BIJOUX

BIJOUX

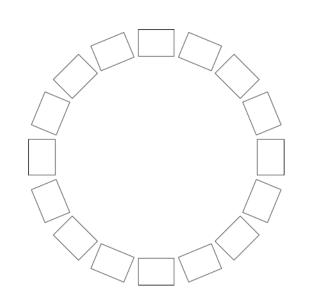
A modular kit to for personalized jewelry that is responsive to people and the environment.

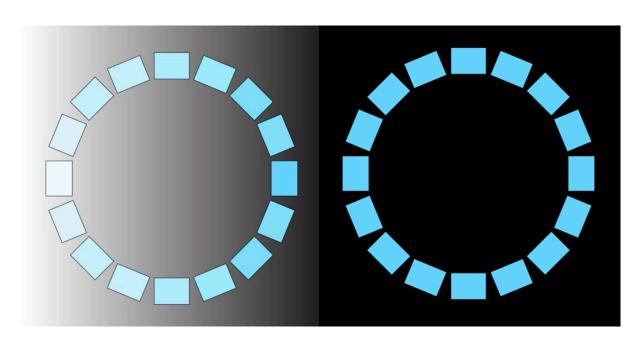
Considerations will include

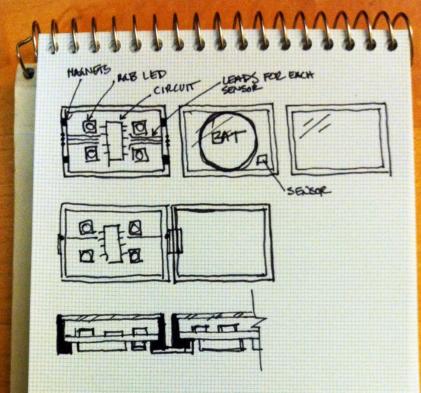
Light Temperature

Future
Proximity
Sound
Touch









PROBSULE —> EACH UNIT WORKS INDERENTLY

IF ONE AREA IS PRESSED IT WILL

SHOW A GRANDIENT ACROSS LIUCTIPLE

HOWLDS JUST BY THE NATURE OF

THE SENSOR

LIGHT —> EACH UNIT WORKS INDEPENDENTLY...

