

PINECAR DERBY RECOMMENDED 3-LANE TRACK PLAN

Carefully read all instructions and study the Plans and Bill of Materials before purchasing supplies or beginning construction. The materials listed below are commonly available at most lumber and hardware stores. If you do not have the tools required, most lumber yards will cut wood to the sizes you need. To construct tracks with more than three lanes, expand plans and materials accordingly.

BILL OF MATERIALS

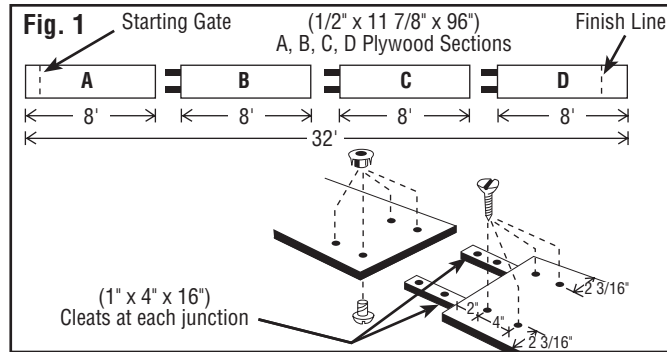
Qty.	Description
LUMBER	
1	4' x 8' x 1/2" AC Ext. plywood cut into: 4 sheets 11 7/8" x 96" (track bed)
12	8' x 1/4" x 1 5/8" lath (guide strips)
3	8' x 1" x 4" pine 1 piece cut into: (6) 16" pieces (cleats) 1 piece cut into: (1) 67" piece (center brace) and (2) 13" pieces (legs) 1 piece cut into: (2) 43" pieces (legs) and (1) 4" piece (center brace block)
1	5' x 1" x 4" pine cut into: (3) 12" pieces and (1) 24" piece (leg braces)
1	4' x 1" x 4" pine cut into: (1) 18" piece (starting gate) and (1) 12" piece (end track support)
1	2" x 2" x 12" pine (brake shim)
1	1/4" dowel cut into: (3) 3 1/2" pieces (starting gate)
1	1/2" dowel cut into: (1) 6" piece (starting gate handle)
HARDWARE	
1	1/4" x 4 1/2" round-head stove bolt, washer, wing nut
7	1 1/2" x 1 1/2" hinges, loose-pin, screws
1	3/8" inside diameter screw eye
12	1" No. 10, flat-head wood screws
12	1/4" T-nuts & 1/4" x 1 1/4" round-head stove bolts
1	Box, 1/2" brads
1	Bottle, white glue
3	4" heavy rubber bands
1	1/4" x 1 1/2" x 78" adhesive-backed foam weather strip cut into: (3) 26" pieces (friction brakes)

Assembling and Constructing Track

NOTE: During track assembly, in addition to screws, use white glue between all permanently attached wood parts in each track section.

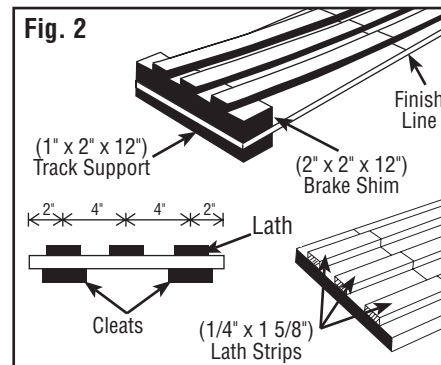
Assemble Plywood Track Bed (Fig. 1):

- Attach 2 wood cleats to one end of 3 plywood sections (B, C and D) with 1" No. 10 flat head wood screws and white glue. Position the holes for the screws 2 3/16" from the edge of the plywood.
- Lay plywood sections end-to-end and drill two holes through each cleat and plywood section. Insert 1/4" T-nuts from top side of track.
- Connect all track sections by inserting 1/4" x 1 1/4" stove bolts into T-nuts from the underside of track. **IMPORTANT:** During this and future track assemblies, add washers to bolts to make sure bolts do not extend beyond track surface, causing guide strips to raise and interfere with race cars! **DO NOT** use white glue when connecting track sections.
- Attach 1" x 2" x 12" track support under finish-line end of Section D.
- After all sections are connected, label section undersides A, B, C, D, from start to finish, for future assembly. Be sure the one section WITHOUT pre-attached cleats is labeled A (starting-line section).



