Excerpt from All-Terrain Hand Brake Design FMEA (with missing or incorrect elements for teaching purposes)

Item/Function	Potential Failure Mode	Potential Effect(s) of Failure	SEV	Potential Cause(s) of Failure	OCC	Current Design Controls (Prevention)	Current Design Controls (Detection)	DET	RPN	Recommended Actions
Hand Brake S/S: Provides the correct level of friction between brake pad assembly and wheel rim to safely stop bicycle in the required distance, under all operating conditions.	Insufficient friction delivered by hand brake subsystem between brake pads and wheels during heavy rain conditions.	Bicycle wheel does not slow down when the brake lever is pulled potentially resulting in accident.	10	Cable Binds due to inadequate lubrication or poor routing	4	Hand Brake Design Guide #123	Bicycle system durability test # 789	2	80	Redesign hand brake cable routing to reduce friction and make system insensitive to lubrication degradation Modify bicycle durability testing to include periodic brake cable checks for binding
				External foreign material reduces friction	2			3	60	
				Cable breaks	6	Cable material selection based on ANSI #ABC.	Bicycle system durability test # 789	4	240	Require cable DFMEA/PFMEA from cable supplier approved by All-Terrain FMEA team. Based on results of Cable DFMEA, develop cable strength test and modify cable design to improve strength