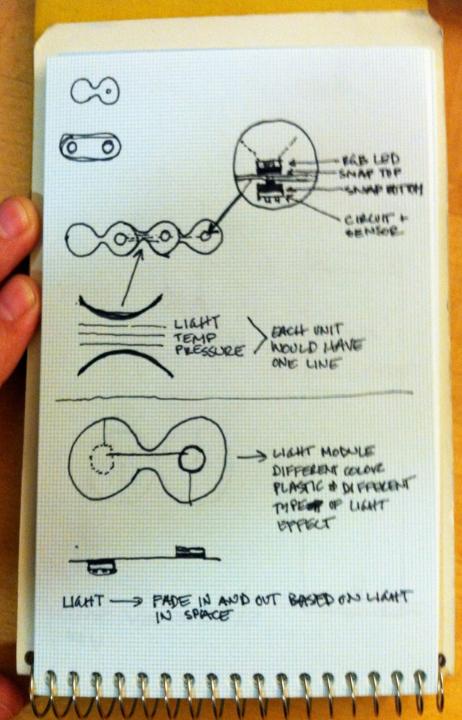
FADE UP AND DOWN BASED ON ENVIRONMENTAL

TEMPERATURE —> EACH UNIT WORKS INDEPENDENTLY

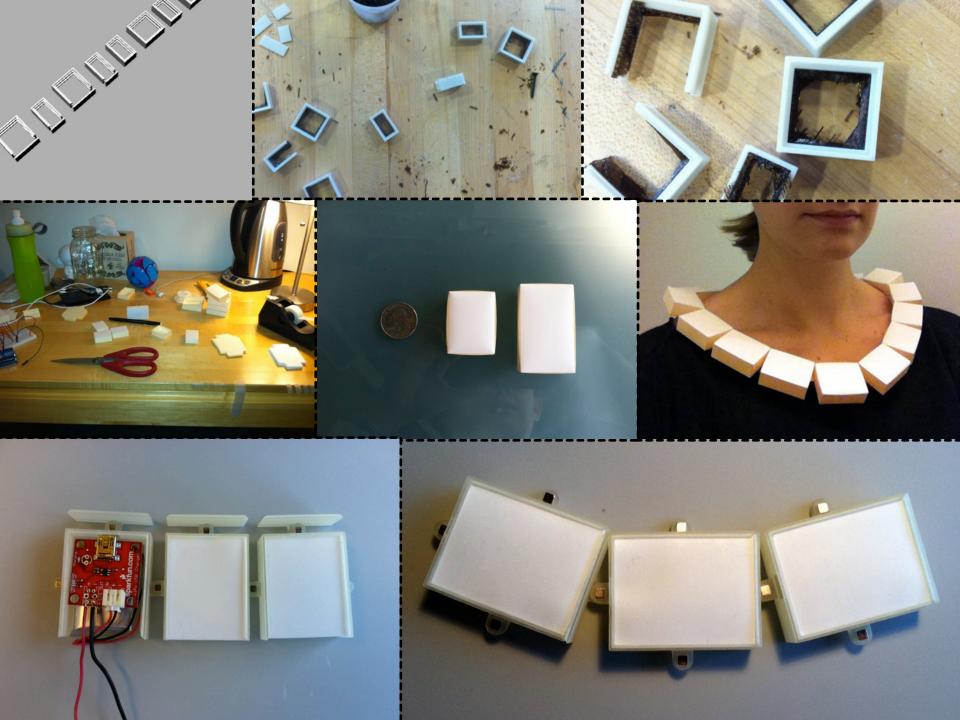
(SOUSORS)

CAN CHARACTERISTICS INFLUENCE THE

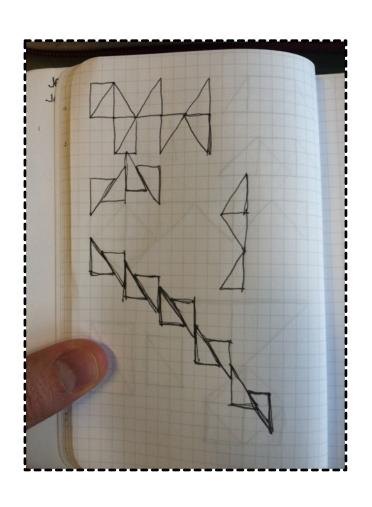
OUTPUT OF ONE ANOTHERS.

