

ROBOCUPJUNIOR SOCCER COMPETITION TABLE

The following are instructions on how to order and build RoboCupJunior Soccer tables that are identical to those used in the US competition.



The tables are made using 1.5" x 1.5" T-slot, with mdf or plywood boards laid on top. The walls are made of corrugated plastic. The carpet is sourced from Lowes. The table breaks down for storage. The legs have hinges so that they collapse. When broken down, the table can be stored in a space that's roughly 8' by 2.5' and about 6" deep. It should take 5-10 minutes to assemble each table (after practice).

These tables are quite sturdy and shake relatively little when kids bump up against them. In fact, they are perhaps overkill as practice tables. You could make a less sturdy and less expensive table that would be suitable for practices. One option to save money and space would be to order just the tabletop and not the legs. You could then lay the tabletop on the floor, desks or tables. You could also use 1" x 1" T-slot instead of 1.5" x 1.5" but the table would need to be redesigned to account for the change.

Each table costs roughly \$700, with an educational discount.

ORDERING

To order the frame, email Futura Industries at orders@tslots.com. Ask for a copy of quote number 95996 but make sure it's for the quantity of tables that you need. Please note that only members of RoboCupJunior Soccer team or other educational entity can buy directly from Futura Industries. All other purchasers will need to go through a distributor.

BILL OF MATERIALS

The table frame and legs are made of T-slot, which is supplied by Futura Industries. The table design is in Attachment 1 below. The separate T-slot parts parts shown in Attachment 2, but if you are interested in buying the exact same table, use the quote number listed in the bottom right hand corner of the attachment. Note that the quote is the retail price. The educational discount would be 50% off.

Part	Part and Supplier	Notes	Rough Cost
Table frame and legs	T-slot from Futura Industries	See above	\$500 (with educational discount)
Field carpet	Select Elements 16-Pack 18-in x 18-in Green Indoor/Outdoor Needlebond Peel-and-Stick Carpet Tile from Lowes.	Each table uses 24 tiles.	\$112
Tabletop	Can be purchased at Home Depot, Lowes or similar hardware store	MDF or plywood cut into four rectangular pieces that match the T-slot supports. You should measure them on site.	\$50
Walls	Coroplast (ie corrugated plastic) from http://corrugatedplastics.net/ or http://www.uline.com/ .	The T-slot accepts up to an 8mm thick wall. It's easily cut with an x-acto knife.	\$30
Goals	NA	The designs are in the rules. Goals can be made from a variety of materials. At the competition, we used wood and foam core.	?

To assemble the tables, you will need:

- 1/4" "T" Handle Hex Wrench (Futura part #657004)
- 5/32" "T" Handle Hex Wrench (Futura part #657034)

ASSEMBLY

The table collapses into the following parts and subassemblies:

- 2 subassemblies for legs. The legs have hinges to allow them to fold relatively flat.
- 2 8' long extrusions that run the length of the table, with posts for walls attached
- 3 69" extrusions that run across the table, two of which have a post for walls attached

These are shown in attachment 3 below.

To assemble the tables, lay out all the T-slot bars and match them to parts shown in Attachments 1 and 3. Gather the screws and Tnuts and associate them with the related T-slot extrusions.

Steps:

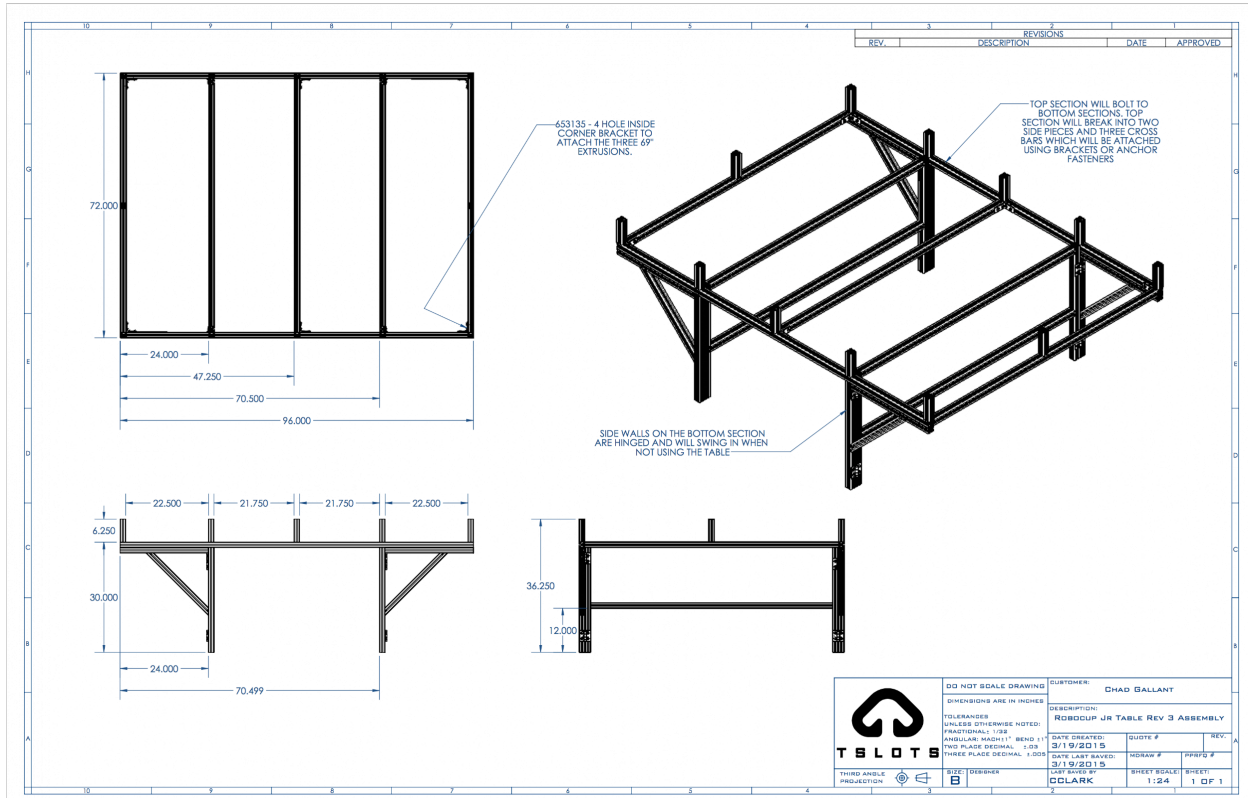
1. assemble the leg subassemblies exactly as shown in Attachment 3
2. attach five 6.5" wall posts to each of the two 96" long T-slot bars
3. attach one 6.5" wall post to each of the 69" T-slot bars
4. connect one 96" T-slot bar to the two leg assemblies
5. connect the second 96" T-slot bar to the two leg assemblies
6. connect the three 69" T-slot bars to the two 96" T-slot bars

