

*** SHOPPING GUIDE VERSION OF BOM ***

The Parts Shopping List can be used to order/purchase the items that will be needed to build the 2013 FTC game field. This categorized list tells you where to find an item, and it provides an identifier (SKU #, item # or some other unique identifier) to help find and purchase the item. The peach colored rows delineate the various product categories (such as "Field Elements," "Hardware," "Wood," etc.). The gray rows are place holders and should not contain any product information. The last column of the list can be used to mark when an item has been purchase/acquired. Note that the number that listed in the "Qty" column of the shopping list corresponds to the purchase quantity for that item.

Parts Shopping List					
Available Vendor(s)	Identifier (Item #/SKU/etc.)	Qty	Description	Instructions/Comments	Got It?
Field Elements					
www.andymark.com	Item # am-0481	1	FTC Perimeter Field Kit	AndyMark is planning on releasing a new version of their FTC Field Perimeter. At the time of this document's printing, AndyMark has not yet issued a new item number for this new Field Perimeter.	✓
www.softtiles.com	http://www.softtiles.com/index.php?option=com_content&view=article&id=94&Itemid=47	36	SoftTiles Interlocking Foam Mats 2 ft x 2 ft by 5/8 Inch Thick (Gray)	FTC Teams receive a 10% discount from softtiles.com	
www.hitechnic.com	Item #FTCBCN	2	FTC Infrared Beacon.	Used during autonomous period.	
www.andymark.com	ftc-2013-30 (quarter set) or ftc-2013-120 (full set)	As needed	Official game element (block). Use AndyMark part # ftc-2013-30 for a quarter set of blocks (25 blocks plus 5 spares). Use AndyMark part # ftc-2013-120 for a full set of blocks (100 blocks plus 20 spares). A full field requires 100 blocks plus spares.		
Hardware					
Home Depot or Lowes	Home Depot SKU #206248 or Lowes Item #24035	2	1/2 in. x 10 in. Steel Nipple		
Home Depot or Lowes	Home Depot: SKU # 567303 or Lowes: Item # 22505	1	1/2 in. x 60 in. Steel Pipe		

		Parts Shopping List			
Available Vendor(s)	Identifier (Item #/SKU/etc.)	Qty	Description	Instructions/Comments	Got It?
Home Depot or Lowes	Home Depot: SKU # 817902 Item #: 22440	Lowes 2	1/2 in. Iron Floor Flange		
Home Depot or Lowes or Grainger	Home Depot SKU #: 499201 (8 Count) Lowes Item #: 57852 (8 Count) Grainger Item#: 1MU46	1	#10-32 x 3/4 in. Machine Screw (8-Pieces for Home Depot and Lowes, 100-pieces for Grainger)		
Home Depot or Lowes or Grainger	Home Depot SKU #: 496926 (4 Count) Lowes Item #: 70682 (50 Count) Grainger Item #: 2EE33 (100 count)	6 (Home Depot) or 1 (Lowes / Grainger)	#10-32 x 2 in. Steel Round-Head Machine Screws (4-pack from Home Depot, 50-pack from Lowes, 100-pack from Grainger)		
Grainger	Grainger Item #: 4ZU77 (50 Count)	1	10-32 threaded inserts (50-pack).		
Grainger	Grainger Item #: 2X571 (3 Count)	2	DAYTON Collar, Shaft, 1 In, Pk3		
Home Depot or Lowes	Home Depot SKU #: 112457 Lowes Item #: 211578	4	1/4 in. x 4 in. Eye Bolt with Nut	Comes with one 1/4-20 nut.	
Home Depot or Lowes	Home Depot SKU # 307319 (4 Count) Lowes Item #: 67340	1 (Home Depot) or 2 (Lowes)	1/4 in.-20 Coarse Hex Nuts	Build requires 6, but the product with Home Depot SKU #112457 or Lowes Item # 211578 each comes with a single nut, so we only need 2 additional nuts.	
Home Depot or Lowes	Home Depot SKU #: 363696 (25 Count) Lowes Item #: 57234 (8 Count)	2 (Home Depot) 4 (Lowes)	#8 x 1-1/2 in. Phillips Wood Screw		
Home Depot or Lowes	Home Depot Store SKU # 365474 (72 Count) Lowes Item #: 123606 (25 Count)	1	#10 x 3 in. Wood Screw		
Lowes	Lowes Item # 8797	2	USP 6-9/16-in G90 Galvanized Finish Corner Brace		
Home Depot or Lowes	Home Depot SKU # 758488 Lowes Item #: 81105	1	13/64 in. Black Oxide Drill Bit		
Home Depot or Lowes	Home Depot SKU # 762415 Lowes Item #: 90308	1	1/4 in. Black Oxide Drill Bit		
Home Depot or Lowes	Home Depot SKU # 765154 Lowes Item #: 335403	1	9/32 in. Black Oxide Drill Bit		
Home Depot or Lowes	Home Depot SKU # 768718 Lowes Item #: 107933	1	3/8 in. Black Oxide Drill Bit		

