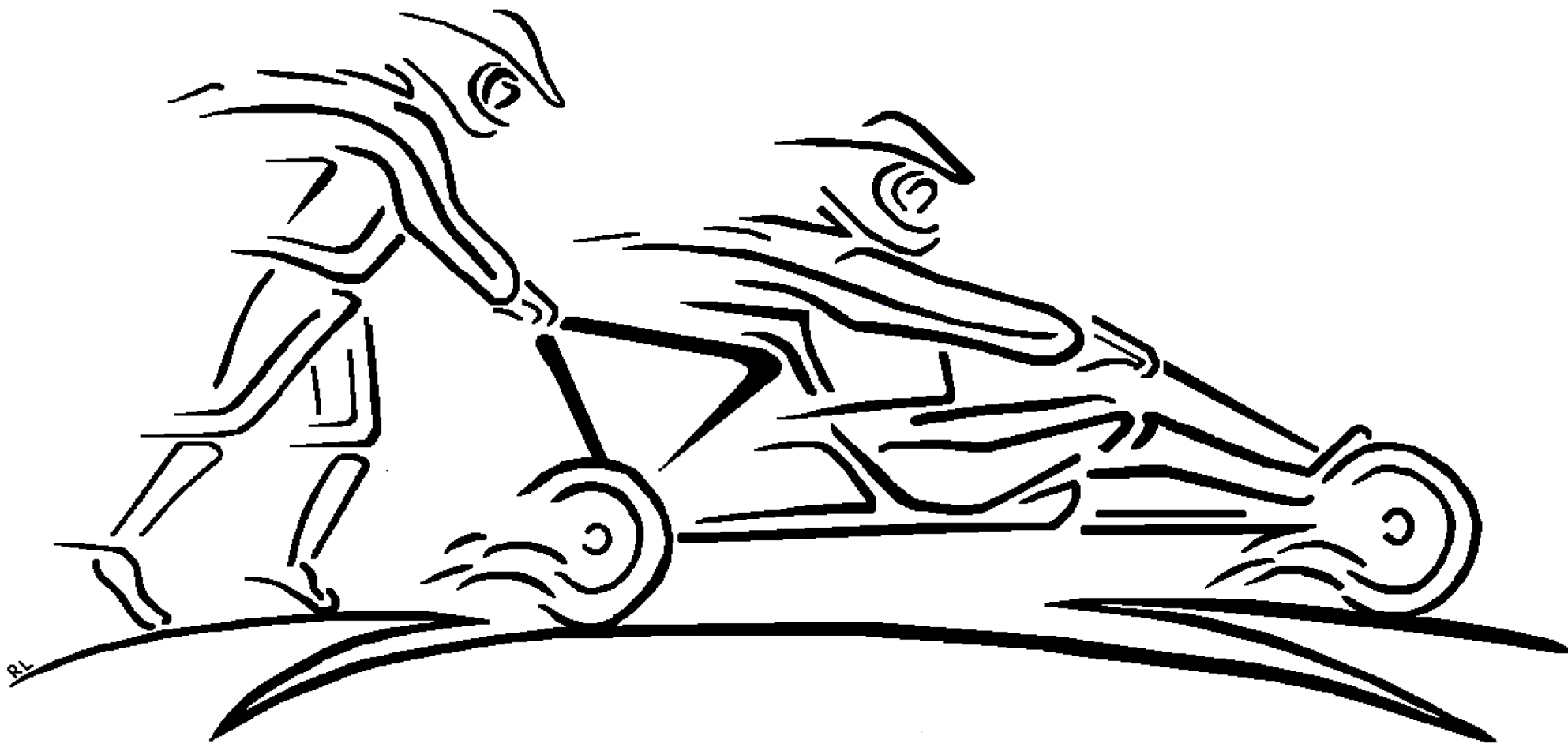


BOY SCOUT TROOP 271

PUSHCART ASSEMBLY MANUAL

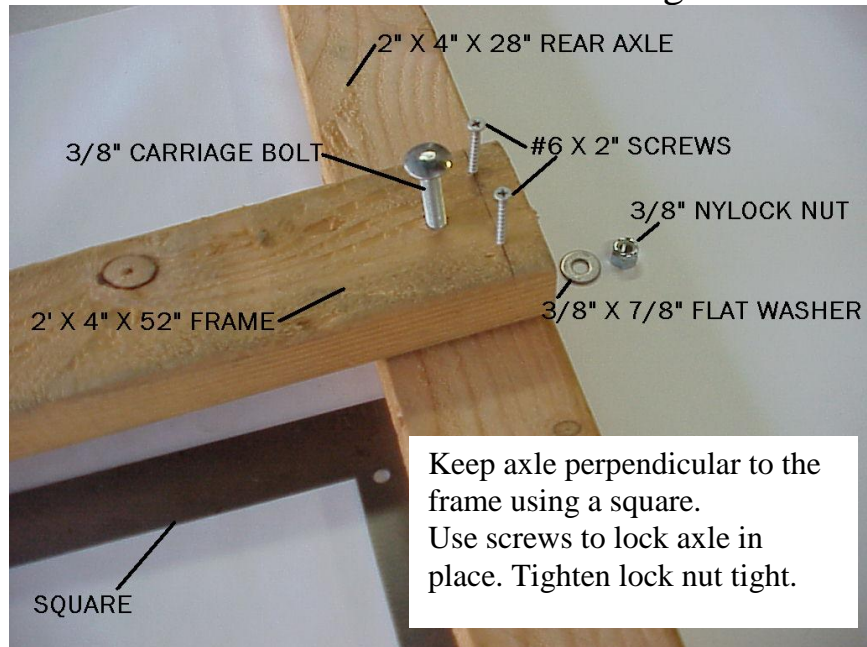


PUSHCART DERBY KIT CONTENTS

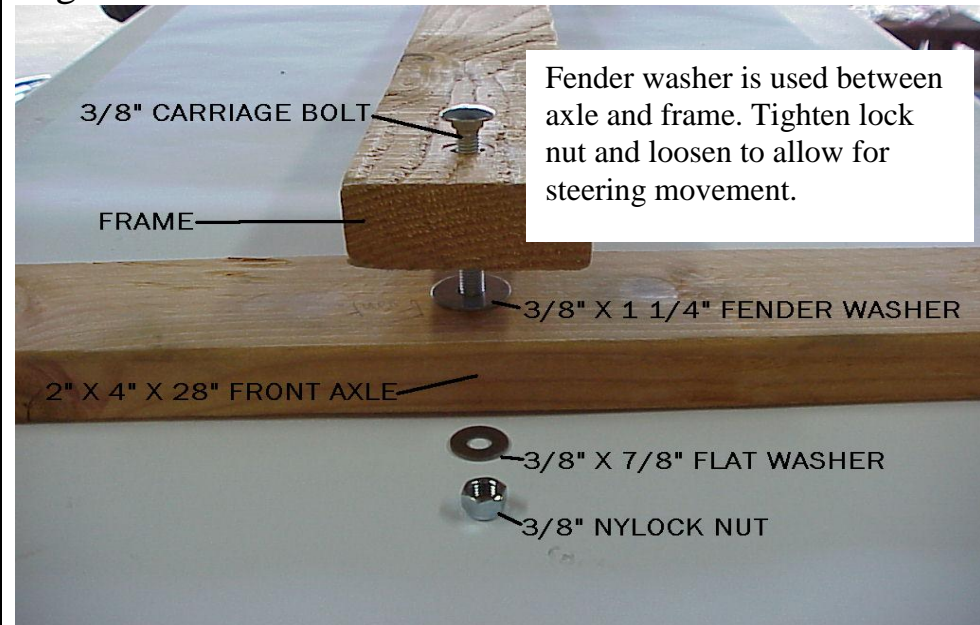
ITEM	DIMENSION	QTY	NOTE
Frame	2"x4"x52"	1	Lumber
Front & Rear Axle	2"x4"x28"	2	Lumber
Seat Support	2"x4"x12"	1	Lumber
Seat Back	1"x12"x12"	1	Lumber
Seat Base	1"x'12"x12"	1	Lumber
Brake Lever	2"x4"x14"	1	Lumber
Steel Seat Brace	1/2" x 22" conduit	2	LH & RH marked
Push Bar	1/2" U-shaped conduit 65"	1	
Push Bar Brace	1/2"x 32" conduit	1	
Wheels	10"	4	Plastic
Brake Pad	1 1/2" X 3"	1	Rubber Strip
Eye Hooks	1/4" eye	2	For steering rope
Rope	5 ft.	1	
Zip Ties		4	For rope
Lag Screws	1/2"x6"	4	For wheels
Flat Washer	7/16"	8	For wheels
Copper Collar	1/2"x54mm	4	For wheels
Carriage Bolt	3/8"x 3 1/2"	2	Axle to frame
Flat Washer	3/8"x 7/8"	2	Axle to frame
Fender Washer	3/8" x 1 1/4"	1	Between steering axle & frame

