

Advanced Modular Manikin Connector Bill of Materials

This document lists the parts necessary to assemble one complete connector pair.

	Item	For	Note	Manufacturer	Manufacturer Part Number	Distributor	Distributor Part Number	Unit Price	Quantity	Extended Price
Custom Manufactured Parts	Connector Housing	Housing	Machined from aluminium	Entropic Engineering		Entropic Engineering		TBD	2	TBD
	Latch Pin	Latch	Machined from stainless steel	Entropic Engineering		Entropic Engineering		TBD	2	TBD
	Release Button	Latch	Machined from stainless steel	Entropic Engineering		Entropic Engineering		TBD	1	TBD
	Silicone Interface	Interfacing connector housing to silicone	Machined or 3D printed					TBD	2	TBD
COTS Hardware	Electrical Connector	Power and data	Non-gendered	TE Connectivity	292178-1	Digikey	A113388-ND	\$5.8900	2	\$11.78
	Electrical Connector Insert (White)	Power and data	Different colours available	TE Connectivity	1-173977-1	Digikey	A98806-ND	\$0.8385	2	\$1.68
	Electrical Connector Insert (Blue)	Power and data	Different colours available	TE Connectivity	3-173977-1	Digikey	3-173977-1-ND	\$0.4129	2	\$0.83
	Fluid Tubing Connector	Fluids	Different hose sizes available	Parker	3100 56 00 99	Amazon	https://www.amazon.com/dp/B000048801	\$1.0200	8	\$8.16
	005 O-Ring	Electrical interface	Buna-N (Nitrile)			McMaster	9452K13	\$0.0351	4	\$0.14
	012 O-Ring	Fluids	Buna-N (Nitrile)			McMaster	9452K21	\$0.0267	4	\$0.11
	M8 Schrader Valve Core	Fluids	1.13 - 2.26 Nm installation torque	Schrader	8081100047	Amazon	https://www.amazon.com/dp/B000048801	\$0.8990	8	\$7.19
	Conical Compression Spring	Latch	302 Stainless steel			McMaster	1692K51	\$2.6500	1	\$2.65
	M3 * 8mm Extended Tip Set Screw	Latch	18-8 Stainless steel			McMaster	92775A110	\$0.3752	1	\$0.38
	M3 * 40mm Socket Head Cap Screw	Silicone interface	18-8 Stainless steel			McMaster	91292A024	\$0.1196	8	\$0.96
	M3 Threaded Insert	Silicone interface	Only needed if silicone interface is plastic			McMaster	94510A240	\$0.1440	8	\$1.15
	M3 * 10mm Socket Head Cap Screw	Electrical interface	18-8 Stainless steel			McMaster	91292A113	\$0.0453	12	\$0.54
	M3 Washer	Electrical interface	18-8 Stainless steel			McMaster	91116A120	\$0.0277	4	\$0.11
Tooling	Manual Crimp Handle	Crimping electrical insert		TE Connectivity	58074-1	Digikey	A2031-ND	\$105.77	1	\$105.77
	Pneumatic Crimp Handle	Crimping electrical insert		TE Connectivity	58075-1	Digikey	58075-1-ND	\$288.53	1	\$288.53
	Crimp Die	Crimping electrical insert		TE Connectivity	58372-1	Digikey	A99129-ND	\$1,191.20	1	\$1,191.20
	1.5mm Hex Wrench	Driving M3 set screw				McMaster	7996A82	\$3.50	1	\$3.50
	2.5mm Hex Wrench	Driving M3 socket head cap screws				McMaster	7996A84	\$3.97	1	\$3.97
	O-Ring Lubricant (150 g)	Lubricating 012 O-rings	Food grade	Dow Corning	Molykote 111	McMaster	1204K32	\$17.61	1	\$17.61