

	CIRCUIT COMPONENTS							
	Part	Value/Range	Package	Part Number	Quantity	Cost per unit	Total cost	Retailer
Electronics	ATMega328p-au	8-bit microcontroller	tqfp package	ATMEGA328P-AU	1	\$2.11	\$2.11	Amazon
	SSD1331 OLED Breakout Board	16-bit color 0.96" w/ microSD holder	Breakout board	Adafruit ID#: 684	1	\$29.95	\$29.95	Adafruit
	AMG8833 IR Thermal Camera Breakout	0 degrees celsuis to 80 degrees celsuis	Breakout board	Adafruit ID#: 3538	1	\$39.95	\$39.95	Adafruit
PCB and Parts	Potentiometer	2M Ohm single turn	5mm Square-Close Frame		1	\$3.35	\$3.35	Mouser
	Li-Po Battery	3.7V 300mAh		ds721855	1	\$1.39	\$1.39	Amazon
	Crystal Resinator	10MHz/33pF	3 pin SMD Resonator		1	\$1.69	\$1.69	Mouser
	IC Controller Li-ION	4.2 V	SOT 23 - 5	MCP73831T	1	\$0.59	\$0.59	Mouser
	Transistor	NPN BJT	SOT 23	MMBT3904	2	\$0.17	\$0.34	Mouser
	Transistor	PNP BJT	SOT 23	MMBT3906	1	\$0.10	\$0.10	Mouser
	IC LDO Linear Regulator	3.3 V reg	SOT 23 - 5	TLV70333	2	\$0.42	\$0.84	Mouser
	LED	Red	0603 SMD		1	\$0.14	\$0.14	Mouser
	LED	Green	604 SMD		1	\$0.14	\$0.14	Mouser
	LED	Blue	605 SMD		1	\$0.15	\$0.15	Mouser
	Slide Switch	Single pull double throw	Through Hole		1	\$0.58	\$0.58	Mouser
	Male header 16 pin	0.1" right angle single row			16	\$0.32	\$5.12	Mouser
	Micro USB-B	Female	SMT		1	\$0.46	\$0.46	Mouser
	Ferrite Bead	100 Ohm	0603 SMD		5	\$0.07	\$0.35	Mouser
	Resistor	0 Ohm	0603 SMD		4	\$0.01	\$0.04	Mouser
	Resistor	330 Ohm	0603 SMD		2	\$0.11	\$0.22	Mouser
	Resistor	390 Ohm	0603 SMD		1	\$0.11	\$0.11	Mouser
	Resistor	2k Ohm	0603 SMD		1	\$0.01	\$0.01	Mouser
	Resistor	47k Ohm	0603 SMD		1	\$0.02	\$0.02	Mouser
	Resistor	3.3M Ohm	0603 SMD		1	\$0.01	\$0.01	Mouser
	Resistor	10M Ohm	0603 SMD		2	\$0.01	\$0.02	Mouser
	Capacitor	100nF	0603 SMD		10	\$0.01	\$0.10	Mouser
	Capacitor	4.7uF	0603 SMD		2	\$0.07	\$0.14	Mouser
	Capacitor	10uF	0603 SMD		2	\$0.10	\$0.20	Mouser
	Routed PCB				4	\$2.13	\$8.52	OHS Park
Mounting & Casing	Double Convex Lense	1mm focal length			1	\$0.20	\$0.20	Amazon
	Mirror				1	\$0.20	\$0.20	Amazon
	Piece of Acrylic				1	\$0.00	\$0.00	Reclamed
	3D Printed Casing				1	\$8.20	\$8.20	EPL
	Masking Tape				1	\$0.05	\$0.05	EPL
Total Cost of Single Unit		\$105.29						