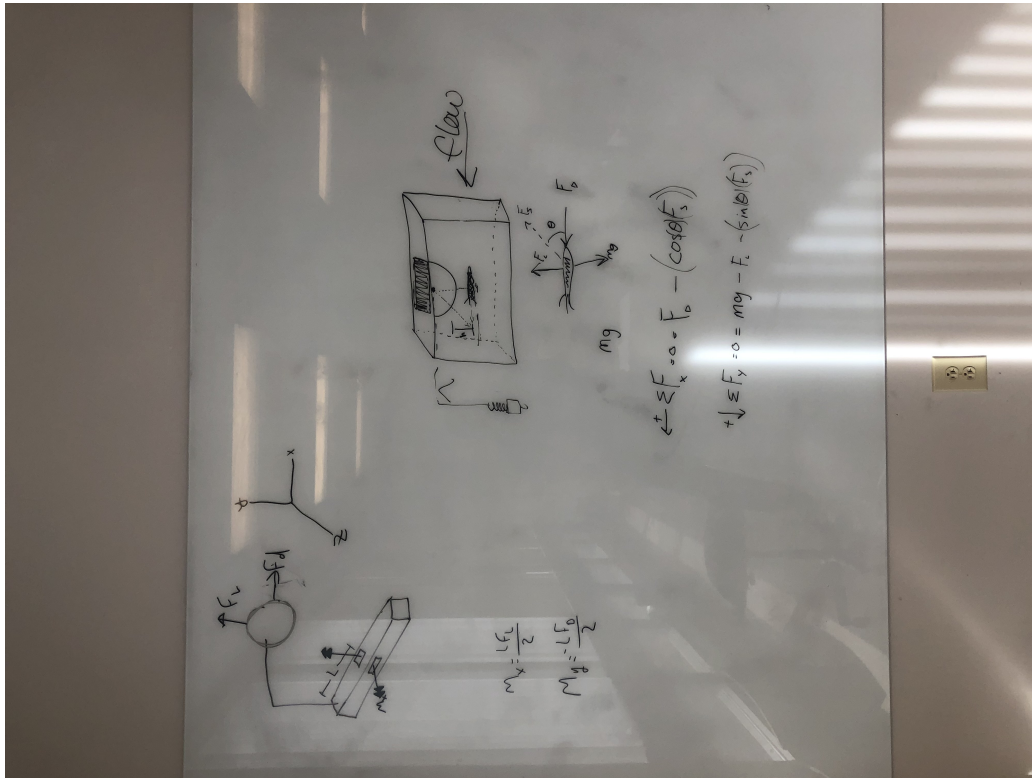


# 1 Design 1

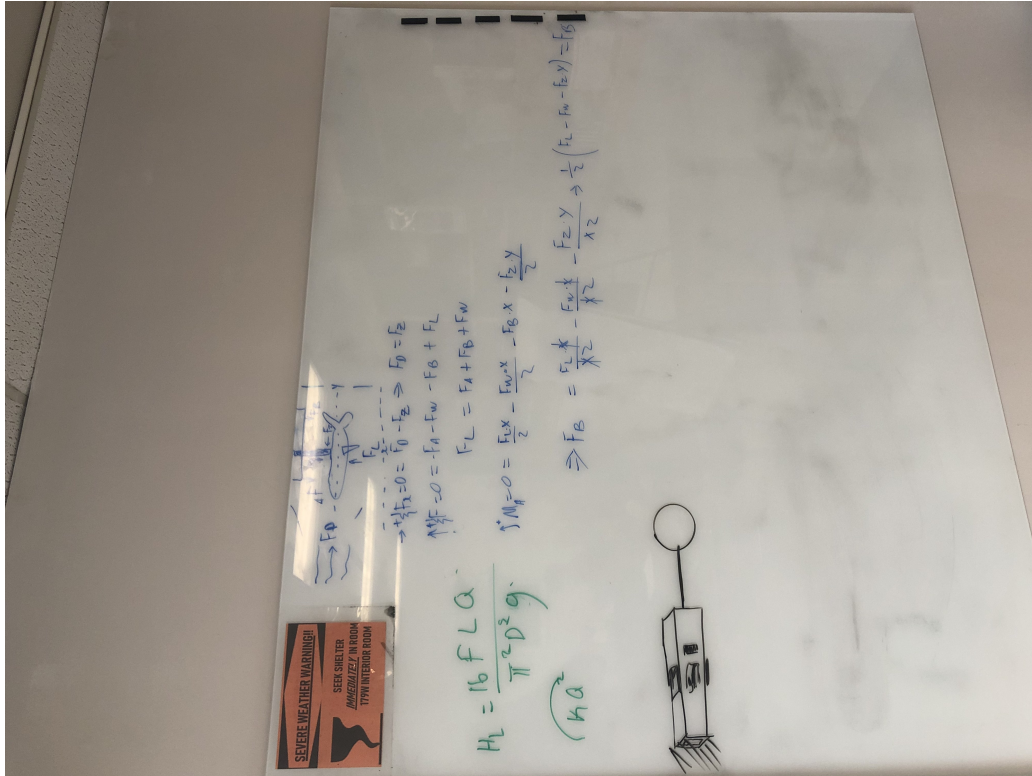


## 2 Design 2

$E_A = 7316.12$   
 $A = 20 \times 10^{-6} \text{ m}^2 = 0.002 \text{ cm}^2$   
 $L \sin \theta = x$   
 $\sigma = \frac{F}{A} = \frac{E \epsilon}{A}$   
 $F = \sigma A = E \epsilon A$   
 $F_A = 6.3275 \text{ N}$   
 $E_A = 87.72 \text{ MN}$

$F_L = 0 = F_A + F_B$   
 $F_A = F_B$   
 $F_D = \frac{2}{y} F$   
 $F_A = 87.74 \text{ MN}$   
 $F_B = 87.74 \text{ MN}$   
 $F_D = 175.48 \text{ MN}$   
 $F_E = 175.48 \text{ MN}$   
 $F_F = 175.48 \text{ MN}$   
 $F_G = 175.48 \text{ MN}$   
 $F_H = 175.48 \text{ MN}$   
 $F_I = 175.48 \text{ MN}$   
 $F_J = 175.48 \text{ MN}$   
 $F_K = 175.48 \text{ MN}$   
 $F_L = 175.48 \text{ MN}$   
 $F_M = 175.48 \text{ MN}$   
 $F_N = 175.48 \text{ MN}$   
 $F_O = 175.48 \text{ MN}$   
 $F_P = 175.48 \text{ MN}$   
 $F_Q = 175.48 \text{ MN}$   
 $F_R = 175.48 \text{ MN}$   
 $F_S = 175.48 \text{ MN}$   
 $F_T = 175.48 \text{ MN}$   
 $F_U = 175.48 \text{ MN}$   
 $F_V = 175.48 \text{ MN}$   
 $F_W = 175.48 \text{ MN}$   
 $F_X = 175.48 \text{ MN}$   
 $F_Y = 175.48 \text{ MN}$   
 $F_Z = 175.48 \text{ MN}$   
 $F_{AA} = 175.48 \text{ MN}$   
