



Patio Bar Cart- Weld Table Conversion, Designed & Constructed by Mark Langlois

About the man behind the design of the Patio Bar Cart
(a weld table kit conversion), Designed & Constructed
by Mark Langlois.

Name: Mark Bradford Langlois

Status: Married with Children, Grandchildren

Education: B.S. Liberal Arts, Central Michigan University
Sociology, Industrial Technology, Computer Science

Career: Design, Engineering, Product Life Cycle
Management, IT Consultant, Software Development

Music: J.J. Cale, Jackson Brown, Mark Knopfler, Snowy
White, Buddy Miller, Jazz, Classical

Favorite Book: Catcher in the Rye, by J.D. Salinger

Drink: Oban Single Malt Scotch, Jack Daniels or
whatever you have

Cigar: Rocky Patel Vintage 1990, 1992, Undercrown
Maduro Robosto

Hobbies: Travel, Photography, Music, Art, Creative
Design and Engineering, Metalworking.

Author: Mark Langlois

Photography: Mark Langlois

Book Completion Date: February 28, 2026



Introduction:

The creation of the Patio Bar Cart (a weld table kit conversion) was driven by a desire to utilize a weld table kit that I had purchased and had no remaining space in the shop to install it. Another contributing factor to its construction was an upcoming formal summer party to be held on the backyard patio. I thought that the bar cart would make an excellent focal point for serving drinks on the patio to complement the party.

Most of the weld table kit components were already powder coated and came with most of the components I wanted to include. The components that I need to contribute included adding wheels, a steel retainer on the top, a bar cart handle for moving it around, a middle shelf and a piece of steel sheet for a bottom shelf and a holder for an umbrella. Since the table came in a kit, I was able to choose a contrasting color for the raw steel components in the kit and what I was contributing to the build.

The bar cart table is 36" long and 24" wide, not including the handle. It is 35" in height with plastic wheels in the back and leveling feet on the front. The handle is made from 1-1/2" round steel tube. The top retaining surround is 1-1/4" steel flat bar stock. The bottom shelf is a .120" steel plate. The upper shelf was made from 1" square steel tube and .120" steel plate.

The Patio Bar Cart (a weld table kit conversion) is part of a catalog of my other designs. The Patio Bar Cart is design iteration number ML-ISC-121775-11A-00001.

HEAVY-DUTY BUILD

600-LB
CAPACITY



Construction of the Patio Bar Cart began with unpackaging the welding table kit I had purchased.



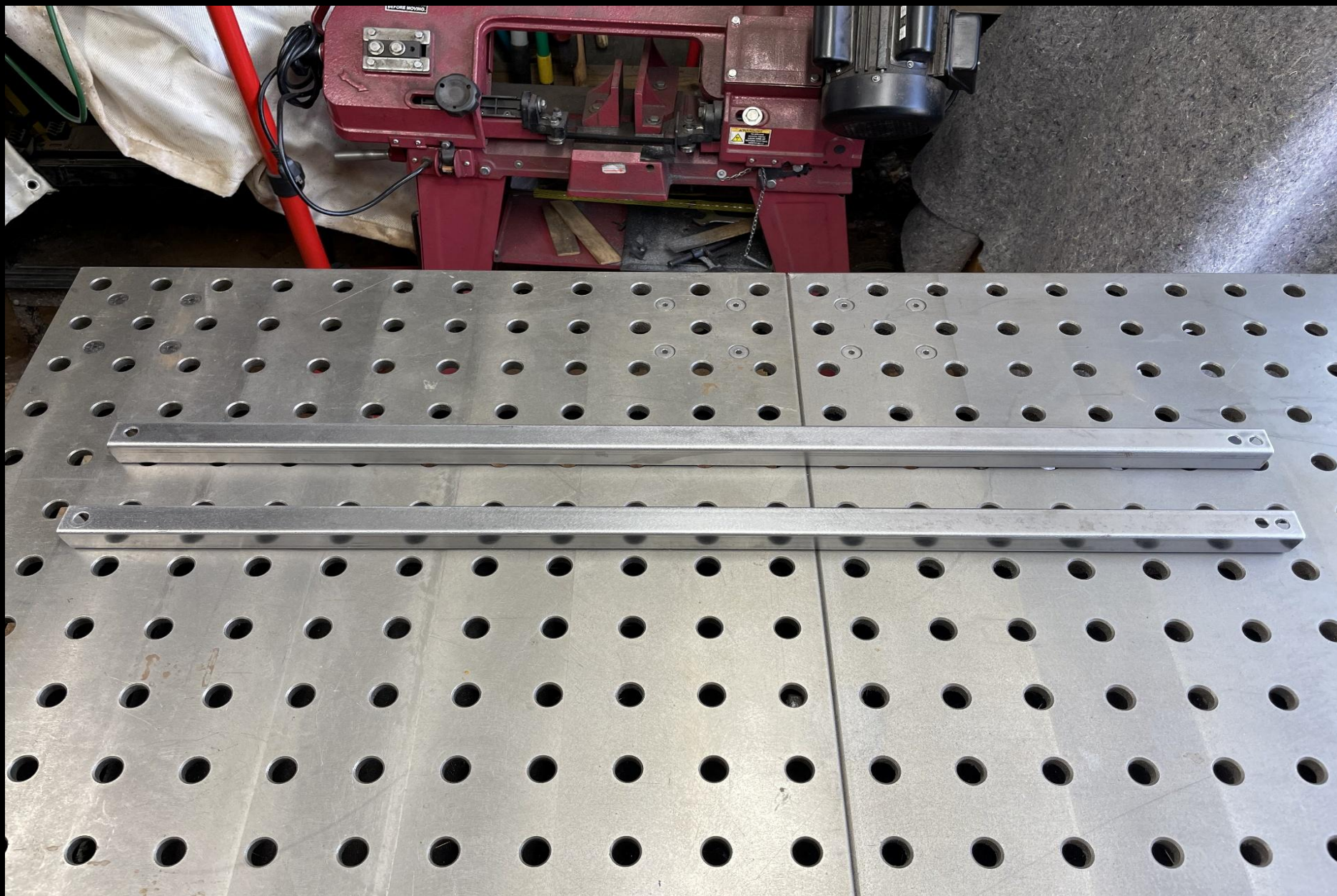
As shown in the prior picture, most of the bar cart components are included in the kit; the legs, frame, top and assembly components.



