

ANOTHER WAY TO BUILD A HELIX

But I don't want one!

Presented By:
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PROS AND CONS or BIG DECISION TIME

- PROS
 - Allow multiple-deck layouts
 - May allow greater operational possibilities
 - Create the illusion of a larger layout
- CONS
 - Operational problems
 - Construction demands
 - Space consumed
 - Cost

MY DECISION PROCESS

- No way do I want a HELIX
- 5 track plans that are not working
- Visited a new friend's N Scale railroad
- Saw a couple of HELIX
- Hey, these are pretty cool
- I need two HELIX
- Latest track plan with two HELIX working!

ADANTAGES OF THIS DESIGN

- The HELIX design is built using 1/8 inch thick Fiber Board.
- Using standard wood glue and clamps this method will allow the finished roadbed to be 1/4 inch thick verses using 1/2 inch or thicker plywood.
- This results in a reduced grade of the HELIX loops with the same amount of total height gained.
- Adjustments for height between the loops allows for a smooth grade transition and the ability to create super elevation if desired is built right in using this design.

GETTING STARTED

- Planning in three dimensions can be a challenge as you balance radius, grade and space
- Made a couple of visits to study the HELIX
- Took lots of pictures and reviewed the design
- Noted critical measurements
- Created a material list

BASIC MATERIALS LIST

- 1/2" Plywood
- 1/8" Fiber Board
- 1/4" x 20 Drill Rod
- 1/4" x 20 Nuts
- 1/4" Flat Washers
- Wood Glue
- Adhesive Caulk
- Track Materials

PROJECT TOOLS



PROJECT TOOLS (cont.)



