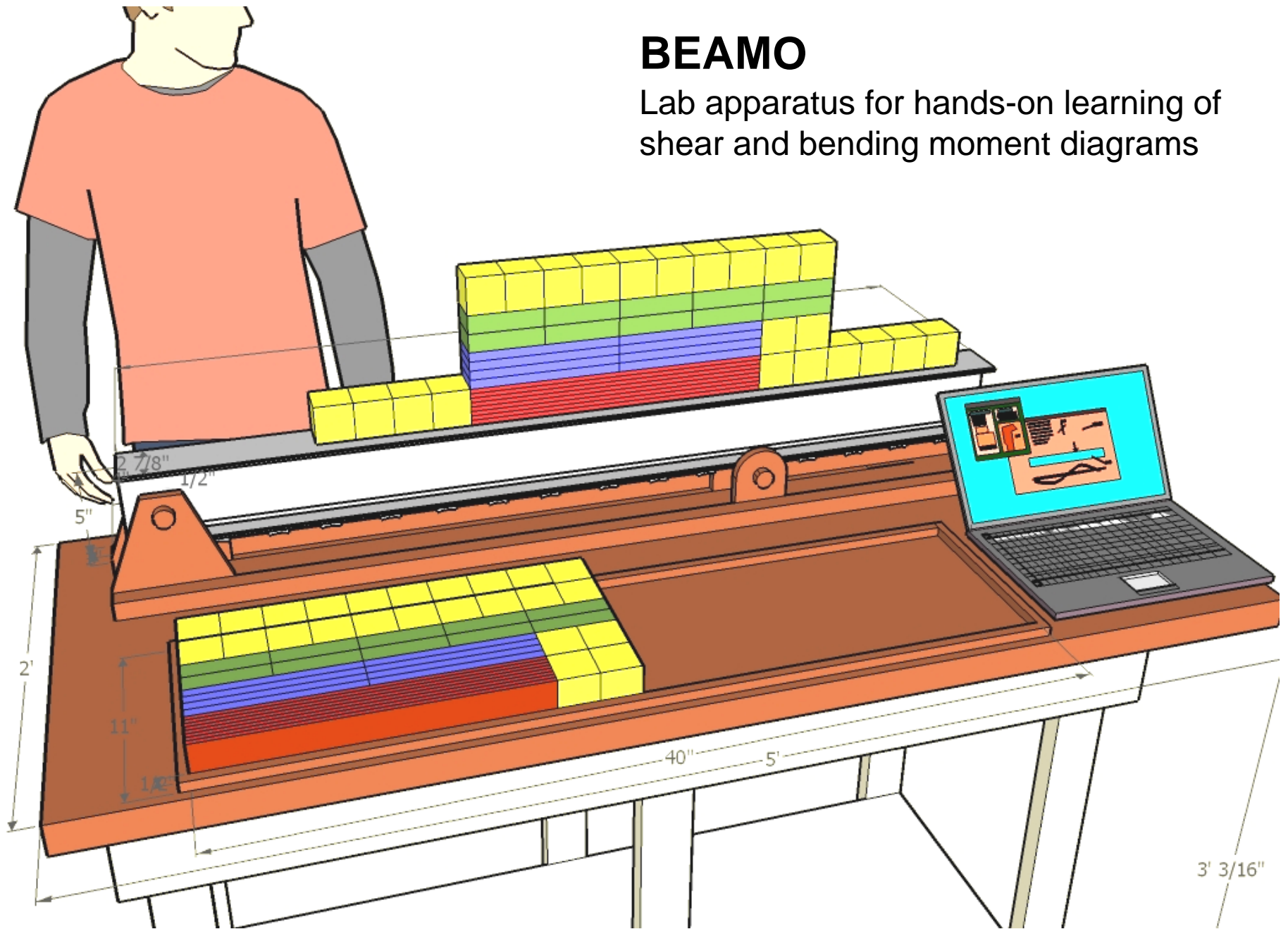


BEAMO

Lab apparatus for hands-on learning of shear and bending moment diagrams



BEAMO

This is a new apparatus that will be used as part of the ongoing EN4312 Mechanics of Solids I Course, Spring semester, 2007.

Required: See illustrations – drawings are approximate and lack some detail.
To be completed and working by June 12th

Technical Services

Cut weld and assemble the beam, track and supports (beam provided)
Cut and assemble the loose weights and the weight tray/rack
prime paint all parts for accepting high gloss paint later
Mount the beam and weight assemblies onto the desk (provided).
Weld high quality easy gliding casters onto desk.