Attach Guide Strips (Fig. 2):

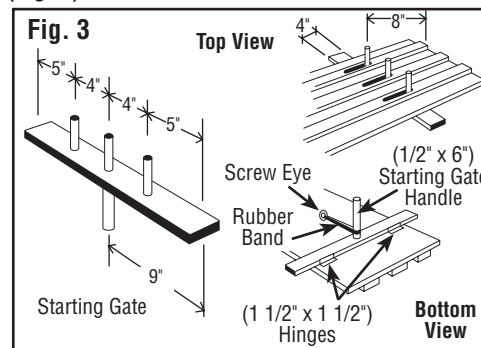
- Position and attach lath strips (Center Guide Strips) to entire track with 1/2" brads and white glue, making certain lath strips line up precisely, end-to-end, to prevent interference with cars when racing. **NOTE:** Lath should cover screws and T-nuts used to hold track sections together.
- Install a shim between guide strips and track surface at the finish-line end of the track (Section D). This will serve as a friction brake to stop the cars.



Disconnect track section "A" to complete the next two steps.

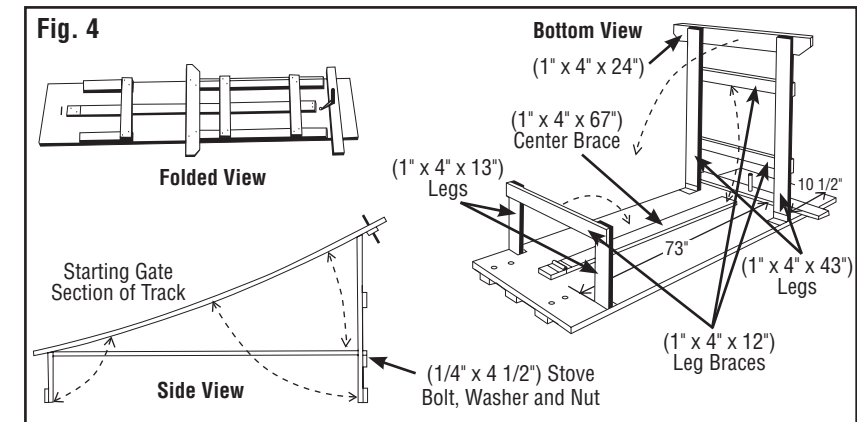
Assemble and Attach Starting Gate (Fig. 3):

- Assemble Starting Gate as shown.
- Cut 3/8" slots, approximately 2 1/2" - 3" long, through track bed and guide strips. Attach hinged gate mechanism. By using the loose-pin hinges specified, the Starting Gate can be removed for storage later. **NOTE:** Be sure to align all dowels, as this will become the starting line. Attach screw eye and rubber band. Take extra rubber bands to the race!



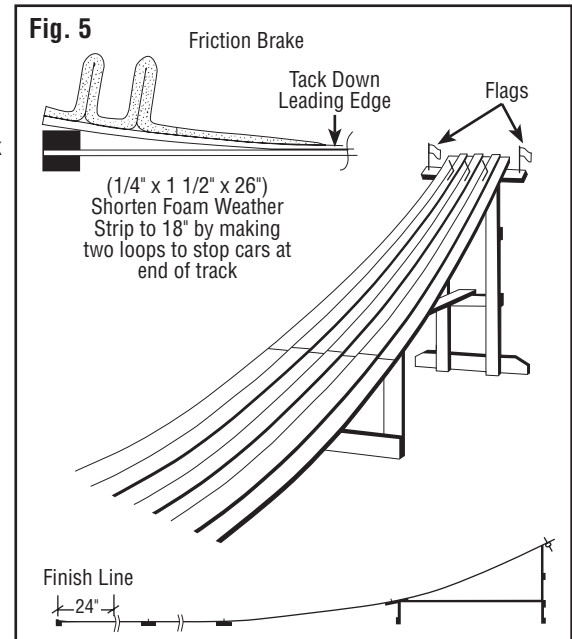
Assemble and Attach Supporting Legs (Fig. 4):

- Construct Leg Assemblies with screws and white glue.
- Attach Leg Assemblies and supports to track section "A" with hinges.
- Drill hole through center brace and leg brace and bolt together with 1/4" x 4 1/2" stove bolt, washer and wing nut.



Finish Track Bed (Fig. 5):

- Assemble and set up completed track. Sand rough-cut edges, sharp corners and any rough or uneven spots on track and guide-strip surfaces to ensure a smooth, fast race. Your track may be sealed and finished to provide a permanent, optimum speedway that will serve you well for many years.
- If track sections do not line up, level and add shims between track and cleats.
- Add the finishing touches, such as Start and Finish Lines, Lane Numbers, Flags and Foam Weather Strip to three friction brakes at finish-line end of track. Tack or staple down leading edge of foam on track guides so cars don't snag it as they pass over.



Storage

Before dismantling for storage, be sure all sections are labeled A through D. Remove the bolts from the cleats that connect the sections. Remove the bolt from the center brace. Remove the pins from the hinges on the starting gate. The track can now be folded down for storage. If sections are to be stacked, pad or protect track surfaces.