Load cell shows force in Newtons, gauge shows displacement in mm

pinned: knife-edge or simply supported

Buckling is when the beam gauge has lost the ability to endure more loading, not when it displaces. i.e as the displacement increases but the loading doesn’t, the beam buckles.

V notch sockets: knife-edge or simply supported BCs.

S4: pinned top and bottom

S6: clamped top and bottom

S7: clamped bottom, pinned top

Procedure:

1. Place the rods accordingly to boundary conditions. MAKE SURE IT’S VERTICAL OTHERWISE UR GONNA CATCH A CASE
2. Tighten the socket using an allen key
3. Bring the frame down (the black thingy)
4. Tighten the frame
5. Place displacement gauge to make sure beam does not exceed max beam deflection
6. Position the gauge at the midpoint of the beam and tighten it
7. 1 circle in the displacement gauge = 1 mm
8. S2 Specimen: Record every value
9. S7: Top has no ridges, insert carefully. Bottom has ridges and shouldn’t go down all the way. Tighted with allen key