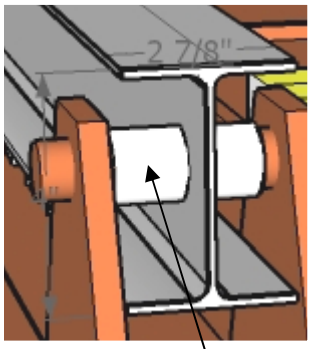
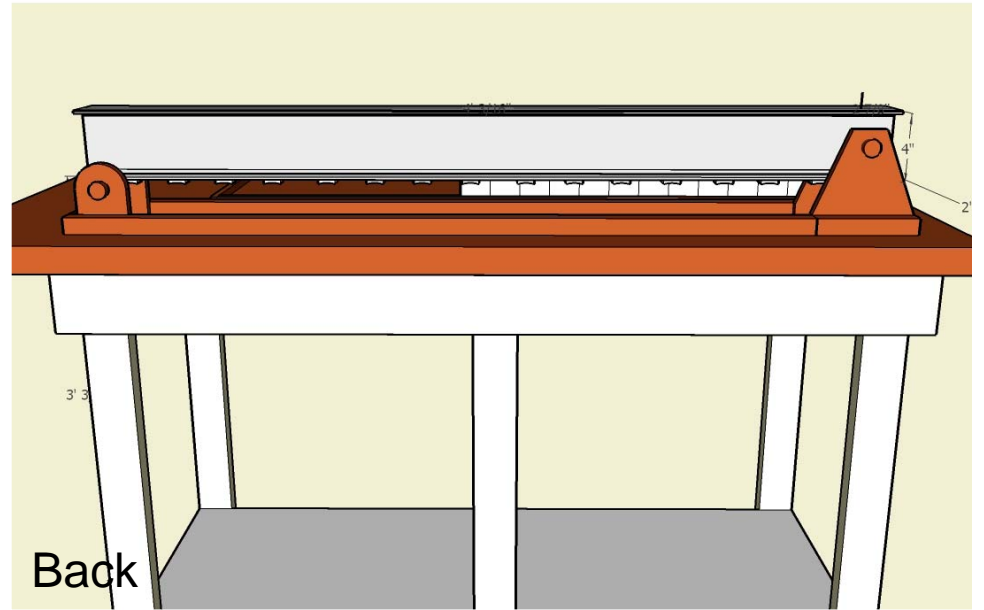
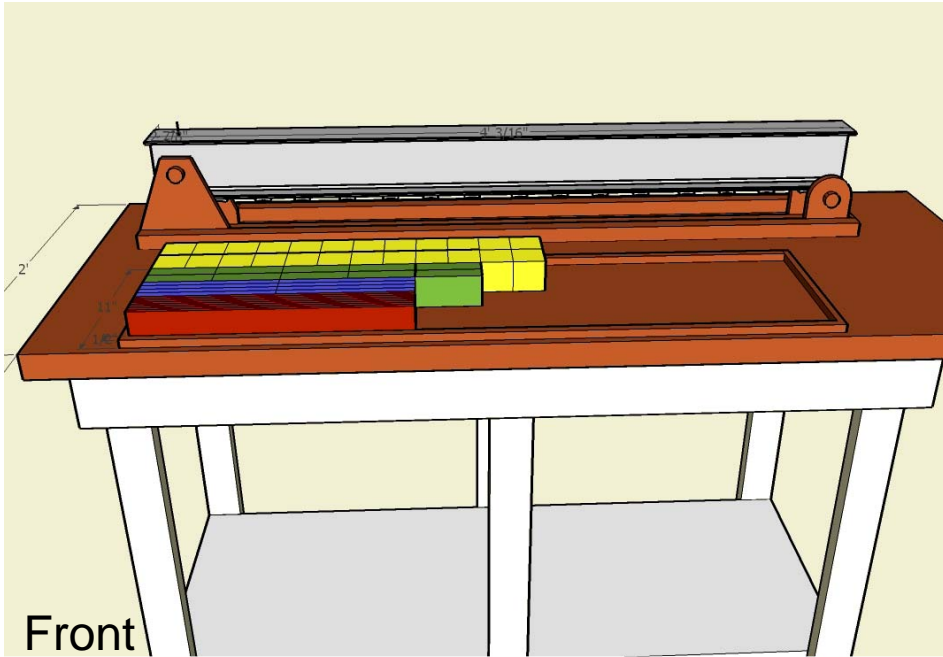
Structures Lab

Strain gauge installation and wiring for DA board and laptop (provided)
Assistance with DA for instructor and software developer

Account for this work:

