

Item #	Qty.	Mfr.	Part #	Description	Cost	Total Cost	Link
1	1	Espressif Systems	ESP32-C3-DevKitM-1	esp32 for central control	\$8.00	\$8.00	Mouser
2	0.00154	Bertech	2363-CFT-1-ND	Copper tape for making capacitive sensor.	\$27.00	\$0.04	Digikey
4	1	Mornsun America inc.	LM150-23B12	Power Supply for Pump	\$24.44	\$24.44	Digikey
5	1	Parallax	27115	Relay	\$9.99	\$9.99	Mouser
Note: This does not include the cost of wires.					Base Cost:	\$42.47	

Key
Microcontroller/Sensor
Power

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1	1	US Plastic	36152	half inch tubing (100ft)	\$49.02	\$49.02	US Plastic
2	1	US Plastic	58674	Valve by pump	\$5.95	\$5.95	US Plastic
3	1	Most Plus	HEP-02A HEP02A	Pump For Torch	\$10.89	\$10.89	Amazon
4	5	US Plastic	62302	Tubing Connector Union Tee	\$4.11	\$20.55	US Plastic
5	1	US Plastic	62298	Tubing Connector Union Elbow	\$3.09	\$3.09	US Plastic
Note: additional fittings and tubing as needed not included.					Total Cost:	\$89.50	

Key
Fluid Handling
Construction

Item #	Qty.	Mfr.	Part #	Description	Cost	Total Cost	Link
1	1	Pimoroni Ltd	1778-PIM531-ND	Prototype board	\$1.00	\$1.00	Digikey
2	1	Espressif Systems	356-ESP32-DEVKITC	Main MCU for torches	\$11.00	\$11.00	Digikey
4	3	AnySolar	SM500K12L	IXOLARTM High Efficiency Solar Panels	\$5.71	\$17.13	Digikey
5	1	Adafruit	BQ24074	Adafruit Universal USB / DC / Solar Lithium Ion/Polymer charger - bq24074	\$9.95	\$9.95	Adafruit
6	1	Adafruit	258	LiPo Battery 1200mAh	\$9.95	\$9.95	Adafruit
7	1	Adafruit	369	2.1mm adapter	\$2.00	\$2.00	Adafruit
Note: This does not include the cost of wires.					Torch Cost:	\$51.03	

Key
Microcontroller/Sensor
Power