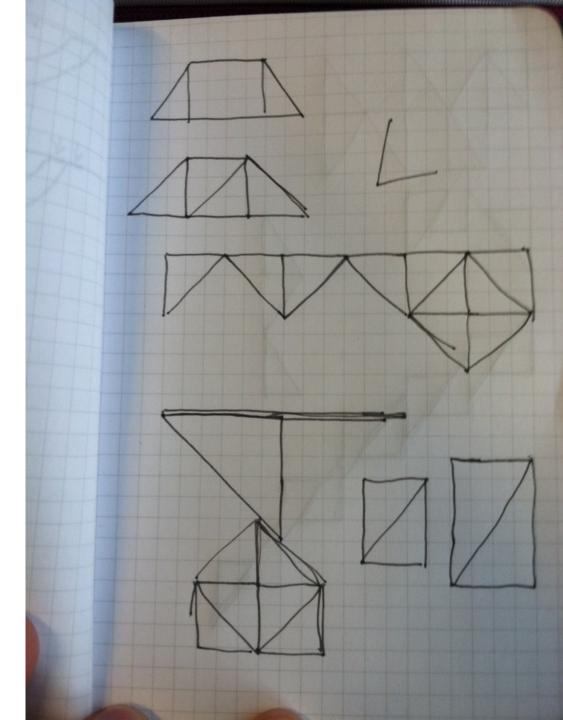


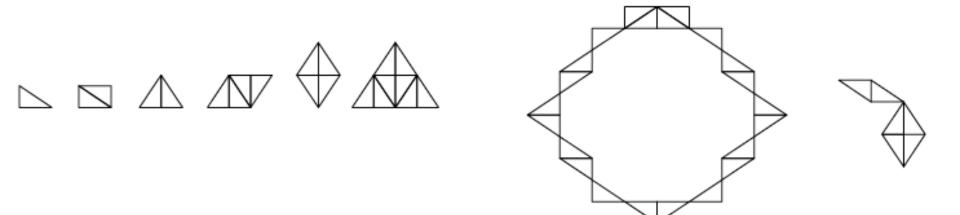
ן נ	8			Battery/Charger	15.9				6		\$8.39	\$50.34
Option 1				110 mAH, Charge	2.65	LiPo Battery	PRT-00731	Sparkfun	1	\$6.95	\$6.95	
do				3 units for 1 hour		4.7 uF	445-1385-2-ND	Digikey	2	\$0.05	\$0.10	
						2 K ohm	311-2.00KFRCT-ND	Digikey	1	\$0.03	\$0.03	
						10 K ohm	311-10.0KFRCT-ND	Digikey	1	\$0.03	\$0.03	
						330 ohm	311-330KFRCT-ND	Digikey	1	\$0.03	\$0.03	
						USB connector	H2961CT-ND	Digikey	1	\$1.25	\$1.25	\$379.62
	Module Size	Pros	Cons		Weight (g)	Part	Part #	From	Num Per Unit Cost			Total
		Smallest	Heavier,	Circuit					24		\$8.79	\$210.96
		package, more	more	1 RGB LED (half		Attiny13	ATTINY13A-SSH-ND	Digikey	1	\$1.07	\$1.07	
		time in	batteries,	power @ 30 mA)		RGB LED	CLV1A-FKB-CJ1M1F1BB7R4S3	Digikey	1	\$0.60	\$0.60	
		between	you must	with Thermistor		10 K	311-10.0KFRCT-ND	Digikey	4	\$0.03	\$0.12	
£		charges, no	charge each			1 K	311-1.00KFRCT-ND	Digikey	2	\$0.03	\$0.06	
Еас		mechanical	module			1 uF	445-1423-1-ND	Digikey	1	\$0.04	\$0.04	
3e,		electrical	seperately			Thermistor	235-1109-1-ND	Digikey	1	\$2.86	\$2.86	
kag		connections,				PCB	(with value quantity)	PCB 123	1	\$4.04	\$4.04	
Рас	1 <mark>1</mark> "	bright LED		Case					24		\$4.93	\$118.32
a				.5" x 1" Case		3D print case (per cm^3)	PA 2200	Shapeways	3	\$1.40	\$4.20	
Sm						Plastic Diffuser (per inch^2)		Inventables	1	\$0.05	\$0.05	
2 -	5					NDFB Magnets	M18x116DI	Apex	4	\$0.17	\$0.68	
Option 2 - Small Package, Each	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			,	63.6				24		\$8.39	\$201.36
pti					2.65	LiPo Battery	PRT-00731	Sparkfun	1	\$6.95	\$6.95	
0				1 unit for 3 hours		4.7 uF	445-1385-2-ND	Digikey	2	\$0.05	\$0.10	
						2 K ohm	311-2.00KFRCT-ND	Digikey	1	\$0.03	\$0.03	
						10 K ohm	311-10.0KFRCT-ND	Digikey	1	\$0.03	\$0.03	
						330 ohm	311-330KFRCT-ND	Digikey	1	\$0.03	\$0.03	
						USB connector	H2961CT-ND	Digikey	1	\$1.25	\$1.25	\$530.64
	Module Size	Pros	Cons		Weight (g)	Part	Part #	From	Num Per Unit Cost	t	Unit Total 1	Total
		less batteries,	Mechanical/	Circuit					16		\$10.38	\$166.08
		lightweight for	electrical	1 RGB LED (half		Attiny13	ATTINY13A-SSH-ND	Digikey	1	\$1.07	\$1.07	
		lightweight for batteries,	electrical connections	1 RGB LED (half power @ 30 mA)		Attiny13 RGB LED	ATTINY13A-SSH-ND CLV1A-FKB-CJ1M1F1BB7R4S3	Digikey	1 1	\$1.07 \$0.60	\$1.07 \$0.60	
-m				,		-				-		
erval	\	batteries,		power @ 30 mA)		RGB LED	CLV1A-FKB-CJ1M1F1BB7R4S3	Digikey	1	\$0.60	\$0.60	
Interval	<u> </u>	batteries,		power @ 30 mA)		RGB LED 10 K	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND	Digikey Digikey	1 4	\$0.60 \$0.03	\$0.60 \$0.12	
ge, Interval		batteries,		power @ 30 mA)		RGB LED 10 K 1 K	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND	Digikey Digikey Digikey	1 4 2	\$0.60 \$0.03 \$0.03	\$0.60 \$0.12 \$0.06	
kage, Interval		batteries,		power @ 30 mA)		RGB LED 10 K 1 K 1 uF	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND	Digikey Digikey Digikey Digikey	1 4 2 1	\$0.60 \$0.03 \$0.03 \$0.04	\$0.60 \$0.12 \$0.06 \$0.04	
Package, Interval	1½"	batteries,		power @ 30 mA)		RGB LED 10 K 1 K 1 uF Thermistor	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND	Digikey Digikey Digikey Digikey Digikey	1 4 2 1	\$0.60 \$0.03 \$0.03 \$0.04 \$2.86 \$5.63	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86	\$102.08
ze Package, Interval	11."	batteries,		power @ 30 mA) with Thermistor		RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3)	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200	Digikey Digikey Digikey Digikey Digikey PCB 123	1 4 2 1 1	\$0.60 \$0.03 \$0.03 \$0.04 \$2.86 \$5.63	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38	\$102.08
dsize Package, Interval	1½"	batteries,		power @ 30 mA) with Thermistor	_	RGB LED 10 K 1 K 1 uF Thermistor PCB	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200	Digikey Digikey Digikey Digikey Digikey PCB 123	1 4 2 1 1 1	\$0.60 \$0.03 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10	\$102.08
