
Option 1: Trim Upper and Lower Post

You have the option to modify the string to shorten the outer posts; however, doing so will decrease the height from 36 inches to approximately 33 or 34 inches. While this method is possible, it may not be recommended due to the resulting reduction in the handrail's height



Cut the Outer End Posts

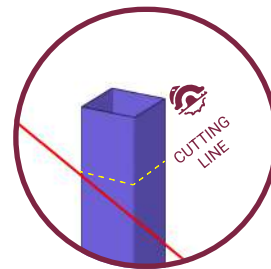
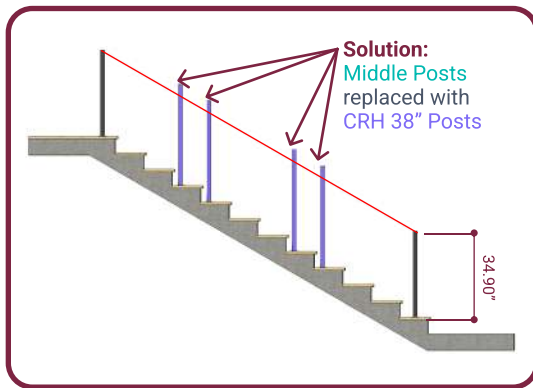
Option 2: Use a taller post and cut down to correct size



Replace Middle Post with
CR Handrail 38" Post



↓
REPLACE MIDDLE POSTS

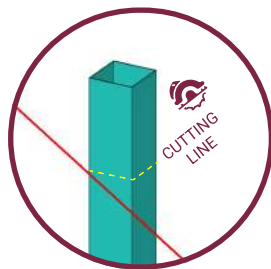
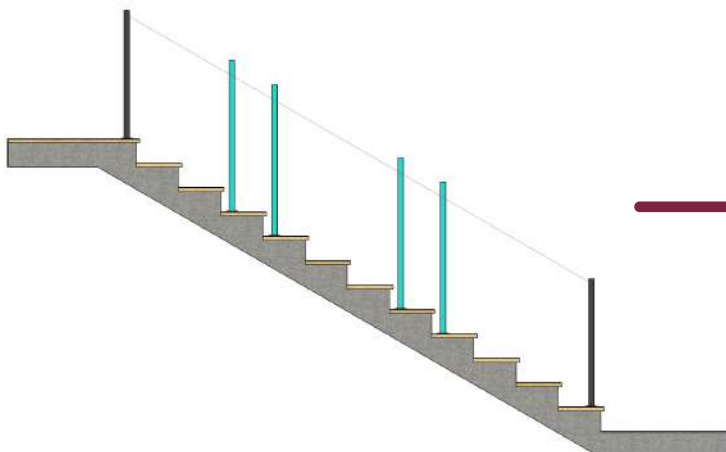


Cut Middle Post

Step 6B: If Middle Posts are Higher Than String

Cut it down to the required size.

There is roughly a 1/4" of tolerance with the brackets. If the gap is less than 1/4", it SHOULD be workable without trimming. If this is the case, proceed to Step 7.



