

insert desired cord length and change upper and lower %'s to create the coordinates for your new airfoil

cord length		55		airfoil name NACA 4412		
station %	station in	upper %	upper in	lower%	lower in	
0%	0	0	0	0.00%	0	
1.25%	0.6875	2.44%	1.342	-1.43%	-0.7865	
2.55%	1.4025	3.39%	1.8645	-1.95%	-1.0725	
5%	2.75	4.73%	2.6015	-2.49%	-1.3695	
7.50%	4.125	5.76%	3.168	-2.74%	-1.507	
10%	5.5	6.59%	3.6245	-2.86%	-1.573	
15%	8.25	7.89%	4.3395	-2.88%	-1.584	
20%	11	8.80%	4.84	-2.74%	-1.507	
25%	13.75	9.41%	5.1755	-2.50%	-1.375	
30%	16.5	9.76%	5.368	-2.26%	-1.243	
40%	22	9.80%	5.39	-1.80%	-0.99	
50%	27.5	9.19%	5.0545	-1.40%	-0.77	
60%	33	8.14%	4.477	-1.00%	-0.55	
70%	38.5	6.69%	3.6795	-0.65%	-0.3575	
80%	44	4.89%	2.6895	-0.39%	-0.2145	
90%	49.5	2.71%	1.4905	-0.22%	-0.121	
95%	52.25	1.47%	0.8085	-0.16%	-0.088	
100%	55	0.13%	0.0715	-0.13%	-0.0715	

insert known cord length and know coordinates to find the %'s of the upper and lower coordinates to the cord length

cord length		54	airfoil name Legal Eagle Ultralight			
station %	station in	upper in	upper %	lower in	lower %	
0%	0	0	0.00%	0	0.00%	
1.25%	0.675	1.531	2.84%	-1.078	-2.00%	
2.55%	1.377	2.171	4.02%	-1.484	-2.75%	
5%	2.7	3.187	5.90%	-1.906	-3.53%	
7.50%	4.05	3.875	7.18%	-2.078	-3.85%	
10%	5.4	4.437	8.22%	-2.125	-3.94%	
15%	8.1	5	9.26%	-2.093	-3.88%	
20%	10.8	5.406	10.01%	-2	-3.70%	
25%	13.5	5.703	10.56%	-1.875	-3.47%	
30%	16.2	5.875	10.88%	-1.75	-3.24%	
40%	21.6	5.984	11.08%	-1.484	-2.75%	
50%	27	5.781	10.71%	-1.281	-2.37%	
60%	32.4	5.234	9.69%	-1.046	-1.94%	
70%	37.8	4.312	7.99%	-0.781	-1.45%	
80%	43.2	3.125	5.79%	-0.562	-1.04%	
90%	48.6	1.671	3.09%	-0.321	-0.59%	
95%	51.3	0.859	1.59%	-0.171	-0.32%	
100%	54	0.062	0.11%	0	0.00%	