

This is a bit long but I encourage you to read to the end.

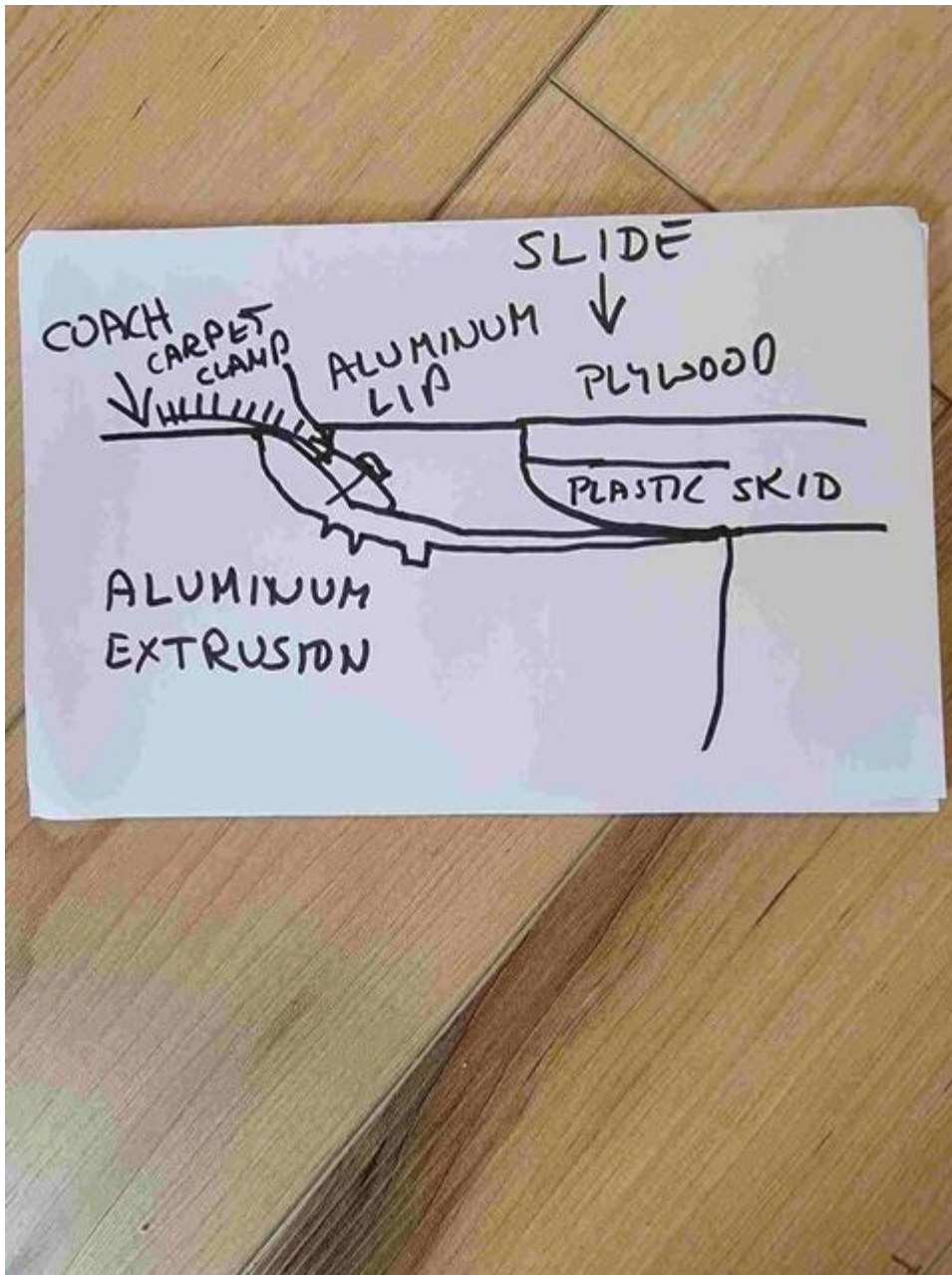
Some months back, I started a crusade to improve the performance of my flush floor slide. Many folks were interested. I built a new controller using a Trombetta relay. The result was an improvement as evidenced by video timed retraction. Next was to run additional #10 wires from the new controller to the single motor. Again, performance improvement was evident. Finally, I added 160 lb garage door springs. This was the biggest improvement yet. Here is the link to the spring thread:

<https://groups.io/g/discoveryowners/message/163975>

Originally, the slide would literally STOP momentarily and then grind up the hill. After the three improvements, it no longer stopped. It slowed down as the videos show, but it didn't stop.

I was happy. Case closed hints and tips article written and submitted. Done. Mission accomplished. Etc.

BUT, something kept nagging me. Eventually, I came back to the slide opening. Lifting my carpet, I studied the construction. In this really bad drawing, you can see what mine looks



like.