		Parts Shopping List			
Available Vendor(s)	Identifier (Item #/SKU/etc.)	Qty	Description	Instructions/Comments	Got It?
Home Depot or Lowes	Home Depot SKU #: 174947 Lowes Item #: 170983	1	1 in. Spade Drill Bit		
Home Depot or Lowes	Home Depot SKU #: 209196 (6 Count) Lowes Item #: 2769 (30 Count)	As Needed	1/4 in. x 1-1/4 in. Steel Fender Washers	Used only if needed to balance the arms.	
Home Depot or Lowes	Home Depot SKU #: 743638 Lowes Item #: 72799	1	3/32" Black Oxide Drill Bit		
Home Depot or Lowes	Home Depot SKU #: 614028 (as part of a set) Lowes Item #: 25490 (as part of a set)	1	Metric 5mm Hex Key (as part of set).	Used to install threaded inserts.	
Home Depot or Lowes	Home Depot SKU #: 282265 (12-Pack) Lowes Item #: 2620 (100-count)	2 Packages 1 Package	#6 x 5/8" Wood Screw		
Home Depot or Lowes	Home Depot SKU #: 254266 (100 Pieces) Lowes Item #: 1990 (100 Pieces)	1 Package 1 Package	#6 Flat Washer		
Wood					
Home Depot or Lowes	Home Depot SKU #: 161667 Lowes Item #: 432481 Alternatively, you can purchase Home Depot SKU #:161640	3 Alternatively, 4	2 x 4 x 12 Lumber (note actual cross section is 1.5" x 3.5" or 3.81 cm x 8.89 cm) 2 x 4 x 8 Lumber (note actual cross section is 1.5" x 3.5" or 3.81 cm x 8.89 cm)	When cutting the lumber, we need to take account for the material removed due to the width of the cutting blade (i.e., the kerf). For 12' lumber - Board #1 cut to 48" (1x), 5.5" (4x), 12"(4x) and 24" (1x) pieces. Board #2 cut to 48" (2x) and 24" (1x) pieces. Board #3 cut to 24" (2x) pieces. For 8' lumber - Board #1 cut to 48" (1x), 5.5" (4x) and 24" (1x) pieces. Board #2 cut to 48" (1x) and 12" (3x) pieces. Board #3 cut to 24" (3x) pieces. Board #4 cut to 48" (1x) and 12" (1x) pieces.	
Home Depot or Lowes	Home Depot SKU #: 161713 Lowes Item #: 432484	2	2 x 6 x 8 Lumber (note actual cross section is 1.5" x 5.5" or 3.81 cm x 13.97 cm)	Board #1 should be cut to 48" (1x) and 38" (1x) pieces. Board #2 should be cut to 48" (1x) and 38" (1x) pieces.	
Home Depot or Lowes	Home Depot SKU #: 914797 Lowes Item #: 7502	1	1 x 6 x 12 Lumber (note actual cross section is 0.75" x 5.5" or 1.91 cm x 13.97 cm)	Cut board into 48" (2x) pieces.	