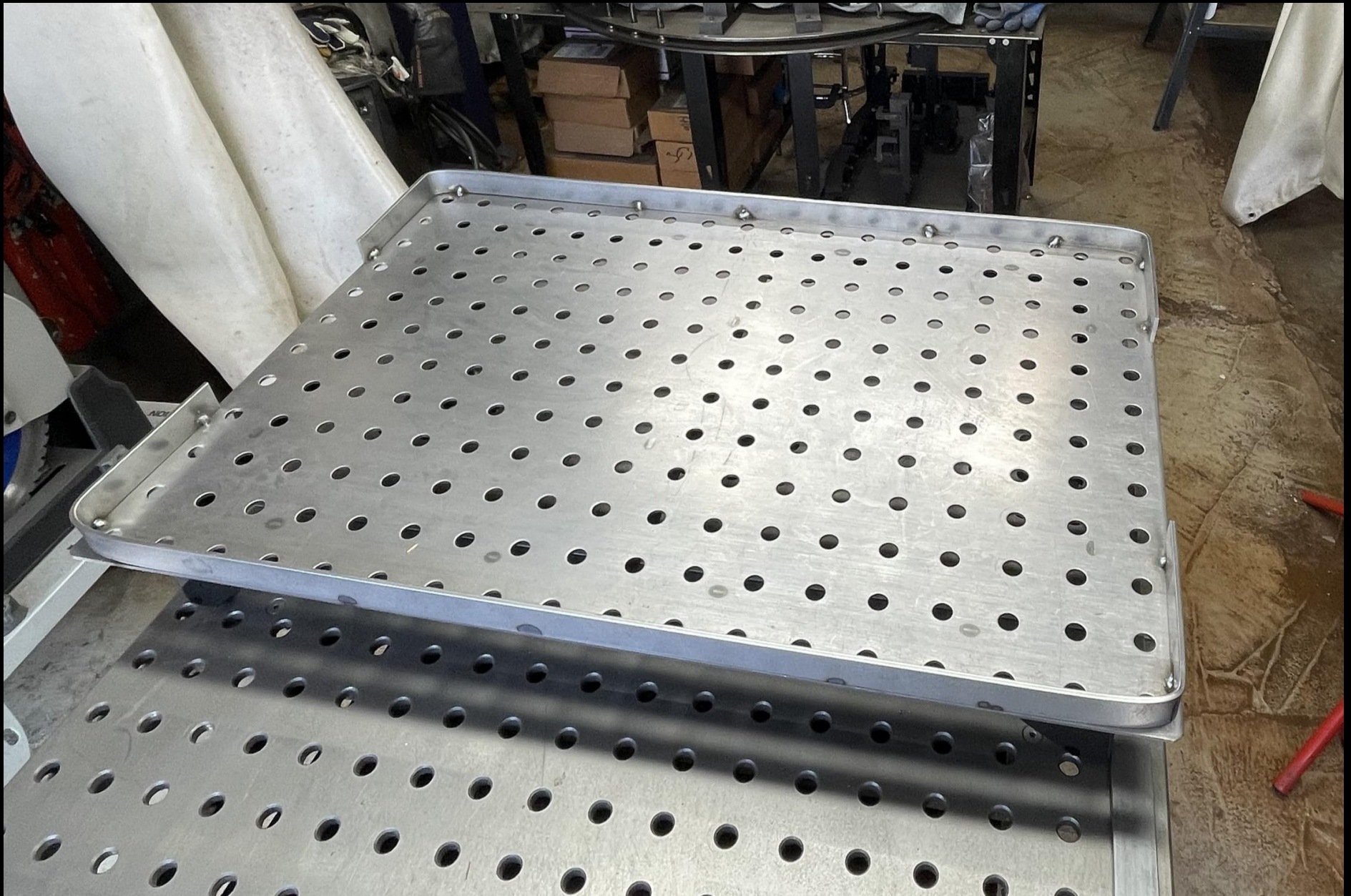
I purchased 1.5" shaft couplings and 1.5" round steel tube to construct the handles and to hold the bar cart umbrella.



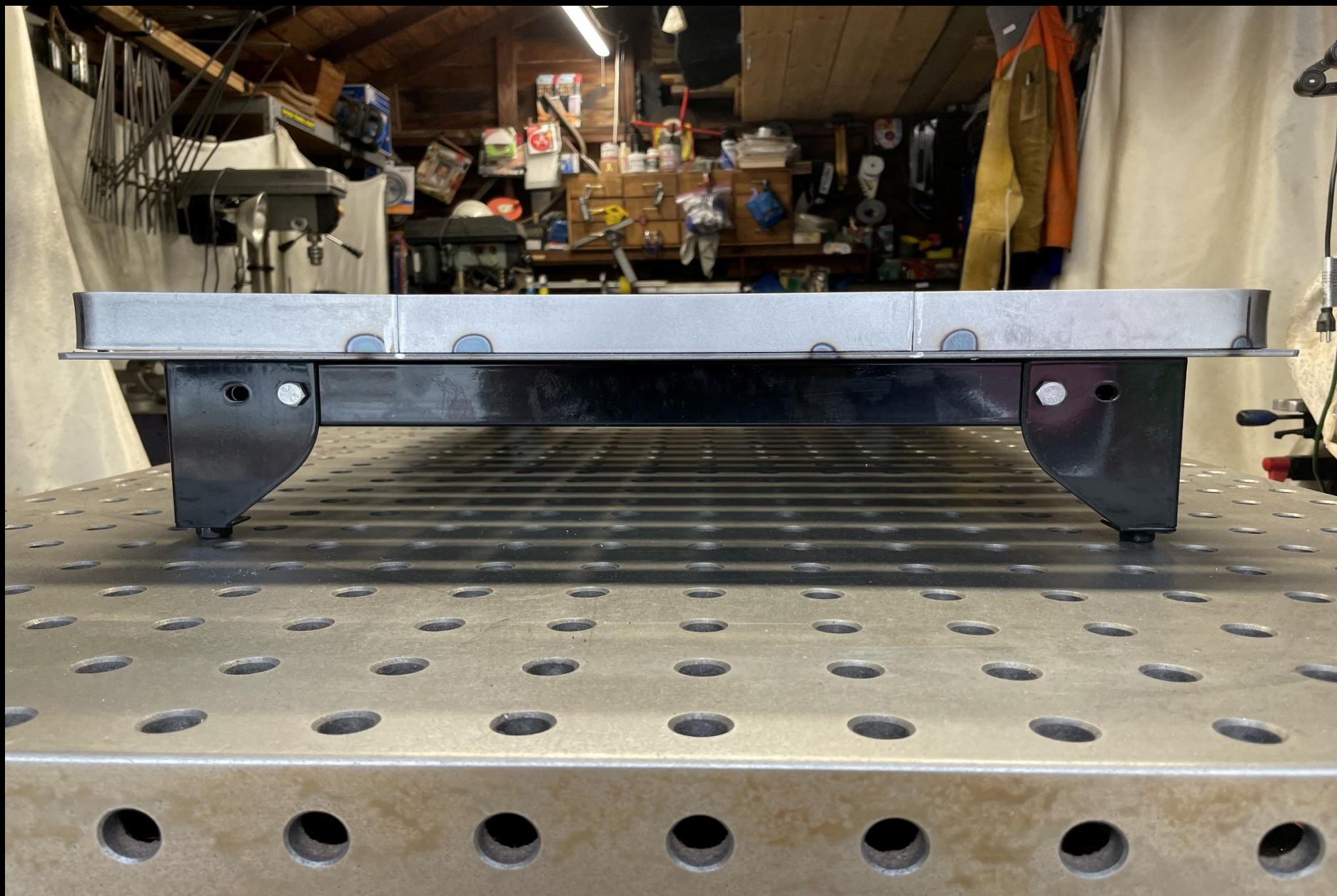
The .120" thick steel plate for the shelves was also purchased. I drilled a couple of holes on one end in each piece so the powder coater can hang the sheet when coating.