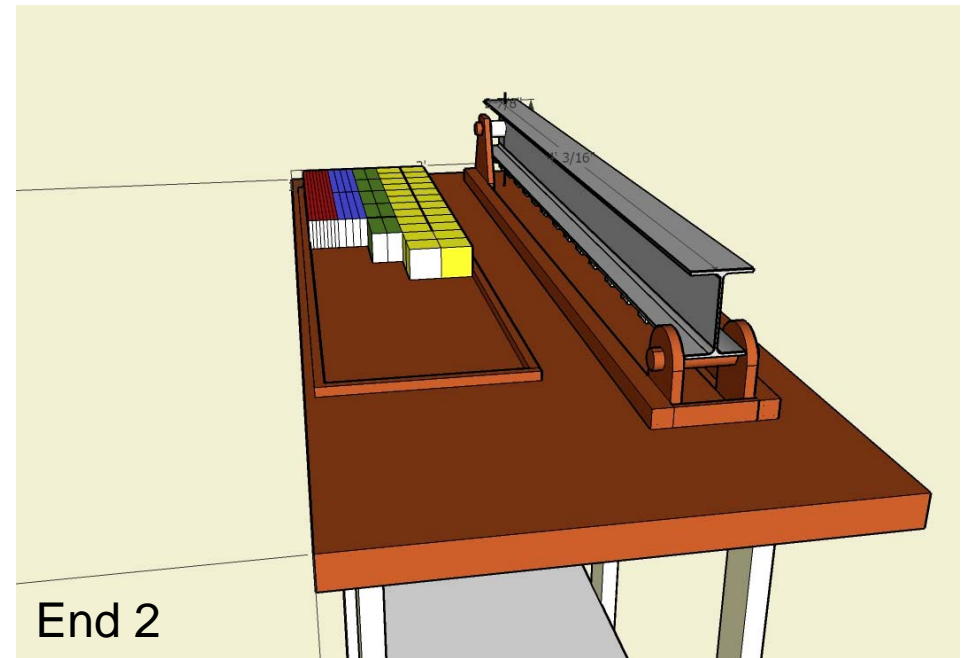
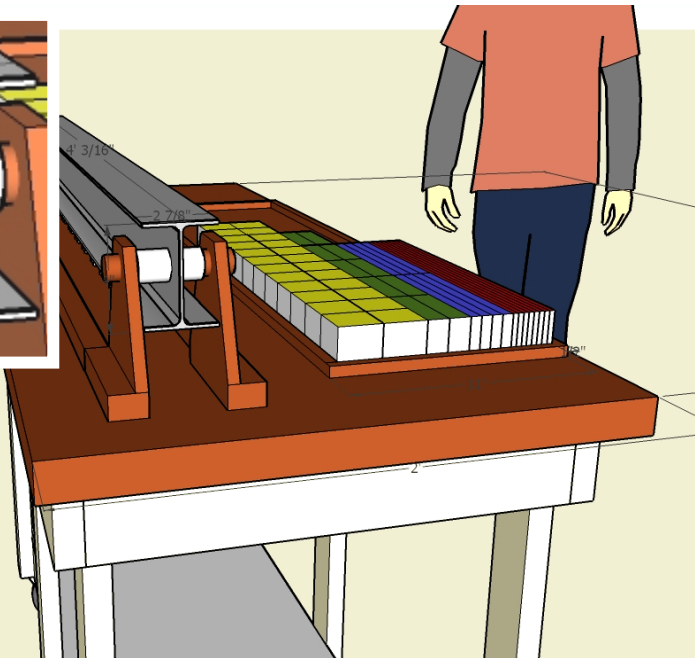
Civil Instructional budget for EN 4013 requested by instructor and signed by Barb or other office representative for accounts.

