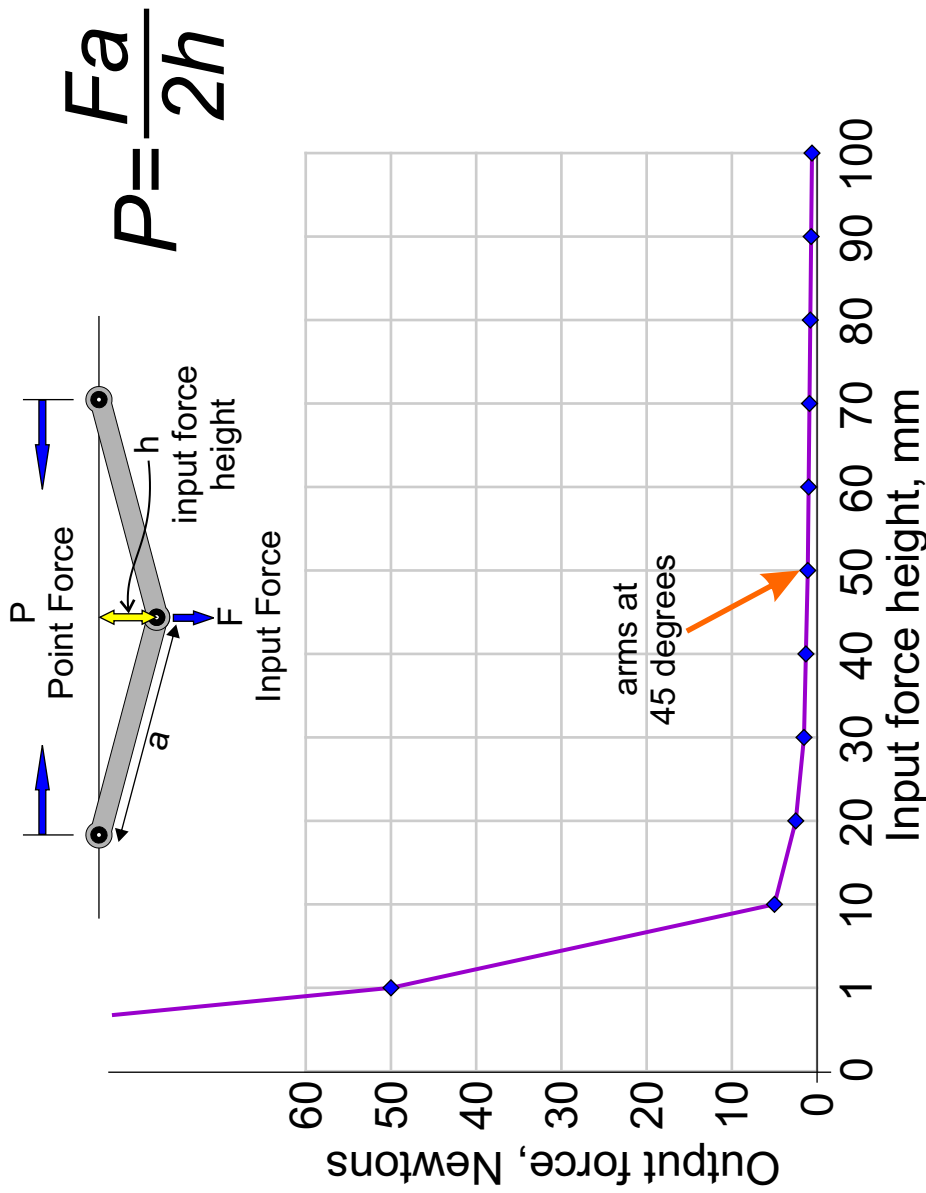


Toggle Mechanism Physics

Input force height (mm)	Output force (N)
0.01	5000
0.1	500
0.5	100
1	50
10	5
20	2.5
30	1.67
40	1.25
50	1
60	0.833
70	0.714
80	0.625
90	0.556
100	0.5



Calculations based on an arm length (a) of 100mm and a 1 Newton input force



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Toggle Mechanism Robot Gripper

Print out the templates down below and cut the parts out of your material of choice. Drill holes if needed at the marked crosshairs. Bolt or pin the parts together as shown in the photograph.



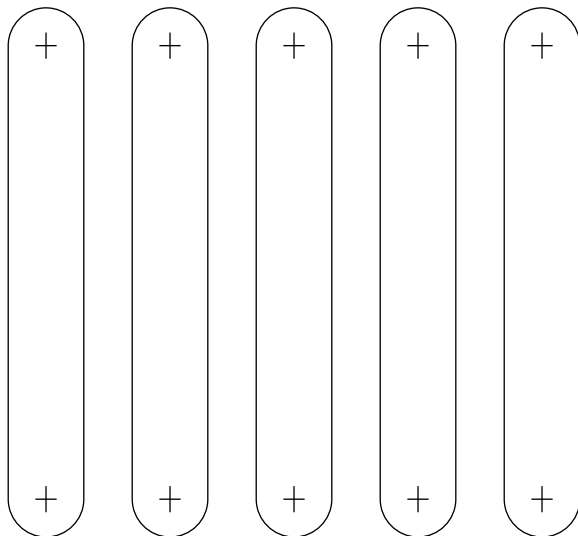
wrist

toggle links



Optional - you can make the finger tips thicker by adding these squares (in red) and using the bolt holes to piece them together.

gripper fingers



parallelogram fingers & toggle actuator