The bottom shelf is already a component of the welding table kit, so I just needed to purchase a couple of pieces of 1" steel tube to construct the top shelf.



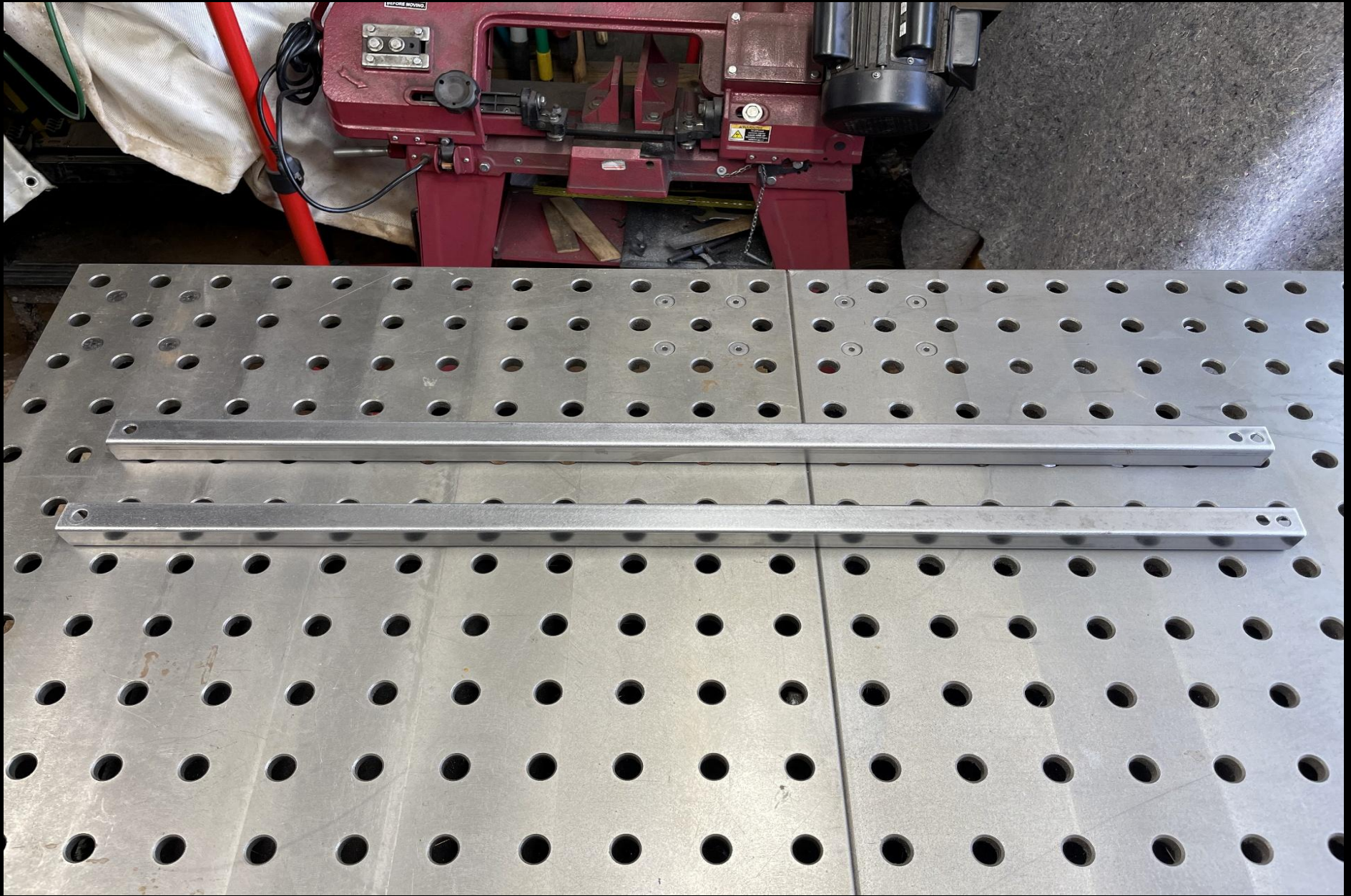
Another purchase was the 1.5" flat bar stock for the cart top surround. The bar was hand bent to fit the table top. This was my first step in the conversion to a bar cart.



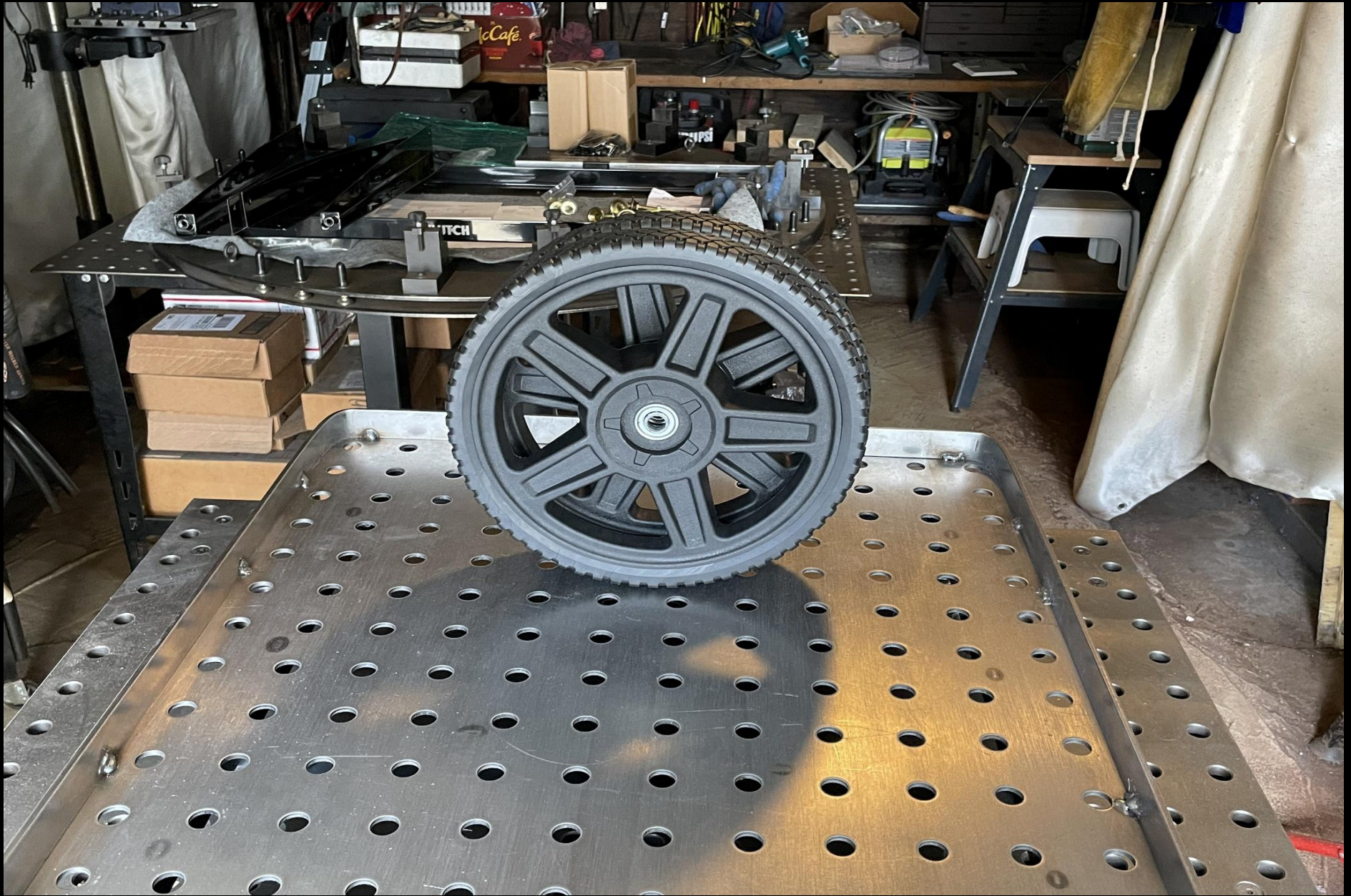
I cut the remaining flat bar stock to size to close both ends of the surround and welded them in place.