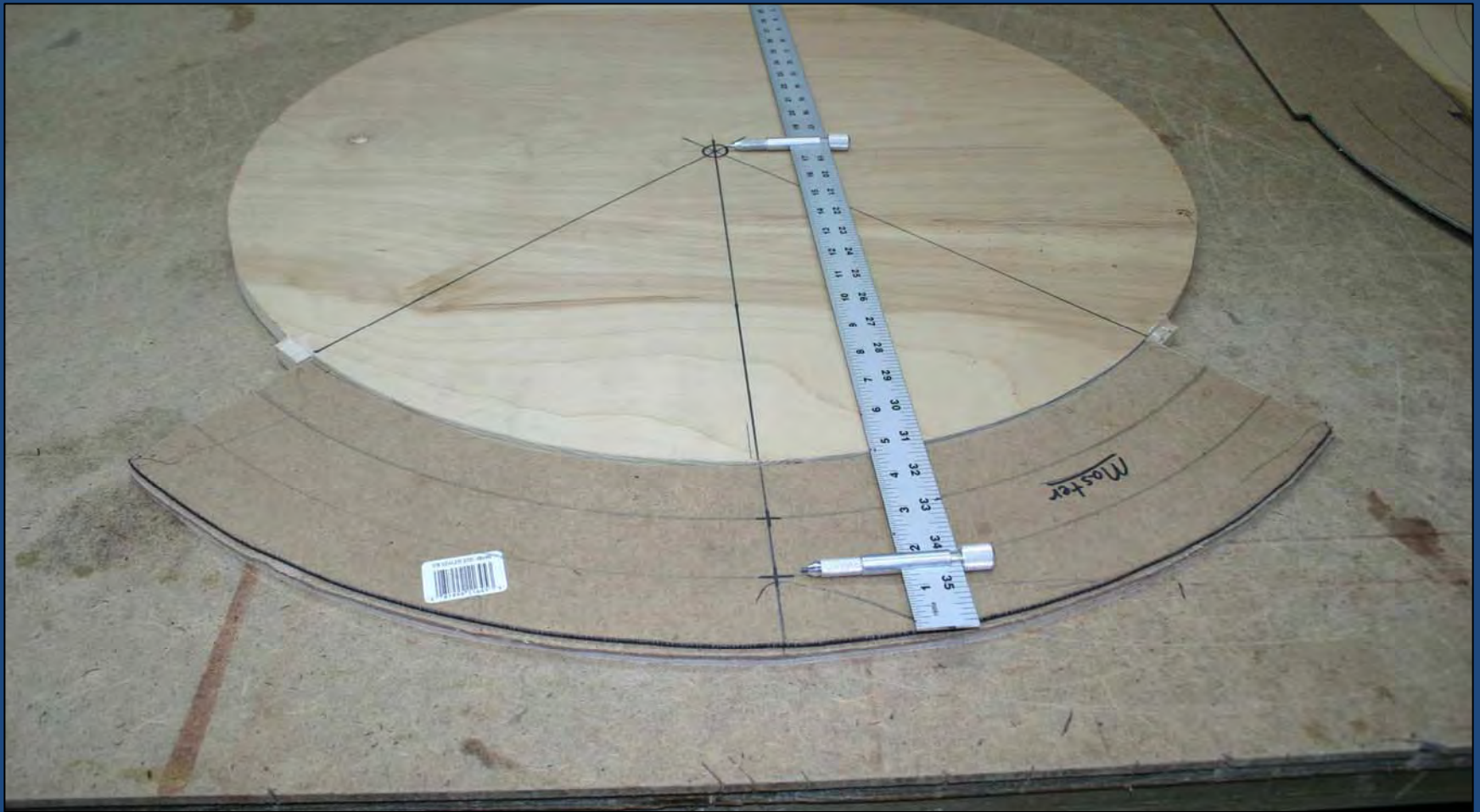
HELIX BASE



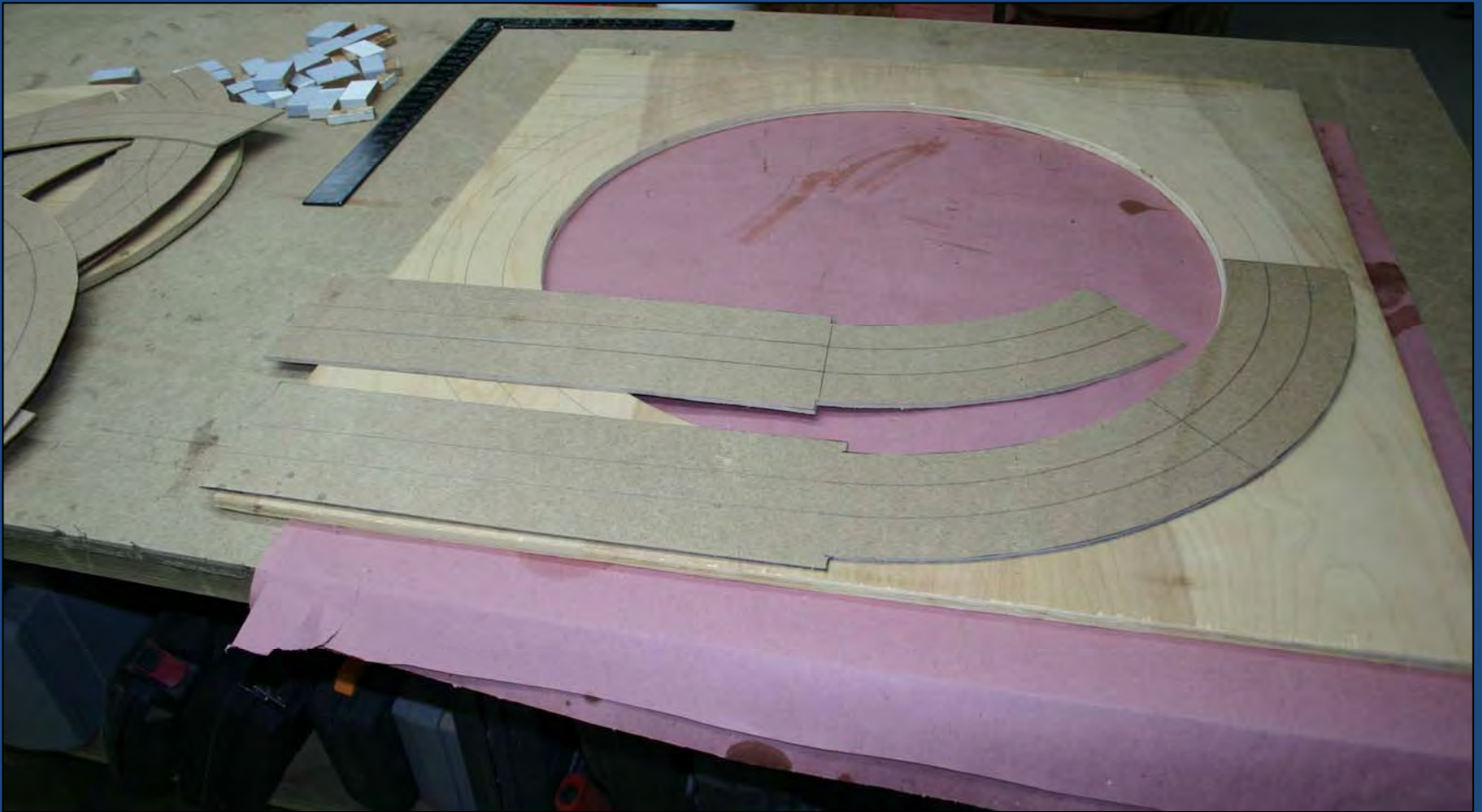
MARKING THE SEGMENTS



$\frac{1}{4}$ TURN (MASTER) SEGMENT



TRANSITION SEGMENTS



GLUE UP THE 1ST RING



WEIGHT WHILE THE GLUE SETS



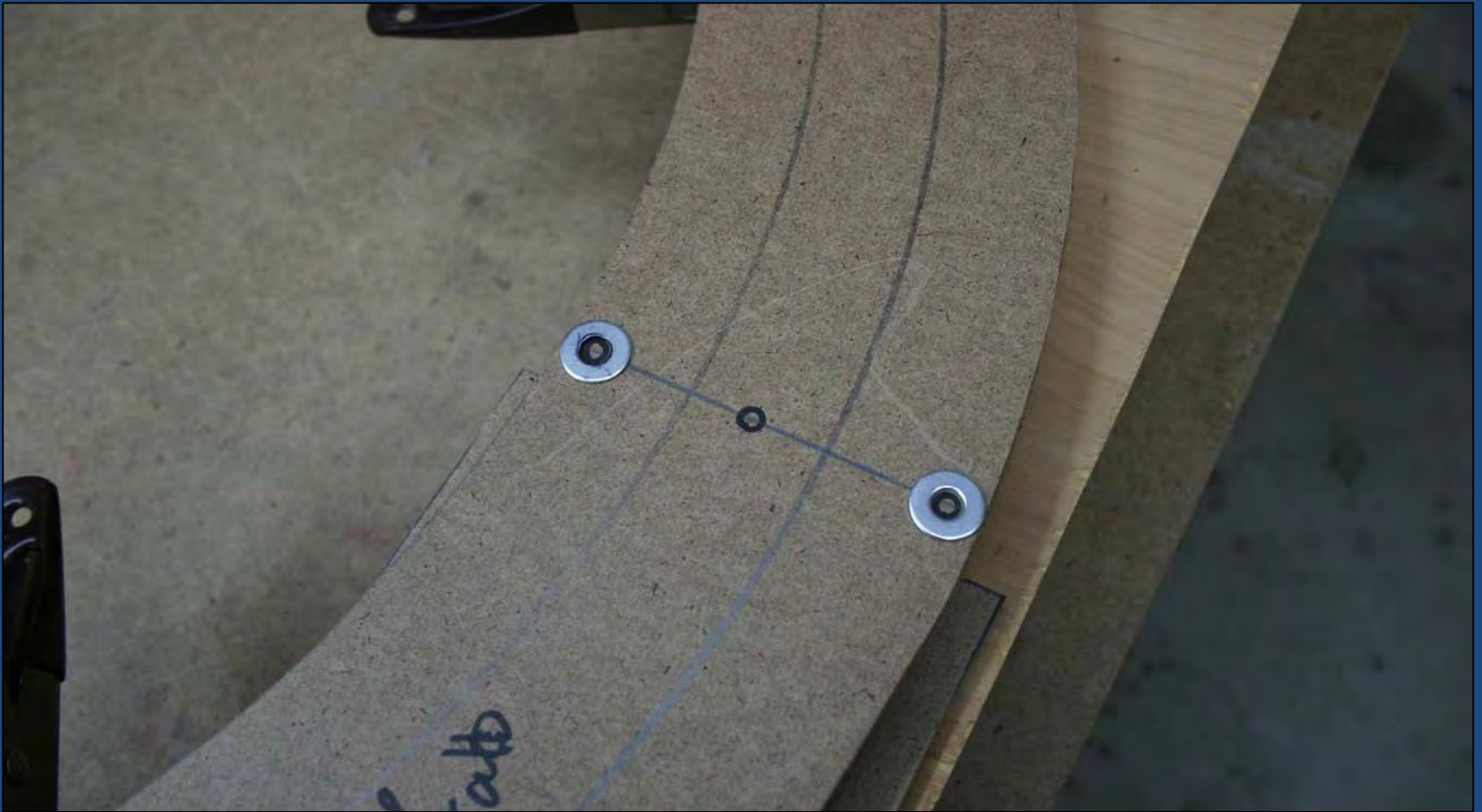
RINGS GLUED AND READY



MARKING ROD AND FEEDER HOLES



MARKING HOLES (cont.)