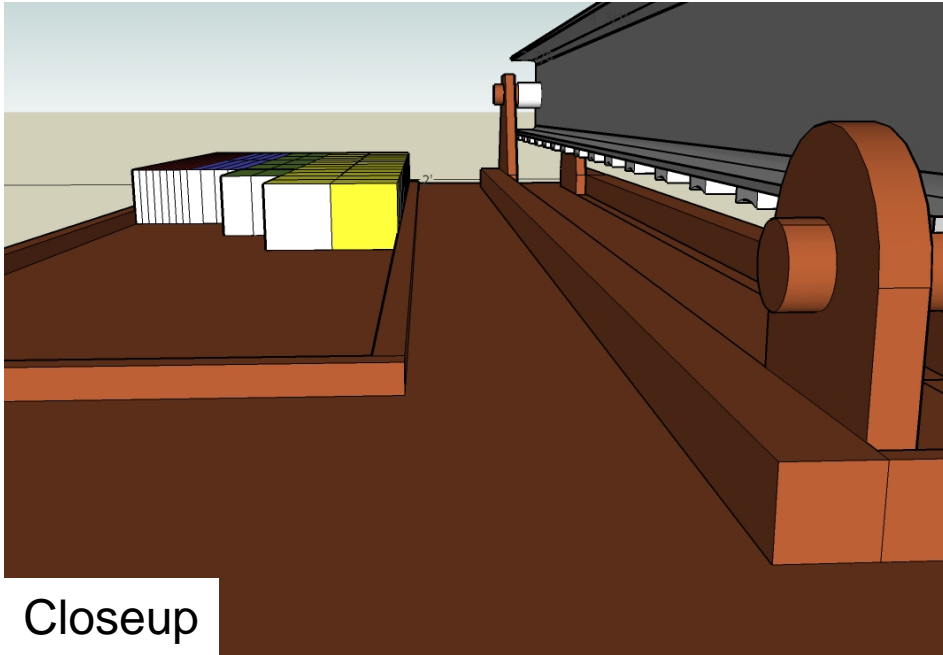
Contact: Steve Bruneau EN4013, 737-2119



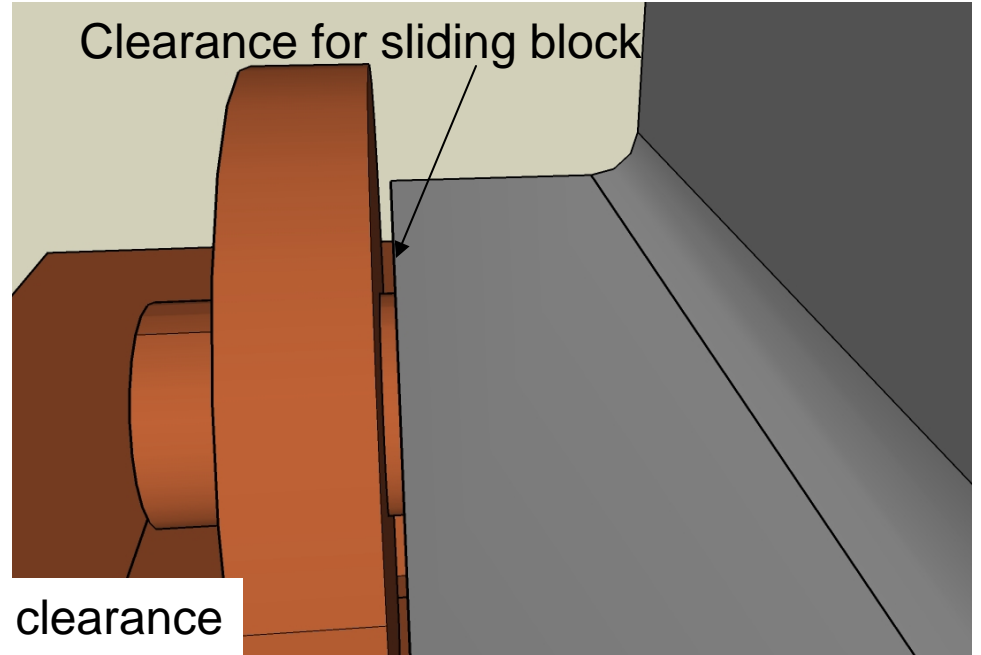
Pipe sleeve
welded to beam
with 1" pin
passing through