With the bar cart table top complete, my next step is to drill holes in the legs to attach the wheels and top shelf. Then I can assemble the bar cart and install these components.



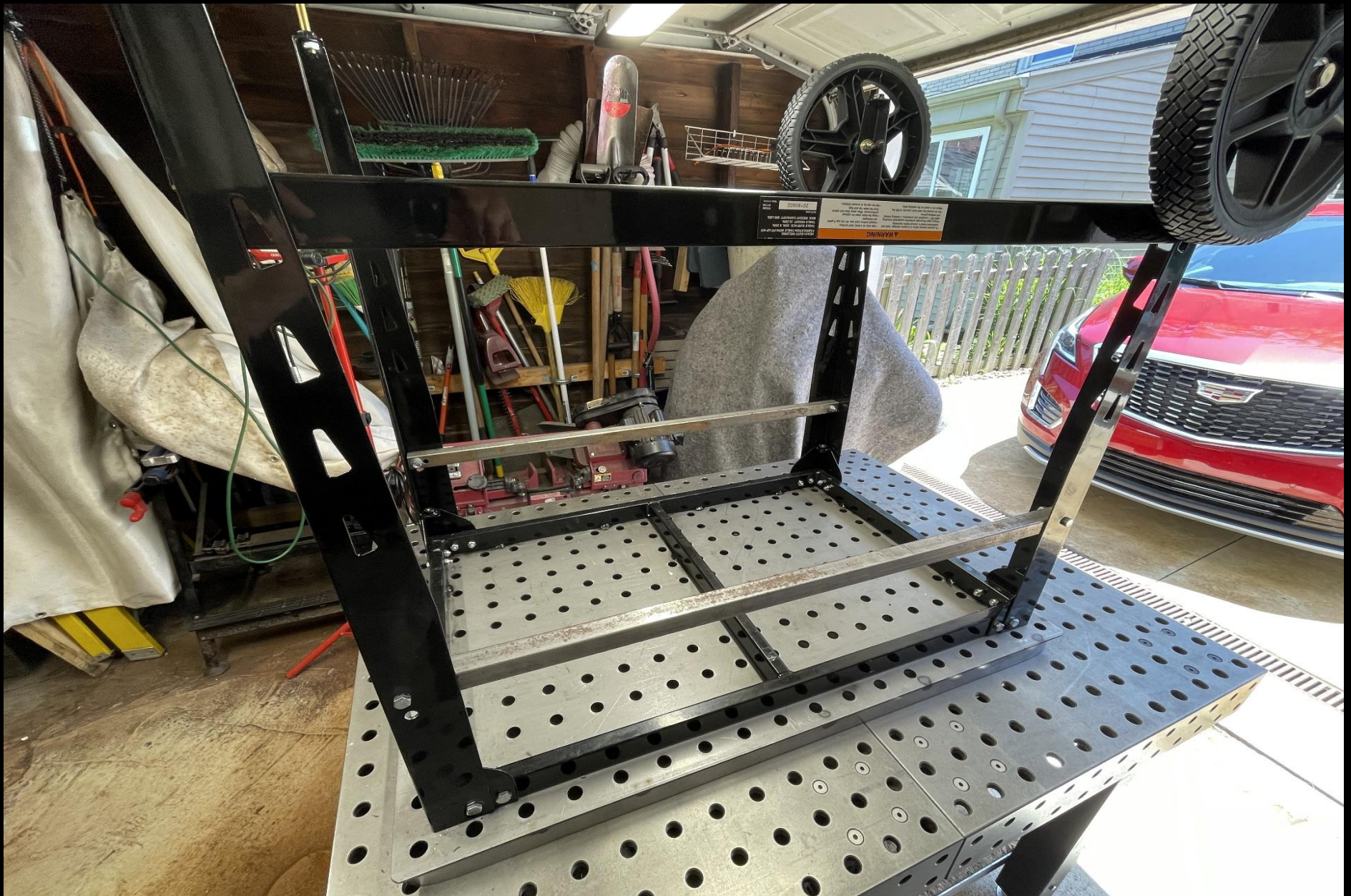
I drilled holes in the legs and in the 1" square steel tube to support the upper shelf for the bar cart.



The holes for the wheels go on the back legs of the bar cart. The shoulder bolts and nuts came with the wheel kit.