Parts Shopping List					
Available Vendor(s)	Identifier (Item #/SKU/etc.)	Qty	Description	Instructions/Comments	Got It?
Home Depot	Home Depot SKU #: 103078	3	1/2 in. x 2 ft. x 4 ft. Sandeply Hardwood Plywood Handy Panel	Use panels #1 and #2 as is, rip panel #3 into two smaller pieces (10" x 34" in size).	
Hobby Lobby or other craft store	http://shop.hobbylobby.com/products/wood-door-hanger/	2	Wood craft door hanger. Approximate size is 3 5/8" x 9 1/2" x 1/4" (9.21 cm x 24.13 cm x 0.64 cm).		
PVC Fittings and Pipe					
Home Depot or Lowes	Home Depot SKU # 294322 Lowes Item #: 23877	2	1 in. x 1 in. x 1/2 in. PVC Slip x Slip x Slip Reducing Tee		
Home Depot or Lowes	Home Depot SKU # 187968 Lowes Item #: 23867	4	1/2 in. PVC Schedule 40 Pressure S x S Elbow		
Home Depot or Lowes	Home Depot SKU # 187909 Lowes Item #: 23873	2	1/2 in. PVC S x S x S Tee		
Home Depot or Lowes	Home Depot SKU # 232505 Lowes Item #: 24088	2	3/4 in. PVC Pressure S x S x S x S Cross		
Home Depot or Lowes	Home Depot SKU # 187917 Lowes Item #: 23874	2	3/4 in. PVC S x S x S Tee		
Lowes or PVCFittingsDirect.com	Lowes Item #: 315496 PVCFittingsDirect.com SKU 413-007	2	3/4" x 3/4" x 3/4" 90° Side Outlet Elbow SxSxS PVC Fitting		
Home Depot or Lowes	Home Depot SKU # 188069 Lowes Item #: 23849	4	1/2 in. PVC Schedule 40 Pressure Slip x Slip Coupling		
Home Depot or Lowes	Home Depot SKU # 188166 Lowes Item #: 23937	2	1/2 in. PVC Cap (Slip)		
Home Depot or Lowes	Home Depot SKU # 193682 Lowes Item #: 23966	1	1/2 in. x 10 ft. PVC Sch. 40 Plain-End Pipe	Cut into 8" (2x), 1.5" (4x), 3" (2x), 4.25" (2x), and 11.75" (2x) pieces.	

		Parts Shopping List			
Available Vendor(s)	Identifier (Item #/SKU/etc.)	Qty	Description	Instructions/Comments	Got It?
Lowes	Lowes Item #: 23971	2	Charlotte Pipe 3/4-in x 10-ft 480 PSI Schedule 40 PVC Pressure Pipe		
Tape					
www.findtape.com	Pro Tapes Pro-Gaff Gaffers Tape	As Needed	1" x 55 yards (2.54 cm by 50.3m) White Gaffers tape		
www.findtape.com	Pro Tapes Pro-Gaff Gaffers Tape	As Needed	2" x 55 yards (5.08 cm by 50.3m) Red Gaffers tape		
www.findtape.com	Pro Tapes Pro-Gaff Gaffers Tape	As Needed	2" x 55 yards (5.08 cm by 50.3m) Electric Blue Gaffers tape		
Miscellaneous					
Home Depot or Lowes	Home Depot: SKU # 212350 Lowes Item # 23467	1	8 oz. PVC Cement		
Home Depot	Go to paint desk and ask them to look up Behr "Mouse Ears" black on their computer. Also refer t color code DC4B-10-5, semi gloss (base 3300).	1 gallon	Behr Premium Plus Semi-Gloss Paint: Disney Color - Mouse Ears	Estimated 1 gallon per two fields built (assuming parts are primed prior to painting).	
Home Depot	Go to paint desk and ask them to look up Behr "Mickey's Pants" red on their computer. Also refer t color code DC2B-80-5, semi gloss (base 3300).	1 quart	Behr Premium Plus Semi-Gloss Paint: Disney Color - Mickey's Pants	Estimated 1 quart per two fields built (assuming parts are primed prior to painting).	
Home Depot	Go to paint desk and ask them to look up Behr "Midnight Ball" blue on their computer. Also refer t color code DC3B-50-5 semi gloss (base 3300).	1 quart	Behr Premium Plus Semi-Gloss Paint: Disney Color - Midnight Ball Blue	Estimated 1 quart per two fields built (assuming parts are primed prior to painting).	
Home Depot	Home Depot SKU #: 928183	1 quart	Behr Premium Plus Semi-Gloss Paint: Ultra Pure White	Estimated 1 quart per two fields built (assuming parts are primed prior to painting).	
Home Depot	Home Depot SKU #: 574504	1 gallon	Behr Premium Plus Stain-Blocking Interior Primer & Sealer	Estimated 1 gallon per two fields built.	