DRILL OUT THE ROD AND FEEDER HOLES



SLOT THE OUTER ROD HOLES



ROD HOLES RELIEVED



READY TO INSTALL TRACK, 1st RING



GLUE THE TRACK



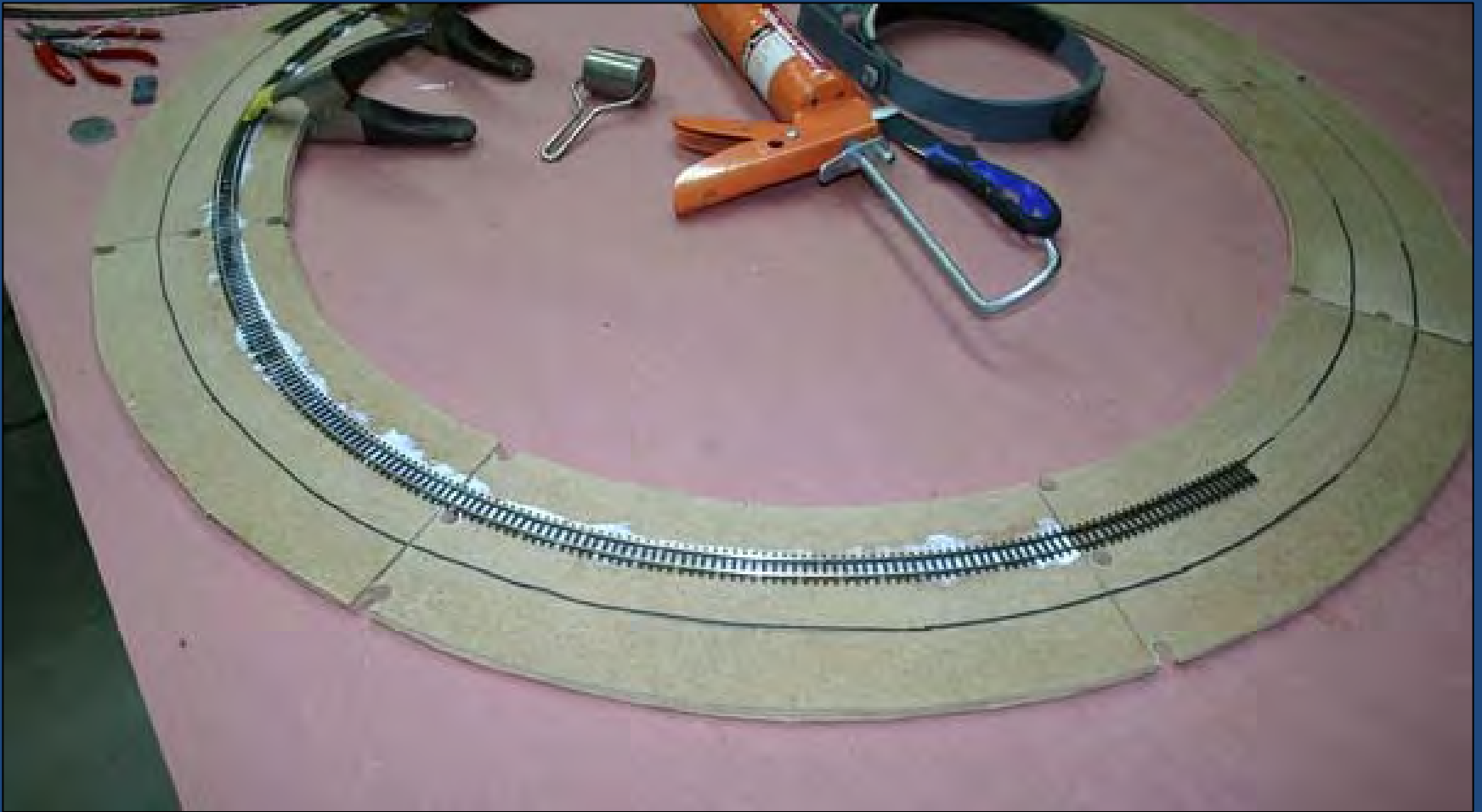
GLUING THE TRACK (cont.)



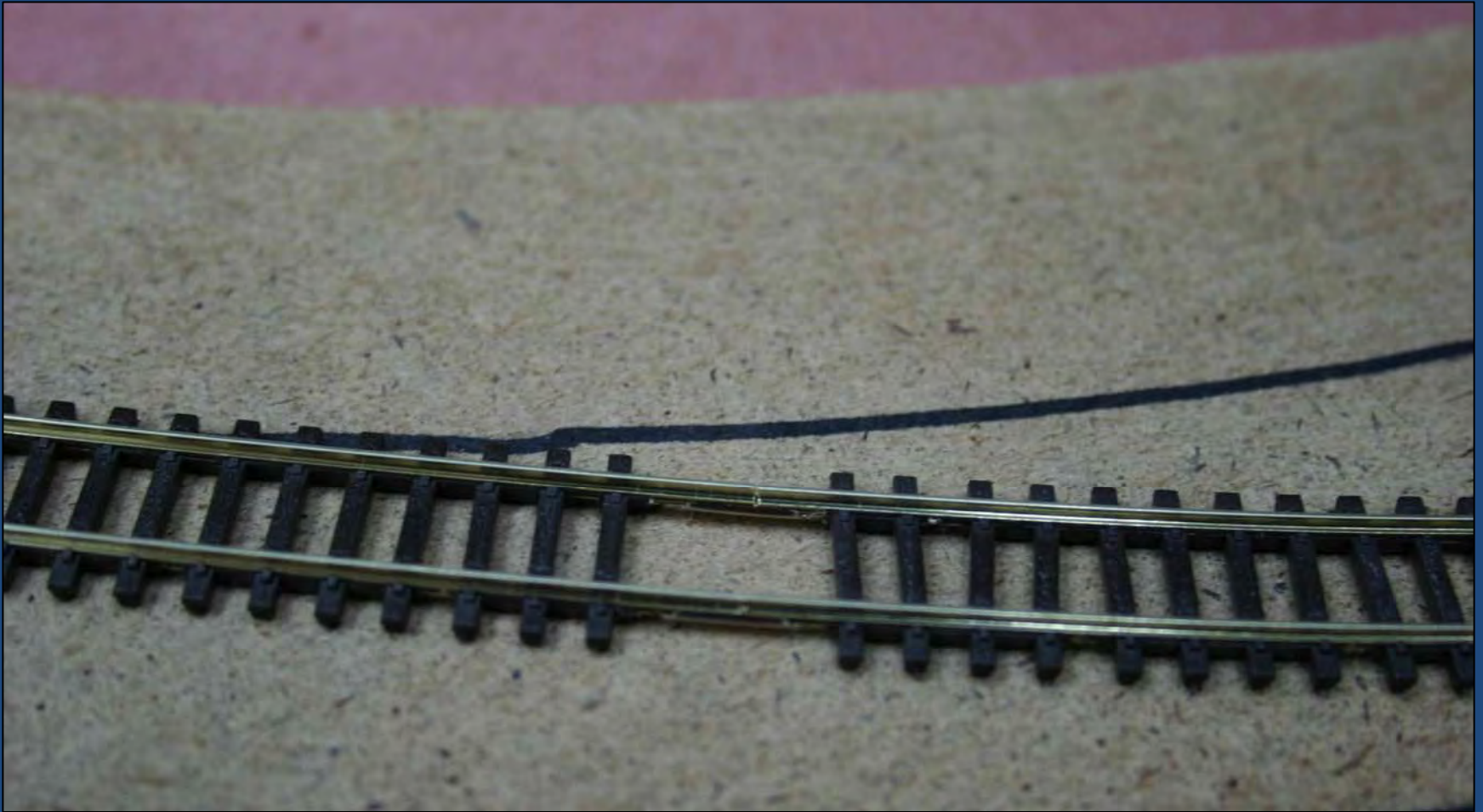
GLUING THE TRACK (cont.)



