

Build of Materials

Part	Description	Product Code
SMAC Linear Actuator	25 mm stroke; 48 volts	https://www.smac-mca.com/lca-series-p-15.html?cPath=1_4 LCA 50-025-72-1F-3
Power Supply	48 volt	Generic
Omega Load Cell	Miniature universal load cell with ± 5 kgF range	https://www.omega.com/pptst/LCM703.html LCM703-5
LAC-1 Controller	Single axis controller; 12-48 volts	https://www.smac-mca.com/lac-single-axis-controller-p-127.html
LAC-1 Communication Kit	Used for interfacing with the controller	Bundled with LAC-1 Controller
Omega Load Cell Strain Gage Amplifier	Bridge excitation of 4 to 15 volts; adjustable gain and offset	https://www.omega.ca/en/communication-and-connectivity/signal-conditioners-and-transmitters/signal-conditioners/dmd-465-series/p/DMD-465 DMD-465
End-Feed Fastener	M6 thread for 30 mm high rail T-slotted framing	https://www.mcmaster.com/5537t527 McMaster-Carr part 5537T527
T-Slotted Framing Single Rail	1 ft, 30 mm x 30 mm	https://www.mcmaster.com/5537t97 McMaster-Carr part 5537T97
T-Slotted Framing Corner Brackets	For 30 mm	https://www.mcmaster.com/5537t936 McMaster-Carr part 5537T936

316 Stainless Steel Threaded Rod (20 mm)	M6; 1 mm x 20 mm	https://www.mcmaster.com/98863a243 McMaster-Carr part 98863A243
316 Stainless Steel Threaded Rod (40 mm)	M6; 1 mm x 40 mm	https://www.mcmaster.com/98863a260 McMaster-Carr part 98863A260
316 Stainless Steel Thin Hex Nut (M6)	M6; 1 mm	https://www.mcmaster.com/93935a335 McMaster-Carr part 93935A335
316 Stainless Steel Thin Hex Nut (M3)	M3; 0.5 mm	https://www.mcmaster.com/93935a320 McMaster-Carr part 93935A320
Aluminum Plate	6061 aluminum	Custom milled