

Materials used for Capacity Level Indicator prototype

Item	Cost	Source
WS2812b RGB 5050SMD individually addressable LED lights – 16.4', 300 total pixels (60 pixels/m), IP30 non-waterproof	\$32.00	Amazon
5V 10A AC power adapter	\$19.00	Amazon
Poplar project board – 0.5 x 72 x 36 in	\$15.00	Home Depot
Raspberry Pi Zero W with pre-soldered GPIO headers	\$14.00	Micro Center or Adafruit
Grey PVC threaded connectors	\$6.00	Ace Hardware
microSDHC flash memory card – 32GB	\$5.00	Micro Center or Amazon
J-B Weld ClearWeld epoxy	\$5.00	Home Depot
White polystyrene sheet – 0.020 x 24 x 48 in	\$4.00	Plasticare (Denver, CO)
Black project box – 100 x 68 x 50 mm	\$4.00	Amazon or Ebay
Permanent double-sided tape roll	\$3.00	Home Depot
Cat5e RJ45 Keystone Ethernet jack	\$2.00	Amazon or Ebay
Miscellaneous hardware	\$2.00	Ace Hardware
Capacitor - 1000 μ F, 6.3V	\$1.00	Amazon
Adhesive protective pads	\$1.00	Ace Hardware
DC connector jack	\$0.50	Amazon or Ebay
Total	\$111.50	

The above costs have been rounded up to the nearest dollar and do not include any shipping charges or tax. Costs for incidental materials such as glue, solder, electrical wiring and heat shrink tubing are also not included.

When multiple indicators are produced, several of the above items can be purchased in bulk, further reducing the materials costs for each display to less than \$100. Additionally, any design changes for the *final production* version will affect this list and material costs.