Cut Middle Post

PART

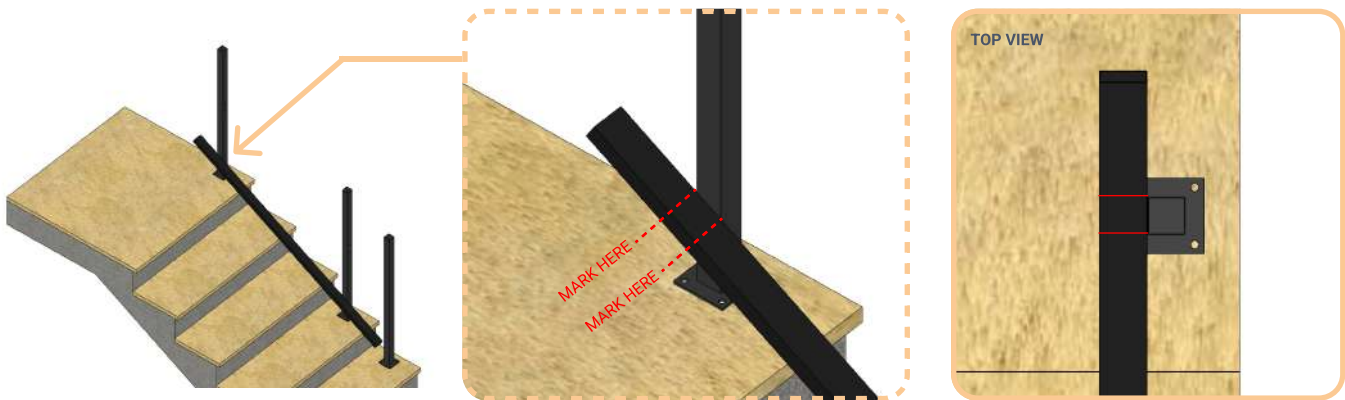
3



Secure All Parts

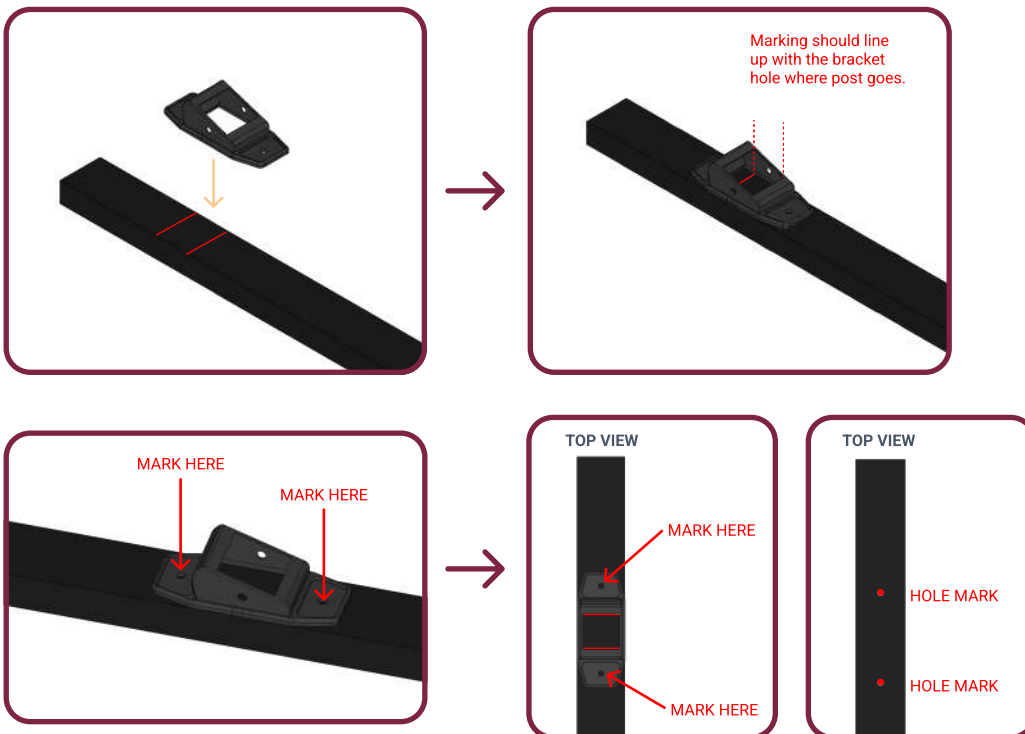
Step 7: Position Tor Rails

Start with the Top rail for the Upper HR kit. Place the Top Rail beside the Post as close as possible to determine where the Upper larger bracket would go.



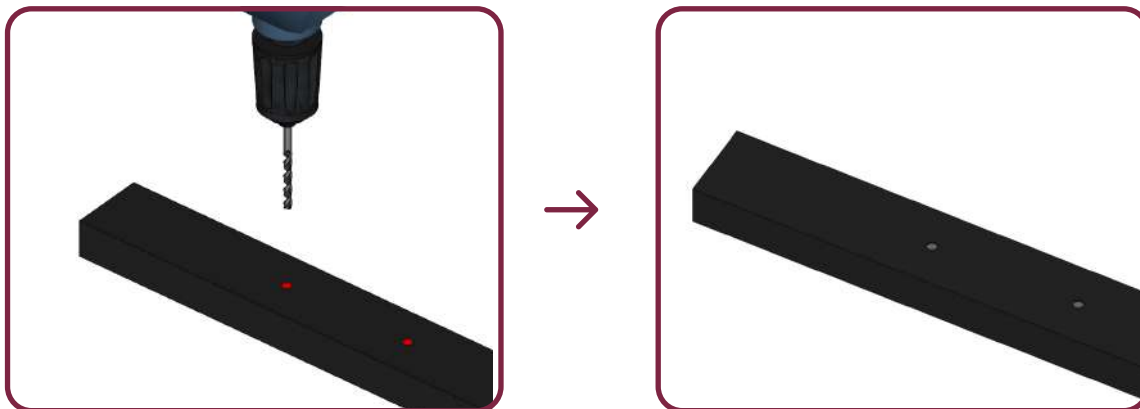
Step 7.1: Determine Bracket Hole Location

Once Post location is marked, place the larger bracket on the Top Rail to determine where the screw holes would go.



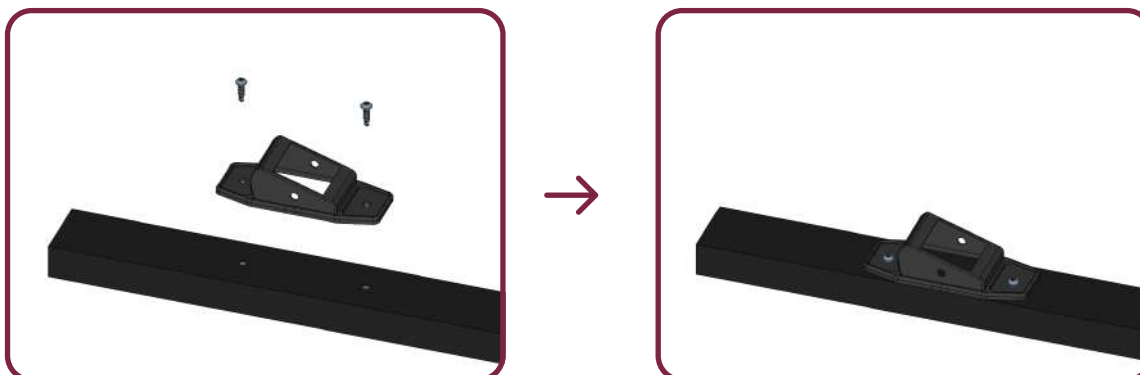
Step 7.2: Drill holes

Pre-drill the holes using the provided smaller drill bit then attach the brackets using the self drill screws.