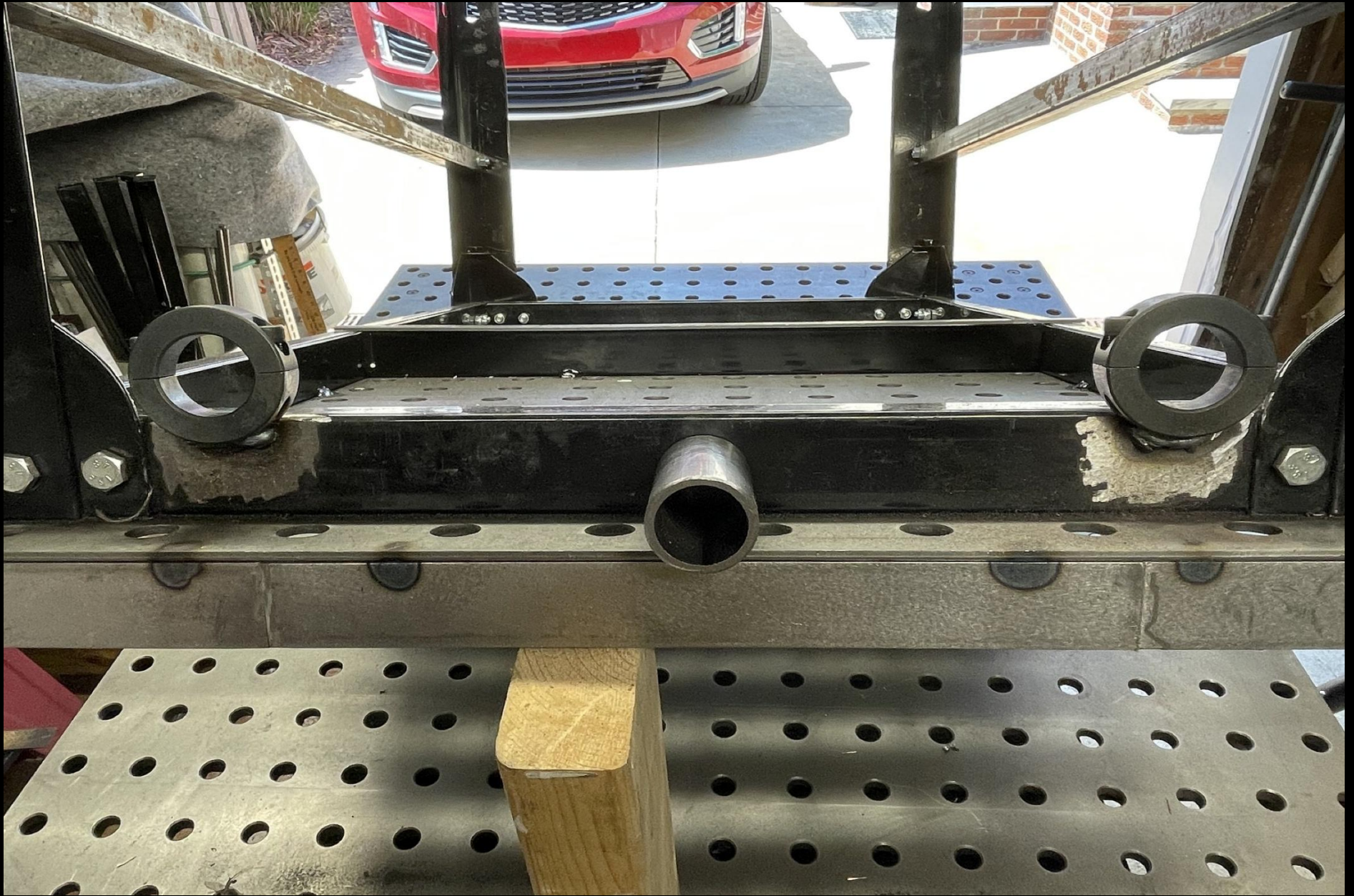
With holes drilled into the weld kit legs, I assembled the weld table kit and installed the wheels and upper shelf rails. (wheels and shoulder bolts installed on back table legs)



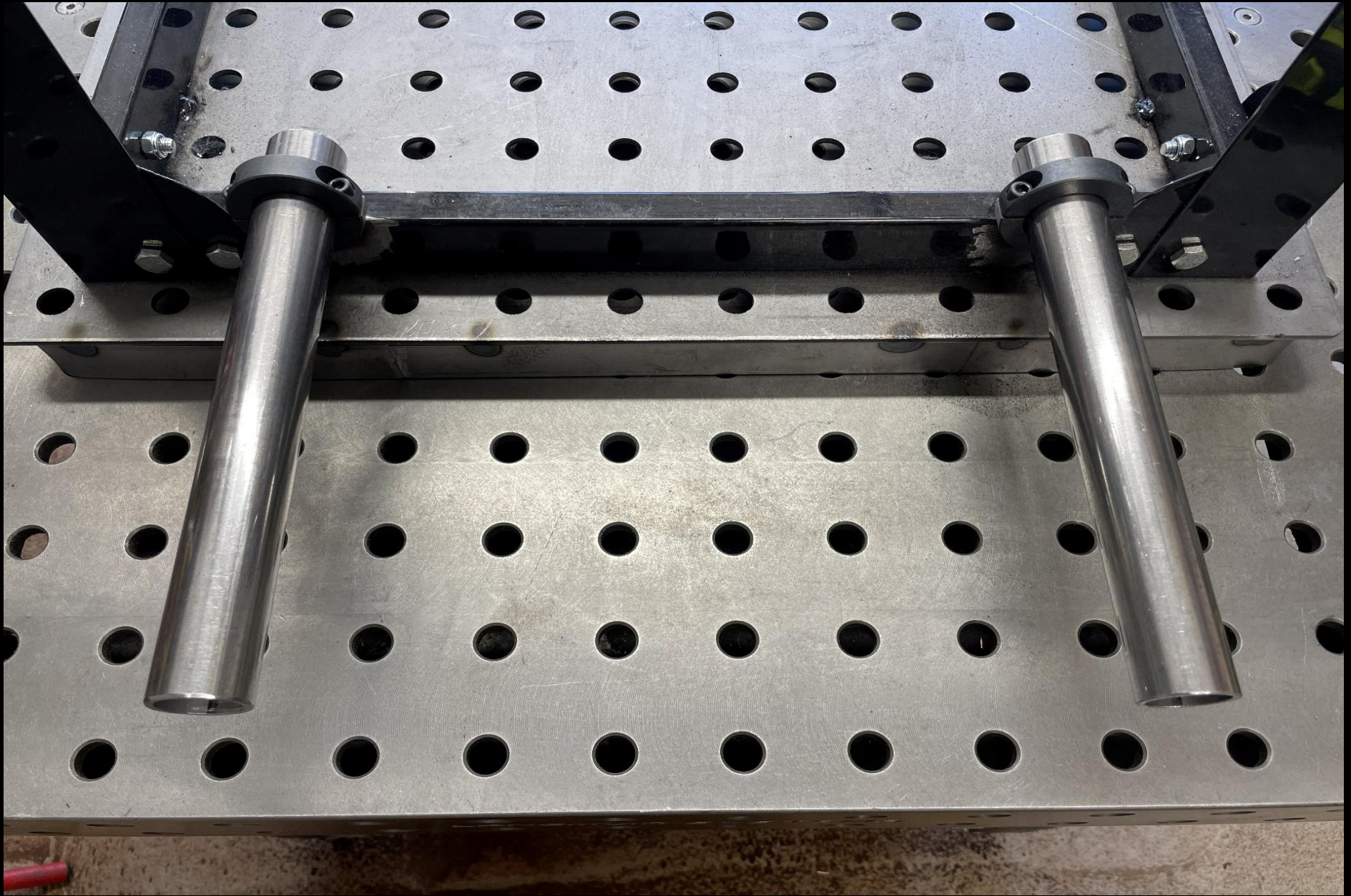
I bolted the 1" square steel tube across the table frame to support the top shelf for glassware and other smaller bar items.