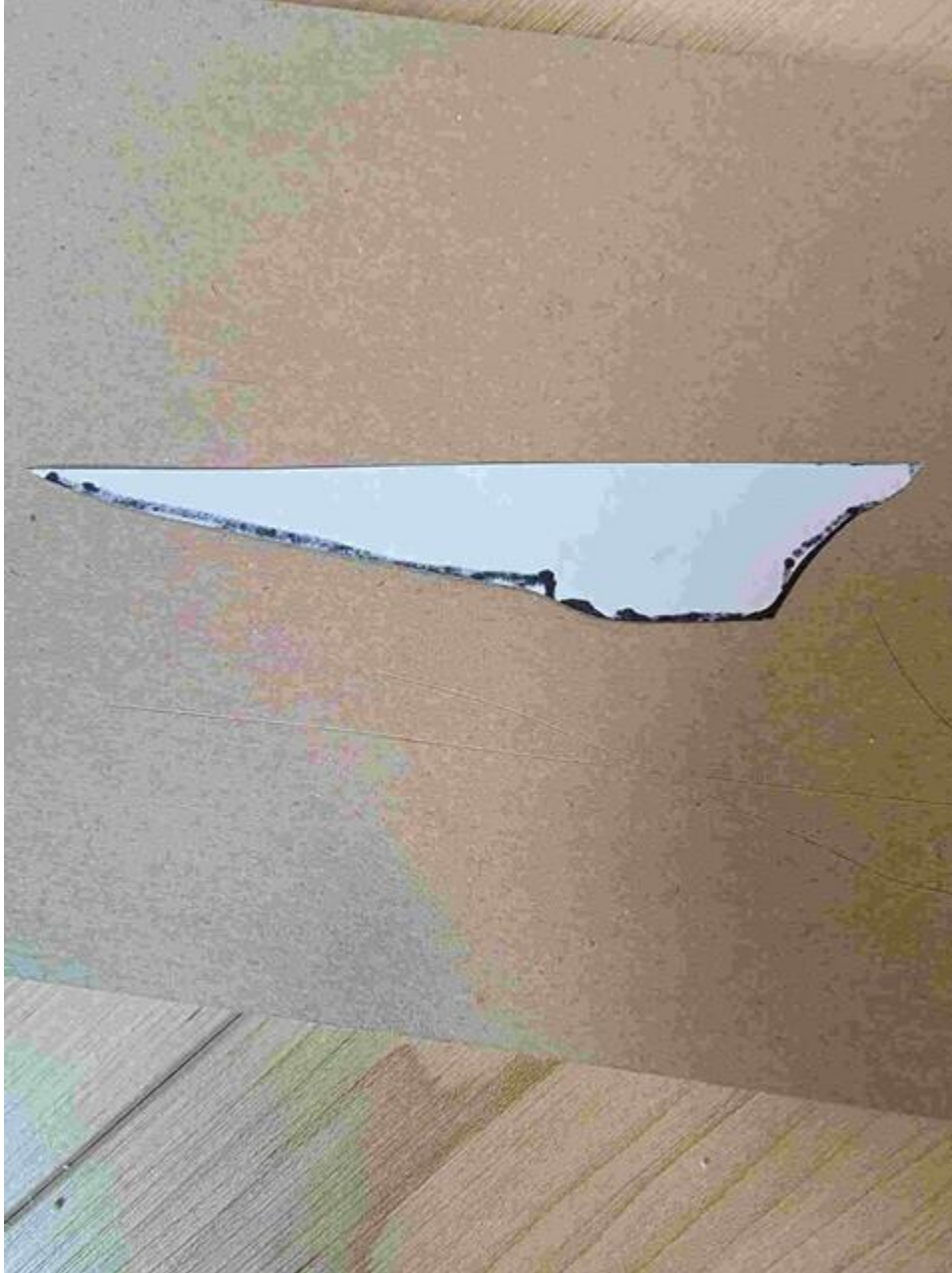
There is a large aluminum extrusion on the outside of the slide opening. It's about 5" wide. Part of it forms the 'ramp' or 'hill' the slide has to climb.

The bottom of the slide has a plastic ski or skid (polypropylene of some flavor, uhmw, delrin, etc). As the slide comes in, all proceeds smoothly for about 3 inches until the slide ski makes contact with the floor aluminum ramp and has to climb up the approximately 45 degree slope. My coach is even worse because it has a carpet clamp that screws into the extrusion and actually increases the angle to 50 degrees or so.

Anyone who has ever pushed a loaded wheelbarrow knows that the flatter and longer the ramp, the easier and less effort is required to get to the top.

So I made a better ramp and WOW what a difference!

After studying the situation I cut a 3" wide by 4" long wedge out of some 3/4" UHMW (ULTRA HIGH MOLECULAR WEIGHT)...same stuff cutting boards are made from. Tough, hard, and self lubricating. It is used as bushings in industrial settings. Anyway, I cut a profile like this:



Then I drilled and countersunk for two #10 screws. With a little prying of the slide edge, I was able to get it to slip into position. I then drilled two smaller holes for the screws into the aluminum ramp, screwed the screws in and made sure the heads were fully countersunk. It looks like this:



You will notice a hole drilled into the black aluminum edge of the slide. That is the access hole for screwing in the second screw.

Get to the point Pinkerton! The point is that the slide now moves up the hill without a noticeable shudder or even slowdown. The video of the ramp performance is here.

<https://youtube.com/shorts/JHHL3dDf3QQ?feature=share>

While the total time improvement is only 5 seconds. It is those 5 heart stopping, stomach churning seconds when always wondered if THIS was going to be the time it would not come in.

Watch the first and last videos. You'll understand my angst.

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Kerry Pinkerton - Discovery Friend - Harvest (Huntsville) Alabama 2006 39LK Cat C7 towing a 2015 Edge Toad