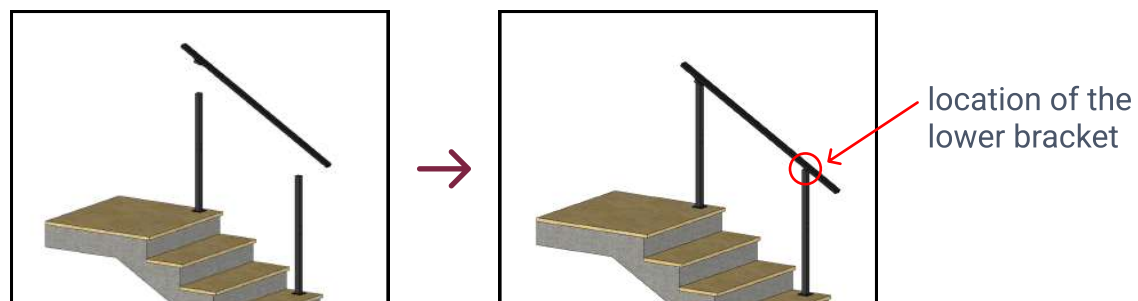
Step 7.3: Attach Larger brackets

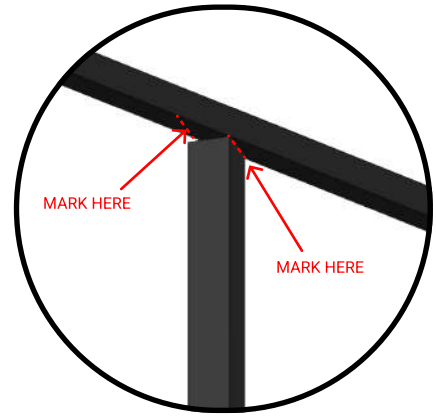
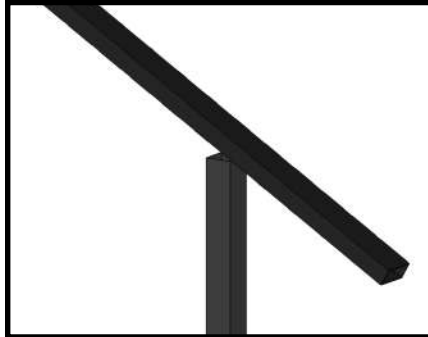
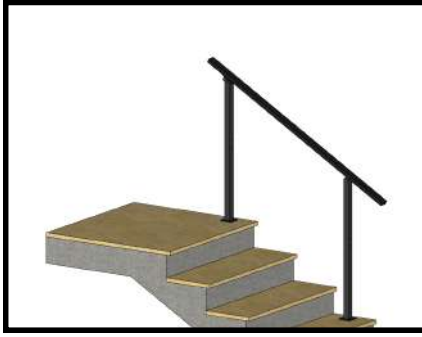
Attach the Larger Bracket to the Top Rail using the provided self drilling screw



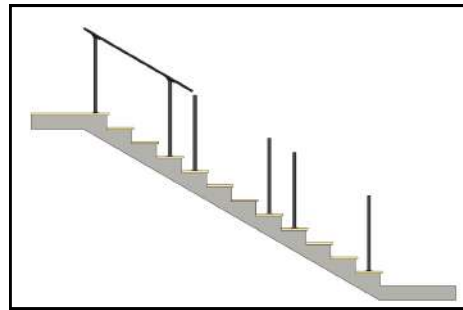
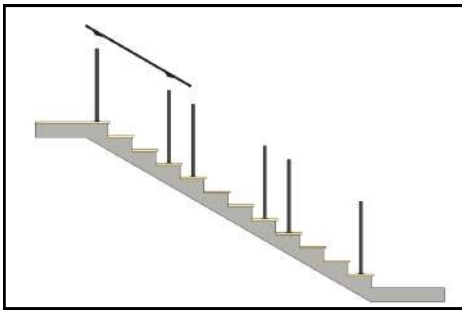
Step 7.4: Lower Larger brackets

Position the Top Rail on the Post to determine the location of the lower bracket

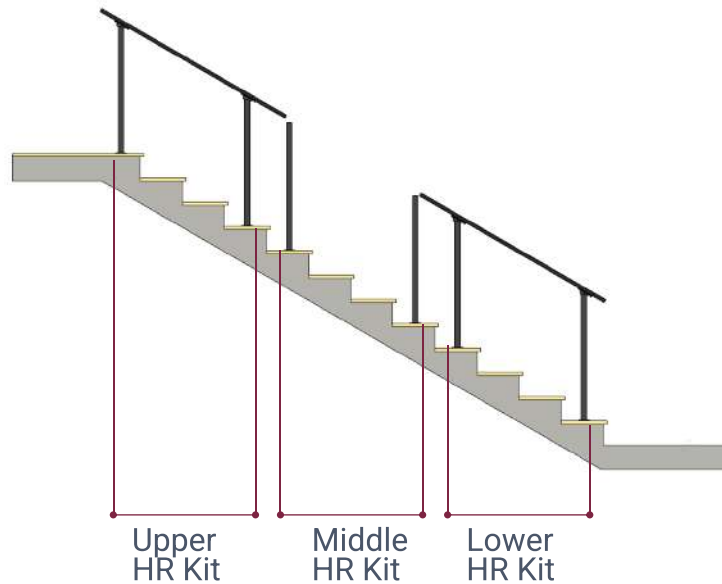




Repeat Steps 7.1 to 7.3 for Larger bracket attachment.
Then, rest the Tor Rail on the Posts
DO NOT SCREW TO POST YET. (We still need to determine how much cutting we need for the Top Rail connections)