End 1

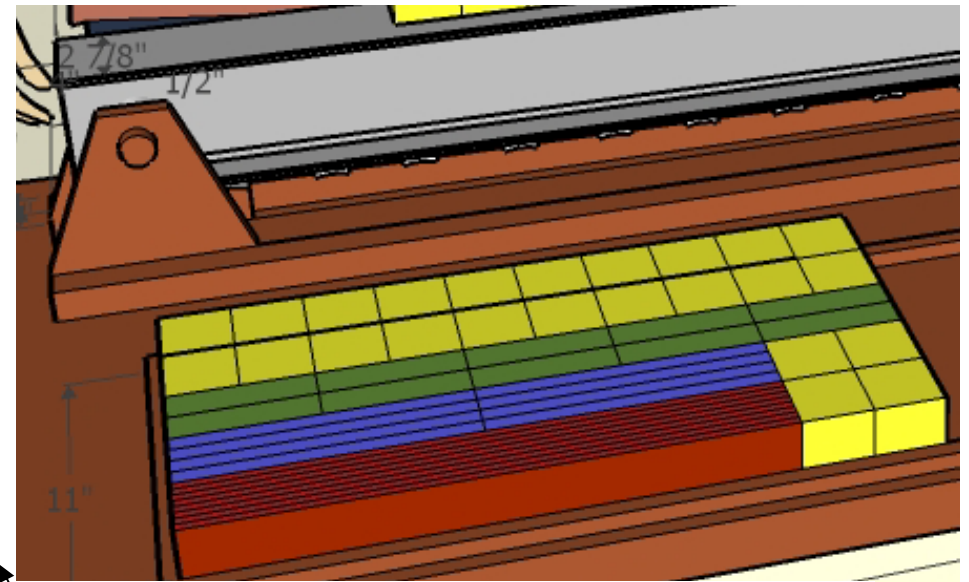
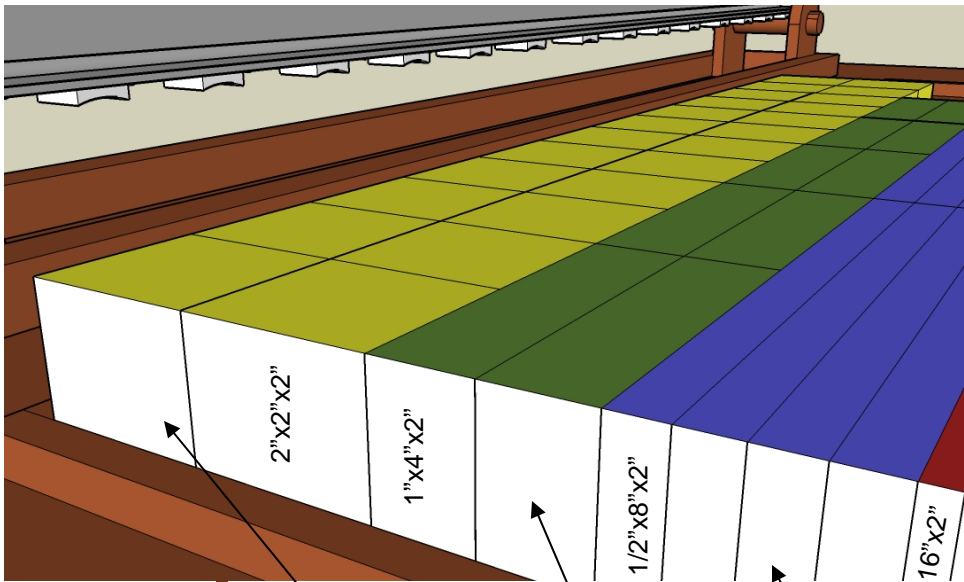




