Caveatron Bill of Materials – 25m LIDAR Unit

Date: 2019-02-12

Item	Qty	Manufacturer	Mfr. P/N	Description	Suggested Vendor Link	Photo
LIDAR	1	Scanse	N/A	Sweep	N/A No longer manufactured but units can still be found on Ebay from time to time.	

Notes: Scanning LIDAR sensor. Operates on 5V so separate voltage regulator not required. No longer available.

Item	Qty	Manufacturer	Mfr. P/N	Description	Suggested Vendor Link	Photo
LIDAR Module Enclosure	1	Bud Industries	PN-1323- DG	ABS NEMA 4x Enclosure, Dark Gray	Amazon	

Notes: Enclosure box for LIDAR module. Requires machining of base to add holes for cable gland and rail mounts. Lid is replaced with a custom 3D printed lid, reusing the gasket from this lid. Available from many vendors. A custom 3D printed baseplate has also been designed to mount the Sweep inside this enclosure.

Cable Gland	1	Many sources	PG7	Waterproof Cable Gland Wire Feedthrough	Amazon or many other sources	SKINGE
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Notes: Feeds LIDAR interface cable out of LIDAR enclosure. Numerous small variations of style and color are available, so long as it is PG7 size.

Item	Qty	Manufacturer	Mfr. P/N	Description	Suggested Vendor Link	Photo
LIDAR Rail Mounts	1	Weaver	49819	0.22 Caliber 1-inch Tip-Off Rings	Amazon	

Notes: Parts for making the rail mounts. The top ring portion is cut off making a flat top and two threaded holes are machined into each ring base for attachment to bottom of LIDAR module enclosure.

LIDAR Interface Jack	1	Conxall/ Switchcraft	16982- 6PG-522	Micro-Con-X 6 Position Circular Connector Plug, Male Pins Solder Cup Gold	<u>Digikey</u>	
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Notes: Jack for LIDAR interface cable. Available from multiple vendors.

Item	Qty	Manufacturer	Mfr. P/N	Description	Suggested Vendor Link	Photo
Window Dome	1	JMX	JMX-033	3.3 inch Acrylic Clear Camera Dome Cover	Ebay	

Notes: Transparent acrylic window for LIDAR Module. Glues onto custom 3D printed enclosure lid.

Assorted Fastener Hardware: Screws, Washers, and Nuts

Notes: For assembly. Several sizes of standard hardware required. To be detailed in assembly instructions.

Assorted Electrical Hardware: Wire and JST Connectors.

Notes: For electrical interconnections between boards. To be detailed in assembly instructions.