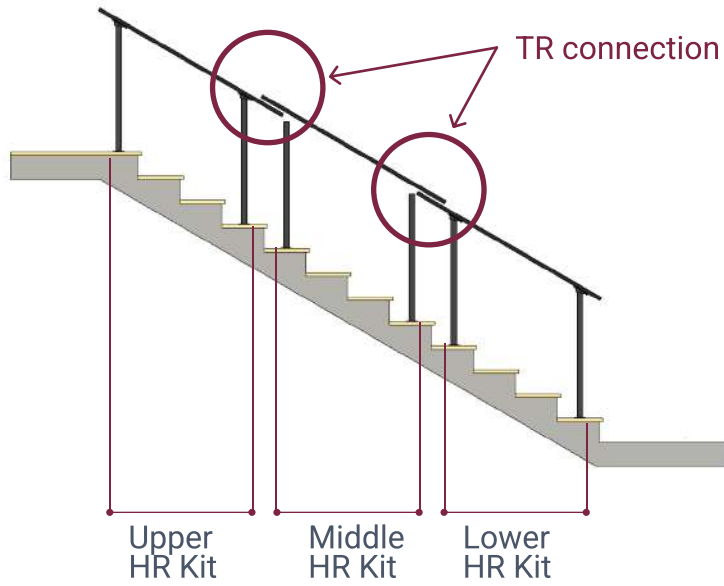


Repeat Entire Step 7 for the Lower Kit's top Rails

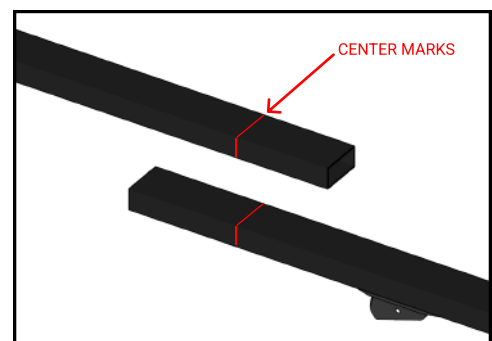
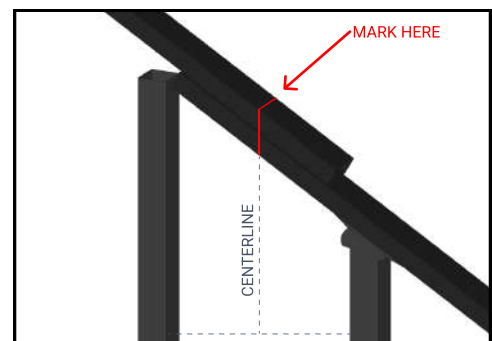
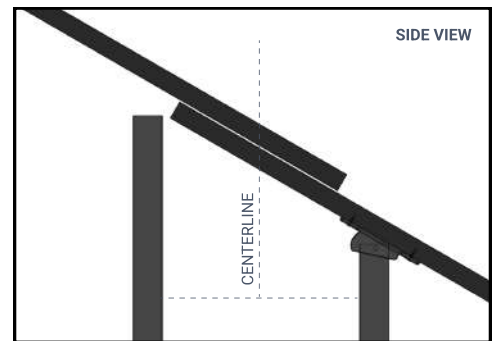
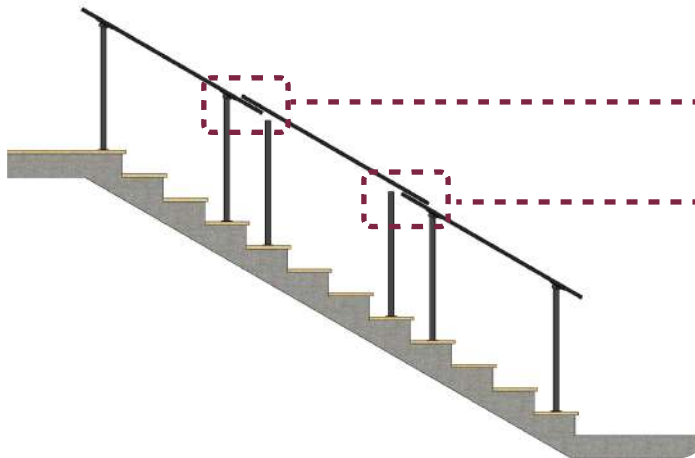


Step 8: Position Middle Kit's Top Rail

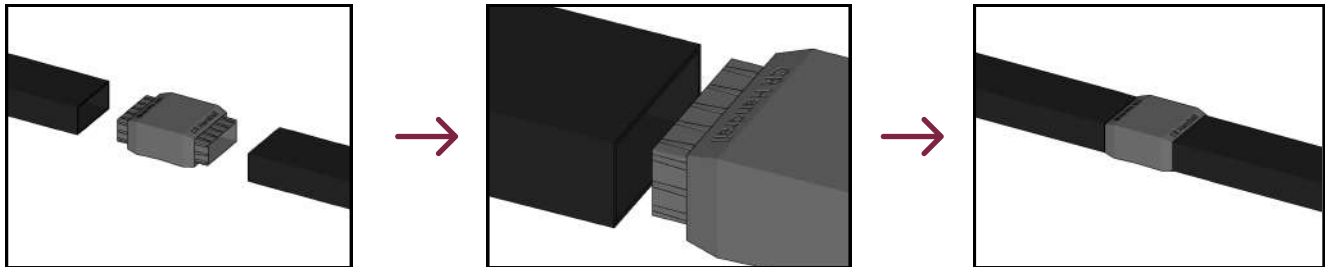
Position the Middle HR Kit's Top Rail to determine where the TR connection will go



Determine Center and Mark Cutting Line

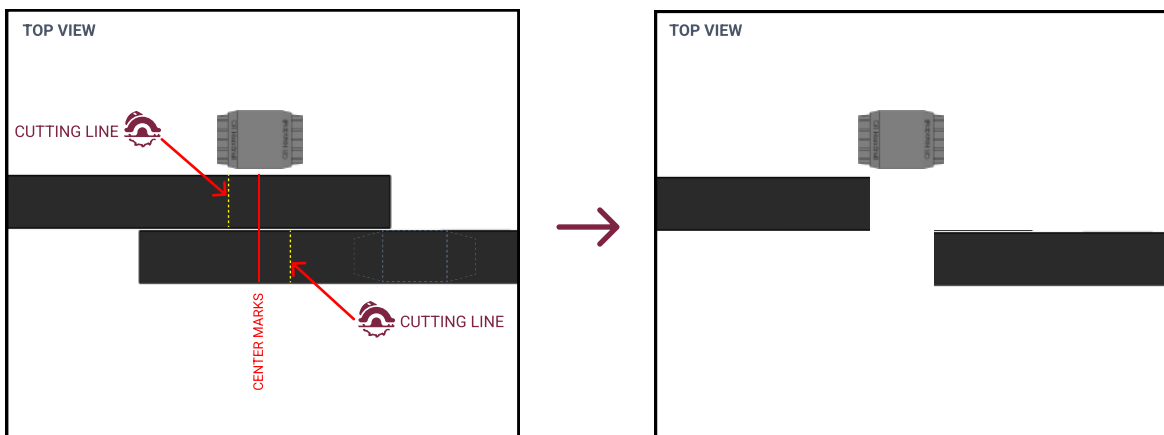
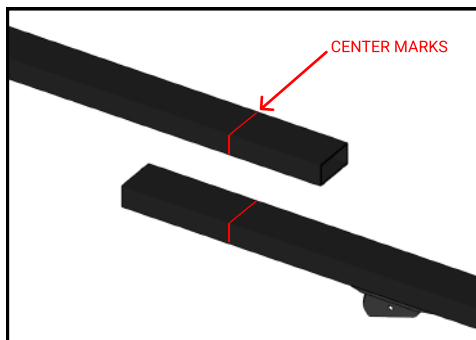


Preview for Tor Rail Connector:



Before attaching the TRCon, we need first to cut the Tor rails.

