PCB Soldering Jig — Collier 2011 build

Bill of materials

Revision: A **Date:** 2026-11-08 **Lines:** 12 **Source:** https://model-shop.fubsypoly.com/pcb-soldering-jig/vol-2/

John D. Collier's circuit board assembly jig, Nuts and Volts, September 2011, as built in Volume 2. Part numbers are Collier's from 2011: check each one is still current before 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
Frame								
☐ ☐ ☐	**2**	Item 1	**T-slot extrusion, 1 × 1 in** 80/20 #1010, 2 ft; cut 2 × 10 in + 2 × 7 in	47065T209	Any 1 in 10-series profile (TNUTZ, IPS, Misumi inch)	McMaster-Carr www.mcmaster.com/47065T209 80/20 (8020.net) 8020.net	**Same**	Tap the 10 in pieces' ends ¼-20
☐ ☐ ☐	**4**	Item 3	**Extrusion connector (anchor)** 80/20 #3381	47065T155	Equivalent 10-series anchor fastener	McMaster-Carr www.mcmaster.com/47065T155 80/20 (8020.net) 8020.net	**Same**	
☐ ☐ ☐	**10**	Item 2	**T-nut, ¼-20** 80/20 #3382, 10 series	47065T142	Drop-in or economy 10-series T-nuts	McMaster-Carr www.mcmaster.com/47065T142 80/20 (8020.net) 8020.net	**Same**	4 per pack; load before assembly
☐ ☐ ☐	**4**	Item 4	**End cap (optional)** 80/20 #2015	47065T91	None needed	McMaster-Carr www.mcmaster.com/47065T91	**Choice**	
Hardware								
☐ ☐ ☐	**4**	Item 5	**Knob with threaded stud** ¼-20 stud	6479K88	Star knob on ¼-20 stud (as on mine)	McMaster-Carr www.mcmaster.com/6479K88	**Choice**	Washers or cut ⅛ in off the stud so it tightens before bottoming
☐ ☐ ☐	**4**	Item 6	**Levelling mount** ¼-20 stud, nylon pad	23015T82	Any ¼-20 levelling foot	McMaster-Carr www.mcmaster.com/23015T82	**Same**	12 per pack; nut + washer on each stud
☐ ☐ ☐	**4**	Item 7	**Horizontal toggle clamp** Hold-down, threaded spindle with tip	Fargoware FC-20	De-Sta-Co 205-S; Carr-Lane CL-150-HTC; MSC 76988120	MSC Industrial www.mscdirect.com eBay	**Same**	Collier drills and taps #8-32 into the extrusion; mine sit on adapter plates
☐ ☐ ☐	**lot**	Rails	**Flat-head screws, #6-32** For the rail sections			McMaster-Carr www.mcmaster.com	**Same**	4 to 6 per rail

ORD	HAVE	FIT	QTY	REF. DES.	PART / SPECIFICATION	PART NUMBER	ALTERNATES / SUBSTITUTES	WHERE TO BUY	TAG	NOTES
Made parts										
☐	☐	☐	**2**	Item 8	**Board support rail** ⅛ × ½ in aluminium: 12 in bar + 9⅞ in notched section, notch 0.075 × 0.060 in	(made)	Two 1/16 × ½ in strips offset 1/16 in (no mill)	Local metal supplier OnlineMetals www.onlinemetals.com	**Choice**	
☐	☐	☐	**2**	Item 9	**Side support (optional)** 4 × ¾ × ¼ in aluminium, ¼ in FHCS, rubber foot	(made)	Any sturdy material	OnlineMetals www.onlinemetals.com	**Choice**	Not fitted on mine
☐	☐	☐	**1**	Item 10	**Foam compression plate** ⅛ in aluminium, 9¾ × 6¾ in	(made)		OnlineMetals www.onlinemetals.com	**Same**	
☐	☐	☐	**1**	Foam	**Polyurethane foam, 1 in** About 5 × 9¾ in; 3M Super 77 to glue		Conductive (antistatic) foam for loaded chips	Craft shop	**Choice**	Mine lies loose

Orders

VENDOR	ORDER NO.	DATE	TOTAL	RECEIVED	LINES / NOTES

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

Notes