· Midsize Package, Interval	12"	batteries,		power @ 30 mA) with Thermistor Case 1" x 1.37" Case		RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3)	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200	Digikey Digikey Digikey Digikey Digikey PCB 123	1 4 2 1 1 1 16 4 1 4	\$0.60 \$0.03 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68	
13 - Midsize Package, Interval		batteries,		power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger		RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex	1 4 2 1 1 1 1 6 4 1 4	\$0.60 \$0.03 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68	\$102.08 \$18.78
ion 3 - Midsize Package, Interval	1 ¹ / ₈	batteries,		power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge		RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun	1 4 2 1 1 1 1 6 4 1 4 2	\$0.60 \$0.03 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39	
Option 3 - Midsize Package, Interval		batteries,		power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour		RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey	1 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17 \$7.95 \$0.05	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10	
Option 3 - Midsize Package, Interval		batteries,		power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an		RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey Digikey	1 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17 \$7.95 \$0.05 \$0.03	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03	
Option 3 - Midsize Package, Interval		batteries,		power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of		RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey Digikey Digikey Digikey	1 4 2 1 1 1 2 2 1 1 2 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17 \$7.95 \$0.05 \$0.03 \$0.03	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03	
Option 3 - Midsize Package, Interval		batteries,		power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of charge for current		RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm 330 ohm	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND 311-330KFRCT-ND	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey Digikey Digikey Digikey Digikey Digikey	1 4 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.17 \$7.95 \$0.05 \$0.03 \$0.03 \$0.03	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03 \$0.03	\$18.78
	11/8	batteries, bright LED	connections	power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of charge for current configuration)	9	RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm 330 ohm USB connector	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND 311-330KFRCT-ND H2961CT-ND	Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey Digikey Digikey Digikey Digikey Digikey Digikey Digikey	1 4 2 1 1 1 16 4 2 2 1 2 1 1 1 1	\$0.60 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.17 \$7.95 \$0.05 \$0.03 \$0.03 \$0.03 \$1.25	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03 \$0.03 \$1.25	\$18.78 \$286.94
		batteries, bright LED	connections	power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of charge for current configuration)		RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm 330 ohm	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND 311-330KFRCT-ND	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey Digikey Digikey Digikey Digikey Digikey	1 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.17 \$7.95 \$0.05 \$0.03 \$0.03 \$1.25	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03 \$0.03 \$1.25 Unit Total	\$18.78 \$18.68 \$286.94 Total
	11/8	batteries, bright LED	Cons Heavier,	power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of charge for current configuration) Circuit	9	RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm 330 ohm USB connector Part	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND 311-330KFRCT-ND H2961CT-ND Part #	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey Digikey Digikey Digikey Digikey Digikey From	1 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.17 \$7.95 \$0.05 \$0.03 \$0.03 \$1.25	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03 \$0.03 \$1.25 Unit Total	\$18.78 \$286.94