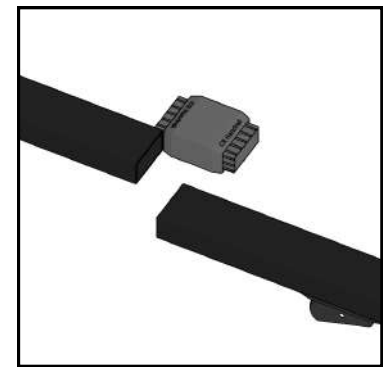
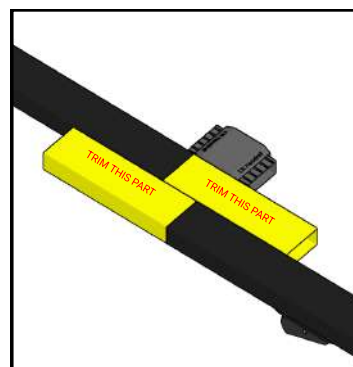
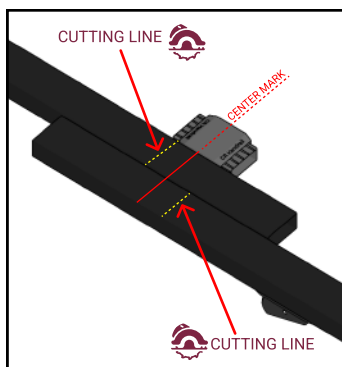
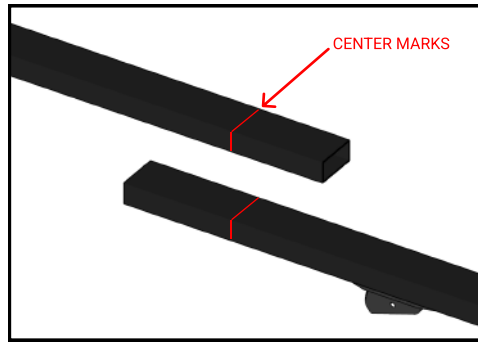
Place the Top Rail connector beside the Top rails with markings to determine its placement
Then mark the spot where the TRCon will connect to the Top Rail



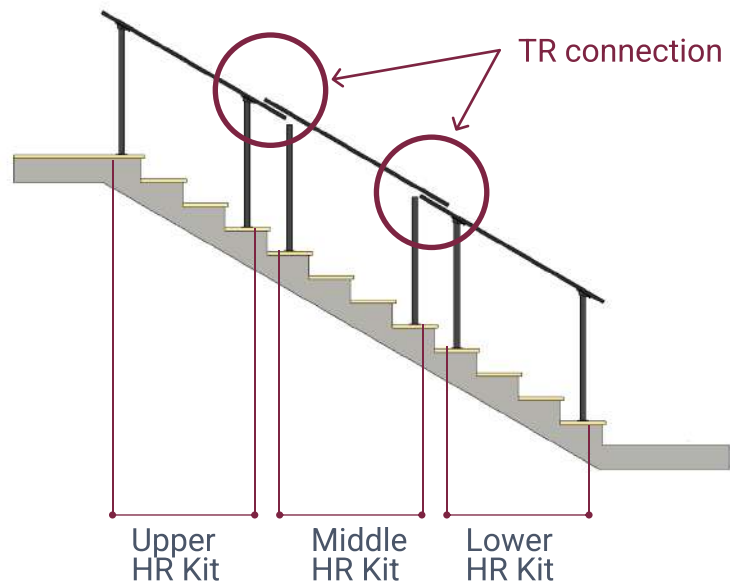
Do this for all Tor Rail Connection Points

Before attaching the TRCon, we need first to cut the Tor rails.

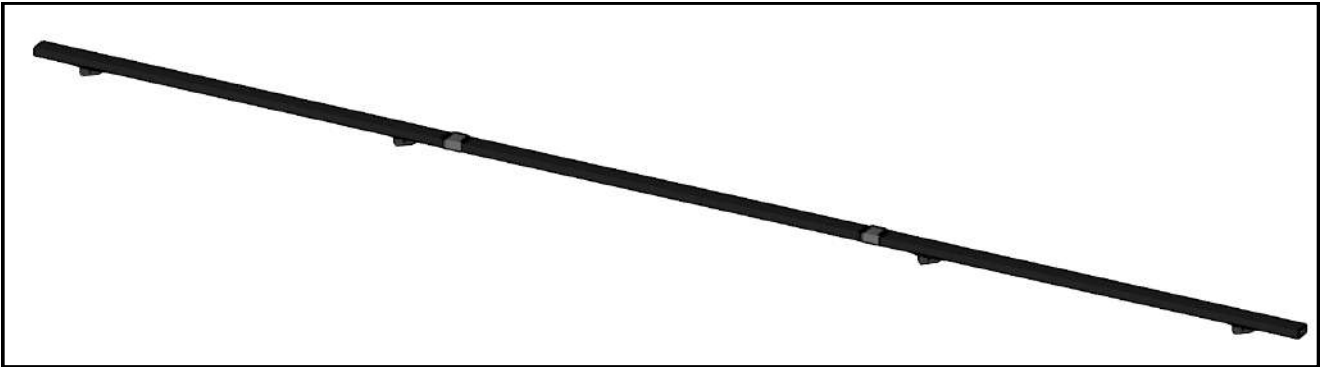
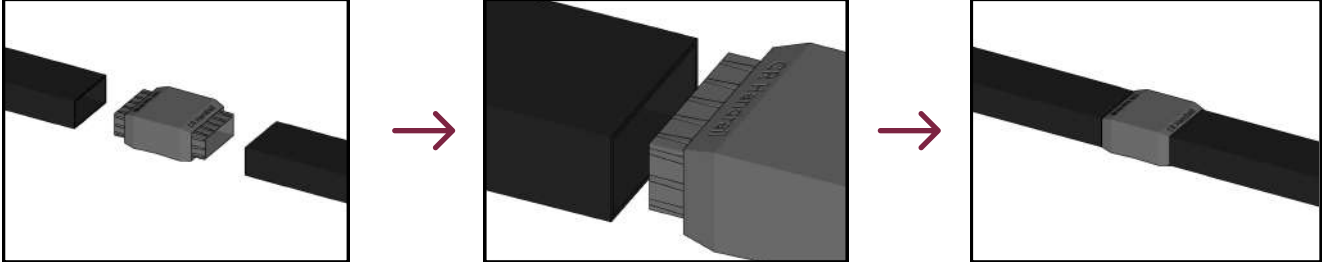
Place the Top Rail connector beside the Top rails with markings to determine its placement
Then mark the spot where the TRCon will connect to the Top Rail