ITEM	DIMENSION	QTY	NOTE
Nylock Nut	3/8"	2	Axle to frame
Screws	#6x2"	2	Rear axle lock
Lag Screws	3/8"x 4"	1	Brake lever
Flat Washer	3/8"x7/8"	1	Brake lever
Fender Washer	3/8"x1 1/4"	1	Between brake lever & frame
Screws	#6x 3 1/2"	2	Seat support
Screws	#6x2"	4	Seat back
Screws	#6x2"	4	Seat base
Screws	#6x 1 1/4"	6	Steel seat brace
Screws	#6x 1 1/4"	4	Seat belt – NOT PROVIDED
Screws	#6x1 1/4"	2	Brake pad
Screws	#6x1 1/4"	6	Push bar
Machine Screw	1/4"x 1"	1	Push bar
Nylock Nut	1/4"	1	Push bar
Spring	7/16" x 1"	1	Brake lever
Screws	1" flathead	2	Brake lever return spring
Steering Stops		2	Plastic extrusion
Nylock Nut	1/4"	4	Steering stops
Machine Screw	1/4"x2 1/4"	4	Steering stops
Flat Washer	1/4"	4	Steering stops

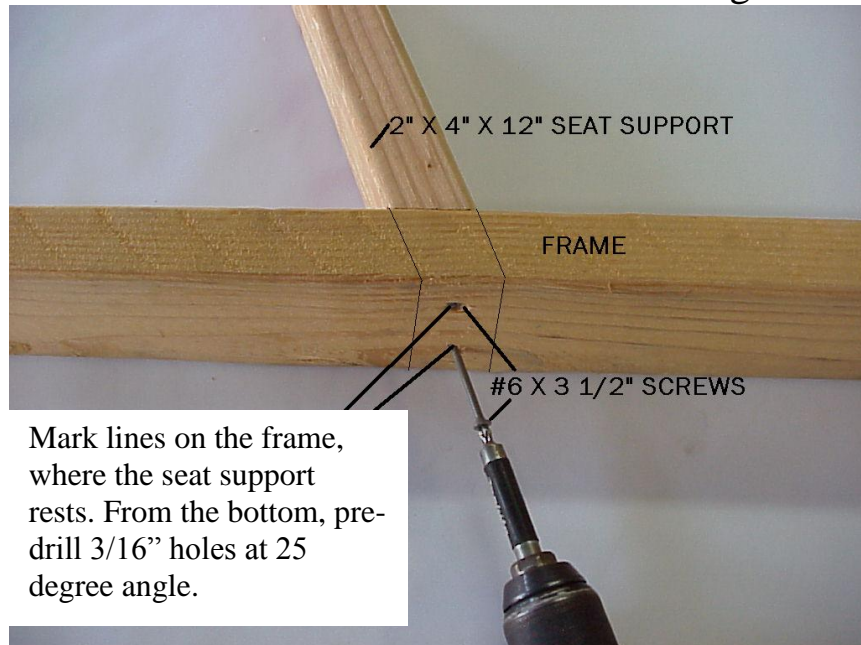
STEP 1: REAR AXLE – Hardware bag #1



STEP 1 (CONTINUED): FRONT AXLE – Hardware bag #1

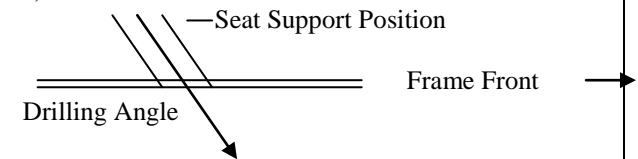


STEP 2: SEAT SUPPORT – Hardware bag #2



TIP: To determine the position of the seat support (2x4x12") relative to the frame (2x4x52"), have your child (the driver) sit on the frame with both feet on the front axle (2x4x28"). His knees should be bent upward slightly (in a comfortable position to steer). In this position, slide the seat support up against his lower back and mark the front and the rear of the seat support on top of the frame.

From the top of the frame, drill two 3/16" holes approximately 1-1/2" apart in between (center of) the marked parallel lines at approximately 65° angle from the rear plain (angle in line with center of the seat support).

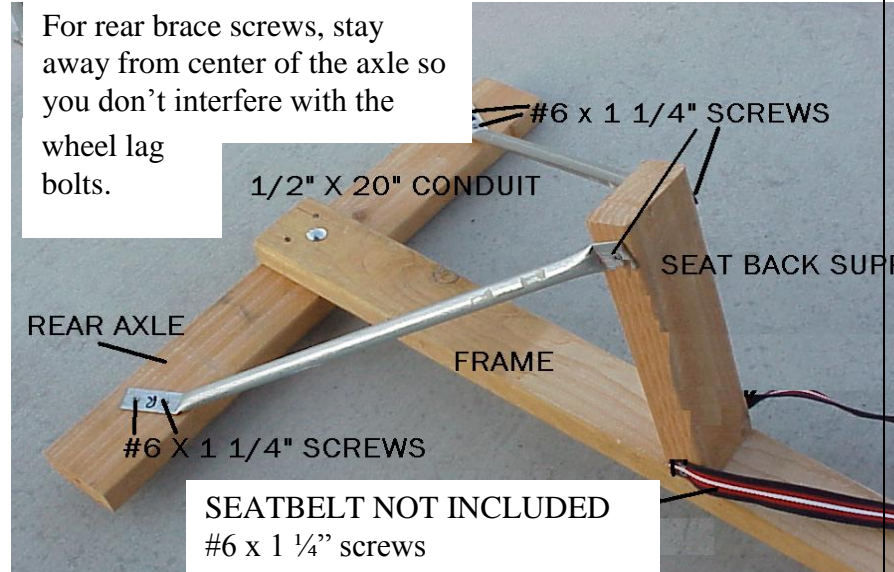


Install two #6 x 3-1/2" screws from the bottom to secure the seat support to the frame.

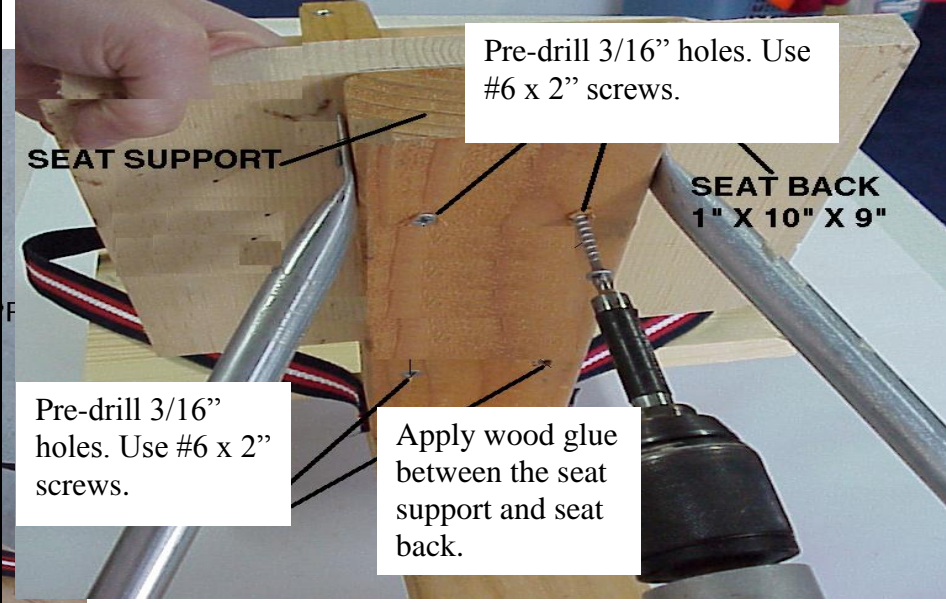
Install the seat support braces (two short steel pipes) using six #6 x 1-1/4" screws. The braces are marked R and L. Start with the single hole side and secure it to the mid-point of the seat support on each side. Bend around the braces so that the lower side ends up at the center of the rear axle (2x4x28") approximately 3" to 4" from the end of the axle. Secure the lower braces using two screws on each side.

STEP 2 (continued): Seat Back Brace & Seat Belt – Hardware bag #2

For rear brace screws, stay away from center of the axle so you don't interfere with the wheel lag bolts.



STEP 2 (continued): Seat Back – Hardware bag #2

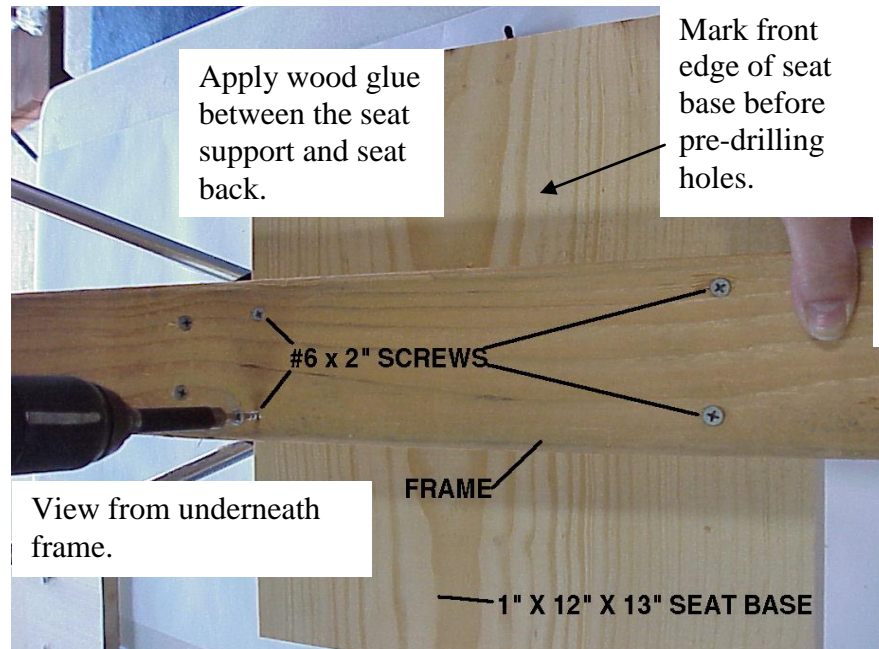


Pre-drill 3/16" holes. Use #6 x 2" screws.

Pre-drill 3/16" holes. Use #6 x 2" screws.

Apply wood glue between the seat support and seat back.

STEP 2 (continued): Seat Base – Hardware bag #2

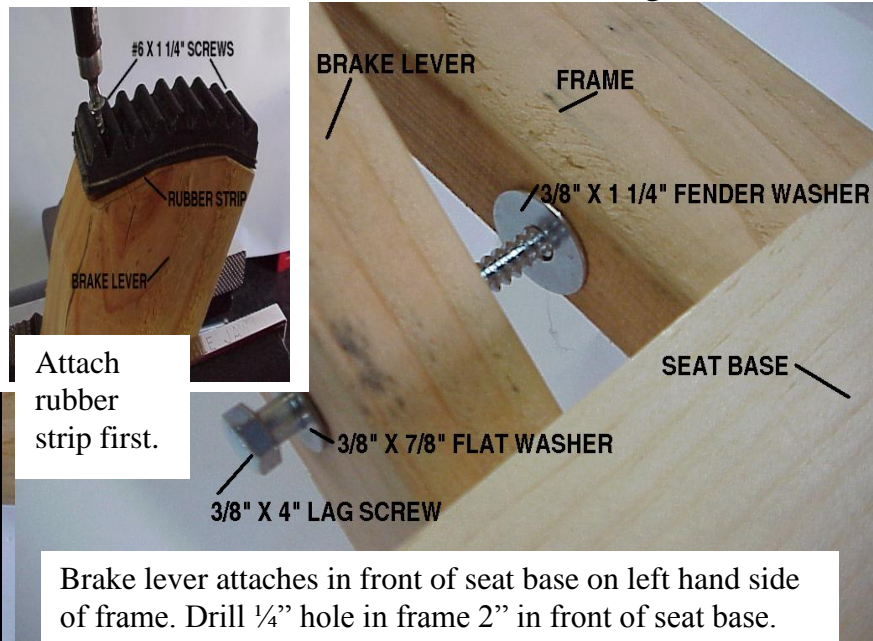


Apply wood glue between the seat support and seat back.

Mark front edge of seat base before pre-drilling holes.

View from underneath frame.

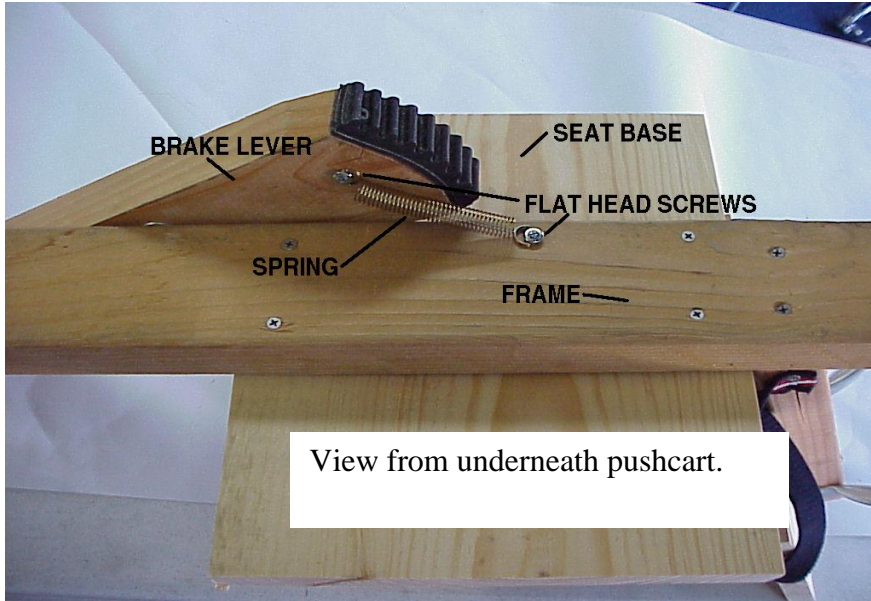
STEP 3: Brake Lever – Hardware bag #3



Attach rubber strip first.

Brake lever attaches in front of seat base on left hand side of frame. Drill 1/4" hole in frame 2" in front of seat base.

STEP 3 (continued): Brake Lever – Hardware bag #3

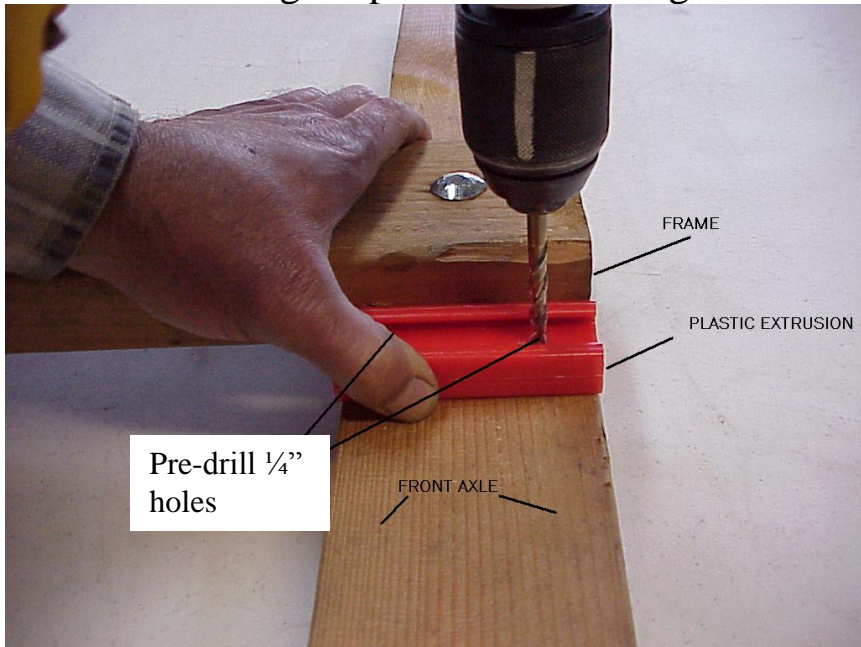


STEP 4: Steering Stops

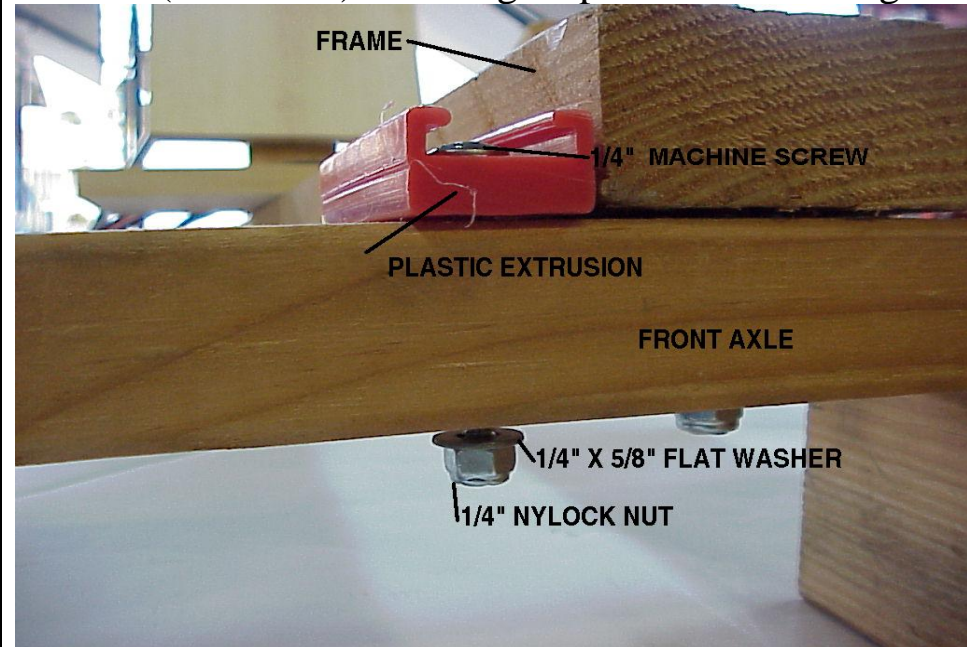
The steering stop is bolted to the front axle on each side of the frame. Keep axle perpendicular to the frame. Hold the steering stop firmly and drill 1/4" holes through the front axle using the steering stop holes as a guide. Repeat for other side.

IMPORTANT: THERE SHOULD BE NO GAP BETWEEN THE STEERING STOP AND THE FRAME. THE STEERING STOP (PLASTIC EXTRUSION) WILL FLEX ENOUGH TO ALLOW FOR THE MINIMAL AMOUNT OF STEERING NECESSARY FOR THE STRAIGHT RACE TRACK.

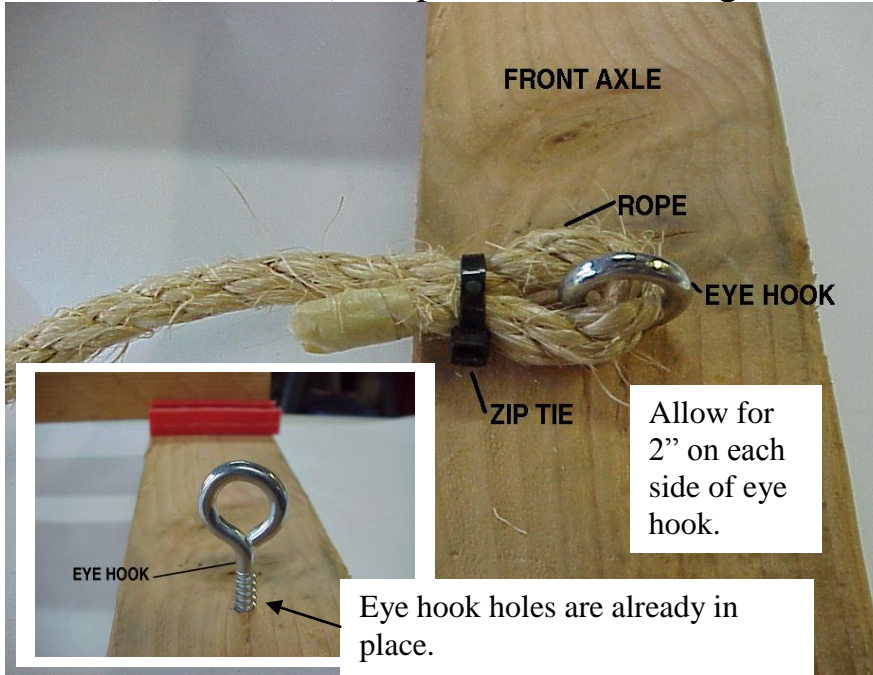
STEP 4: Steering Stops – Hardware bag # 4



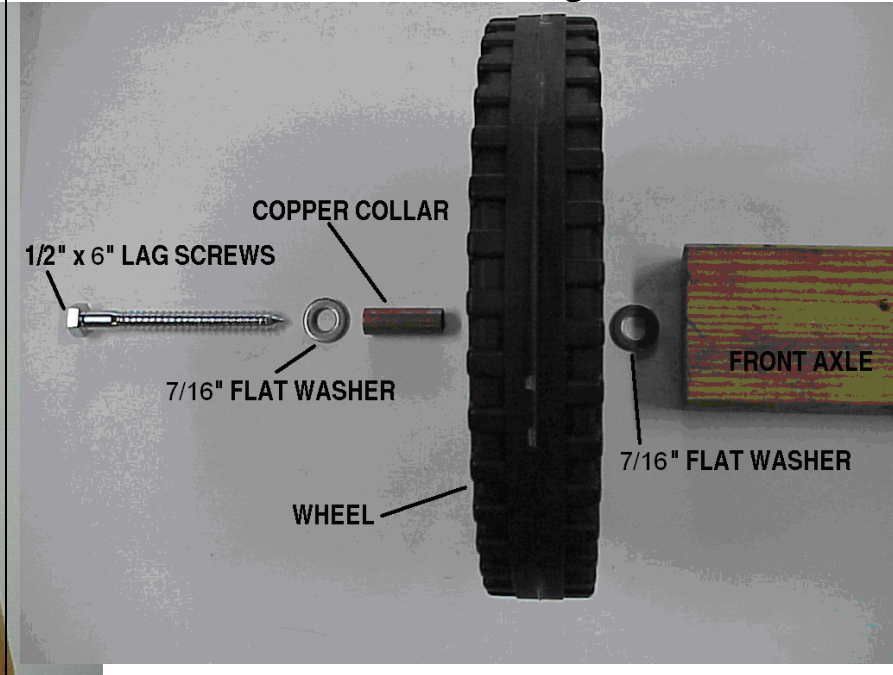
STEP 4 (continued): Steering stops – Hardware bag #4



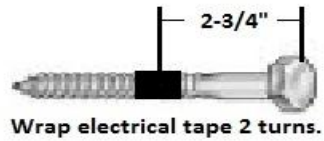
STEP 4 (continued): Rope – Hardware bag #4



