Decision Matrices

Using a 0-to-100-point scale, each team member individually weighted the importance of the requirements then took the average to come up with a final weight. Following this, we graded the design ideas being “-1” = Not Ideal, “0” = Neutral and “1” = Ideal.









Engineering Analysis

*Deflection on linear shaft rods*

 

F = 5 lbs.

L = 48 in.

E = 29000 ksi

D = 0.375 in.

I = 9.707x10-4 in.4

Theoretical Deflection = -0.102 in.

Actual Deflection =  ~ -0.120 to -0.125 in.