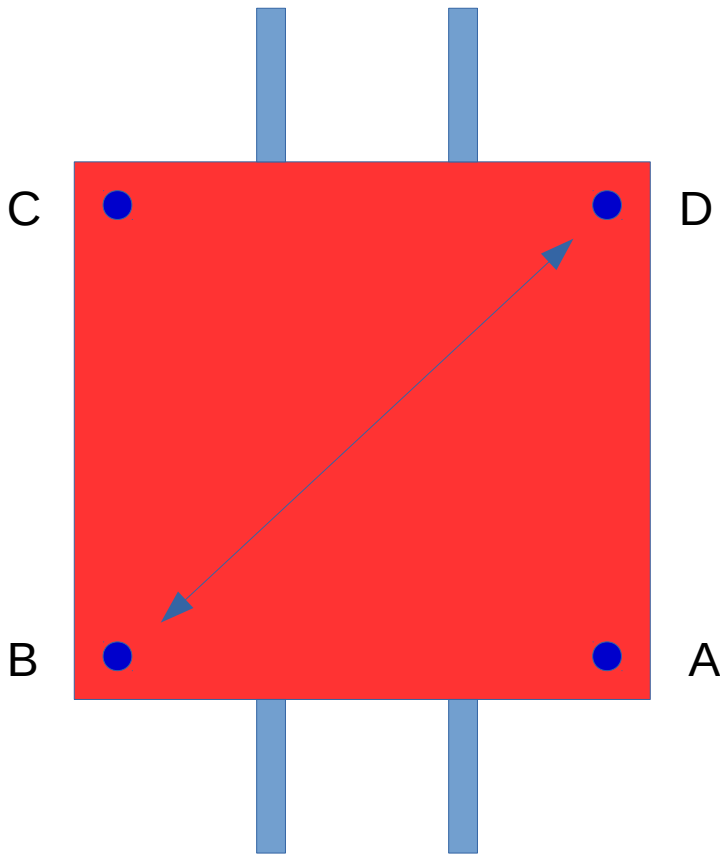
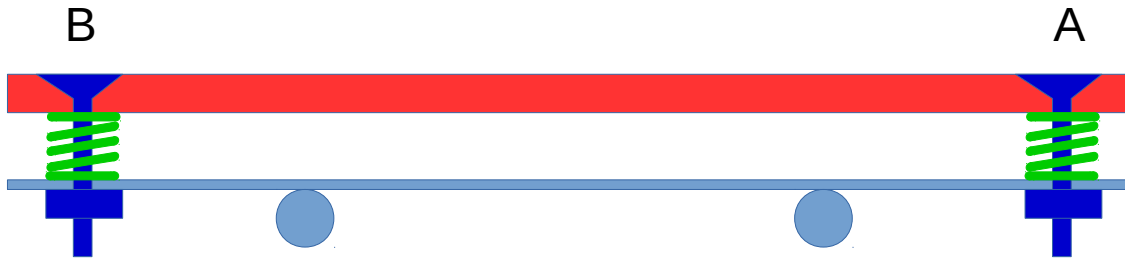
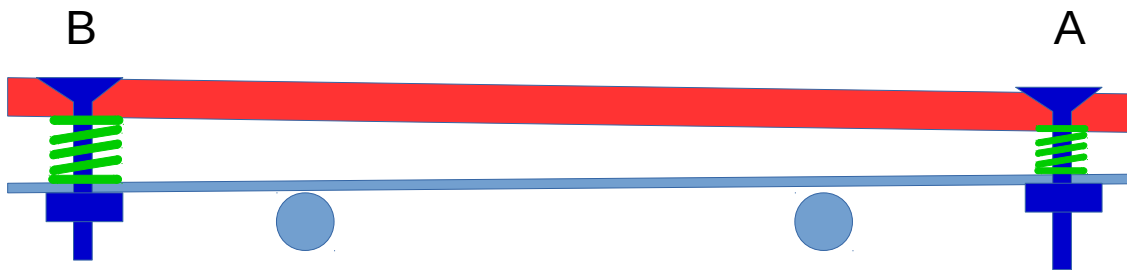


4-Point Bed "Leveling"



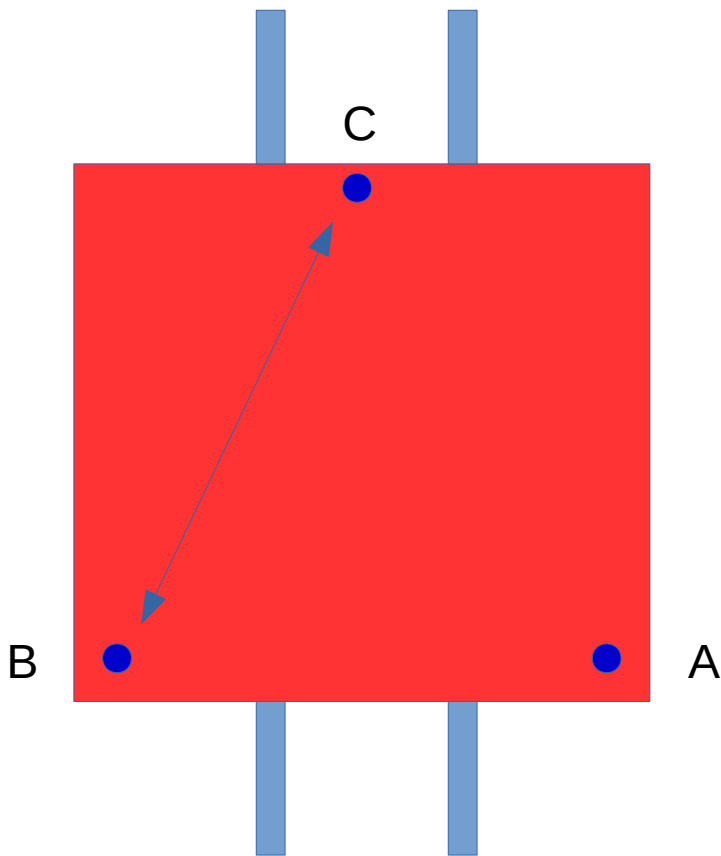
When you tighten A, the bed tries to pivot along the B-D line, but the screw at C prevents that corner from lifting. Springs at B and D keep those corners up.