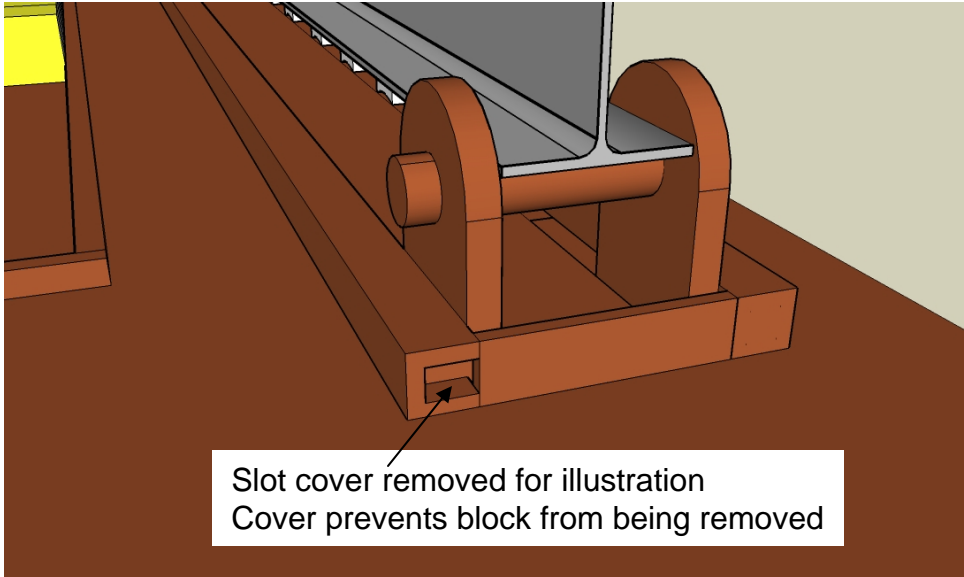
Closeup



clearance

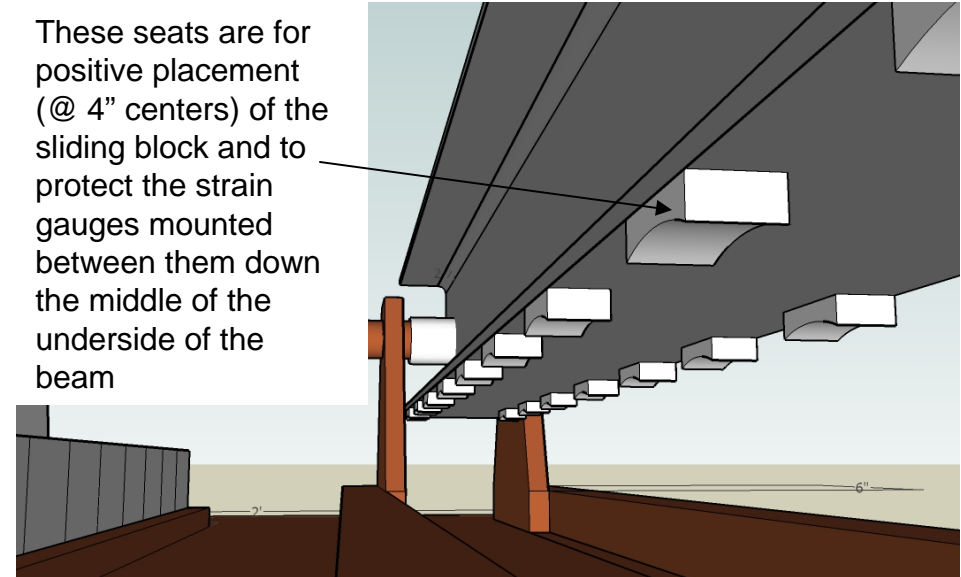


Weights 48 yellow, 20 green, 16 blue, 16 red = 100 pcs (1 kg each, all are 2" deep)



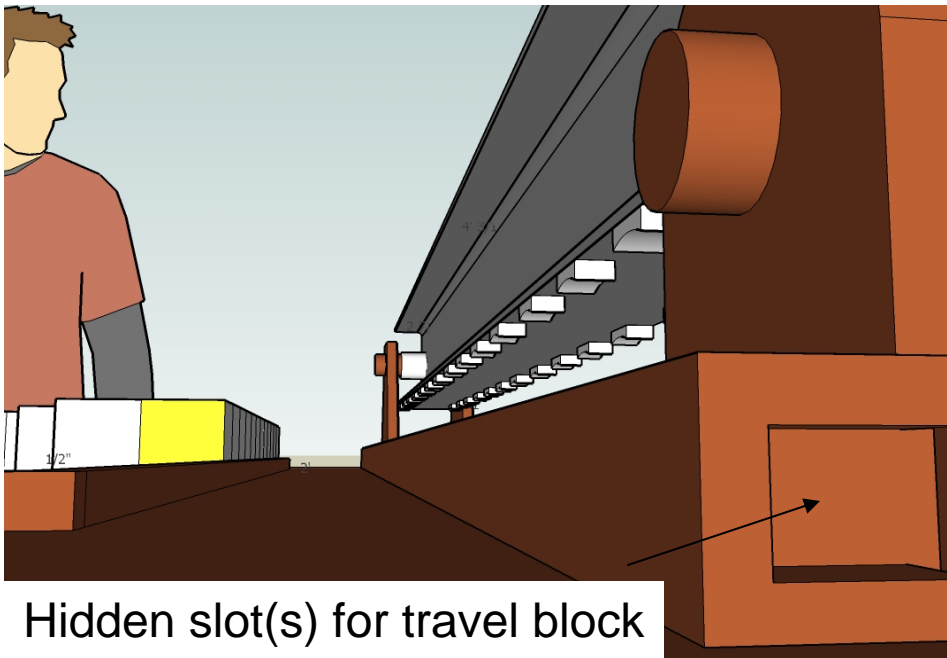
Slot cover removed for illustration
Cover prevents block from being removed