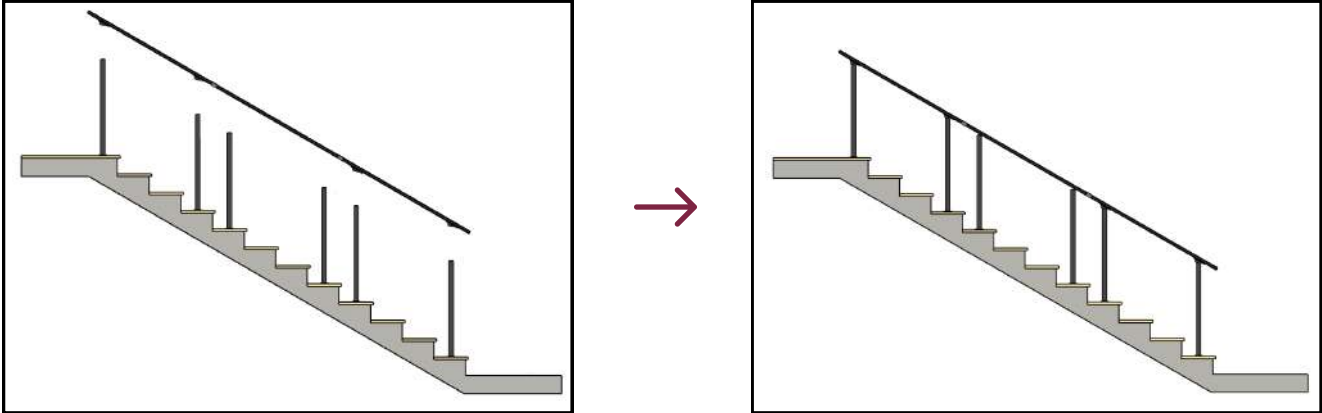
Do this for all Tor Rail Connection Points



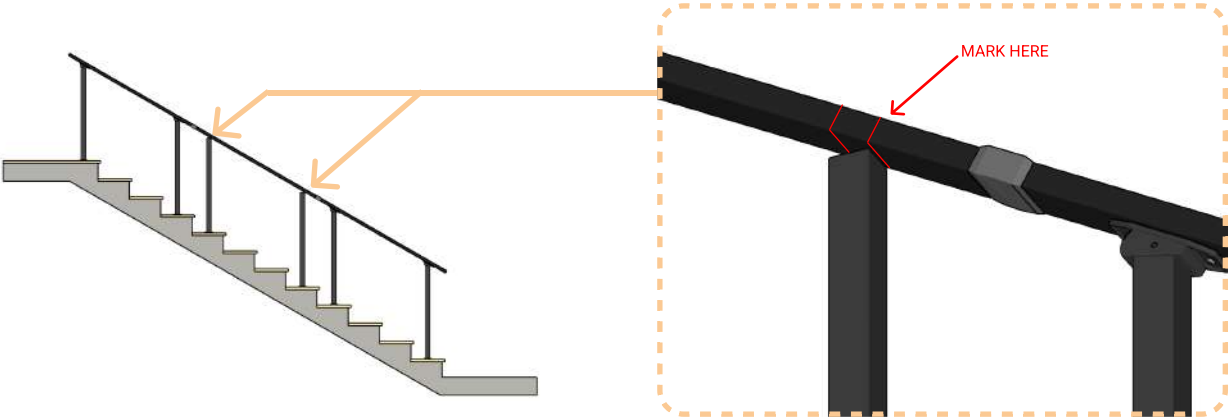
Attach all Top Rails



then rest TR on Posts to determine the placement for Middle Rails' Brackets



Resting the Top Rails will allow you to determine the placement for Middle Rail bracket.