	11/8	Pros more time in between	Cons Heavier, more	Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of charge for current configuration) Circuit 1 RGB LED (half	9	RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm 330 ohm USB connector Part	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND 311-10.0KFRCT-ND H2961CT-ND Part # ATTINY13A-SSH-ND	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey Digikey Digikey Digikey Digikey Digikey Digikey From Digikey	1 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17 \$7.95 \$0.05 \$0.03 \$0.03 \$1.25	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03 \$0.03 \$1.25 Unit Total	\$18.78 \$18.94 Total
	11/8	Pros more time in between charges, no	Cons Heavier, more batteries,	power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of charge for current configuration) Circuit 1 RGB LED (half power @ 30 mA)	9	RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm 330 ohm USB connector Part Attiny13 RGB LED	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND 311-330KFRCT-ND H2961CT-ND Part # ATTINY13A-SSH-ND CLV1A-FKB-CJ1M1F1BB7R4S3	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey	1 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17 \$7.95 \$0.05 \$0.03 \$0.03 \$0.03 \$1.25 \$1.07 \$0.60	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03 \$0.03 \$1.25 Unit Total 1 \$10.38	\$18.78 \$286.94 Total
	11/8	Pros more time in between charges, no mechanical	Cons Heavier, more batteries, you must	Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of charge for current configuration) Circuit 1 RGB LED (half	9	RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm 330 ohm USB connector Part Attiny13 RGB LED 10 K	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND 311-330KFRCT-ND H2961CT-ND Part # ATTINY13A-SSH-ND CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey	1 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17 \$7.95 \$0.05 \$0.03 \$0.03 \$1.25 t	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03 \$0.03 \$1.25 Unit Total T \$10.38	\$18.78 \$286.94 Total
	11/8	Pros more time in between charges, no	Cons Heavier, more batteries, you must charge each	power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of charge for current configuration) Circuit 1 RGB LED (half power @ 30 mA)	9	RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm 330 ohm USB connector Part Attiny13 RGB LED 10 K 1 K	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND 311-11-10.0KFRCT-ND H2961CT-ND Part # ATTINY13A-SSH-ND CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey	1 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17 \$7.95 \$0.05 \$0.03 \$0.03 \$1.25 \$1.07 \$0.60 \$0.03 \$0.03 \$0.03	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03 \$0.03 \$1.25 Unit Total 7 \$10.38	\$18.78 \$286.94 Total
	11/8	Pros more time in between charges, no mechanical	Cons Heavier, more batteries, you must	power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of charge for current configuration) Circuit 1 RGB LED (half power @ 30 mA)	9	RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm 330 ohm USB connector Part Attiny13 RGB LED 10 K 1 K 1 uF	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND 311-1330KFRCT-ND H2961CT-ND Part # ATTINY13A-SSH-ND CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey	1 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17 \$0.05 \$0.03 \$0.03 \$1.25 \$1.07 \$0.60 \$0.60 \$0.03 \$0.03 \$0.03	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03 \$0.03 \$1.25 Unit Total \$10.38 \$10.38	\$18.78 \$286.94 Total
