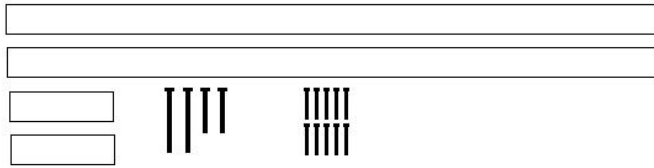


Heavy Duty Endless Loop String Jig

1 Materials

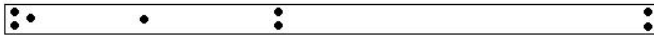


2 6' 2x4
2 1' 2x4
4 8" 3/8" bolts
2 6" 3/8" bolts
8 4" 1/4" bolts
4 3/8" nuts
4 3/8" fender washers
2 3/8" wingnuts
8 1/4" nuts
Box of 1/4" washers

Drill with 3/8", 1/4" std wood bits and 5/8" or larger Forstner (spade) bit.

Note: there are different grades of 2x4 studs. Get the cleanest and straightest you can find.

2 Preparation (drilling)



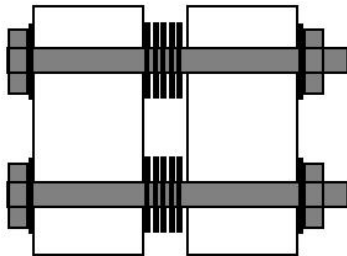
Drill 8 1/4" holes in both 6' 2x4s, as shown. Exact spacing is not critical, but the two holes on the far left must be about 1.5" away from the next single hole.



Drill 3 3/8" holes in both 1' 2x4s. Spacing is critical here. The center hole must be dead center on the 2x4 and the two outer holes must be equidistant from the center hole and centered on the 2x4.

Countersink the outer holes with the Forstner bit to a depth of approximately 1". Do not countersink the center hole. Generally better to use the Forstner bit, before drilling through with the 3/8" bits.

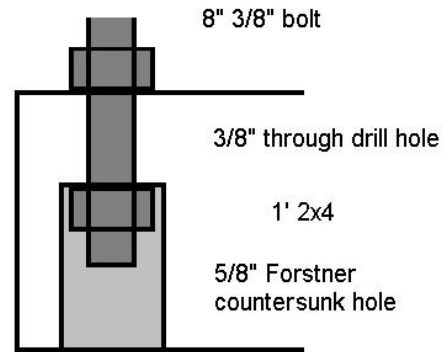
3 Assembly - Base (side view)



Place a washer on the 1/4" x 4" bolt and insert the bolt in one of the 6' 2x4's holes. Then add enough washers to the bolt to equal a little more than 3/8". (I needed 7 washers.) Slip the bolt through the corresponding hole in the other 6' 2x4 and finish with another washer and nut. Repeat for the other 7 holes / bolts.

IMPORTANT!!! After tightening the nuts and bolts down, make sure there is enough room for the 3/8" bolts to fit through the slot between the two boards!

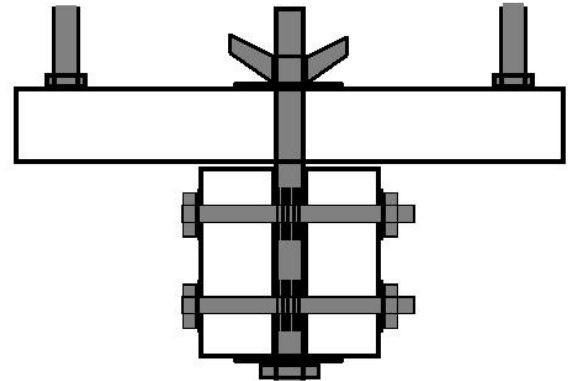
4 Assembly - goal posts (cut-away view)



Place a nut on the bolt end and twist down until you reach the shank. Insert the bolt into the 1' 2x4 and drop a second nut into the countersunk hole. Engage the exposed bolt end and tighten.

Repeat for the other side (end) and the other 1' 2x4.

5 Final Assembly (end - view)



Slip a 3/8" fender washer on one of the 6" 3/8" bolts.

Go to the side of the base with 3 1/4" bolts and slip it between the two end bolts and the single "stop" bolt.

Slip the goal post assembly on the bolt, place another fender washer on top of the goal post and twist on the wing nut.

The stop bolt prevents that goal posts from slipping during string construction. On the opposite side, just slip the bolt deep to the end two bolts. That goal post needs to slide down the base to adjust string length.