Hidden slot(s) for travel block

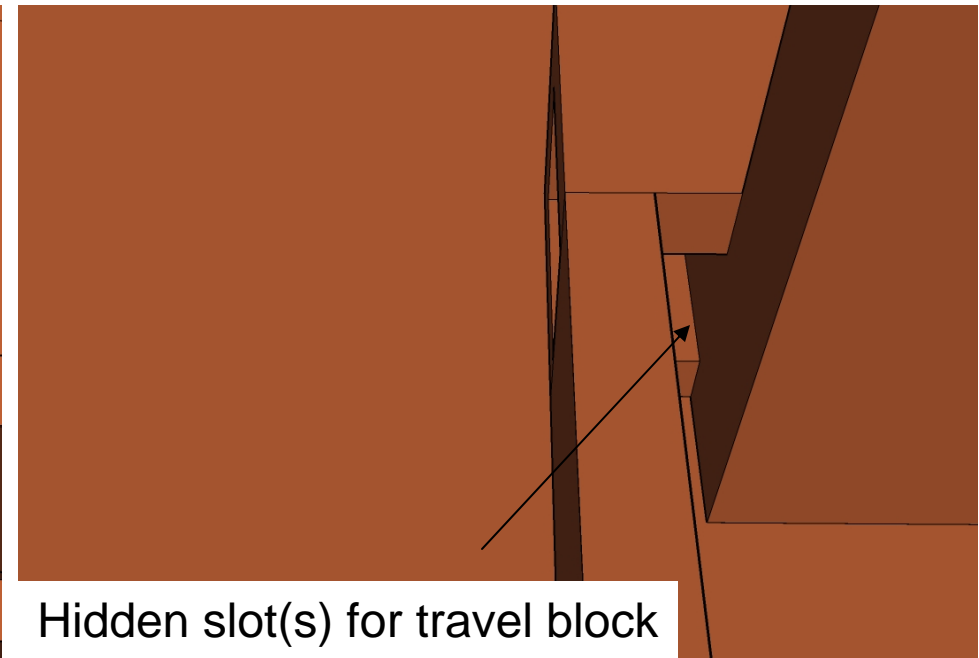


These seats are for positive placement (@ 4" centers) of the sliding block and to protect the strain gauges mounted between them down the middle of the underside of the beam