The bed at A goes down and the undercarriage at A goes up. B, C, and D remain at their original Z heights, so the bed and undercarriage plates are bent along the B-D line.



The bent undercarriage plate tries to move the bearing on the right side guide rail and ends up flexing the guide rail, depending on how closely the bearing fits the rail.

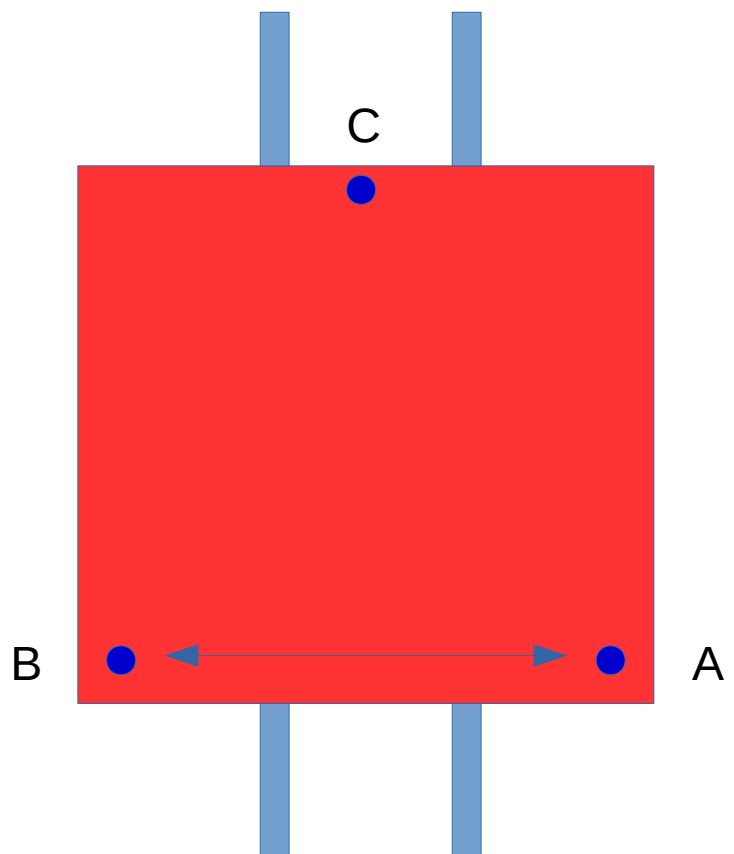
3-Point Bed Leveling



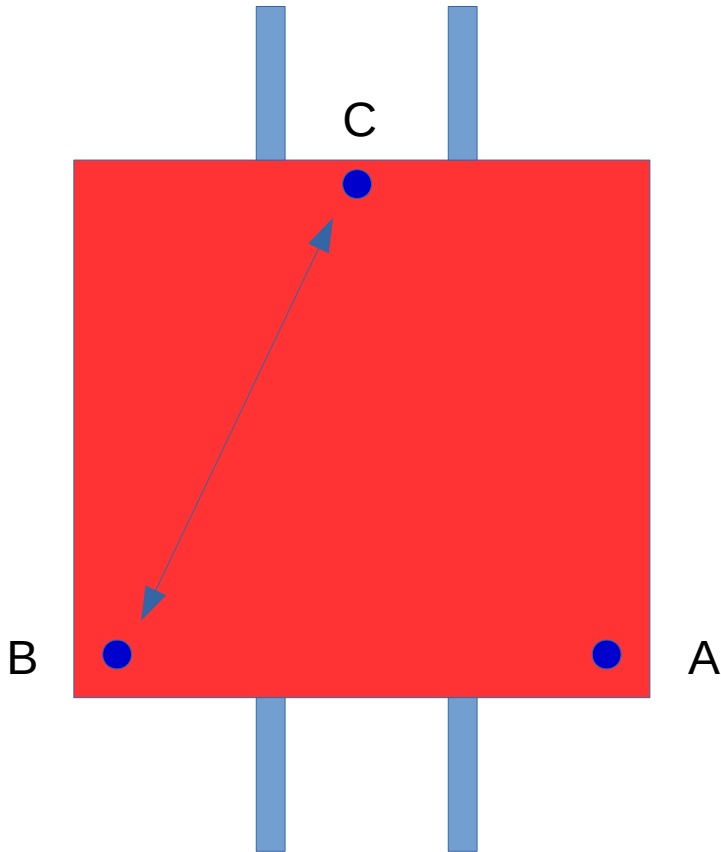
B is a reference for Z height of the bed.

Turning screw A causes bed to pivot along B-C line. There is no stress on the undercarriage because the plate is free to pivot along B-C.

Turning screw C causes the plate to pivot along the A-B line. Points A and B remain in their same Z heights. There is no stress on the undercarriage because the plate is free to pivot along A-B.



3-Point Bed Leveling Procedure



B is a reference for Z height of the bed and doesn't need to be adjusted.

Move the nozzle near B and adjust Z to grip paper.

Move the nozzle near A and adjust screw A to grip paper.

Move the nozzle near C and adjust screw C to grip paper.

The bed is now level.

Move nozzle to center and adjust Z to grip paper. Adjust Z=0 sensor.

The bed is now zeroed.