	11/8	Pros more time in between charges, no mechanical electrical	Cons Heavier, more batteries, you must charge each	power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of charge for current configuration) Circuit 1 RGB LED (half power @ 30 mA)	9	RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm 330 ohm USB connector Part Attiny13 RGB LED 10 K 1 K 1 uF Thermistor	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND 311-1330KFRCT-ND H2961CT-ND Part # ATTINY13A-SSH-ND CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 311-1.00KFRCT-ND 311-1.00KFRCT-ND 315-1109-1-ND	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey	1 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17 \$7.95 \$0.05 \$0.03 \$0.03 \$1.25 \$1.07 \$0.60 \$0.03 \$0.03 \$0.03 \$0.03	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03 \$0.03 \$1.25 Unit Total \$10.38 \$10.38	\$18.78 \$286.94 Total
	Module Size	Pros more time in between charges, no mechanical electrical connections,	Cons Heavier, more batteries, you must charge each module	Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of charge for current configuration) Circuit 1 RGB LED (half power @ 30 mA) with Thermistor	9	RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm 330 ohm USB connector Part Attiny13 RGB LED 10 K 1 K 1 uF	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND 311-1330KFRCT-ND H2961CT-ND Part # ATTINY13A-SSH-ND CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey	1 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17 \$7.95 \$0.05 \$0.03 \$0.03 \$1.25 \$1.07 \$0.60 \$0.03 \$0.03 \$0.03 \$0.04 \$0.04 \$0.04 \$0.05	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03 \$1.25 Unit Total \$10.38 \$1.07 \$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63	\$18.78 \$286.94 Total \$166.08
	11/8	Pros more time in between charges, no mechanical electrical connections,	Cons Heavier, more batteries, you must charge each module	power @ 30 mA) with Thermistor Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of charge for current configuration) Circuit 1 RGB LED (half power @ 30 mA) with Thermistor	9	RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm 330 ohm USB connector Part Attiny13 RGB LED 10 K 1 K 1 uF Thermistor PCB	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND 311-330KFRCT-ND H2961CT-ND Part # ATTINY13A-SSH-ND CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity)	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey	1 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17 \$7.95 \$0.05 \$0.03 \$0.03 \$1.25 \$1.07 \$0.60 \$0.03 \$0.03 \$0.03 \$0.03 \$0.03 \$0.03	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03 \$0.03 \$1.25 Unit Total \$10.38 \$1.07 \$0.60 \$0.12 \$0.06 \$0.12 \$0.06 \$0.12 \$0.06 \$0.12 \$0.06 \$0.12 \$0.06 \$0.13 \$0.03 \$0.13 \$0.60 \$0.10 \$0.60 \$0.60	\$18.78 \$18.8 \$286.94 Total
	Module Size	Pros more time in between charges, no mechanical electrical connections,	Cons Heavier, more batteries, you must charge each module	Case 1" x 1.37" Case Battery/Charger 400 mAH, Charge 13 units for 1 hour (little less than an hours worth of charge for current configuration) Circuit 1 RGB LED (half power @ 30 mA) with Thermistor	9	RGB LED 10 K 1 K 1 uF Thermistor PCB 3D print case (per cm^3) Plastic Diffuser (per inch^2) NDFB Magnets LiPo Battery 4.7 uF 2 K ohm 10 K ohm 330 ohm USB connector Part Attiny13 RGB LED 10 K 1 K 1 uF Thermistor	CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity) PA 2200 23114-01 M18x116DI PRT-10718 445-1385-2-ND 311-2.00KFRCT-ND 311-10.0KFRCT-ND 311-30KFRCT-ND H2961CT-ND Part # ATTINY13A-SSH-ND CLV1A-FKB-CJ1M1F1BB7R4S3 311-10.0KFRCT-ND 311-1.00KFRCT-ND 311-1.00KFRCT-ND 445-1423-1-ND 235-1109-1-ND (with value quantity)	Digikey Digikey Digikey Digikey Digikey PCB 123 Shapeways Inventables Apex Sparkfun Digikey	1 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.60 \$0.03 \$0.04 \$2.86 \$5.63 \$1.40 \$0.10 \$0.17 \$7.95 \$0.05 \$0.03 \$0.03 \$1.25 \$1.07 \$0.60 \$0.03 \$0.03 \$0.03 \$0.04 \$0.04 \$0.04 \$0.05	\$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63 \$6.38 \$5.60 \$0.10 \$0.68 \$9.39 \$7.95 \$0.10 \$0.03 \$0.03 \$1.25 Unit Total \$10.38 \$1.07 \$0.60 \$0.12 \$0.06 \$0.04 \$2.86 \$5.63	\$18.78 \$286.94 Total \$166.08

