CNC Mill: 4x8 Wood (<\$500), Fresno Ideaworks - Milestone # 230: Design X and Y axes

Status:	New	Priority:	Normal	
Author:	Steve Popenoe	Category:		
Created:	11/02/2013	Assignee:		
Updated:	11/02/2013	Due date:	11/16/2013	
Subject:	Design X and Y axes	•		

Description

Movement along the X axis (the shorter of the two axes determining lateral position) will be controlled with a 5-foot piece of threaded rod (3/8in all-thread) mounted on a gantry. The gantry position along the Y axis will be controlled with two 9-foot pieces of the same threaded rod, one on each side. One stepper motor will be connected directly to the end of each threaded rod (one stepper on the X axis and two, one on each long side of the table, for the Y axis) so that the threaded rod will rotate as the rotor rotates. Rails on each long side of the table will support the weight of the gantry and guide its motion in the Y axis. A rail on the gantry will support movement in the X axis. At each weight-bearing location on the rails, two bearings on top and one or two on the bottom will help it roll more smoothly. I guess drawings are more helpful that all this description, eh?

History

1/1 1/31/2022