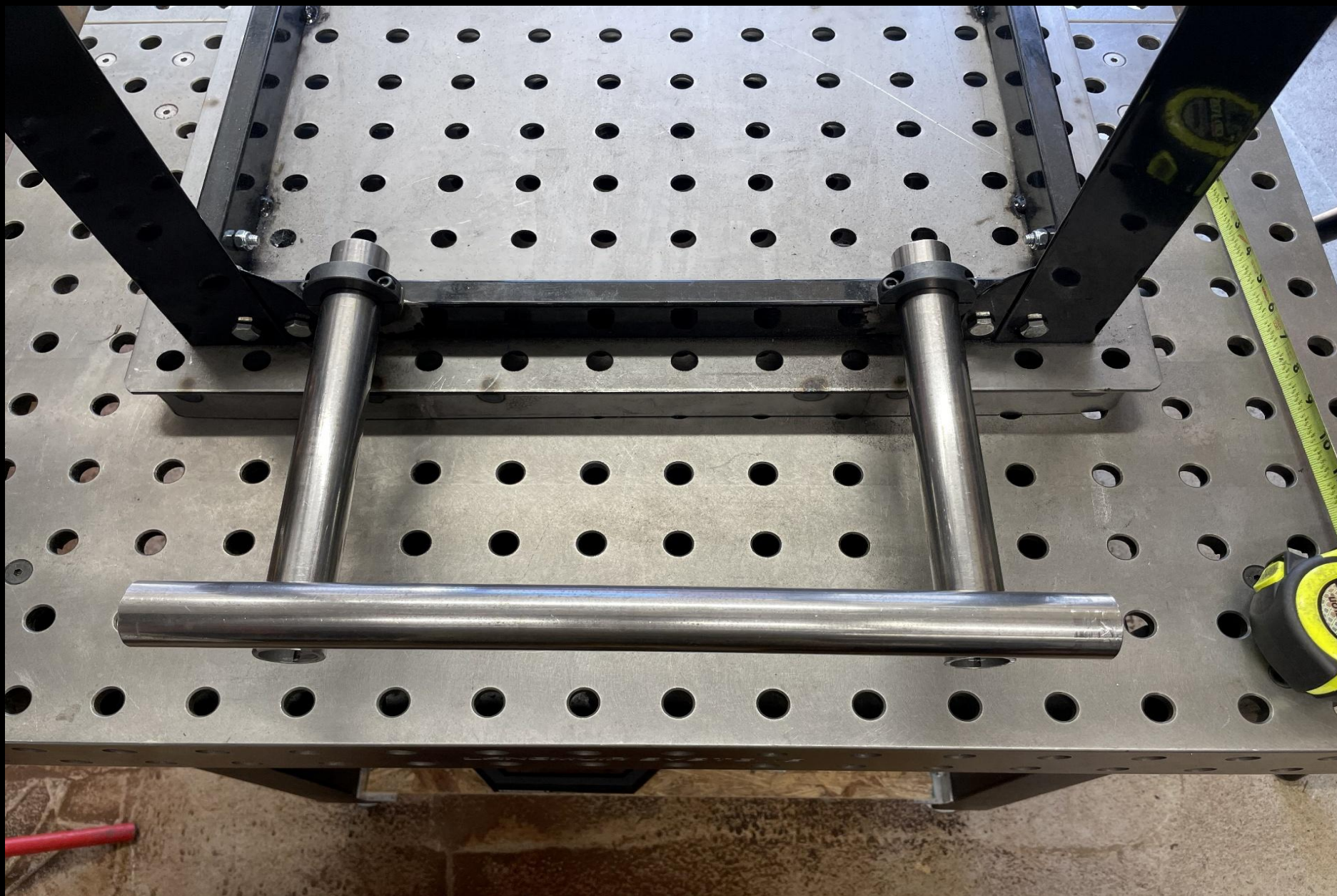
With the wheels and upper shelf installed, my next task is to weld the shaft collars onto the bottom frame of the welding table for the bar cart handle and umbrella pole.



I need to make sure I locate the shaft collars for the handle at the same height so they pass the cross bar on the frame and go into the shaft collars without any interference.



I cut the steel tube for the vertical extension of the handle to be the same size and installed them into the shaft collars.



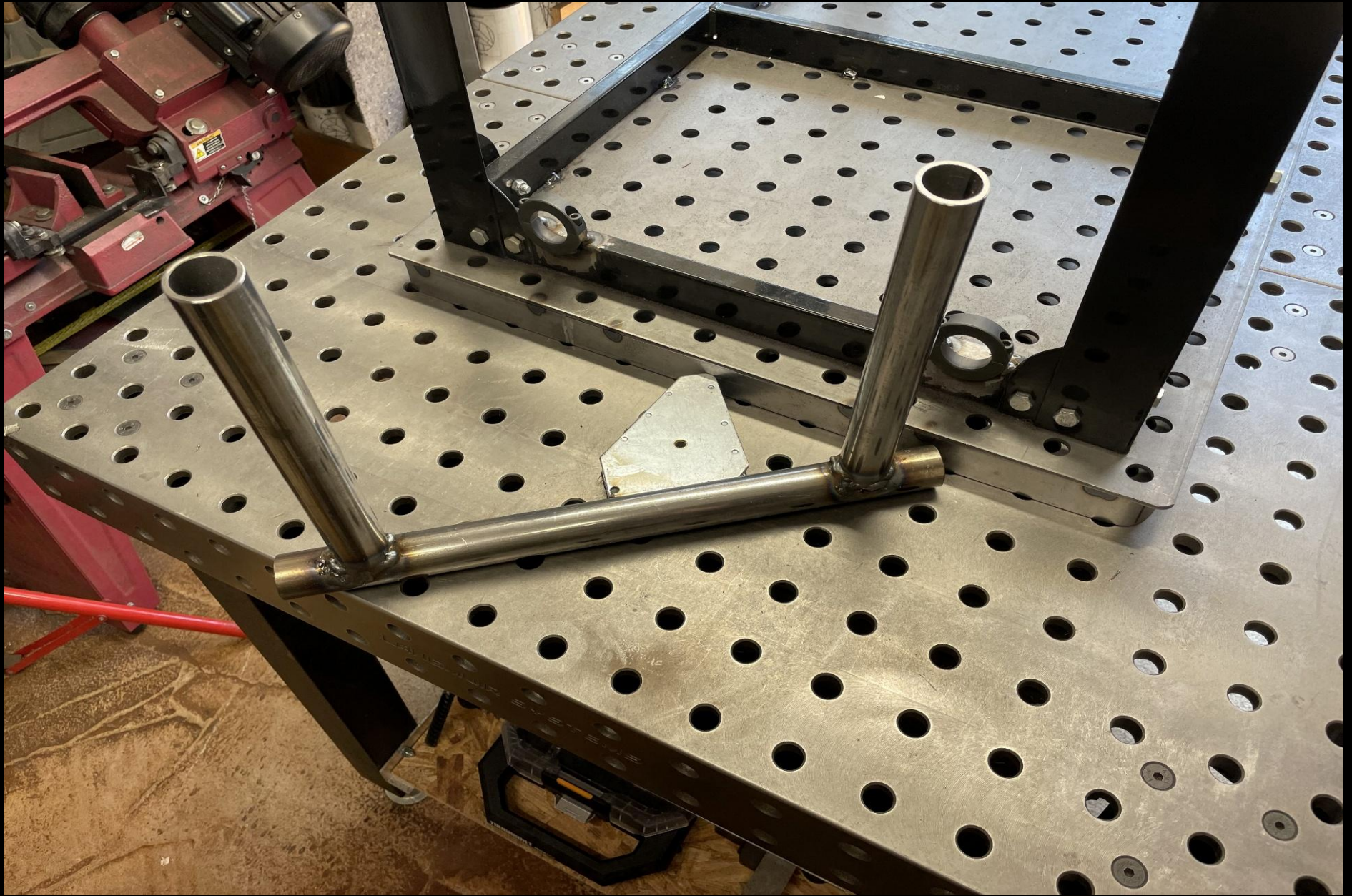
Next, I sized the horizontal cross bar for location and overhang on each side.