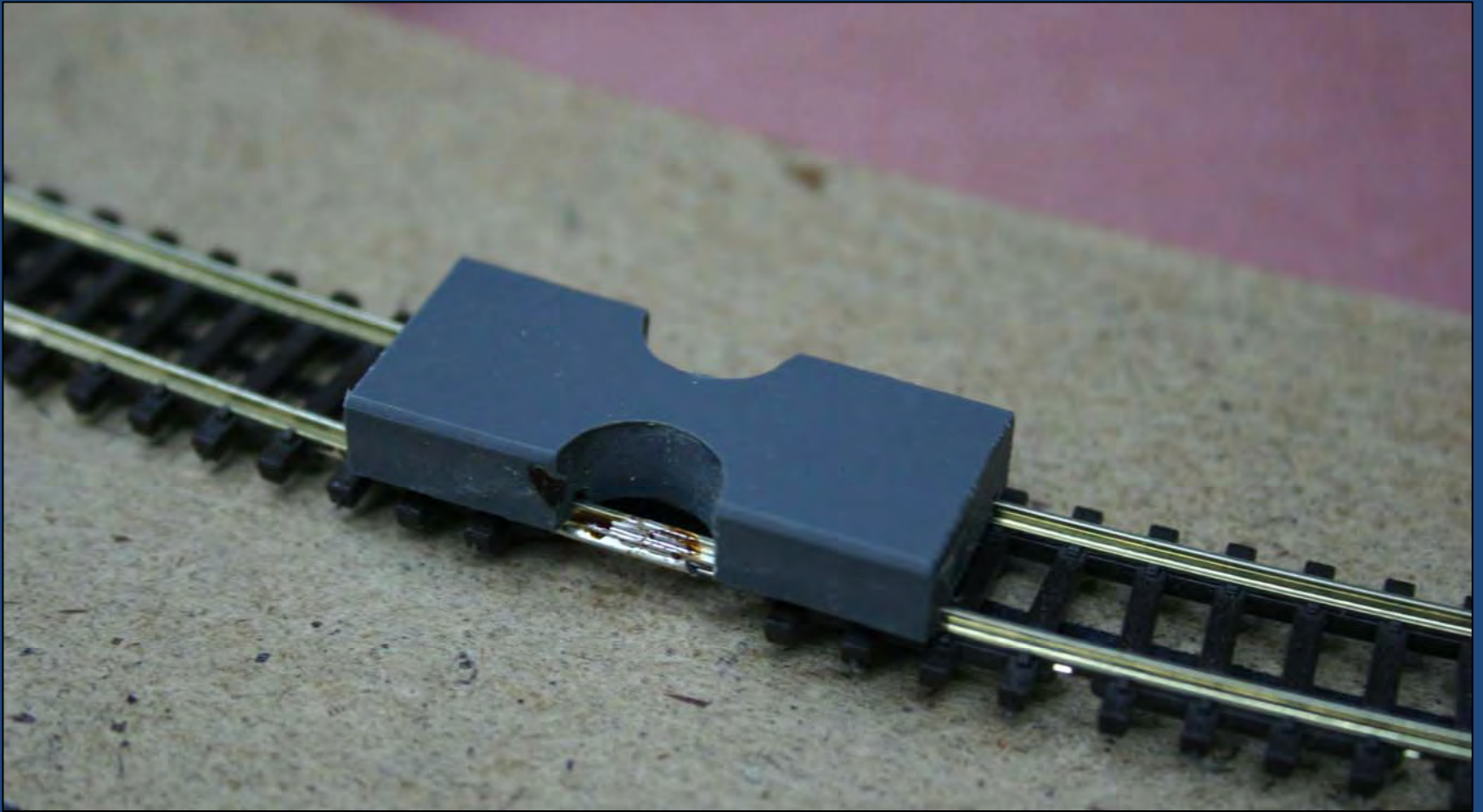
ATTACH THE NEXT SECTION OF TRACK



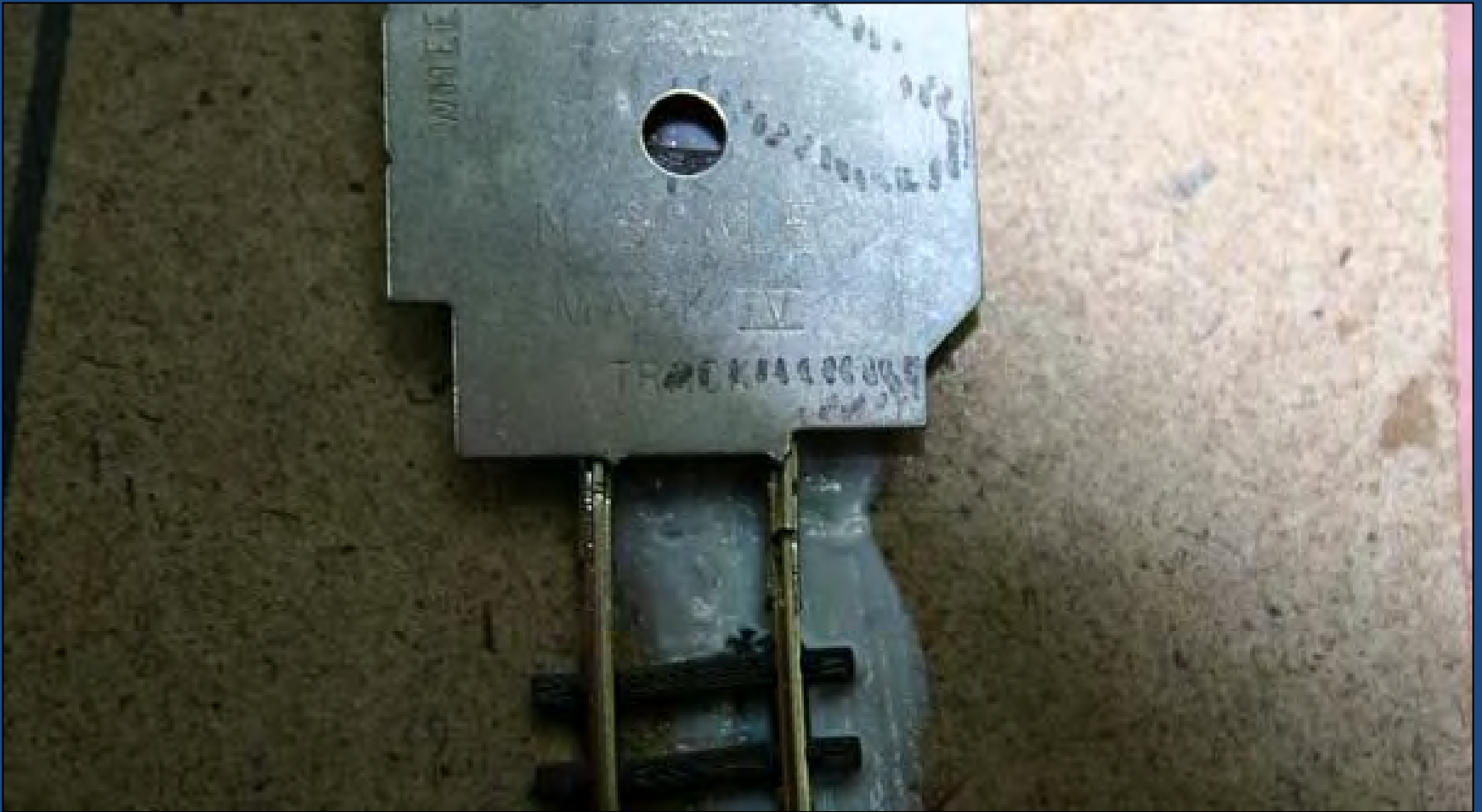
CONNECT THE TRACK SECTIONS



SOLDER THE SECTIONS



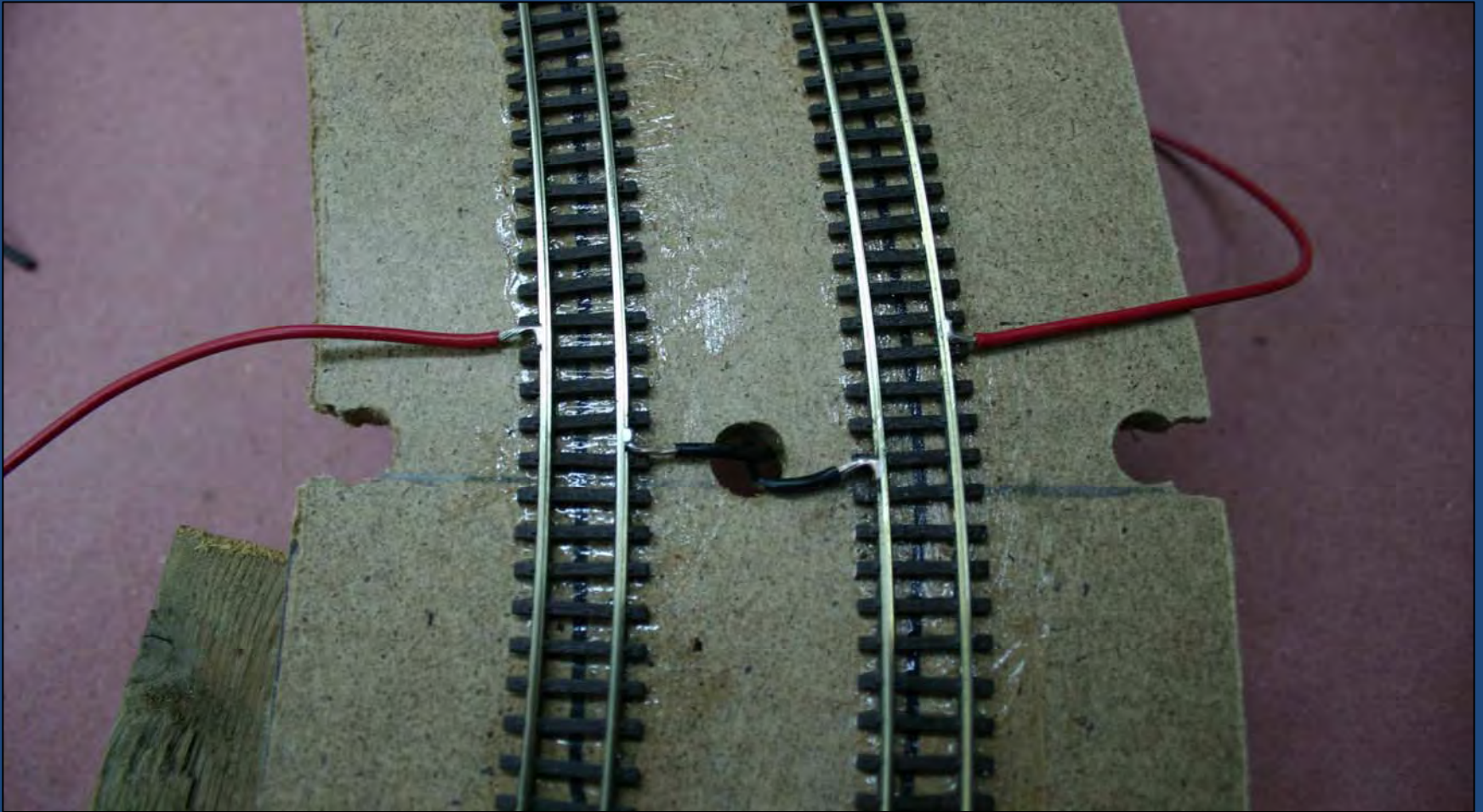
CHECK THE GAUGE



1ST RING OF TRACK INSTALLED