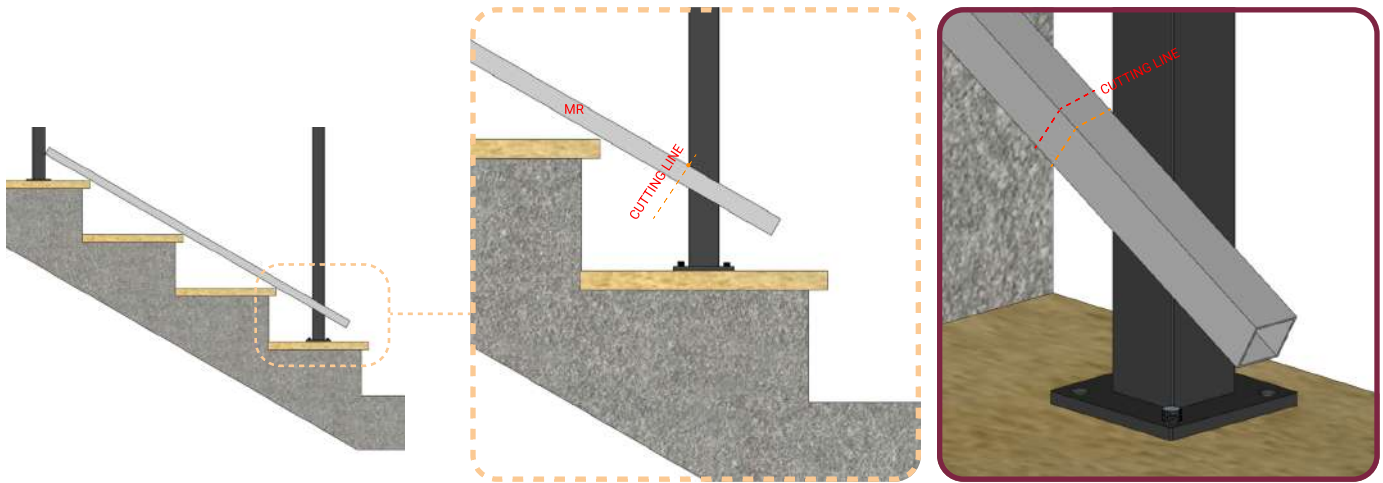


Follow sttpeps 8.1 to 8.3 to attach the remaining brackets for the Middle Kit's Top Rail

Once the you've finished attaching the brackets for the Middle kit's Top Rails, rest the Top Rails on the Posts

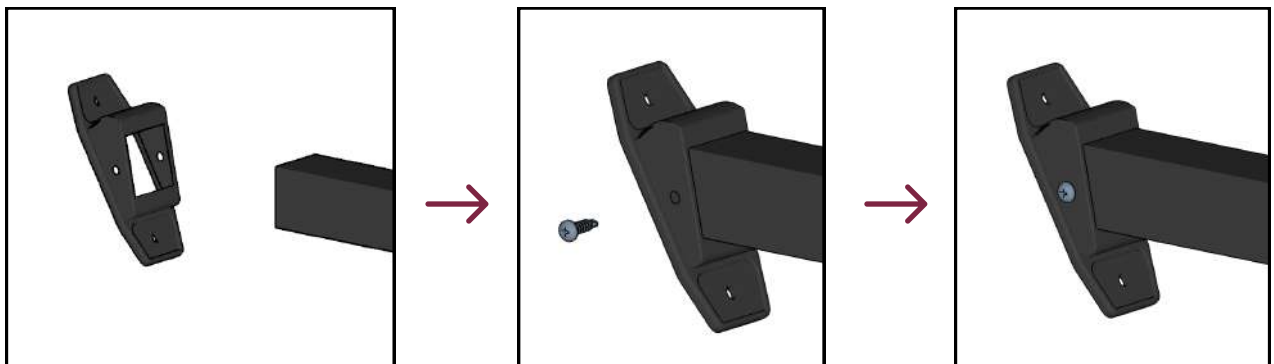
Step 9: Attach Middle Rails

Place Middle rail beside the Posts to determine how much to cut.

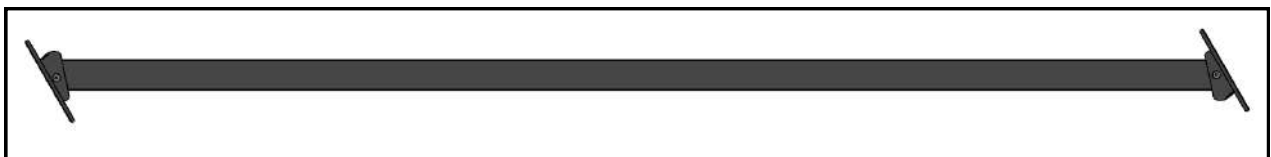


Add 1/8" wiggle room for brackets.

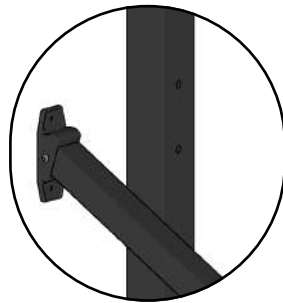
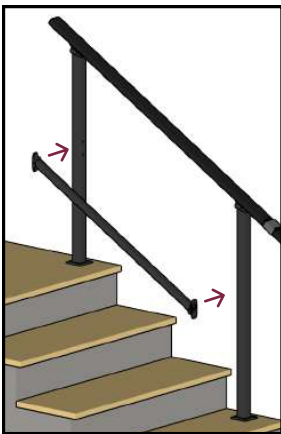
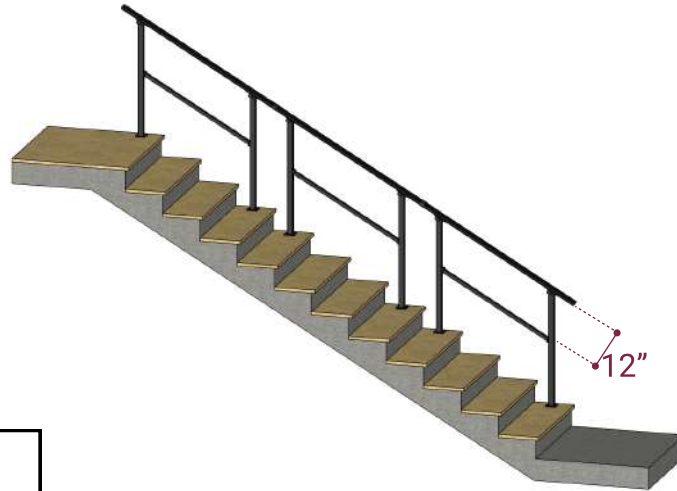
Attach the Smaller brackets on the Middle Rail Ends



Assembled Middle Rail:



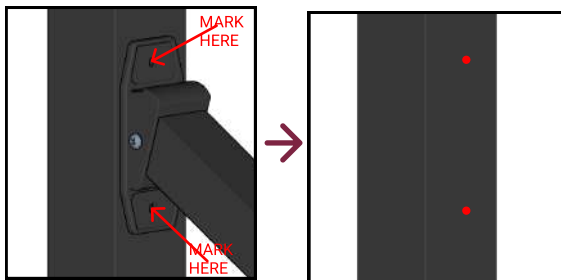
Insert the Assembled Middle Rails in between posts, 1' below the Top Rail.