 $F_{BB} = 175.48 \text{ MN}$   
 $F_{CC} = 175.48 \text{ MN}$   
 $F_{DD} = 175.48 \text{ MN}$   
 $F_{EE} = 175.48 \text{ MN}$   
 $F_{FF} = 175.48 \text{ MN}$   
 $F_{GG} = 175.48 \text{ MN}$   
 $F_{HH} = 175.48 \text{ MN}$   
 $F_{II} = 175.48 \text{ MN}$   
 $F_{JJ} = 175.48 \text{ MN}$   
 $F_{KK} = 175.48 \text{ MN}$   
 $F_{LL} = 175.48 \text{ MN}$   
 $F_{MM} = 175.48 \text{ MN}$   
 $F_{NN} = 175.48 \text{ MN}$   
 $F_{OO} = 175.48 \text{ MN}$   
 $F_{PP} = 175.48 \text{ MN}$   
 $F_{QQ} = 175.48 \text{ MN}$   
 $F_{RR} = 175.48 \text{ MN}$   
 $F_{SS} = 175.48 \text{ MN}$   
 $F_{TT} = 175.48 \text{ MN}$   
 $F_{UU} = 175.48 \text{ MN}$   
 $F_{VV} = 175.48 \text{ MN}$   
 $F_{WW} = 175.48 \text{ MN}$   
 $F_{XX} = 175.48 \text{ MN}$   
 $F_{YY} = 175.48 \text{ MN}$   
 $F_{ZZ} = 175.48 \text{ MN}$   
 $F_{AA} = 175.48 \text{ MN}$   
 $F_{BB} = 175.48 \text{ MN}$   
 $F_{CC} = 175.48 \text{ MN}$   
 $F_{DD} = 175.48 \text{ MN}$   
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 $F_{WW} = 175.48 \text{ MN}$   
 $F_{XX} = 175.48 \text{ MN}$   
 $F_{YY} = 175.48 \text{ MN}$   
 $F_{ZZ} = 175.48 \text{ MN}$

### 3 Design 3



### 4 Design 4

### 5 Design 5