INSTALL FEEDERS AS THE BUILD PROGRESSES



ATTACH THE NEXT RING



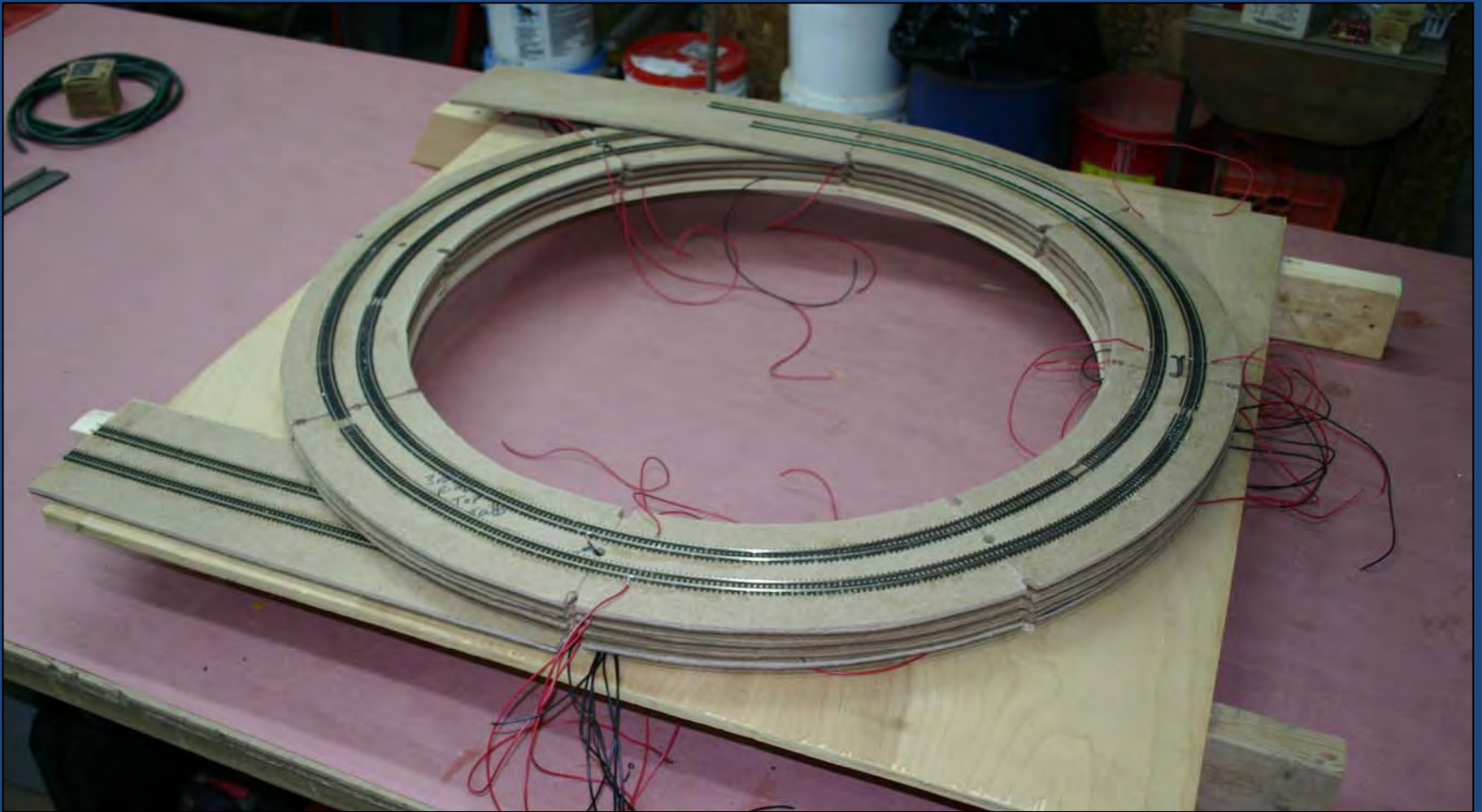
INSTALL MORE TRACK AND FEEDERS



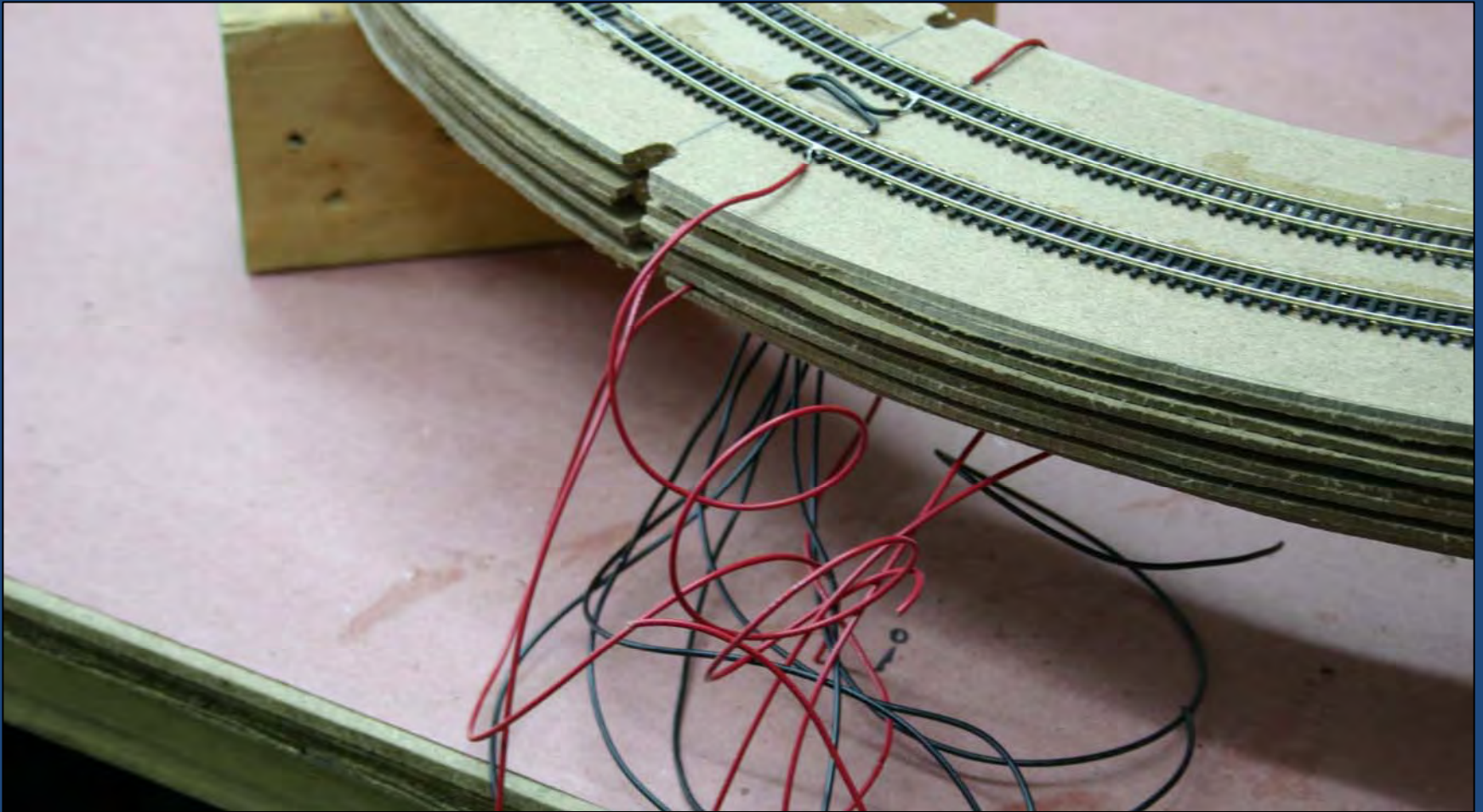
GLUE THE LAST RING



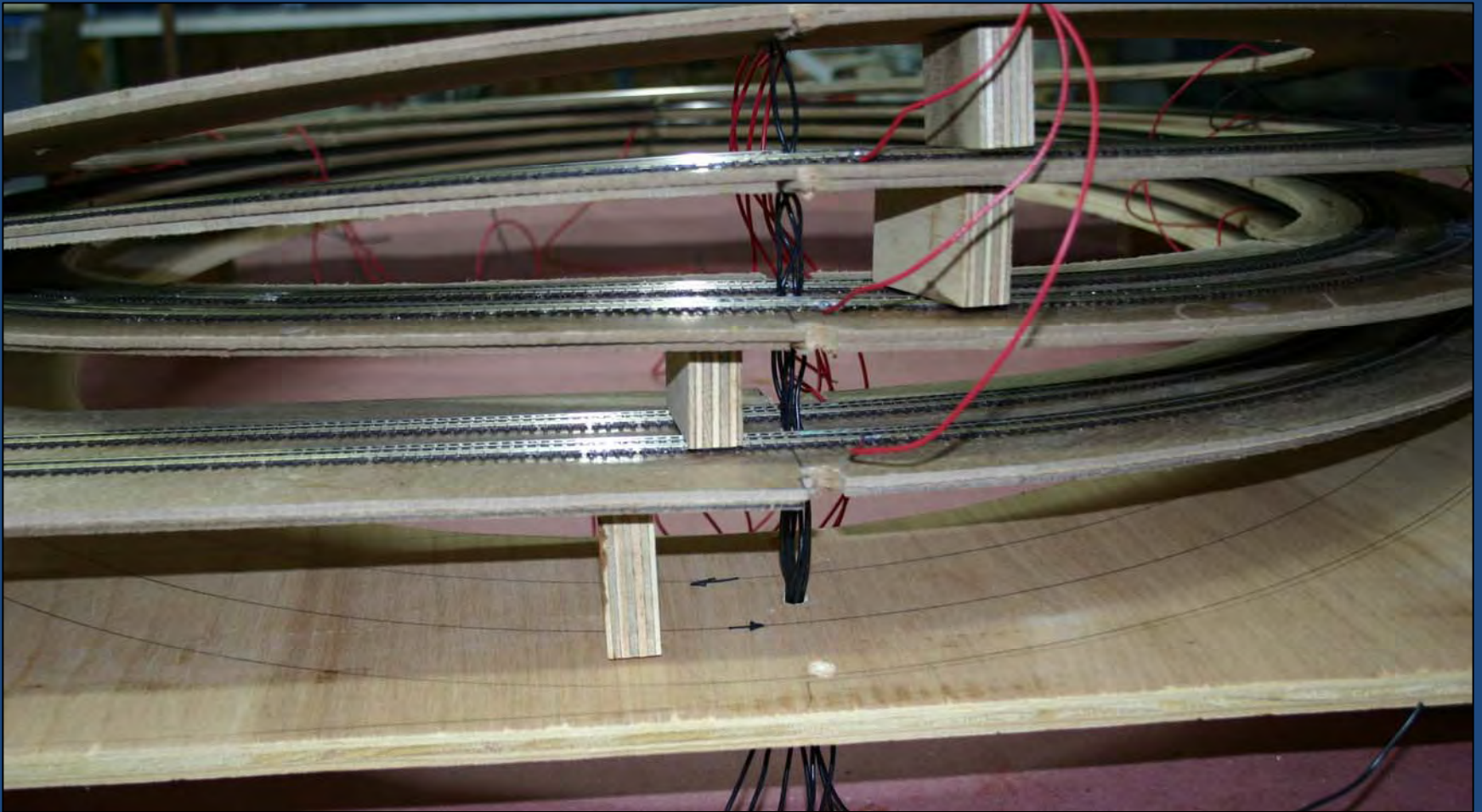
FINAL TRACK AND FEEDERS INSTALLED