Note: there are pre drilled holes on the Posts for middle Rail attachment. If this doesn't match the 1' TR to MR distance, you can drill a New MR holes by following the instructions below:

New MR Holes

Mark Holes

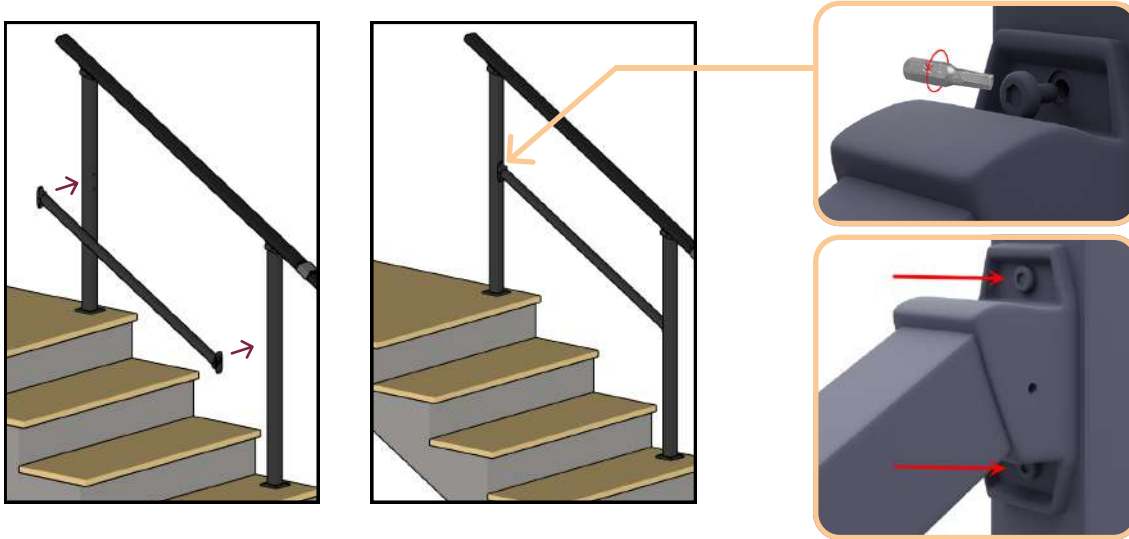


Pre drill new holes



Tip: Pre-drilling hole is NOT necessary. The self-drilling screw will make a hole when force is applied. If you must, use a small drill bit to make a pilot hole.

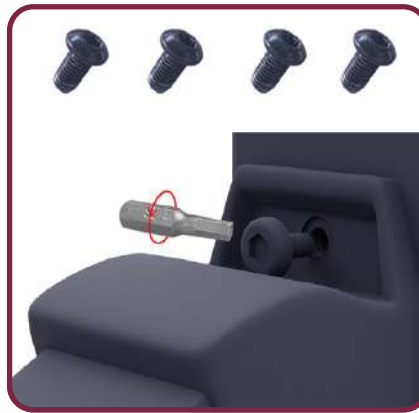
Once holes are verified, proceed to attaching your MR to the posts



Use the hex bit & bit holder



Screw on 2x flat-end screws per bracket



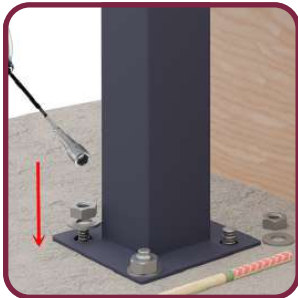
Step 10: Secure Handrail in place

Secure Posts.



WOOD

1. Install the remaining washer & lag screw.
2. When all are installed, doublecheck each of them again, to ensure all are tightened.
3. If your drill has a hammer (or impact) function, enable it.

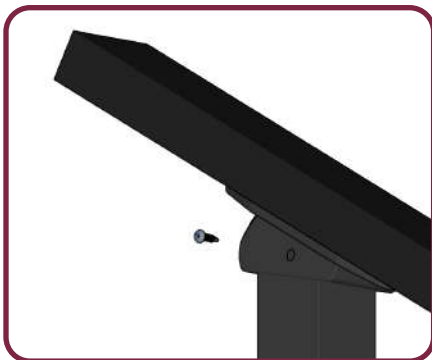


CONCRETE

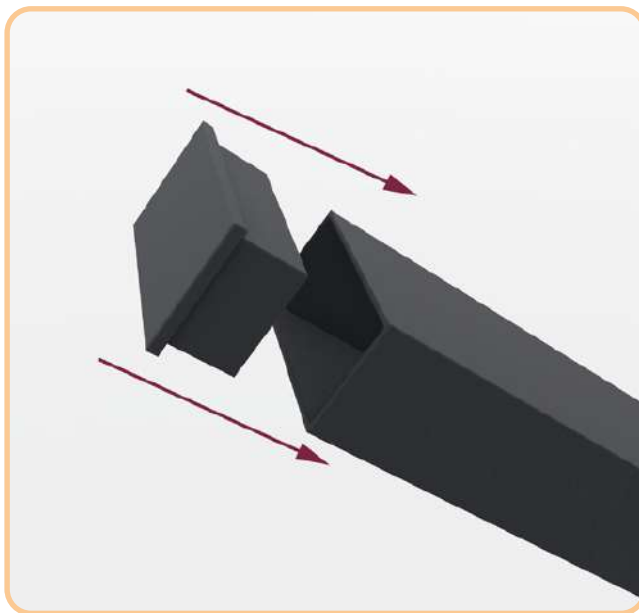
1. Install the remaining washer & lag screw, one-by-one
2. Hand-tighten a washer and nut over each anchor bolt.
3. Use the electric drill to tighten the nut (turn off hammer or impact driver function).

Screw Top Rail to Post

Using the included self-drilling screws, with some force applied (careful for your fingers as you hold the screws in place), drill the screws through the brackets into the metal railing. This will lock the metal in place.



Attach Top Rail End Caps



PART

3

Complete!





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