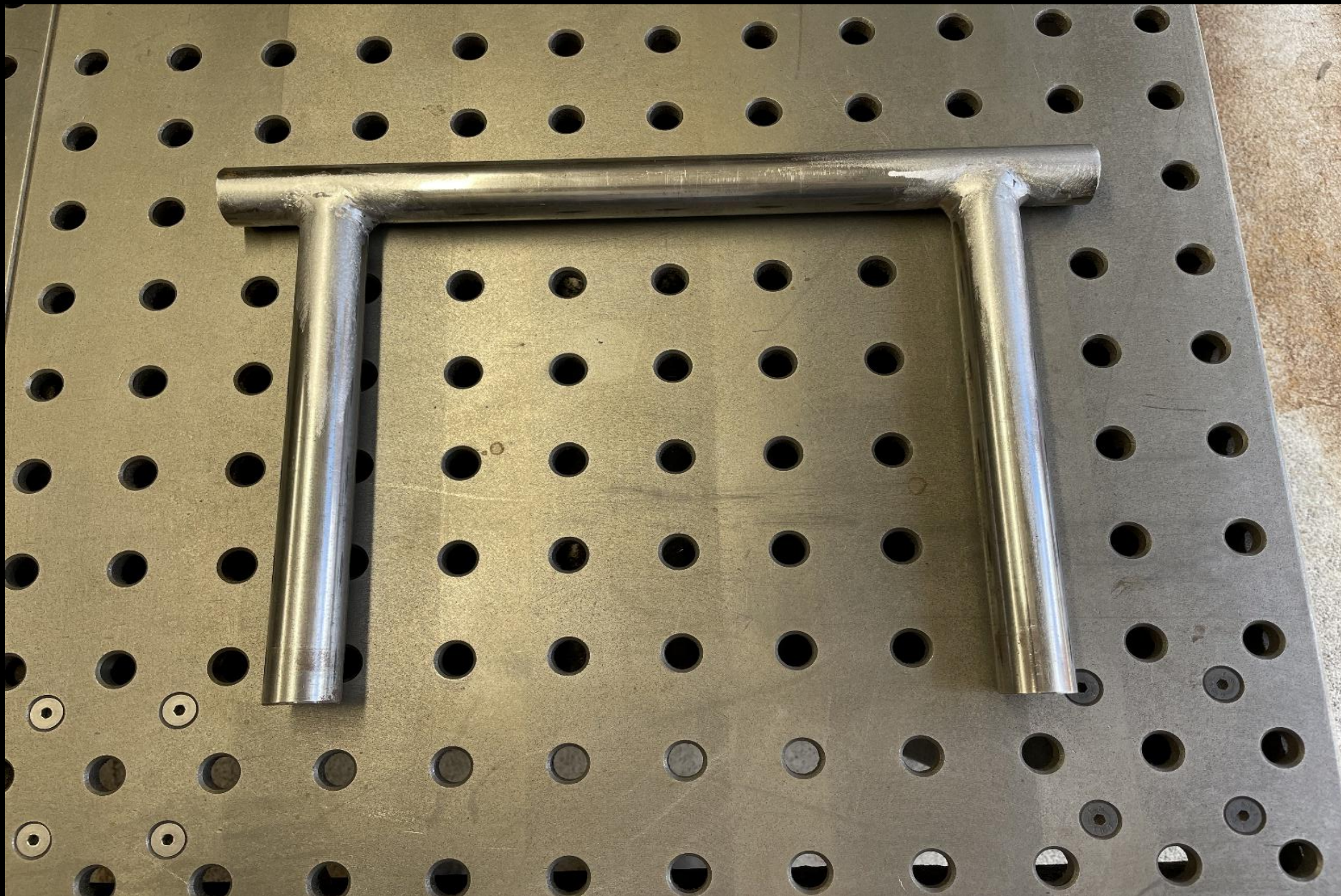
To construct the handle, I need to tack weld the vertical extensions on each side of the cross bar first.



After tack welding the vertical extensions, I need to complete the welds on the vertical extension all the way around the cross bar.



After the welding is complete on each side of the verticals, the welds must be ground and sanded to a smooth finish.



The completed handle for the bar cart.



The last step in the assembly process for the bar cart, is to weld the remaining shaft coupling for the umbrella pole onto the rear of the bar cart surround.



The assembled Patio Bar Cart complete with surround, wheels, shelves, handle and umbrella shaft collar. The cart must be disassembled again to go to powder coating.



These are the individual components that need to get sandblasted and powder coated.

