Large PCB Soldering Jig — 300 × 400 mm

Bill of materials (proposal)

Revision: A **Date:** 2026-11-08 **Lines:** 13 **Source:** https://model-shop.fubsypoly.com/pcb-soldering-jig/vol-3/

The large jig of Volume 3: Collier's design scaled to a 300 × 400 mm board, with support bridges, rails of extrusion, a 2 in deep frame and a stiffened plate. Not yet built; vendor part numbers to be chosen when ordering.

Tick **Ord** when ordered, **Have** when it is in hand and checked against the part number, **Fit** when it is installed. Write the vendor, order number and price on the last page. Alternates for obsolete (EOL) parts are in **bold**.

Same The original part is still made — buy it. **EOL** Obsolete: buy new-old-stock or the substitute given. **Spec** The original spec was wrong or marginal — the corrected value is listed.

Conflict The sources disagree — the value listed is the one checked against the board. **Choice** A builder's choice — the listed part is the one I picked.

ORD HAVE FIT	QTY	REF. DES.	PART / SPECIFICATION	PART NUMBER	ALTERNATES / SUBSTITUTES	WHERE TO BUY	TAG	NOTES
Extrusion								
☐ ☐ ☐	**2+2**	Frame	**T-slot extrusion, 1 × 2 in** 2 × 17½ in long sides (tap both holes each end), 2 × 17 in end pieces	`80/20 1020`	TNUTZ EX-1020; any 1 × 2 in 10-series	80/20 (8020.net) 8020.net McMaster-Carr www.mcmaster.com	**Choice**	Stood on edge, 2 in deep
☐ ☐ ☐	**25 pcs**	Rails etc.	**T-slot extrusion, 1 × 1 in** 2 × 19½ (rails), 4 × 17 (bridges), 3 × 15¼ (stiffeners), 8 × 1½ (risers), 4 × 4 + 4 × 2½ in (standoffs)	`80/20 1010`	Any 1 in 10-series	80/20 (8020.net) 8020.net McMaster-Carr www.mcmaster.com	**Choice**	About 170 in in all
☐ ☐ ☐	**8**	Corners	**Anchor fastener** 10 series, two per corner	`80/20 #3381`	Corner brackets	80/20 (8020.net) 8020.net	**Same**	
Hardware								
☐ ☐ ☐	**~60**	All	**T-nut, ¼-20, 10 series** Drop-in for the ones added after assembly	`80/20 #3382`	Economy T-nuts	80/20 (8020.net) 8020.net	**Same**	
☐ ☐ ☐	**12**	Strips	**T-nut + flat-head screw, 10-32** Lipped strips to rails, six per rail			80/20 (8020.net) 8020.net	**Choice**	
☐ ☐ ☐	**12**	Rails, bridges	**Star knob, ¼-20** Rails: on 1¾ in studs; bridges: on 3¼ in studs or threaded rod		Collier's stud knobs (6479K88) for the rails	McMaster-Carr www.mcmaster.com	**Choice**	
☐ ☐ ☐	**12+**	Pins	**Nylon thumb screw, ¼-20 × 2 in** With nylon jam nut		Toggle-clamp spindles with neoprene caps	McMaster-Carr www.mcmaster.com	**Choice**	Three per bridge; buy spares
☐ ☐ ☐	**8**	Feet	**Levelling mount, ¼-20 stud** Four each face, on standoffs	`23015T82`	Any ¼-20 levelling foot	McMaster-Carr www.mcmaster.com/23015T82	**Same**	
☐ ☐ ☐	**6**	Plate	**Horizontal toggle clamp** On adapter plates with T-nuts	`Fargoware FC-20`	De-Sta-Co 205-S; Carr-Lane CL-150-HTC	MSC Industrial www.mscdirect.com	**Same**	
☐ ☐ ☐	**12**	Stiffeners	**Flat-head screw, ¼-20** Countersunk into the plate's foam face			McMaster-Carr www.mcmaster.com	**Same**	

ORD	HAVE	FIT	QTY	REF. DES.	PART / SPECIFICATION	PART NUMBER	ALTERNATES / SUBSTITUTES	WHERE TO BUY	TAG	NOTES
Plate, strips and foam										
☐	☐	☐	**1**	Plate	**Aluminium plate, ¼ in 6061** 16½ × 17¼ in	`(cut to size)`	MIC-6 cast tooling plate (flatter)	OnlineMetals www.onlinemetals.com	**Choice**	
☐	☐	☐	**4**	Strips	**Aluminium flat bar, 1/16 × ¾ in** 17¼ in, two per rail, offset 1/16 in to form the ledge	`(made)`	2 × ⅛ × ¾ in bar with a milled 0.075 × 0.060 in rebate (Collier's original)	OnlineMetals www.onlinemetals.com	**Choice**	
☐	☐	☐	**2**	Foam	**Soft polyurethane foam** 2 in and 1 in, about 12 × 16 in		Conductive foam for loaded chips	Craft or upholstery shop	**Choice**	

Orders

VENDOR	ORDER NO.	DATE	TOTAL	RECEIVED	LINES / NOTES

Build total: _____ **Started:** _____ **First power-up:** _____

Notes