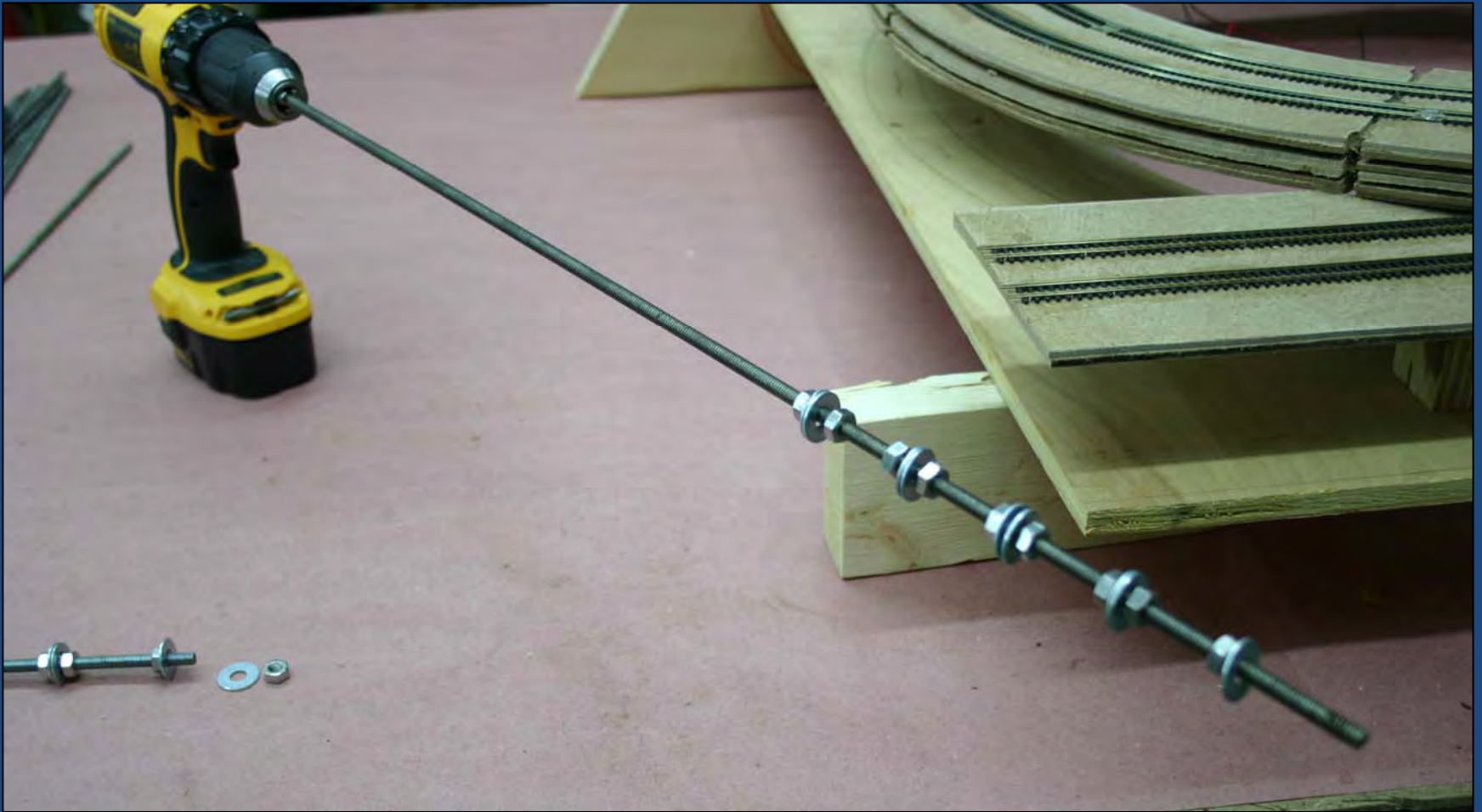
FEEDER VIEW



READY TO ATTACH THE HELIX TO THE BASE



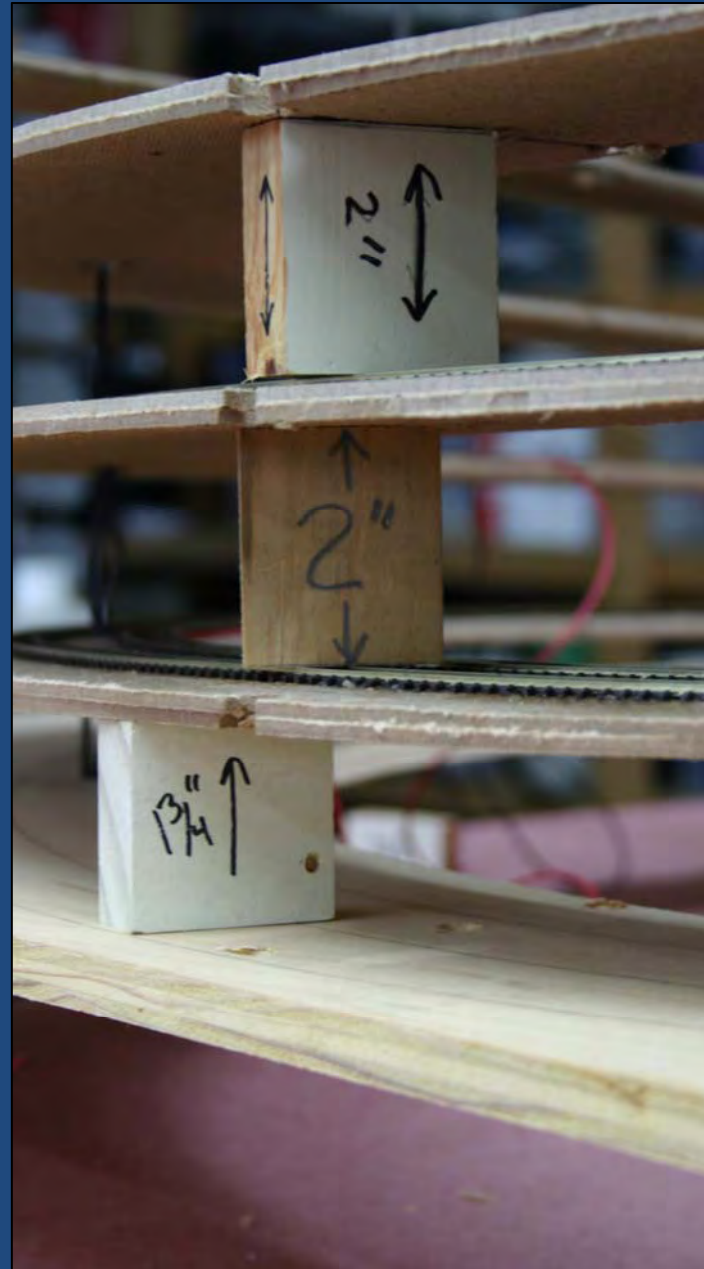
CREATE THE DRILL ROD SETS



DRILL ROD SET



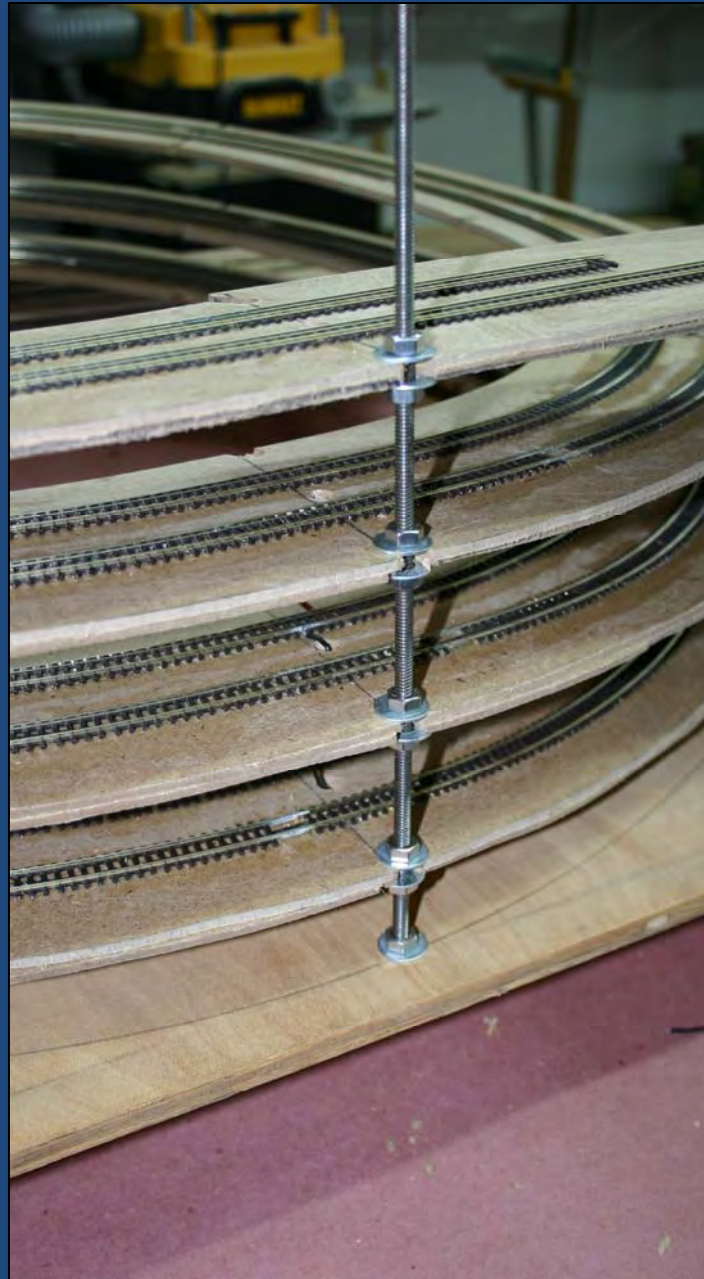
USE WOOD BLOCKS FOR THE DESIRED LOOP HEIGHT