DISCLAIMER

The designs provided in this document are provided for general information purposes only. Your use of any of these designs is at your own risk, and you should not use any of these sample documents without first reviewing them to ensure that they suit your needs.

ATTACHMENT 1

Table design:
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ATTACHMENT 2

TSLOTS QUOTE

Quote Number: 95996
 Quote Date: 03/31/2015
 Quote Description:
 ROBOCUP JR TABLE REV 3

November 16, 2015 09:06
 Futura Industries
 BLDG J-8, Freeport Center
 Clearfield, UT 84016-0350

Phone: (800) 824-2049
 Fax: (877) 777-5753

Item #	Description	Length	Qty	List Price	Ext Price
1 650006	TS15-15L, 1", AEA, 7603	30.000	4	0.486	58.32
	660003 CL CTL 1515/1515L/1517/4040		4	2.1	8.40
	660139 DR 15S .344 DRILL THRU .531 SPOT		8	3.93	31.44
	A 1/.750"A 1/17.250"				
2 650006	TS15-15L, 1", AEA, 7603	28.500	4	0.486	55.40
	660003 CL CTL 1515/1515L/1517/4040		4	2.1	8.40
	660139 DR 15S .344 DRILL THRU .531 SPOT		4	3.93	15.72
	A 1/.750"				
3 650006	TS15-15L, 1", AEA, 7603	65.750	4	0.486	127.82
	660003 CL CTL 1515/1515L/1517/4040		4	2.1	8.40
	660034 TP 5/16-18Tap-1515 1515-Lite 1517		8	2.1	16.80
	AB				
4 650006	TS15-15L, 1", AEA, 7603	24.000	4	0.486	46.66
	660003 CL CTL 1515/1515L/1517/4040		4	2.1	8.40
	660034 TP 5/16-18Tap-1515 1515-Lite 1517		4	2.1	8.40
	A				
5 655370	1515-Lite x 24" 45 Deg.Sup.		4	23.08	92.32
6 650006	TS15-15L, 1", AEA, 7603	96.000	2	0.486	93.31
	660003 CL CTL 1515/1515L/1517/4040		2	2.1	4.20
	660139 DR 15S .344 DRILL THRU .531 SPOT		18	3.93	70.74
	AB 1/.750"AB 1/24.750"A 1/48.000"AB 3/3.000"AB 3/21.000"				
7 650006	TS15-15L, 1", AEA, 7603	69.000	2	0.486	67.07
	660003 CL CTL 1515/1515L/1517/4040		2	2.1	4.20
	660139 DR 15S .344 DRILL THRU .531 SPOT		2	3.93	7.86
	A 2/34.500"				
8 650006	TS15-15L, 1", AEA, 7603	69.000	1	0.486	33.53
	660003 CL CTL 1515/1515L/1517/4040		1	2.1	2.10
9 650106	TS15-15L, 1", EBLK, 7603	6.500	12	0.546	42.59
	660003 CL CTL 1515/1515L/1517/4040		12	2.1	25.20
	660034 TP 5/16-18Tap-1515 1515-Lite 1517		12	2.1	25.20
	B				
10 651650	5/16-18 x 1 3/4 SHCS		24	0.43	10.32
11 651487	5/16-18 X 1.5 SHCS & ECON TNUT		8	0.68	5.44
13 655025	1515 End Cap Black w/push ins		20	1.42	28.40
14 655082	15S Alum. Hinge		8	8.62	68.96
15 651128	5/16-18x1/2" FBHSCS & Ecn Tnut		32	0.62	19.84
16 653135	15S 4 Hole Inside CornBrkt-Ver		6	4.59	27.54
17 651141	DBLeconTnut-2 5/16-18x11/16FBHC		12	1.58	18.96
959999	Quote Item		1	.000	0.00
	660172 HS TSLOTS PACKAGING KIT		112.62	.000	0.00

Subtotal:

This price is the list price. Educational institutions and RoboCupJunior teams may qualify for an educational discount. → 1,041.94

ATTACHMENT 3

