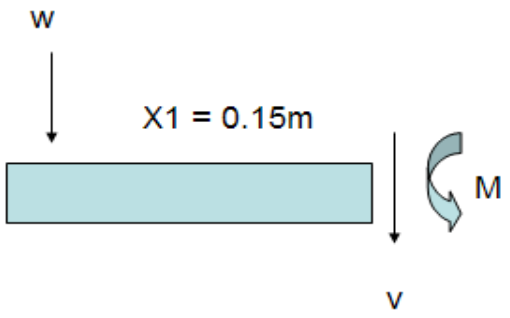
APPENDIX B: Bending moment and shearing force learning equipment

Example of calculations:



X1 = 0.15m

V + w = 0

V + (150/1000)*9.81 = 0

V = - 1.4715 N (the weight value remain constant for x1, x2 & x3)

M + 1.4715x = 0

M +1.4715*0.15 = 0

M = - 0.22 Nm

Shear and Moment diagram

X2 = 0.10m

M +1.4715*0.10 = 0
M = -0.14715 Nm

X3 = 0.05m

M +1.4715*0.05 = 0
M = -0.0736 Nm