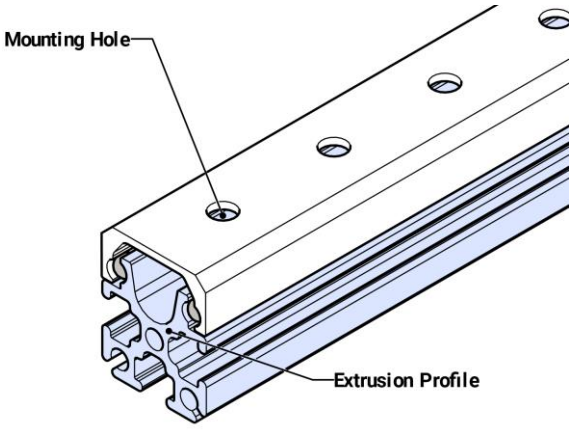
ULTRASLIDE BEST PRACTICES

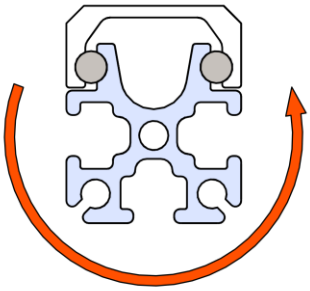


15mm UltraSlide is a compact ball bearing based aluminum slide featuring the REV 15mm Extrusion profile. Easily connect additional UltraSlides and assemblies for added reach. This product comes in 420mm and 308mm lengths.

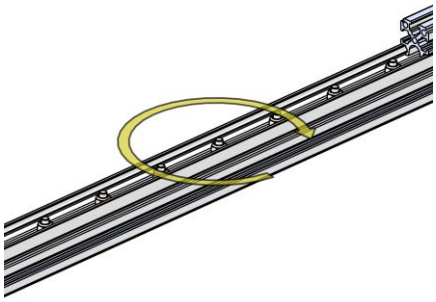
This application guide is intended to give users best practices when developing systems using UltraSlides. There are several differences compared to using the 15mm Linear Motion Kit V2 that teams have used in the past.

When using UltraSlides supporting and constraining the slides are critical. The UltraSlide works by using a system of ball bearings captured between the extrusion profile and the slide. Crimps on both the slide and the extrusion allow the slide to move in either direction while keeping the balls constrained.

Forces in a torsional or twisting motion to the slide will result in the balls being unconstrained and allow for ball bearings to fall out of the UltraSlide. Below are examples of torsional and twisting forces to avoid.

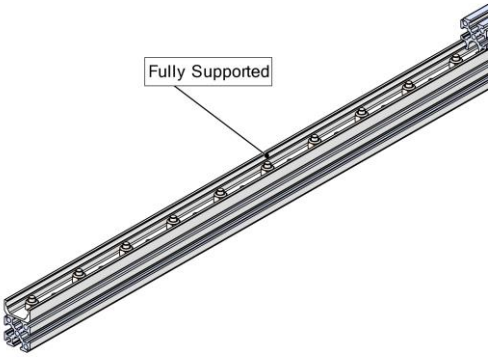


Torsional Force



Twisting Force

Make sure to fully support the UltraSlide and keep forces pushing into the slide. Below are examples of fully supporting the slide and pushing forces.



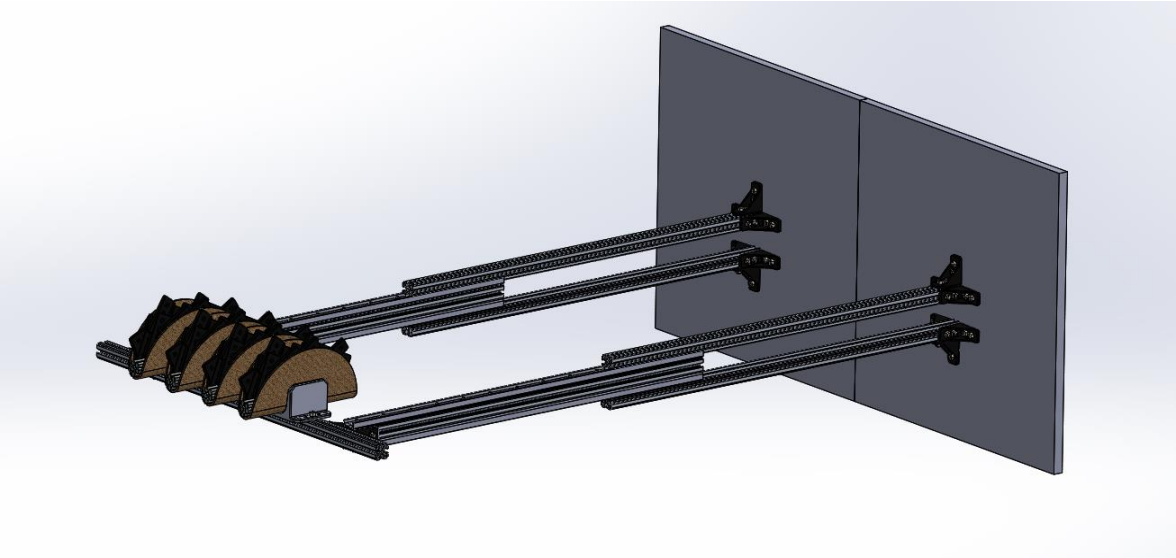
Fully Supported with hardware

Pushing Force into UltraSlide

It is also best to avoid applying any large loads to the slides when they are fully extended as that will result in the balls becoming unconstrained. Please note these apply to both assembly with and functional use of UltraSlides.

To reduce the torsional and twisting forces, it is recommended to utilize two UltraSlides per stage and providing additional support for the uprights by connecting the UltraSlides to another pole.

Examples of **good** designs are below:



Single UltraSlide stages on lifts are avoided as torsional and twisting forces will likely occur. **Avoid** the designs below: