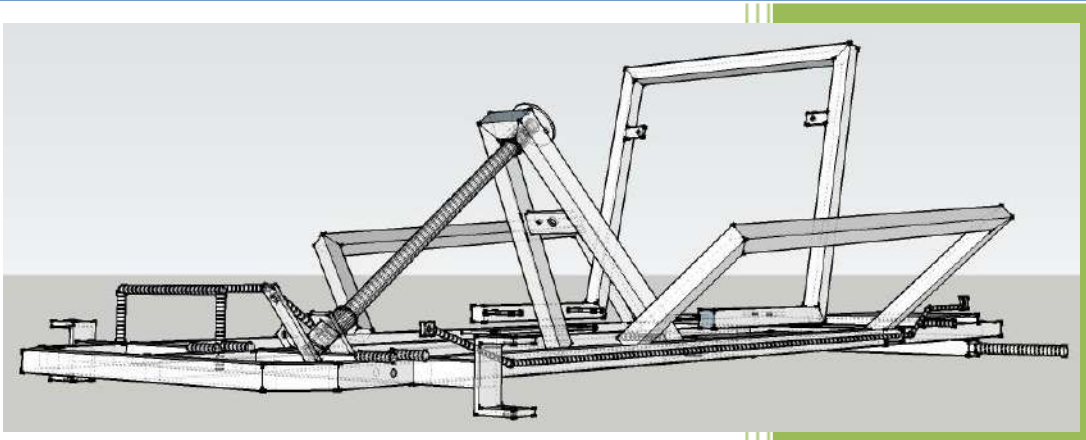
Go Kart Plans - Two Seat Go Kart



http://KartFab.com/go-kart-plans

Contents

Parts, Tools, and Materials Needed

Bulk Steel Materials	Quantity
3/16" plate (12"x12" section)	1
11ga 1"x1" sq tubing (10 ft section)	5
16 ga sheet metal (26"x20" section)	1
11ga 3/4" round tubing (18" section)	1
1"x1"x1/8" angle iron (1" section)	1
3/8" round bar (36" section)	1
1/4" round bar (60" section)	1

Tools Needed
welder
angle grinder
drill
tape measure
protractor/square
angle finder
level
razor blade
hammer

The below parts can be purchased as part of a go kart parts kit at http://www.gopowersports.com/kartfab

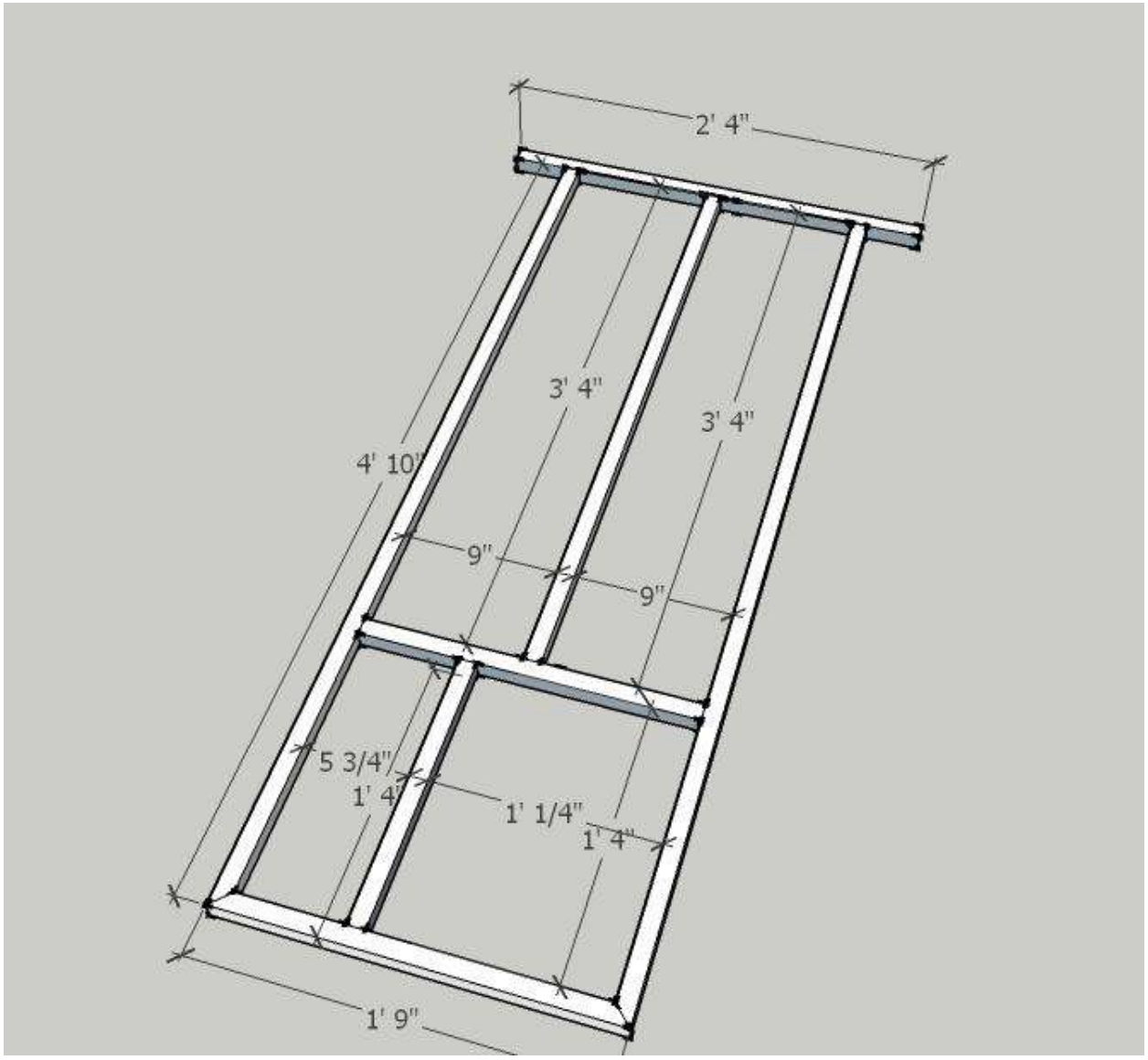
GPS Parts	Quantity
140/70-6 knobby tires	4
6" rims	3
6" drive wheel with hub	1
5/8" ID 1 3/8" OD sealed bearings	8
60T drive wheel sprocket 420P	1
3/4" bore 10T centrifugal clutch 420p	1
4" brake drum	1
3/16" x 1/2" keystock	1
4" brake band	1
throttle cable (manco)	1
manco throttle return spring	1
manco brake return spring	1
heavy duty gas/brake pedals (L+R pair)	1
kill switch (1/2")	1
steering wheel	1
3/8 x 8" tie rod w/ tie rod ends	1
3/8 x 18" tie rod w/tie rod ends	1
spindle (L+R pair) 4" center to center	1
3" spindle bracket w 1/2" kingpin holes	2
seat slider (8" mounting pattern)	1
motor mount plate	1
420p chain	1
420p master link chain connector	1
bench seat	1

Nuts and Bolts	Quantity	Goes Where?
5/8-11 x6" bolt	1	driver side dead axle
5/8-11 x4" bolt	1	passenger side dead axle
5/8-11 nut	4	front spindles, dead axle
1/2-13 x 3 1/2" bolt	2	spindle brackets
1/2-13 nut	2	spindle brackets
3/8-16 x 2" bolt	1	pitman arm
3/8-16 x 1" bolt	2	L+R spindles
3/8-16 nut	3	pitman arm, L+R spindles
5/16-24 (fine thread)x 1 1/4" bolt	1	motor shaft
5/16-18 serrated flange nut	4	motor mount
5/16-18 x 2" bolt	2	brake and throttle pivot
5/16-18 nut	18	brake and throttle bolts (2), seat slider (8), drive wheel (8)
5/16-18 x 1 1/2" bolt	8	motor mount(4), drive wheel assembly (4)
1/4-20 nut	10	steering wheel (3), kill switch ground (1), brake pedal (3) throttle pedal (3)
1/4-20x1 1/2" bolt	4	seat bottom
1/4-20 x 1 1/4" bolt	1	throttle pedal (top hole)
1/4-20 x1" bolt	5	brake pedal (2), throttle pedal (1), seat back (2)
1/4-20 x 1/2" bolt	3	steering wheel (3), kill switch ground (1),

Misc materials	Quantity	Goes Where?
5/8 machine bushing	4	front spindles, dead axle
5/8 x 1" spacer	2	front spindles
1/8" cotter pin	1	brake band clevis pin
5/32" cotter pin	1	brake band welded stub
3/8 x 1 1/4" clevis pin (or universal)	1	brake band
2 1/2" OD Flat Washer	1	steering wheel
5/16" washer	4	under seat slider
5/16" fender washer	1	motor shaft
1/4 ID 3/8"OD x1/2" steel spacer	1	throttle cable eyelet
male bullet connector	1	kill switch
thread locker (blue)	1	all nuts
black paint	1	wheels
frame paint	4	3 for frame, 1 for wheels and seat back
primer	2	frame/wheels, seat back
3/4" ID x 1" spacer	2	steering shaft
4 1/2" angle grinder wheels	7	4 cut off, 1 sanding, 1 grinding, 1 wire wheel

Go Kart Base Frame

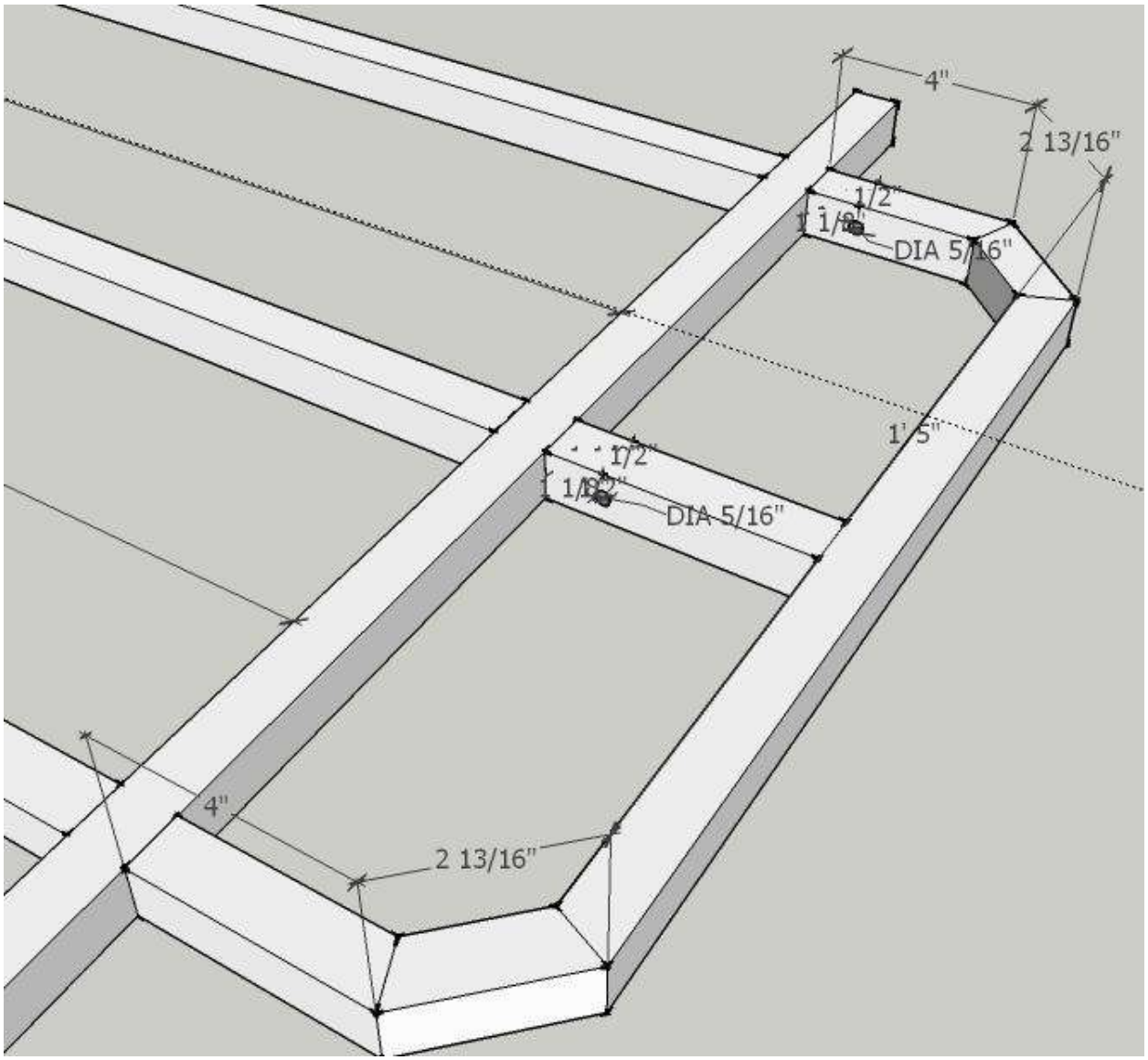
Cut out your 1"x1" steel tubing into the base frame, and weld it together. The bottom corners are cut on 45 degree angles.



Bumper

Cut out pieces for the bumper, the 'rounded edges' are cut on 22.5 degree angles.

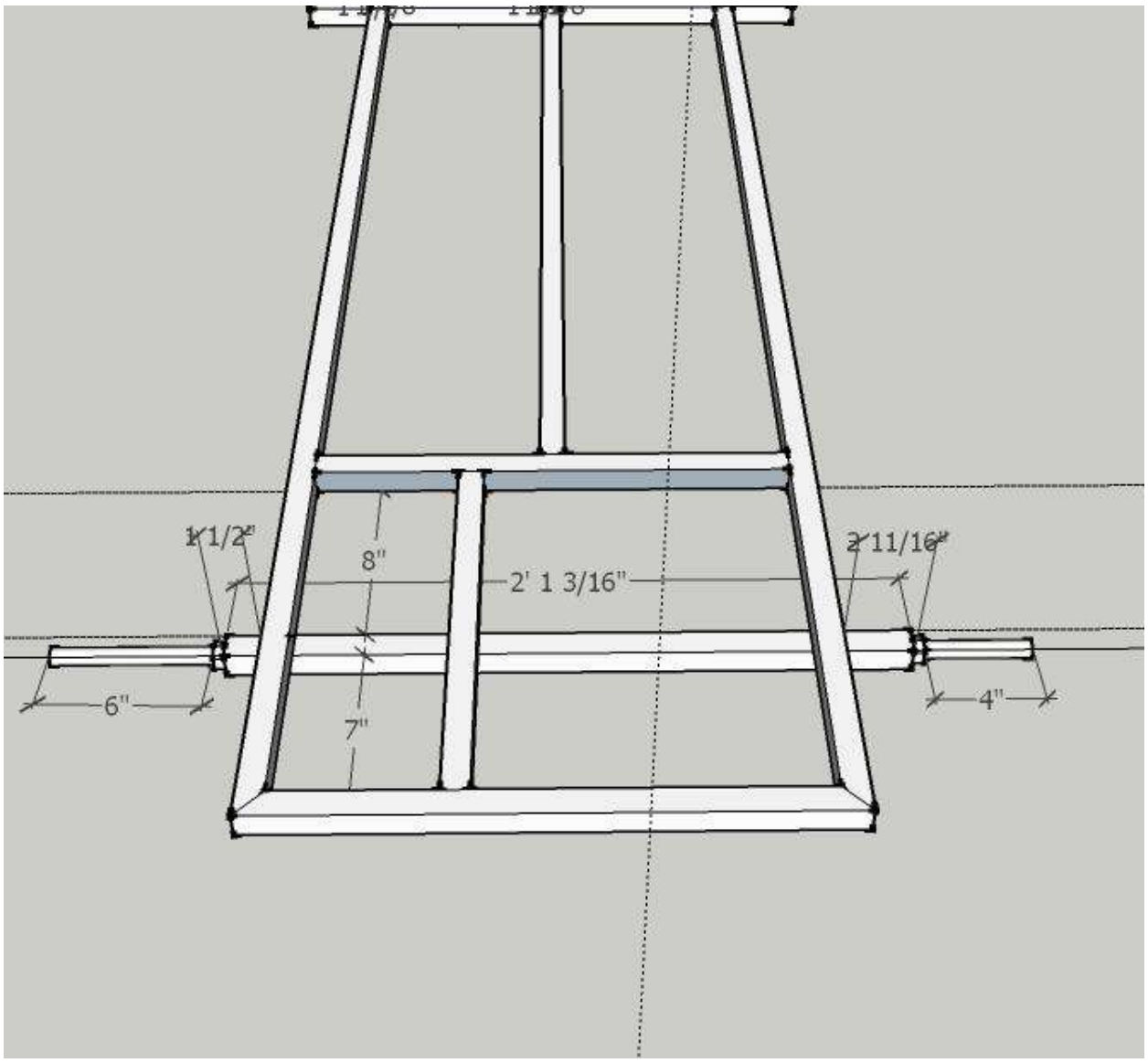
Drill 5/16" centered holes through the tubing at 1 1/8" from the end of the tubing



Go Kart Axle

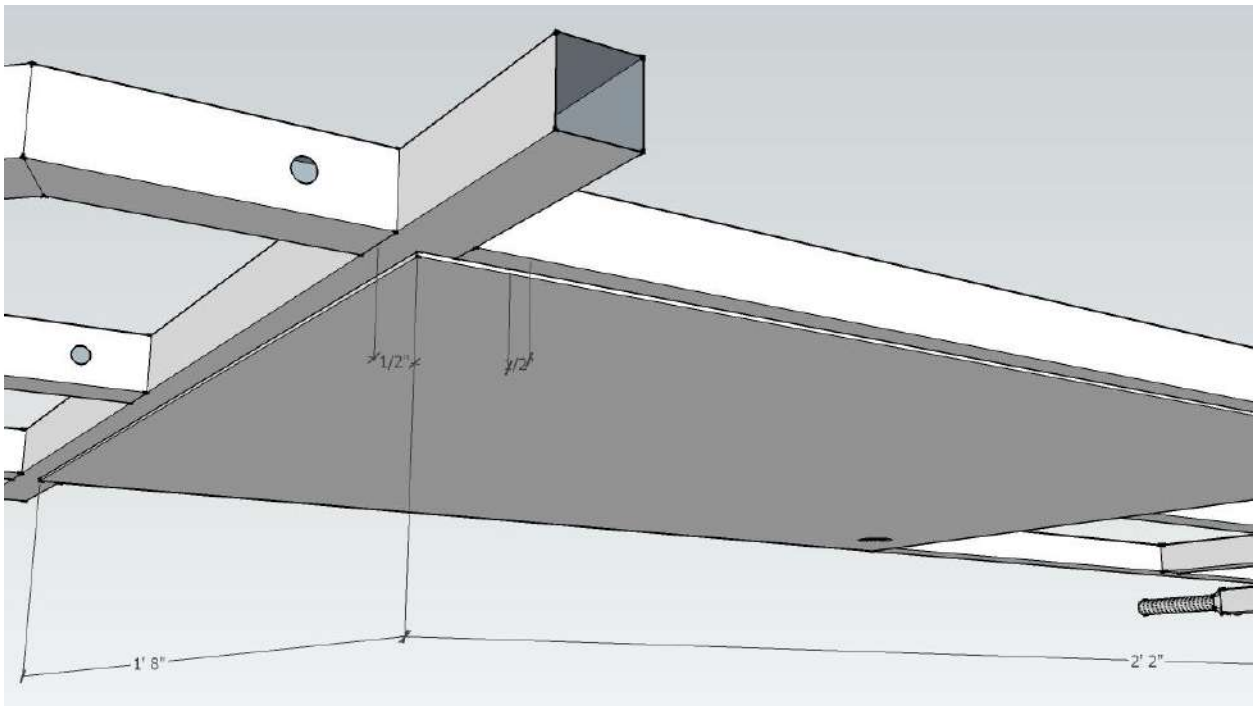
Cut out a section of 1"x1" square tubing, and weld bolts to each end. The 6" bolt goes on the driver side of the kart, and the 4" bolt goes on the passenger side of the kart.

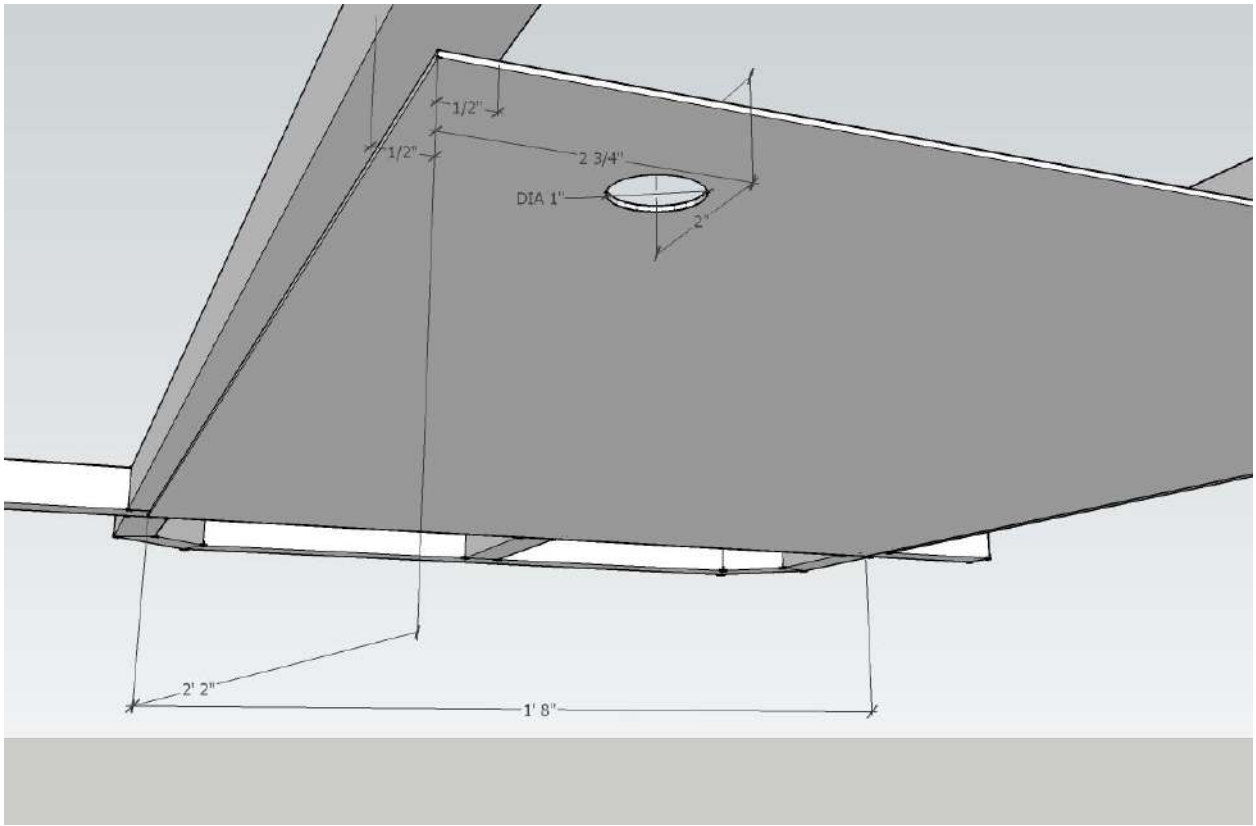
Weld the axle underneath the base frame.



Floor Pan

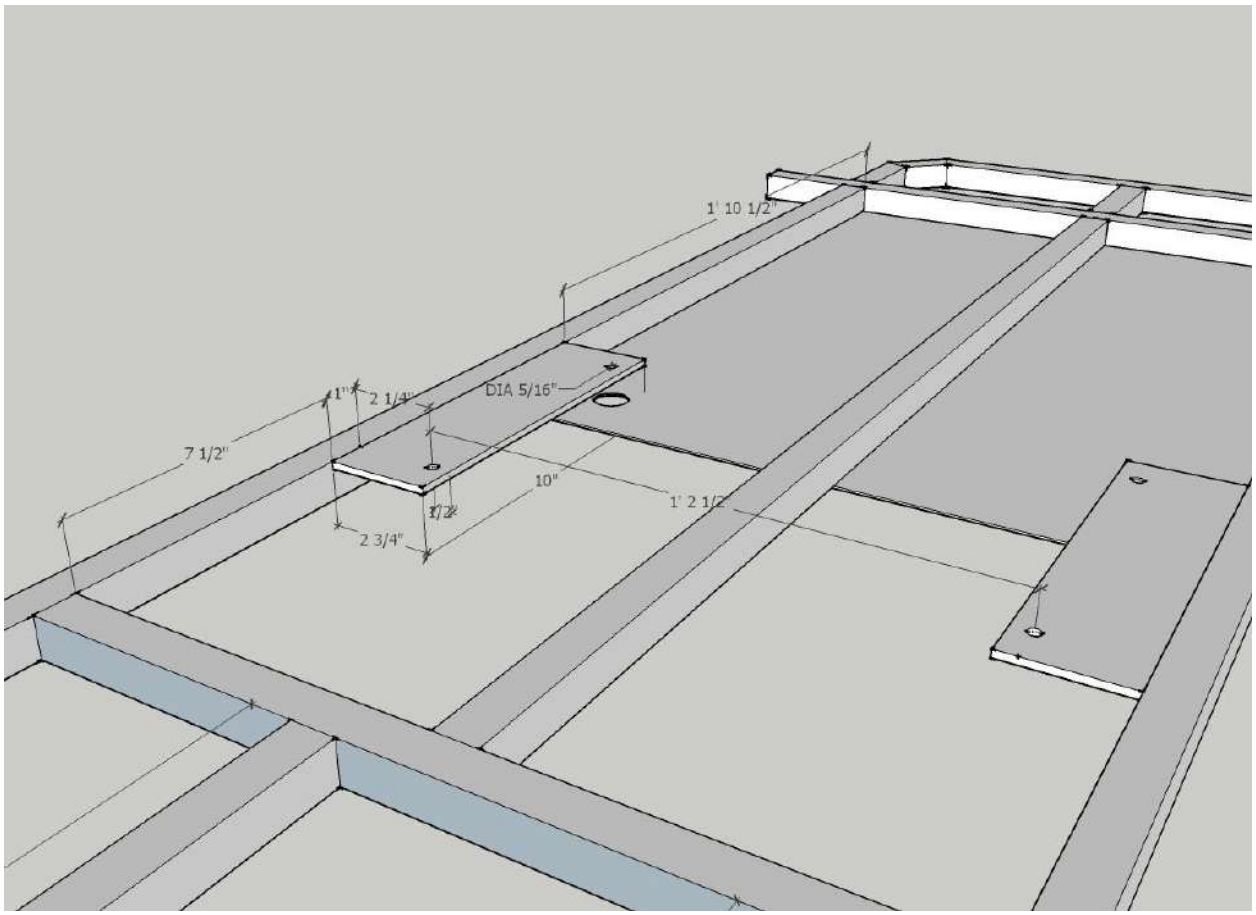
Weld the 16 ga sheet metal underneath the base frame, drilling two holes through which a bolt will be inserted to a seat slider.

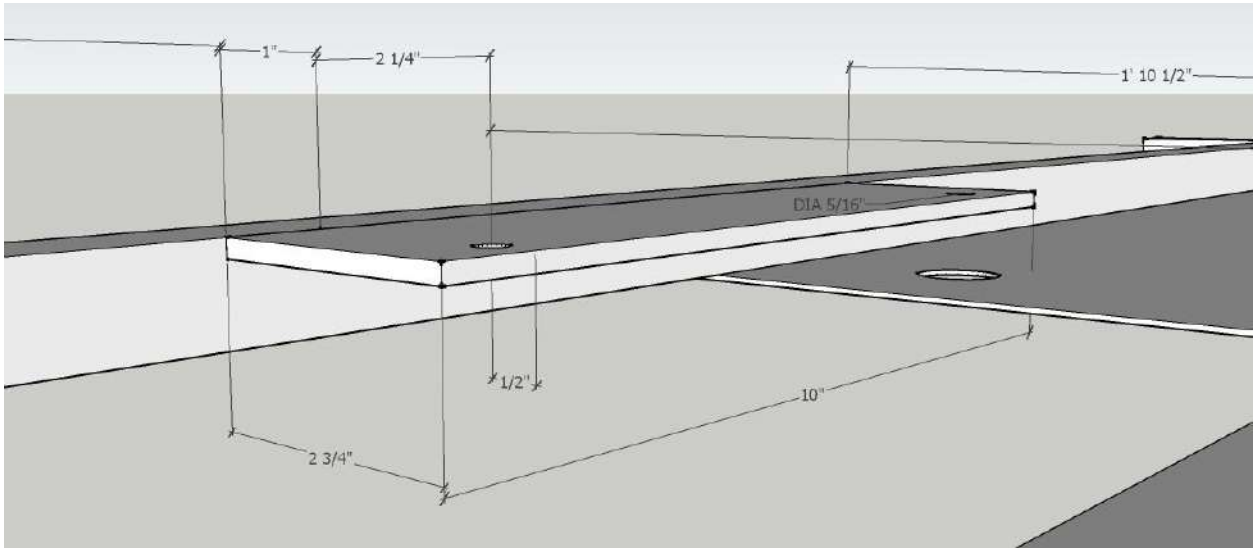




Seat Slider Brace

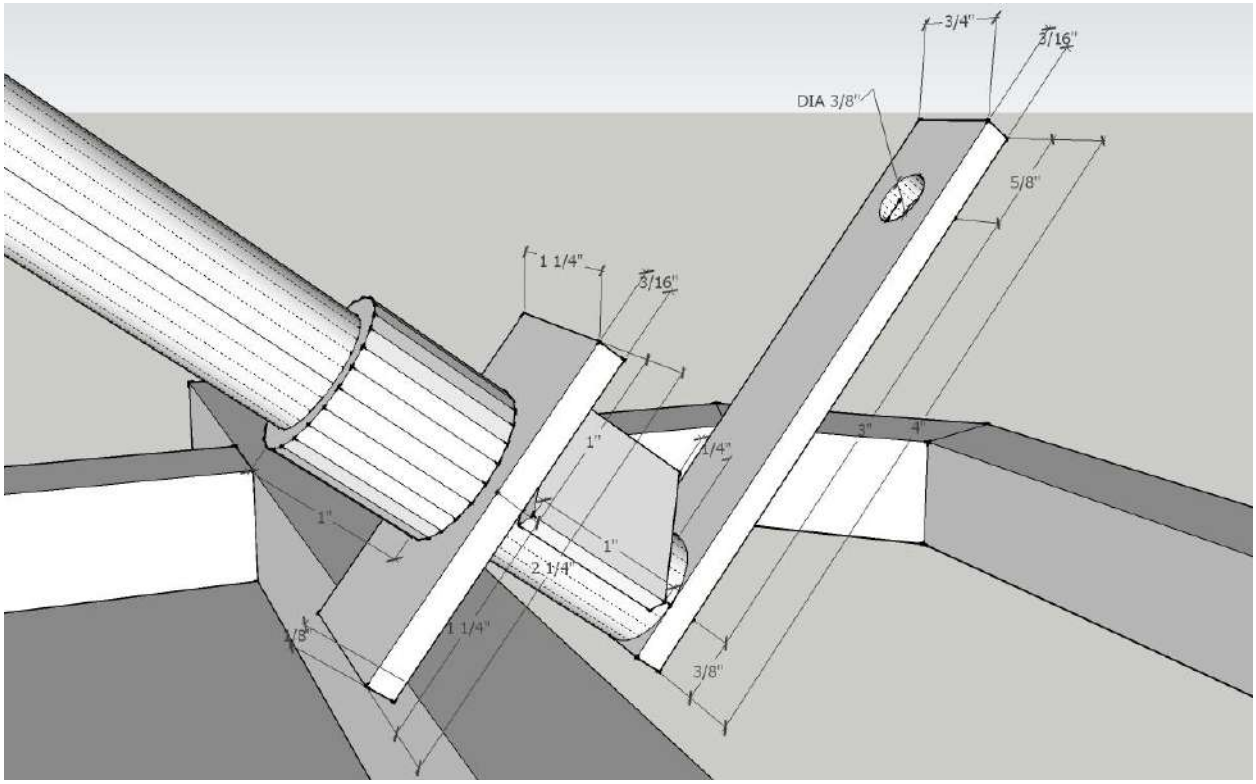
Weld two braces to the sides of the go kart frame that will allow the seat slider to bolt to the frame. Note, all flat steel (except the floor pan) is made from 3/16" plate.



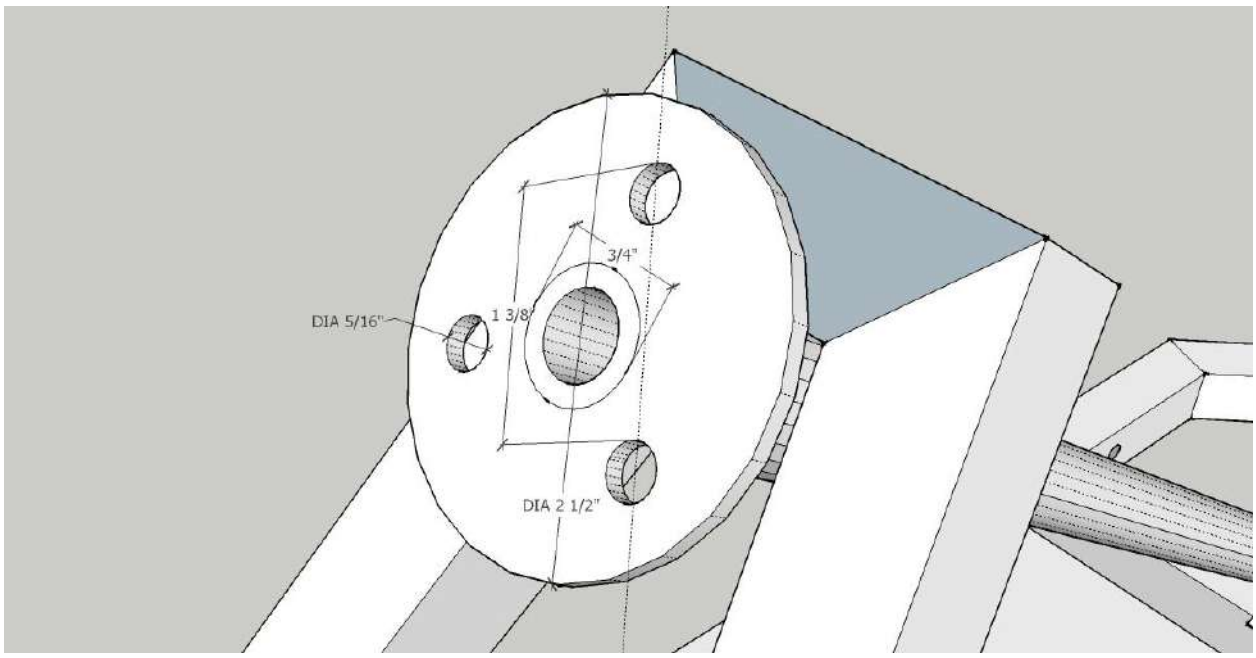


Steering

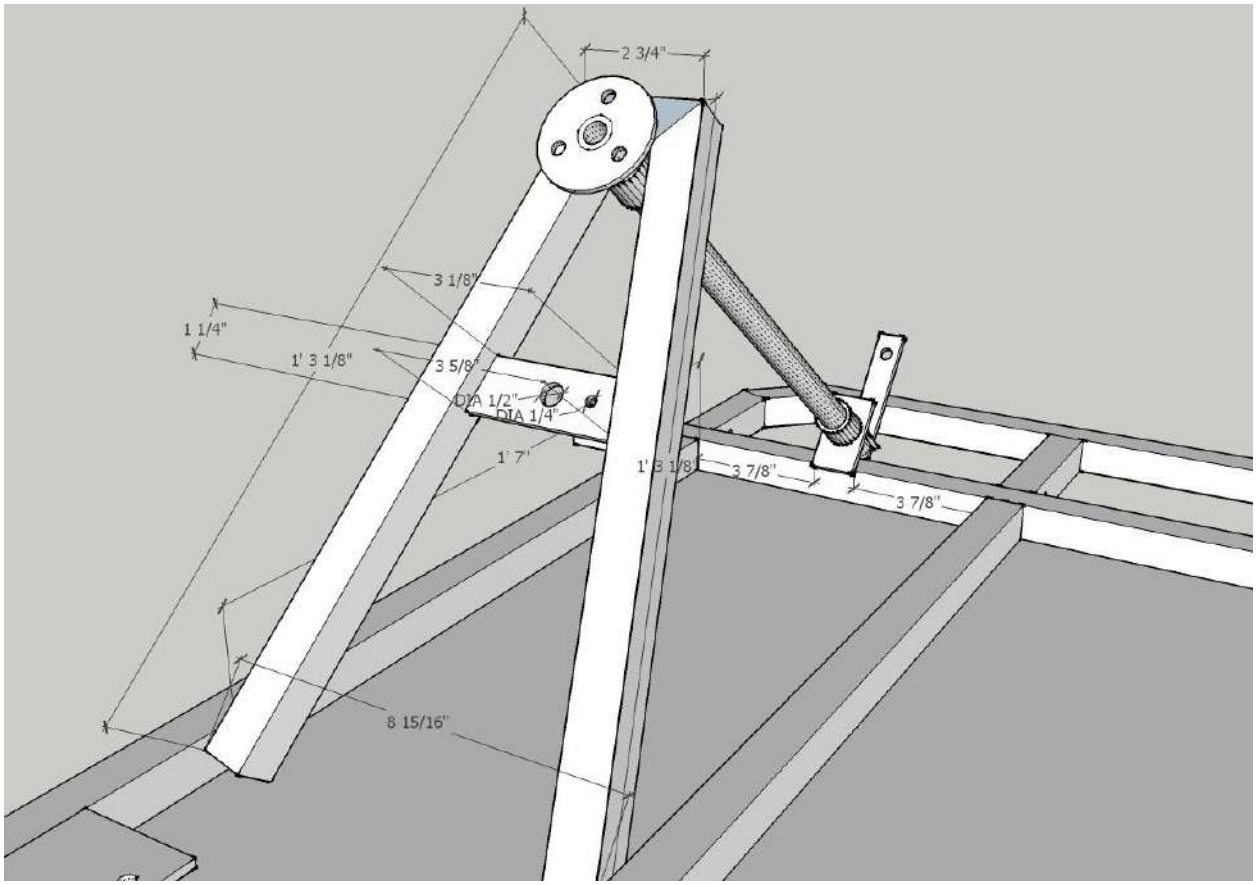
Cut out an 18" section of 3/4"x11ga tubing and weld together the steering tabs. The pitman arm, 1"x1"x1/8" angle iron, tab that will hold the shaft to the frame, and spacer are picture below.



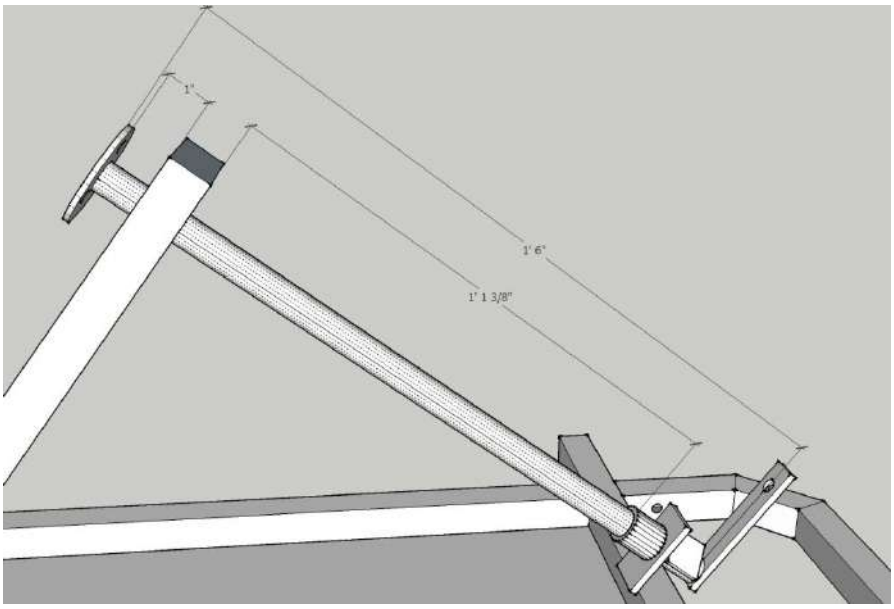
Next, insert the additional 1" spacer (you may need to grind the shaft near the steering hoop for a loose fit). Drill a 3 hole pattern onto the flat washer, and weld the washer to the end of the shaft.



Next, create the steering hoop and kill switch brace. Cuts are made at a 39 degree angle for the hoop.

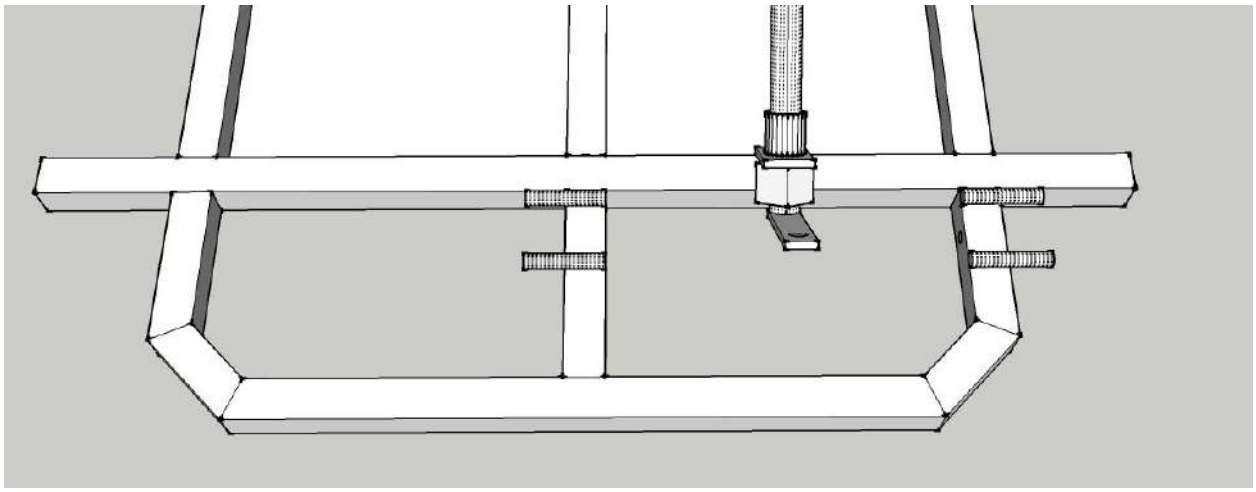


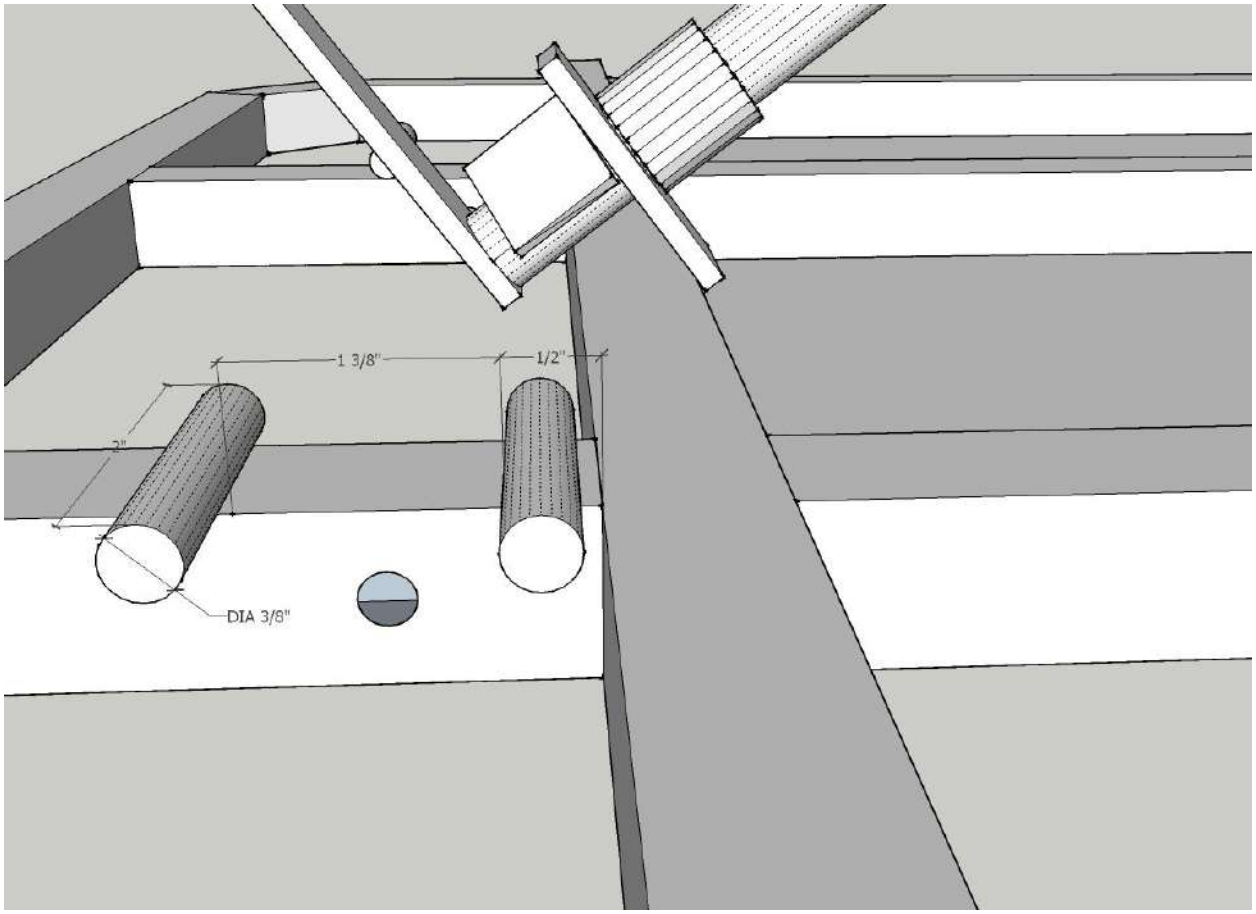
Next, verify all measurements are correct. The hoop and shaft should be at a 90 degrees to each other.



Brake and Throttle Pedal Stop Tabs

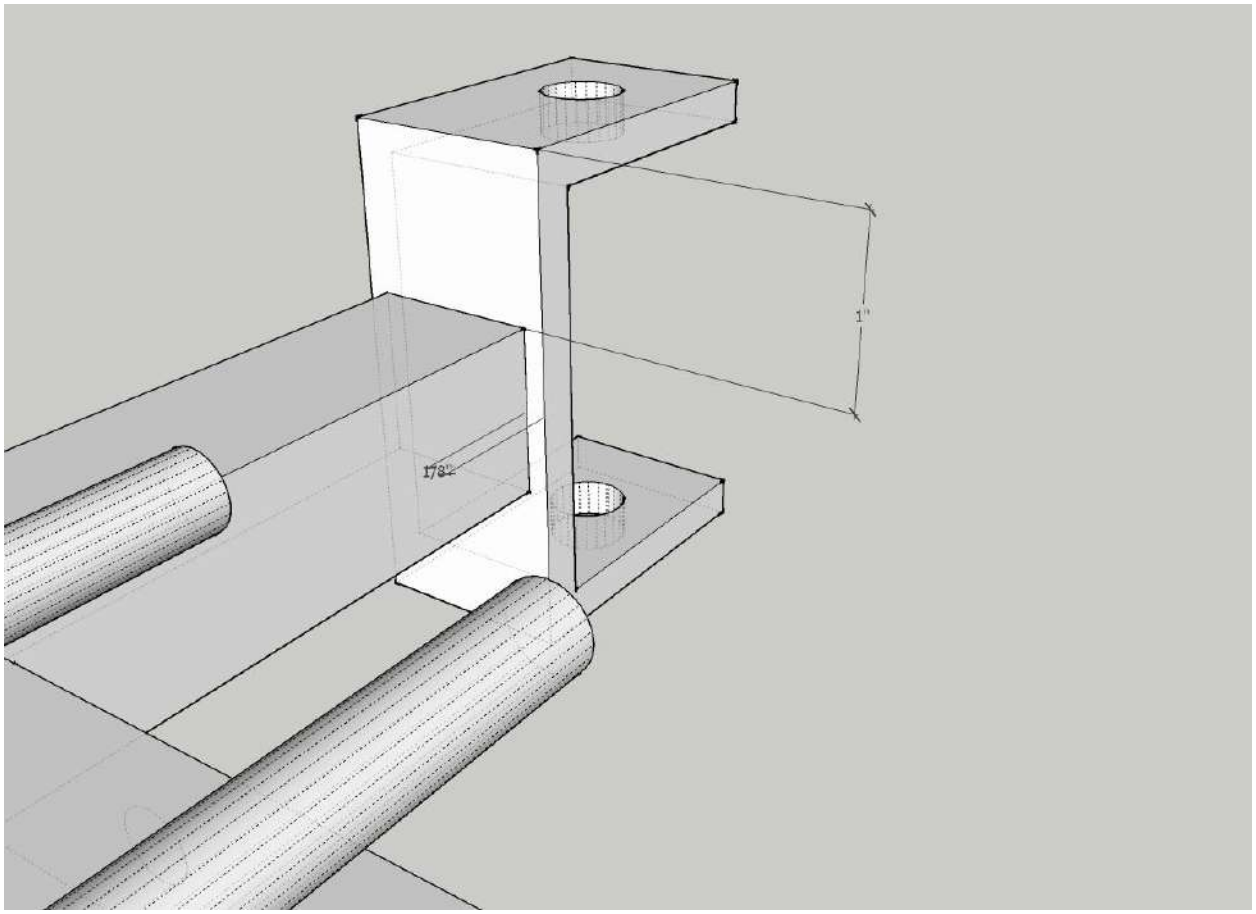
These tabs are used to keep the brake and throttle pedals in their resting position, and full forward positions.





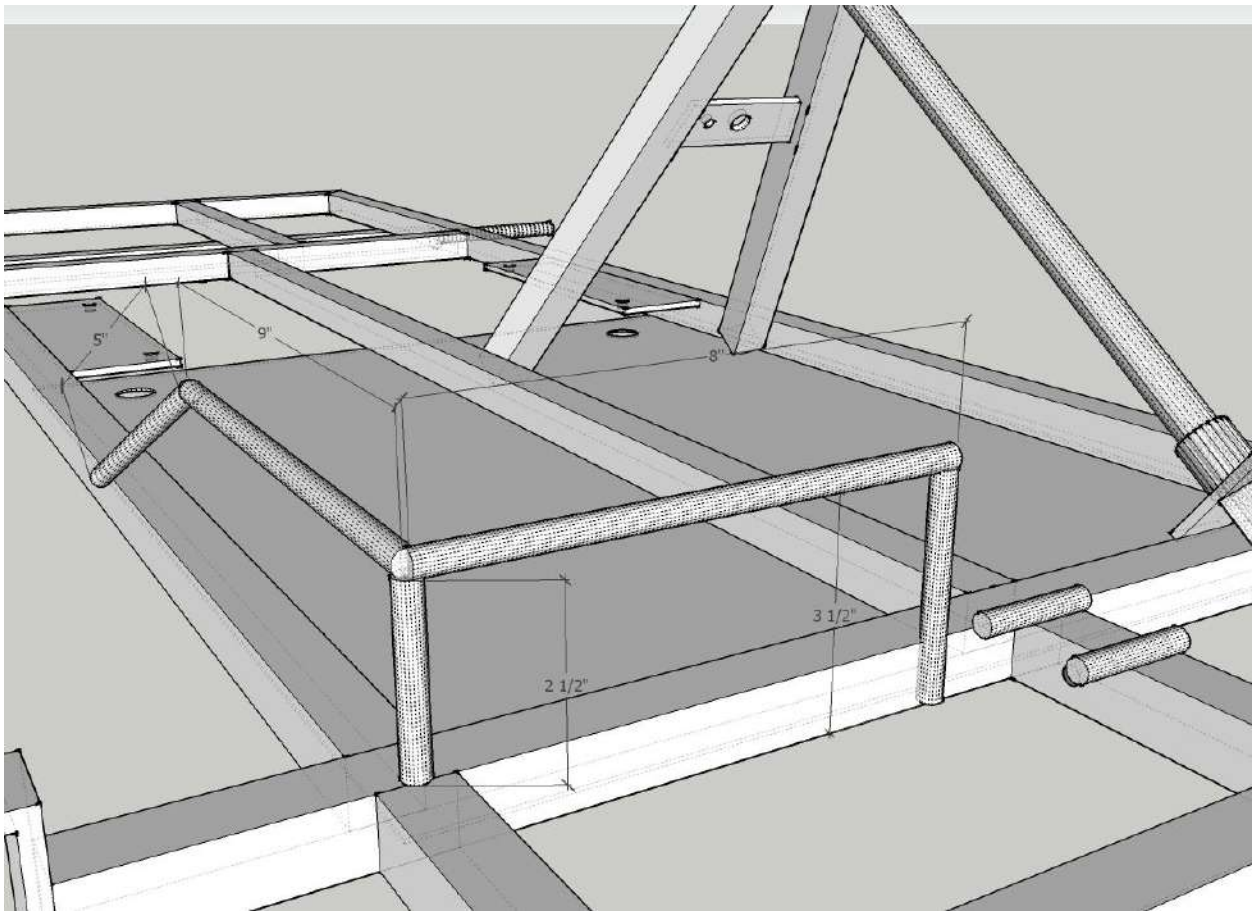
Spindle Brackets

Center and weld the spindle brackets to the front axle.



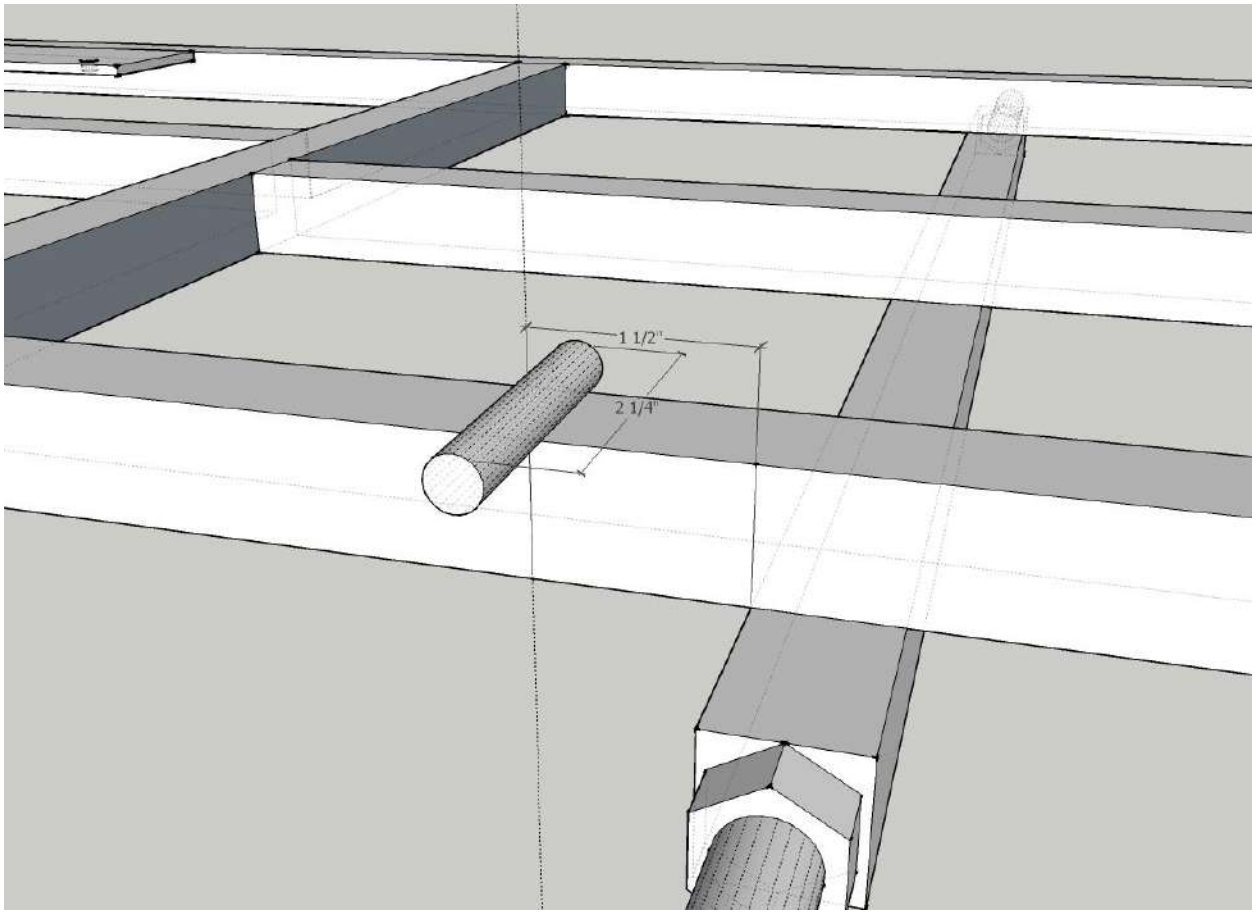
Foot Rest

Use 3/8" rod, and bend it in a vise with hammer to make a foot rest for the passenger. This keeps the feet from resting on the tie rods.



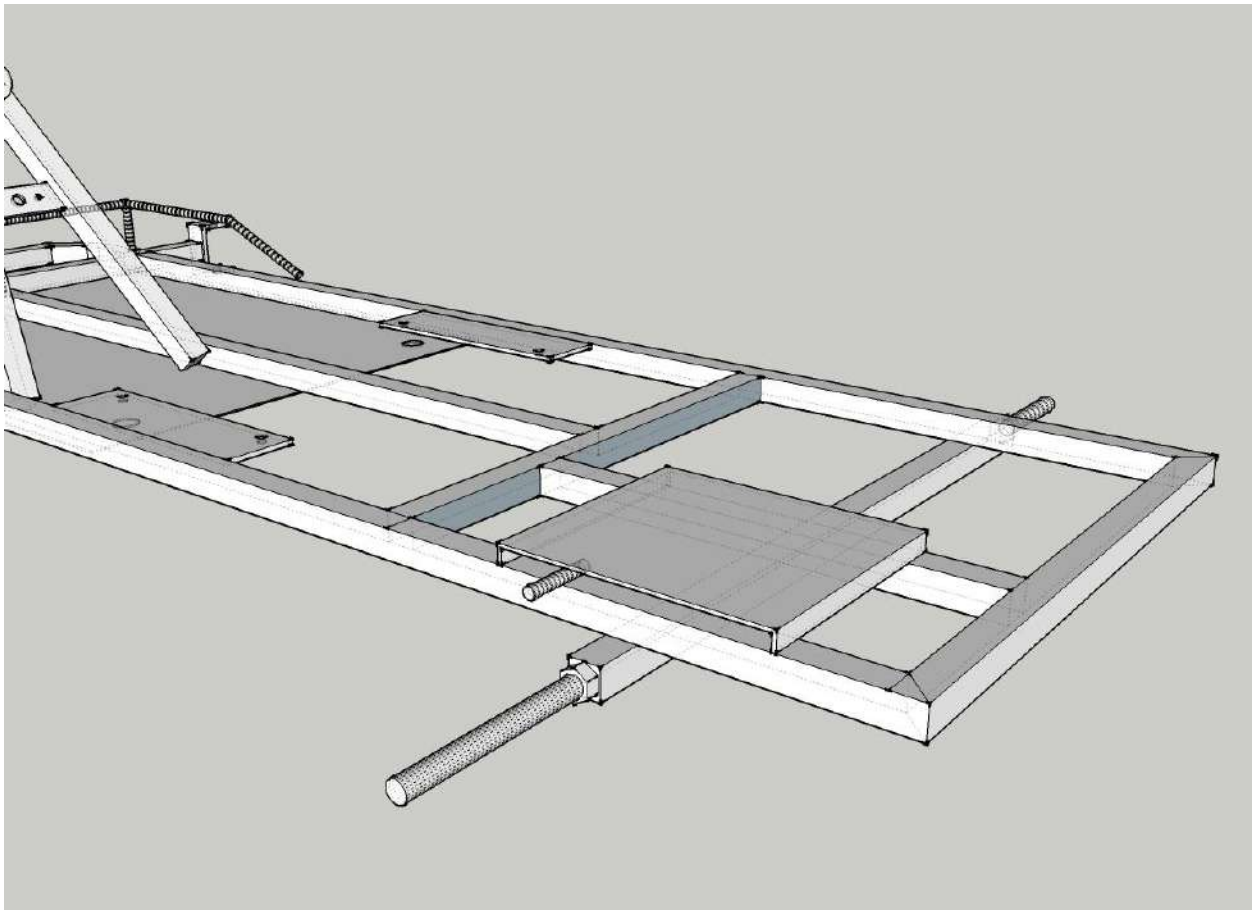
Brake Band Stud

Weld the 3/8" round bar to the frame. This stud will serve as the pivot for the brake band.



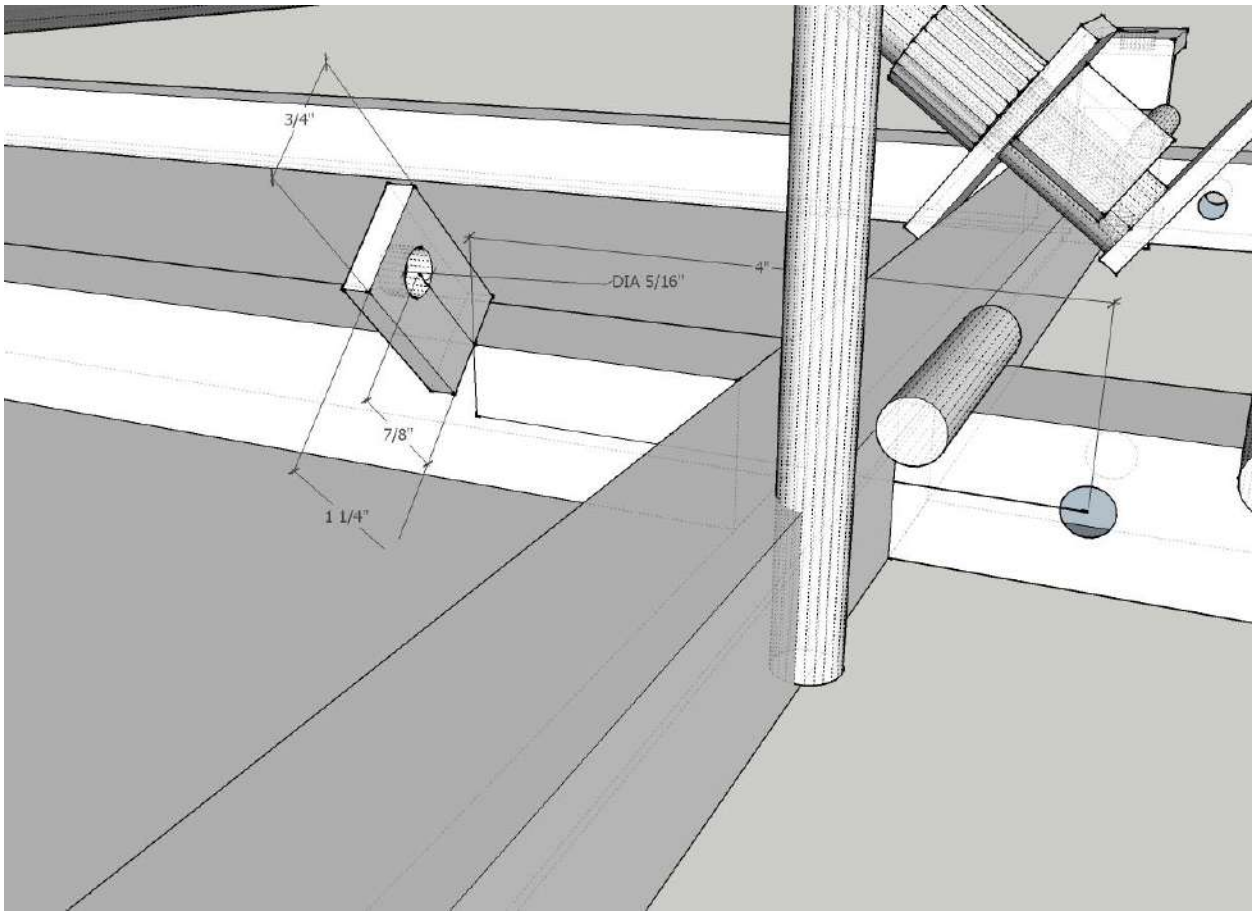
Motor Mount

Weld the motor mount to the frame. No dimensions are included deliberately. Add the clutch to the engine shaft, and assembled drive wheel to the axle stud, line up the clutch teeth to the sprocket teeth with chain installed. Make sure the motor mount slots allow for the engine to slide forward, then tack the mount into place. Final welding of the motor mount should be performed as the final step of the kart build. 5/8" and 3/4" washers or spacers may be used to fine tune the alignment.



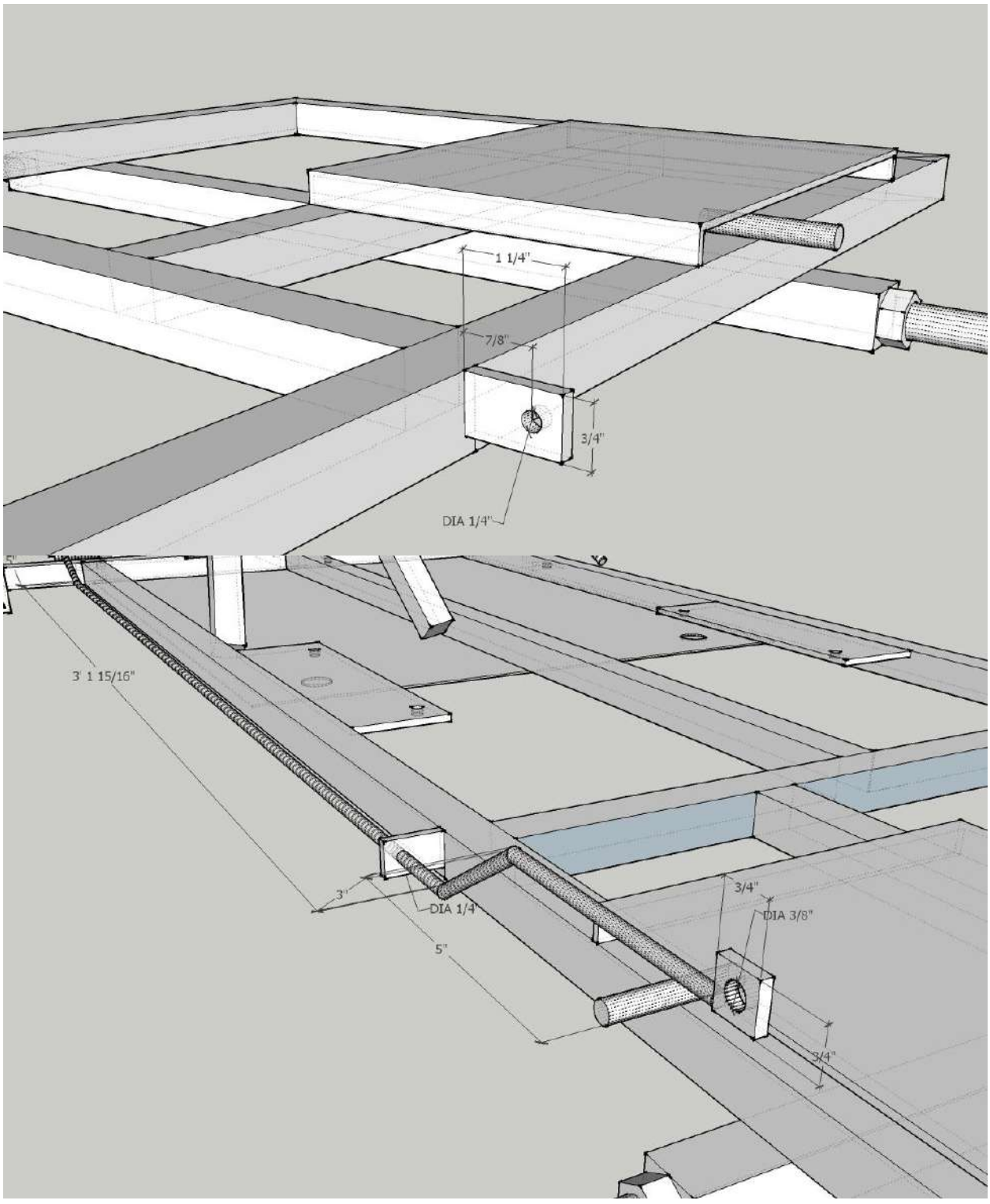
Throttle Cable Guide Tab

Weld this tab to the kart, about 4" back from the center of the throttle pedal bolt hole, on a 45 degree angle.



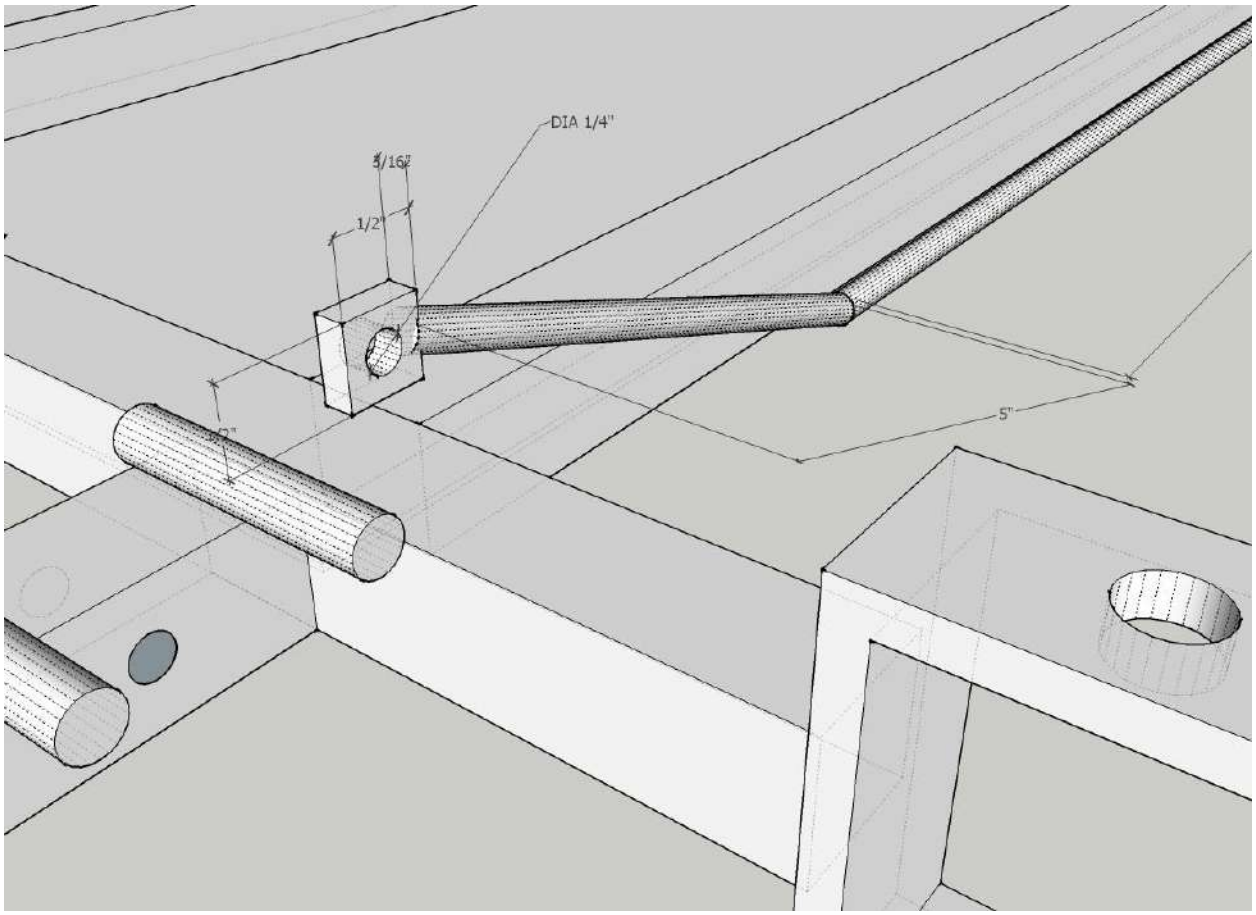
Brake Rod Guide Tab

Weld this tab to the kart with the brake rod already bent and inserted. Fine adjustments may be made with the brake band installed by bending the rod itself.



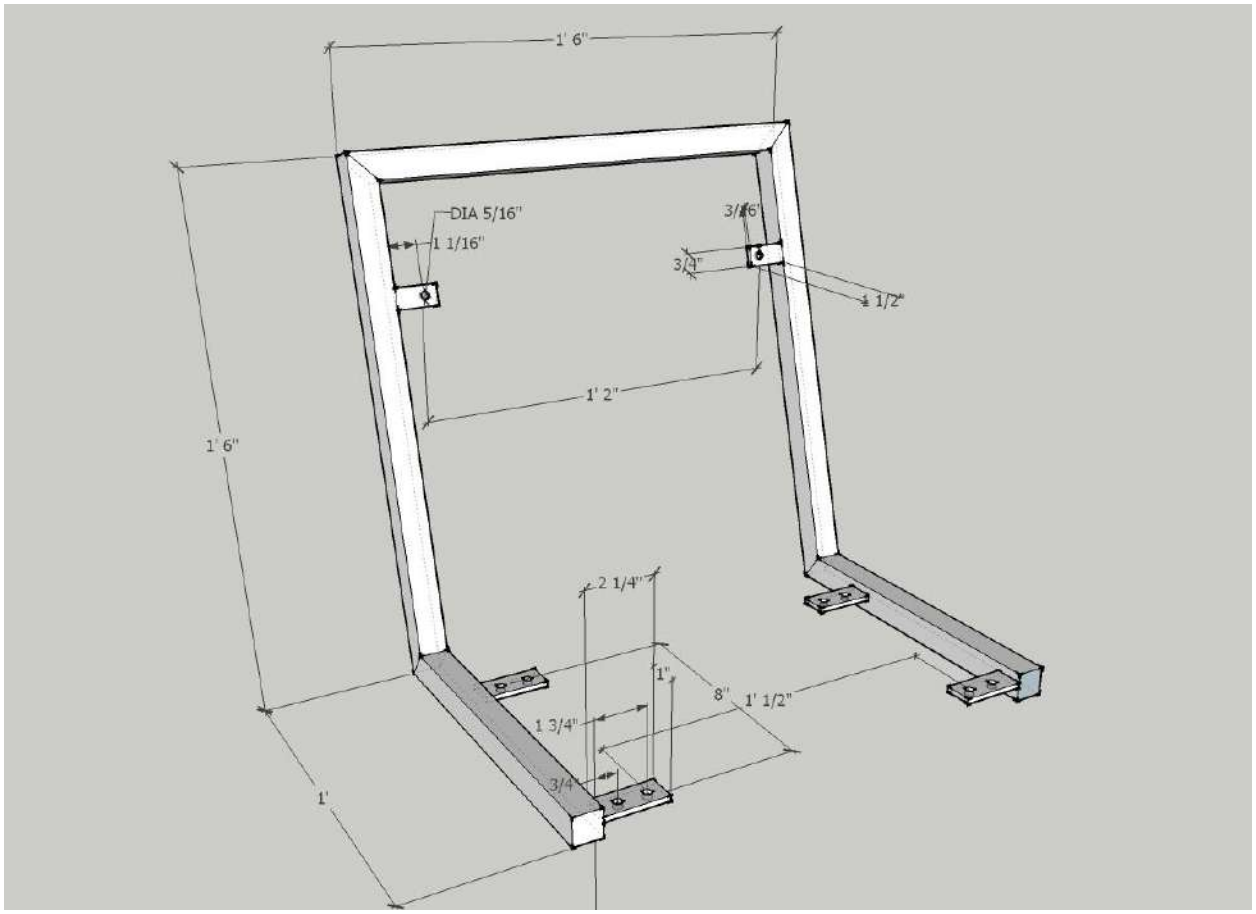
Brake Rod

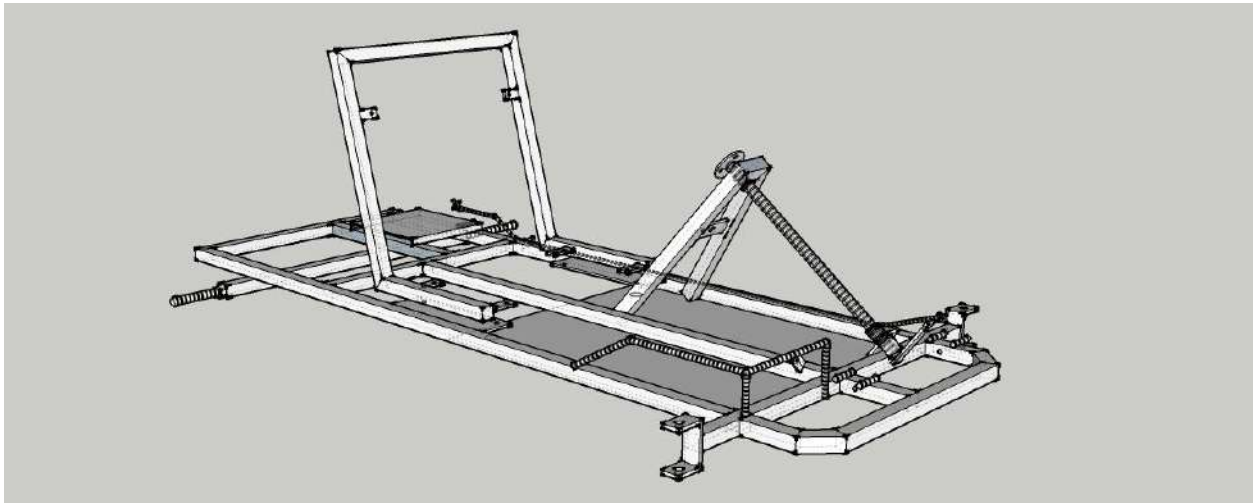
Bend the 1/4" round rod leaving extra on both ends. Cut as needed and weld the eyelets to the rod with the brake pedal installed with return spring.



Seat Frame

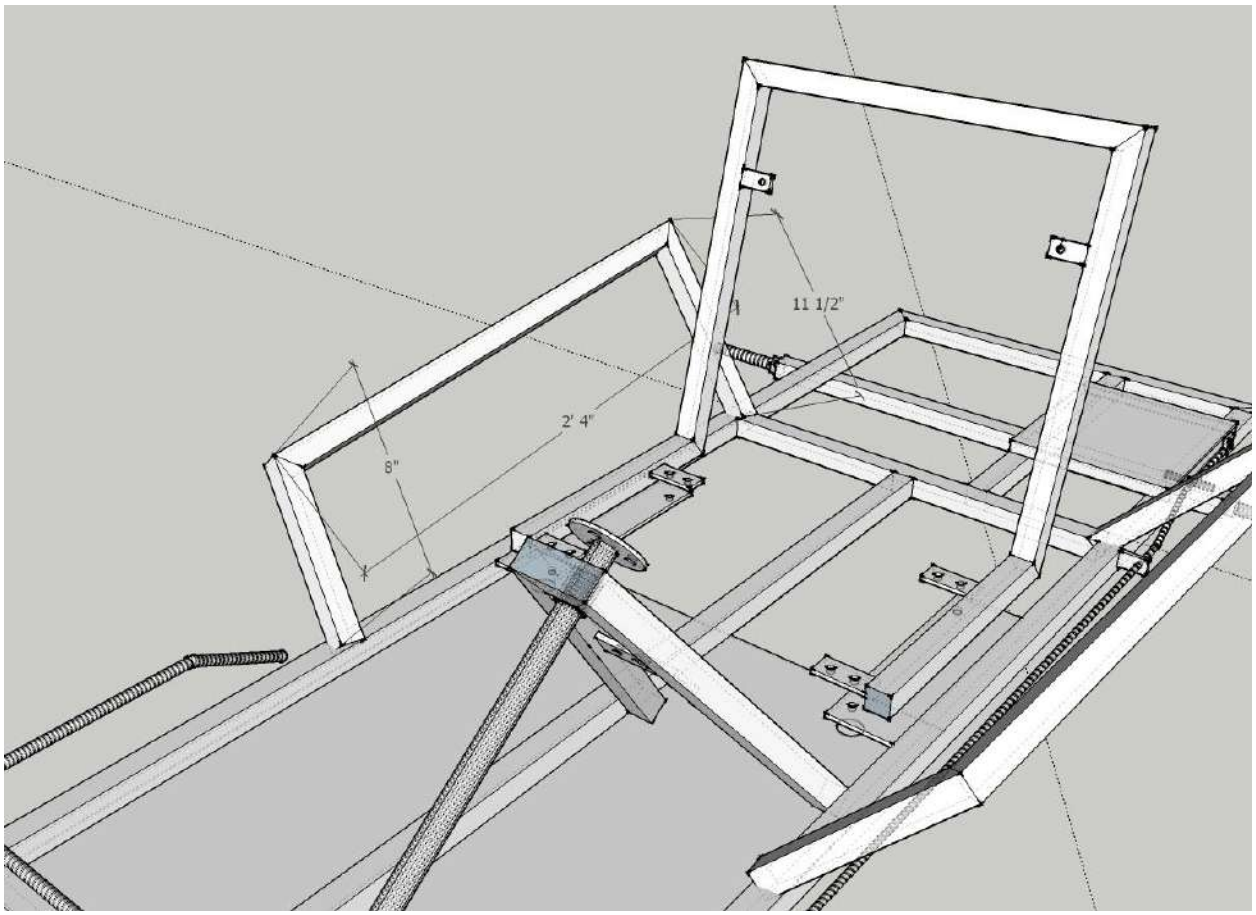
The seat that comes in the go kart kit does not bolt onto the kart itself, rather a frame you will make. The frame is then bolted to seat sliders. The seat sliders are then bolted to the frame. For the seat frame, cuts are made at 37.5 degrees for a 105 degree incline from bottom to backrest.





Side Rails

This is just an example of side rails. You can use it exactly, or make up your own design. This was used on the kart I built to fit both adults and kids. Side rails are a good idea (you can hold on to them while turning), but optional. Cuts were made on this one at 35 degrees (acute) for the rear/high end, and 55 degrees for the front/low end.



Final Kart Additional Views