STEP 5: Wheels – Hardware bag #5

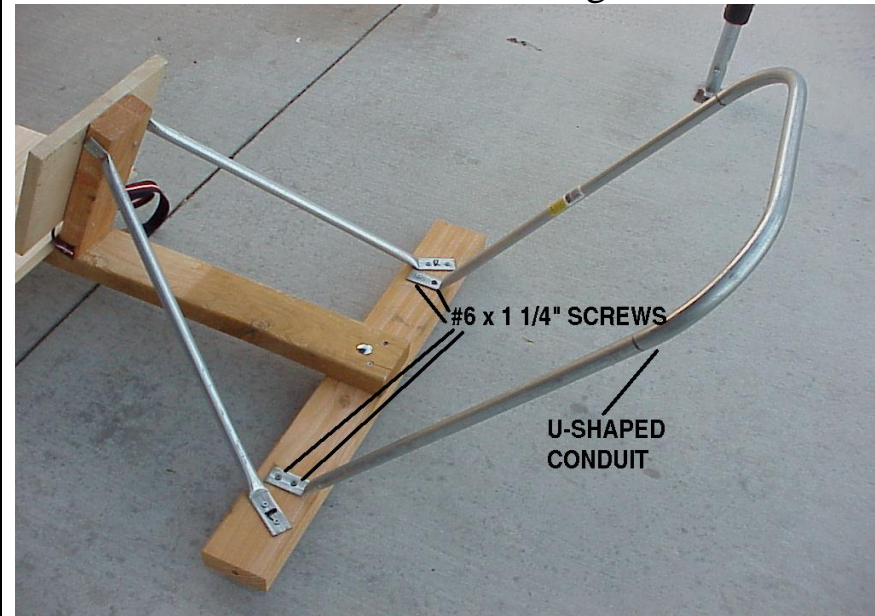


Step #5 (continued): Wheels

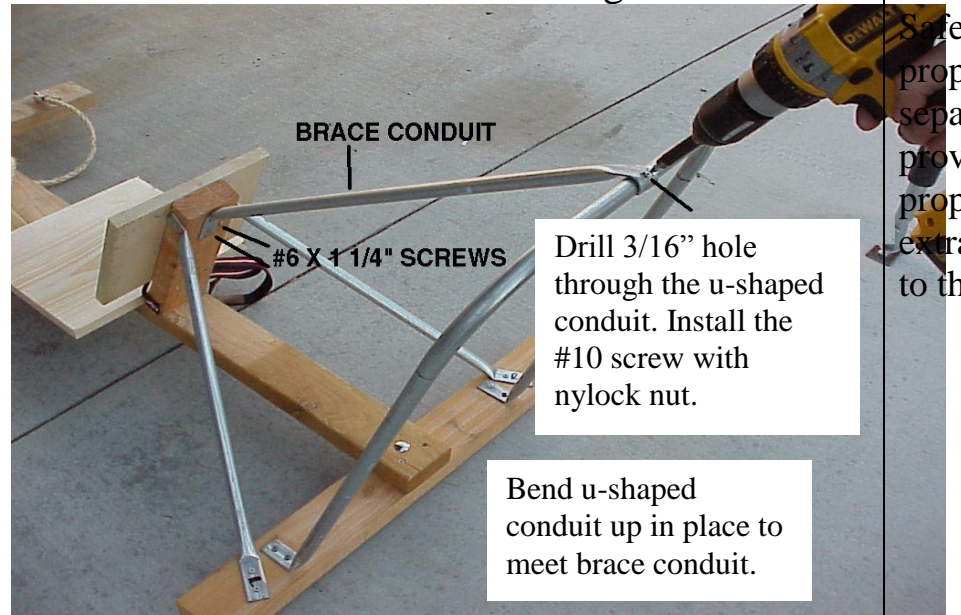


Tape Lag Screw to keep inside washer centered during installation.

STEP 6: Push Bar – Hardware bag #6

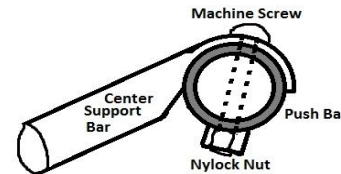


STEP #6: Push Bar – Hardware bag # 6



STEP 6: Push Bar – Hardware Bag #6

Safety Note: The pushbar center support bar must be secured properly onto the pushbar to prevent the support bar from separating. A new machine screw and nylock nut have been provided to ensure proper attachment. If your pushbar is properly secured, these new fasteners may not be needed. The extra threads protruding from the end of the nut can cause injury to the pushers hand. The Pusher must wear gloves.



Cart must be equipped with the following safety items:

- Seat belt – must be safe and must fit the racer appropriately – **not supplied in kit.**
- Brake
- Steering Stops – **set to specifications as outlined in the kit instructions.**
- Push car

CART SPECIFICATIONS:

- Must use Pushcart Derby kit produced by Boy Scout Troop 1103 **in entirety per assembly manual.**
- Do not add weights of any kind.
- Must use wheels supplied in kit – **NO** bearings allowed.
- Wheel collars can be lubricated – **NO** modification to axles.
- Any modification that can render a cart unsafe will not be allowed.
- Personalization such as: seat pads/covers, painting, decals, and reflectors are allowed as long as they meet safety inspection.
- Cardboard number plates, covers, panels and fairings are allowed as long as they are secured safely.
- After safety check on the day of the race, there can be **NO** alterations made or the cart will be disqualified.