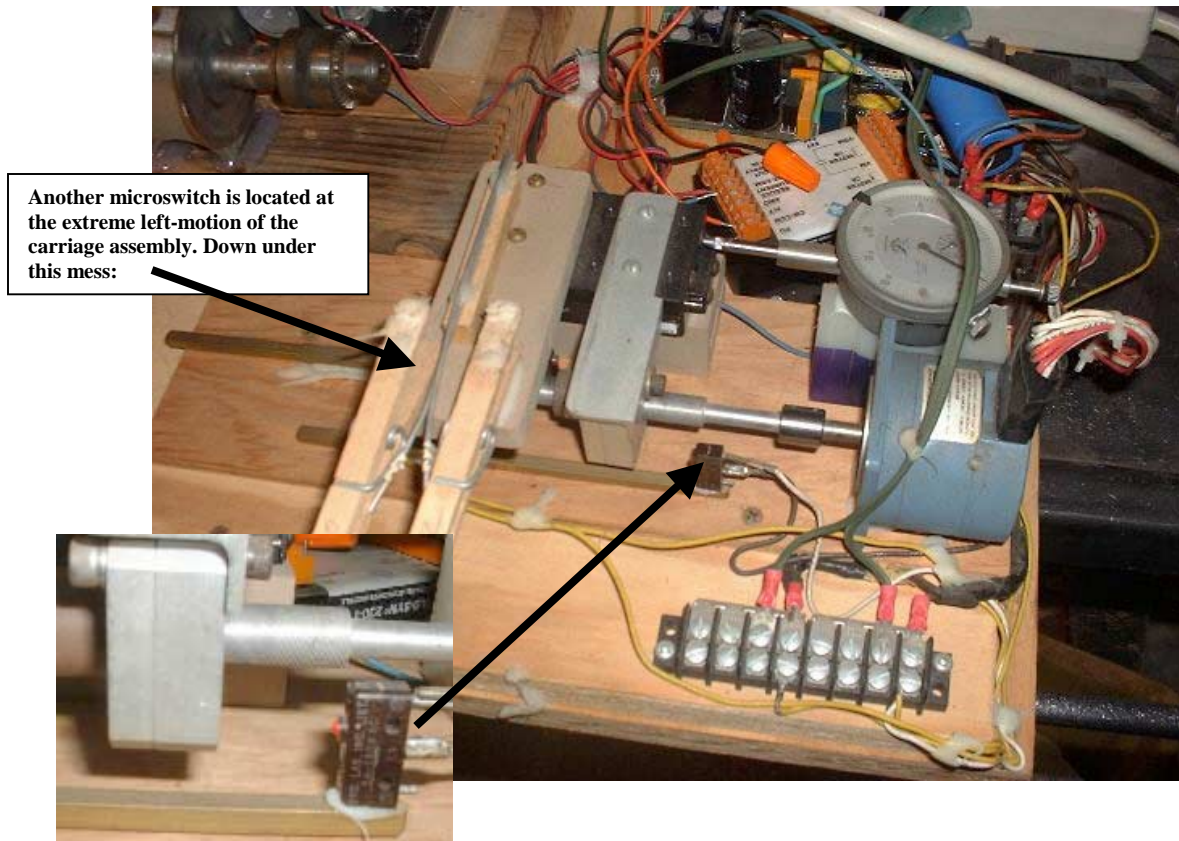


Microswitches and a 'flip-flop' relay to setup continuous back and forth motion.

In this application a chuck will be holding the core of a transformer and the carriage will move the distance of exactly one wire diameter for each revolution of the drive and will immediately reverse direction the moment the carriage touches the right hand microswitch, travel to the extreme left, trigger another microswitch which sends a signal to the flip-flop to reverse feed direction. And so on until the complete winding has been made. A counter on the driveshaft shuts off all power when it reaches a preset number.



The dial indicator is used to set the feed to exact wire diameter per revolution. The stepper motor is controlled and powered by the devices shown in the upper-right of the photo. The controller can receive TTL or simple switch signals to pulse the stepper. To the upper-right of the dial indicator you can see the 'flip-flop' relay (A standard off-the-shelf item.) The black precision slide is another off-the-shelf item that allows super precise linear motion.

This is an example of 'breadboarding' an idea to prove concept and run trials. Once you prove it, you would build it to industrial standards and put it to work in the factory.