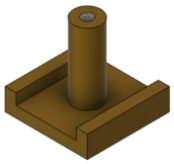
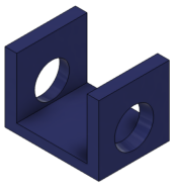
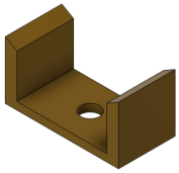
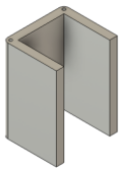
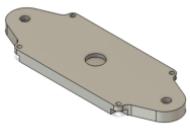
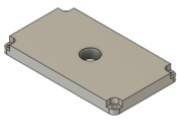
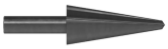
Manufacturing Plan by Part
10/3/22

Number	Photo	Name	Process / Material	Source	Notes
01		Output Pin	Mill & COTS shaft ¼” AL	McMaster 9062K26 For Aluminum rod	Threaded hole M2 or M3 on top -Split into 2 pieces; assemble
02		Bearing Support	CNC AL	4592T337 McMaster U-Channel	Maybe U-Channel AL
03		Bearings	PTFE 3/8” Ball -or- Steel ball	McMaster 9660K41	3/8” x 2
04		Lower Lock Slide	Mill / sander / file AL	Purchased	Either line w/ low friction or entirely low friction
05		Main Enclosure	Mill/drill AL	4592T337 McMaster U-Channel	Part x2. M1.6 Holes x4.
06		Bottom Cap	Mill - AL	Purchased	
07		Top Cap	Mill- AL	Purchased	Maybe threaded holes for standoff
08		Lower Shaft	HDPE or UHMW Polyethylene	McMaster https://www.mcmaster.com/8701K37	

09		Body Screws	Source	**91292A264**	M1.6x8mm screws x8
10		Top Spring	Source	1986K78 – 2.09lb spring 1986K83 – 5.03lb spring McMaster	
11		Bottom Spring	TBD	TBD	
12		PTFE Film	Source & Cut to size. (Maybe laser Cutter)	McMaster - https://www.mcmaster.com/2208T61	
13		Conical Drill Bit	Source	McMaster - 8910A11	For Cone-shaped Cutouts
14		Flat Head Screw	Source	McMaster - 91294A128	

Additional Parts

		Load Cell	amazon	
		PID Temp controller	amazon	
		Nitinol spring	Link	