INSTALL THE RODS INTO THE SLOTTED RING SEGMENTS



ROD INSTALL TEST



PRETTY FLOPPY AT THIS POINT



TIME TO DO A TEST FIT



BENCHWORK READY FOR THE HELIX



TEST FIT IN PLACE



FINAL ROD HEIGHT ADJUSTMENT



ALL RODS INSTALLED



DRESS THE FEEDERS TO THE RODS



ESSENTIAL 'N' SCALE TOOL?!



CUT AWAY THE EXCESS ROD MATERIAL



NASTY CUT ENDS



READY FOR THE PROTECTION CAPS



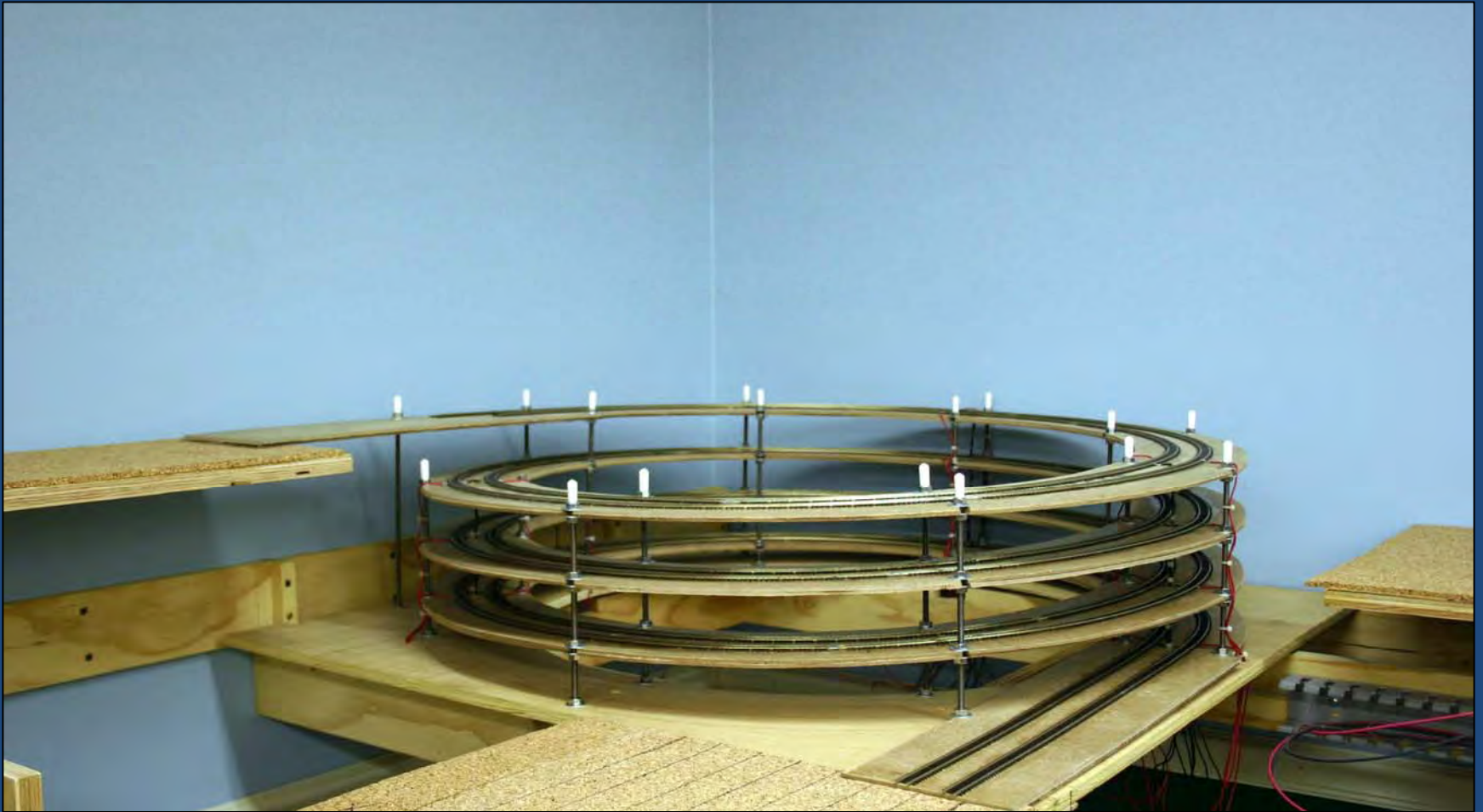
ROD END PROTECTION CAPS



READY FOR FINAL INSTALL



HELIX INSTALLED IN PLACE



HELIX IN USE