		Parts Shopping List			
Available Vendor(s)	Identifier (Item #/SKU/etc.)	Qty	Description	Instructions/Comments	Got It?
Online vendors	http://www.amazon.com/Sterilite-16958612-Mini-Crate-pack/dp/B002BL4HTQ	8	Sterilite 1695 Mini Crate (dimensions 9" L x 7 7/8" W x 6 1/8" H or 22.9cm L x 20.0cm W x 15.6cm H).		
Staples (or similar office product store).	Staples Item#: 490887	1 (package of 250)	White 8 1/2" x 11" (21.59 cm x 27.94 cm) Card Stock		
Staples (or similar office product store).	Staples Item#: 247403	1 (package of 10)	White Poster Boards, 10-Pack, 22" x 28" (55.88 cm x 71.12cm)		
Home Depot or Lowes	Home Depot: SKU # 239540 Lowes Item # 20027	As needed	Velcro STICKY BACK 15 ft. x 3/4 in. Tape (4.57 m x 1.91 cm)		
Home Depot or Lowes	Home Depot: SKU #295648 Lowes: Item #76023	As needed	8 in. Cable Ties (100-Pack)		
Home Depot or Lowes	Home Depot: SKU #250355 Lowes: Item #99500	As needed	Alkaline 9-Volt Batteries		
Home Depot or Lowes	Home Depot: SKU #193362 Lowes: Item #94846	1	25 ft. Tape Measure		
Home Depot or Lowes	Home Depot: SKU # 172618 Lowes: Item # 91429	1	Arrow Fastener T50 1/4 in. Steel Staples (1,250-Pack)		
Home Depot or Lowes	Home Depot: SKU # 688903 Lowes: Item #77350	1	Sharpie Magnum Permanent Marker in Black		
Home Depot	Home Depot: SKU # 836151	1	The Hillman Group 2 in. Self-Adhesive Vinyl Number Pack		
www.avery.com or Staples	http://www.avery.com/avery/en_us/Products/Crafts-&Scrapbooking/Sticker-Project-Paper/White-Sticker-Project-Paper_03383.htm http://www.staples.com/Staples-Sticker-Paper/product_490429	1 Package	8.5" x 11" (21.59 cm x 27.94 cm) Sticky Back Paper.		

		Parts Shopping List			
Available Vendor(s)	Identifier (Item #/SKU/etc.)	Qty	Description	Instructions/Comments	Got It?
Online Vendors	http://www.gmdice.com/dice/d4 http://www.gamescience.com/4-sideddice(d4)	1 die	Four sided die (optional).		
Home Depot or Walmart	Home Depot: SKU #292273 Walmart No.: 001122774 http://www.walmart.com/ip/36-lb-Twine-Mason-Line-White/16879710	1 roll (230' or 70m long)	36-lb Twine Mason Line, white.		
Home Depot or Lowes	Home Depot: SKU # 825234 Lowes: Item #184582	2 rolls	VELRCO 4'L x 2"W (1.22m x 5.08cm) Sticky Back Industrial Strength Roll		
Optional PVC Cleaning Supplies					
Home Depot or Lowes	Home Depot: SKU # 827588 Lowes Item # 68632	1	3M Pro Grade 2-7/8 in. x 4-1/2 in. Medium Dual-Angle Sanding Sponge	Used to clean PVC pipes and sand wooden pieces for priming and painting.	
Home Depot or Lowes	Home Depot: SKU # 827654 Lowes Item # 68461	1	3M Pro Grade 4-1/2 in. x 2-7/8 in. Fine Dual-Angle Sanding Sponge	Used to clean PVC pipes and sand wooden pieces for priming and painting.	