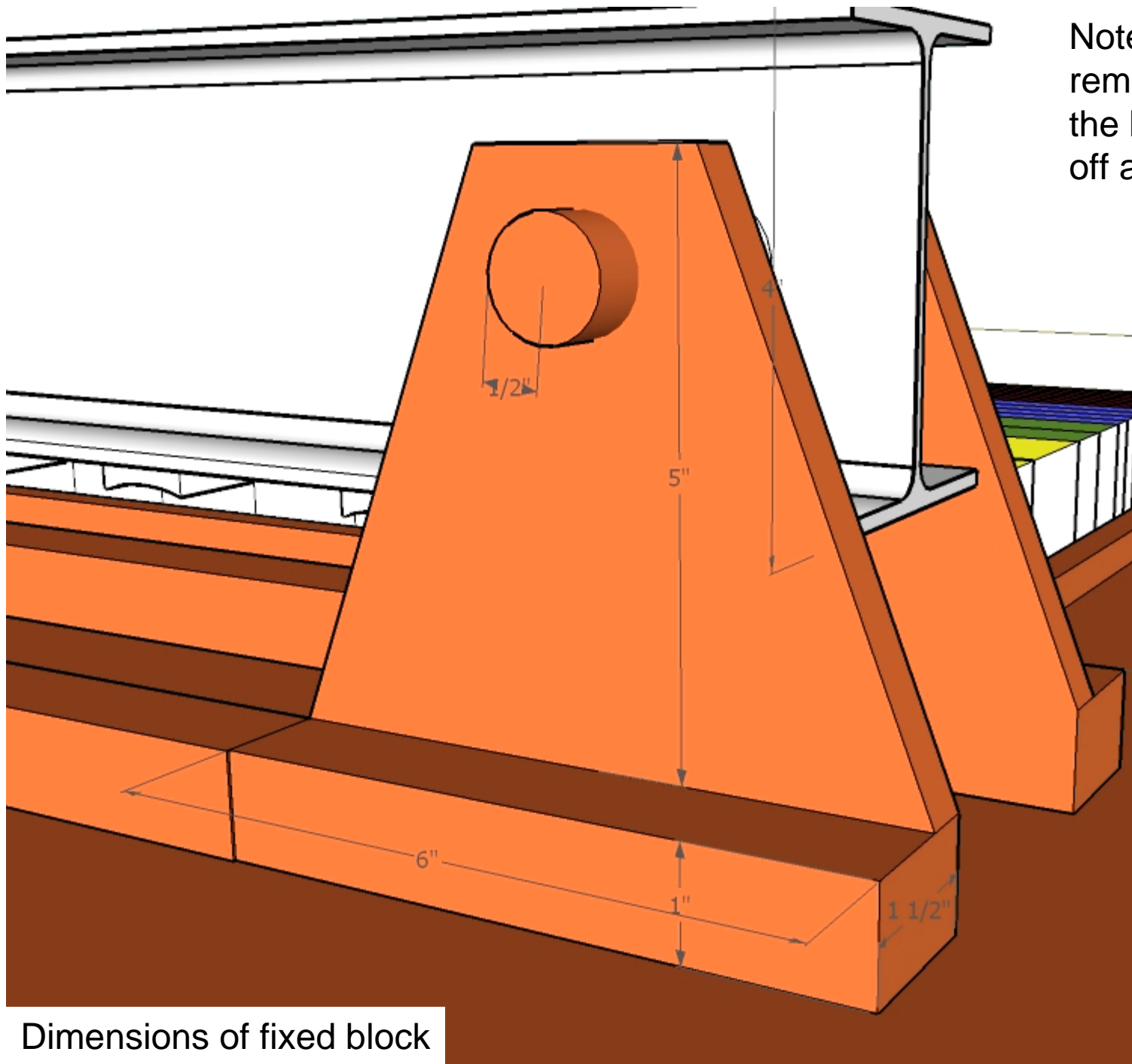
Support seats /strain gauge protectors



Hidden slot(s) for travel block



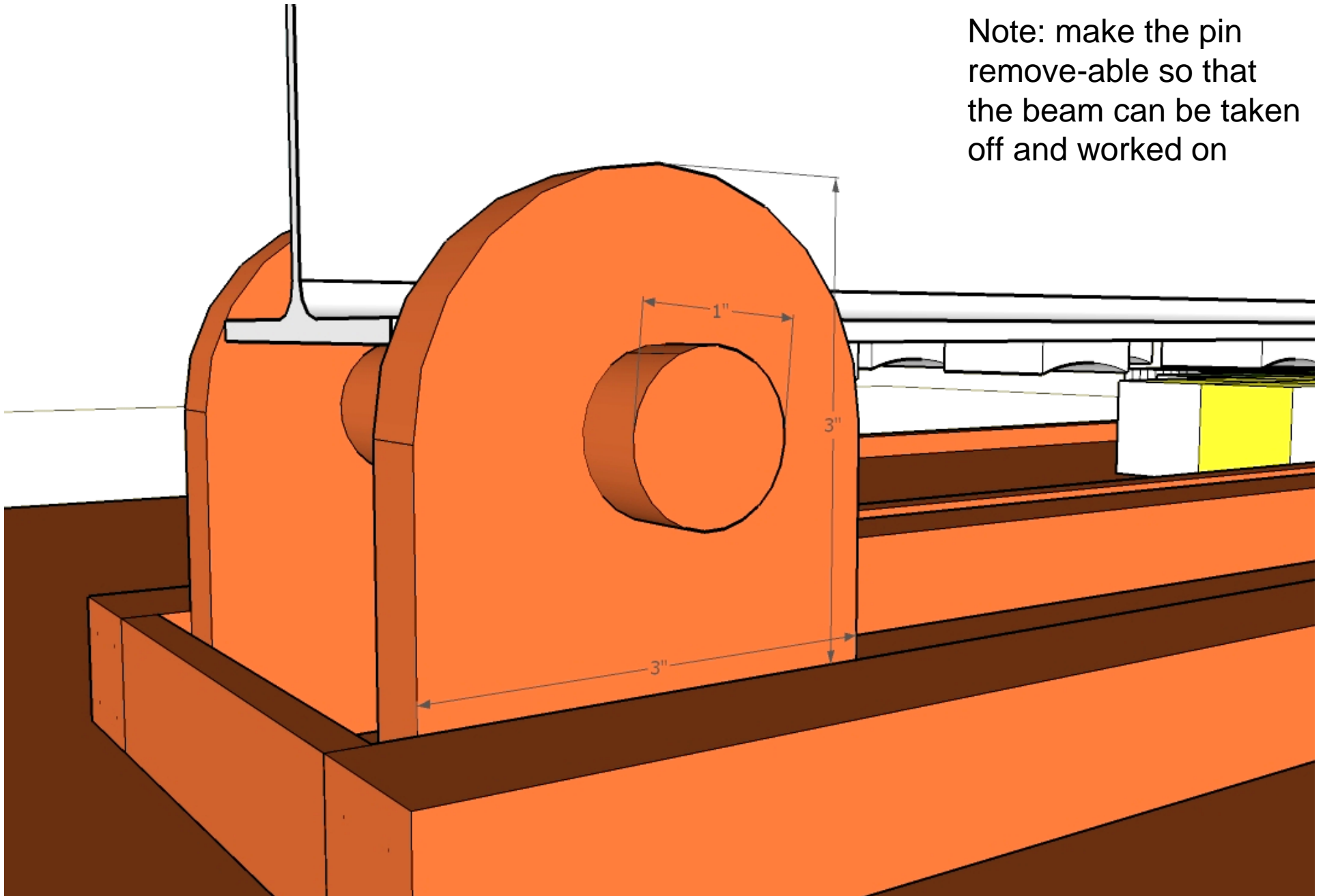
Hidden slot(s) for travel block



Note: make the pin remove-able so that the beam can be taken off and worked on

Dimensions of fixed block

Note: make the pin
remove-able so that
the beam can be taken
off and worked on



Dimensions of traveling block