Bill To:

MBL Creations

Mark Langlois

313 318 2700

Date: May 16, 2024

- 1) There Are 6 Components Total To Get Powder Coated
- 2) Please Do Not Hang Using Shaft Collars or Bend Them
- 3) Sand Blast As Required
- 4) Tape Off Top Of Shaft Collar Socket Head Screws Before Powder Coat
- 5) Colors must match registration Numbers On Coffee Table

*Note: 3/8-16 Threaded Weld Nuts Are Located On The Cart Top

Customer: 10

Patio Bar Cart-Weld Table

Components 2024

Prismatic Color: Illusion Sour Apple

Color Number: PMB 6913

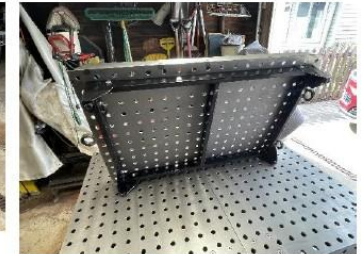
Top Coat: Clear Vision PPS 2974



Assembled Cart



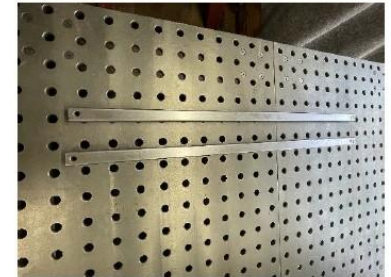
1 Cart Top



Cart Shaft Collars



2 Cart Shelf Rails



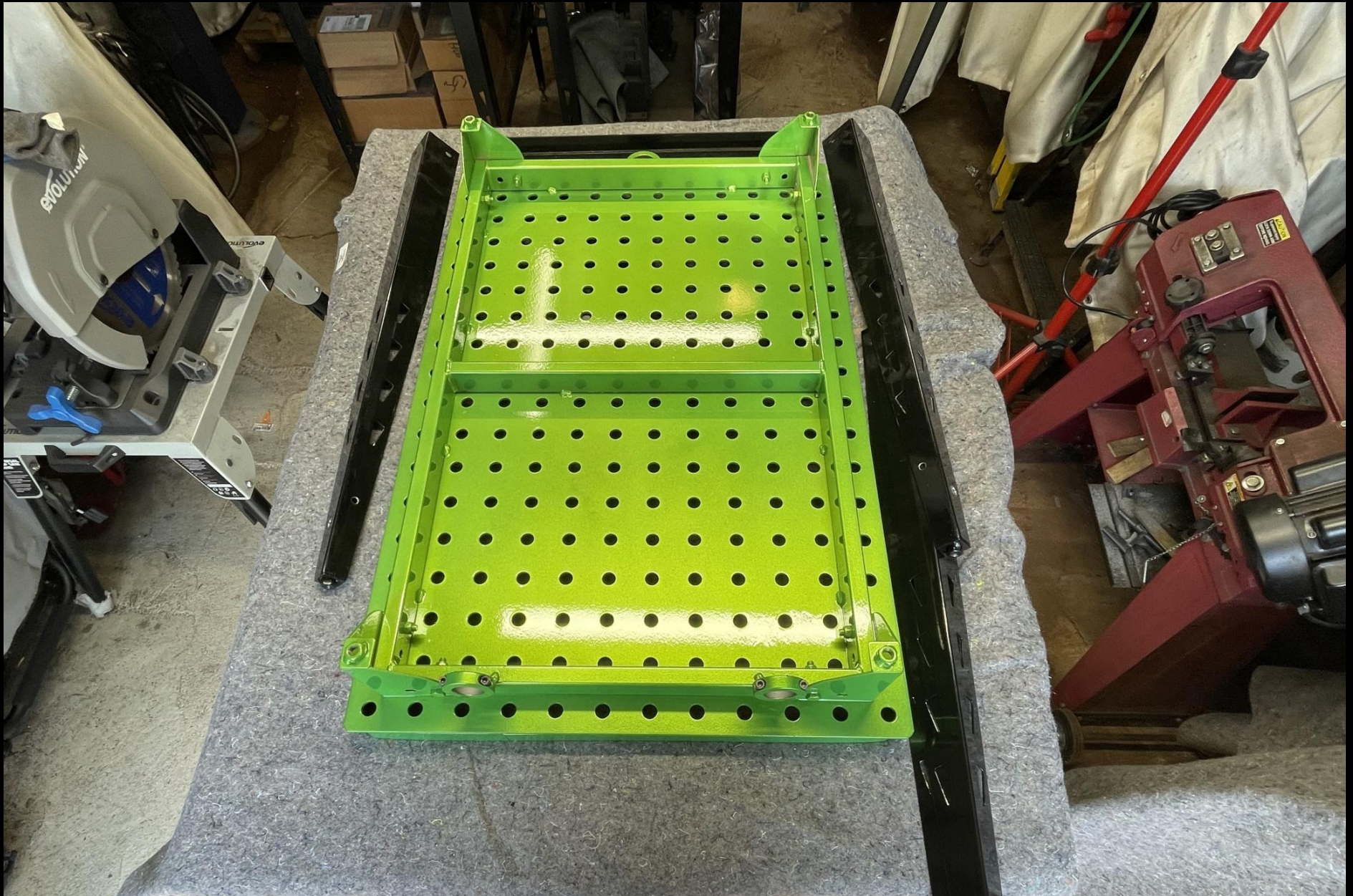
1 Cart Handle



2 Cart Steel Shelves



This is the invoice I sent to the powder coater. It details the color, clear coat, what needs to be taped, and each component to get color.



The finished Patio Bar Cart Table Top, following powder coating.



The Patio Bar Cart handle, shelves and cross rails after powder coating.



The Patio Bar Cart assembled and complete with umbrella

Patio Bar Cart Weld Table Conversion Construction Data	
Design Iteration Number:	ML-ISC-121775-11A
Material:	
Klutch Welding Table Kit	
Specifications:	Length 36"(without handle), Width 24", Height 33.5", Weight 73 lbs.
Conversion Material:	
12" Plastic Wheels	Quantity: 2
Sholder Bolts & Nuts	Quantity: 2
1.5" Diameter Shaft Collars	Quantity: 3
1" Square Steel Tube, Wall Thickness, .065	Length 72"
1.5" Diameter Round Bar Stock	Length 36" (Handles)
Steel Plate, .120 Thick	Length 35.875" Width 23.875", Quantity 2 (Shelves)
1.250" Flat Bar Stock, .250 Thick	Length 12ft. (Top Surround)
Leveling Feet	Quantity 2, Length 4", Zink Coated
Handle Plugs	Quantity: 25
Umbrella	Diameter 6ft, 1.25 Diameter Shaft
Configuration:	Top Edge Surround, Shelf For Glasses (top), Lower Shelf (for supplies)
Construction:	Welded Construction
Expenses:	
Klutch Welding Table Kit	\$190.00
Wheels & Shoulder Bolts	\$44.00
Shaft Collars	\$72.00
Square Steel Tube	\$11.00
Round Bar Stock	\$35.00
Steel Plate	\$157.00
Flat Bar Stock	\$66.00
Leveling Feet	\$24.00
Handle Plugs	\$20.00
Umbrella	\$40.00
Finish: Powder Coat, Black & Illusion Sour Apple	Illusion Sour Apple, Color Number: PMB 6913,Clear Vision PPS 2974
Powder Coat Cost	\$183.00
Approximate Man Hours To Construct	60
Total Cost To Construct The Patio Bar Cart	\$842.00

The Patio Bar Cart Construction Data.