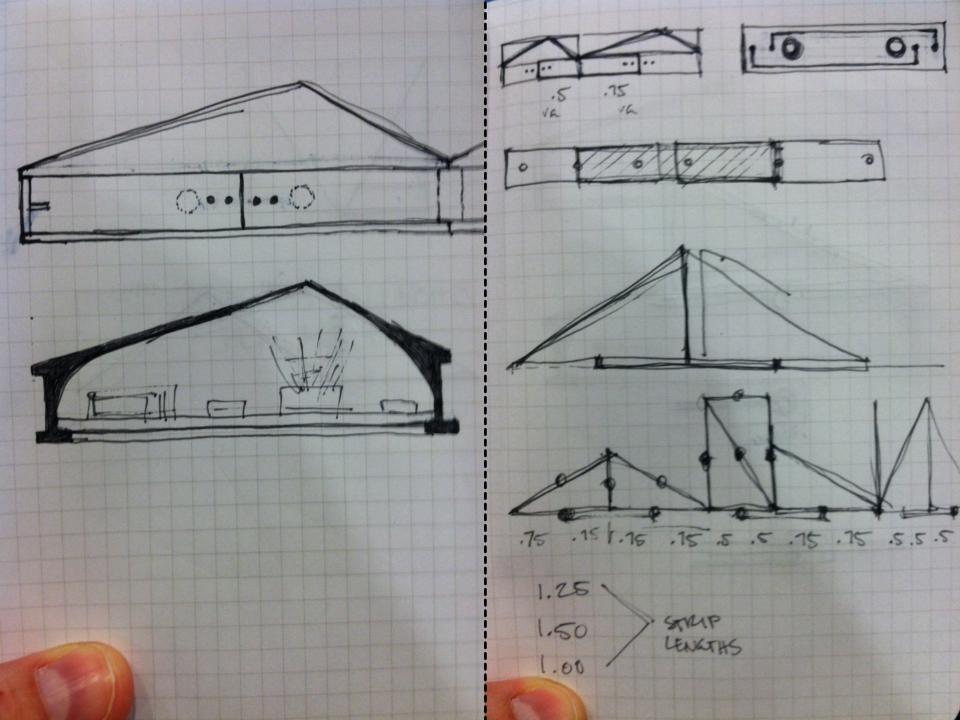


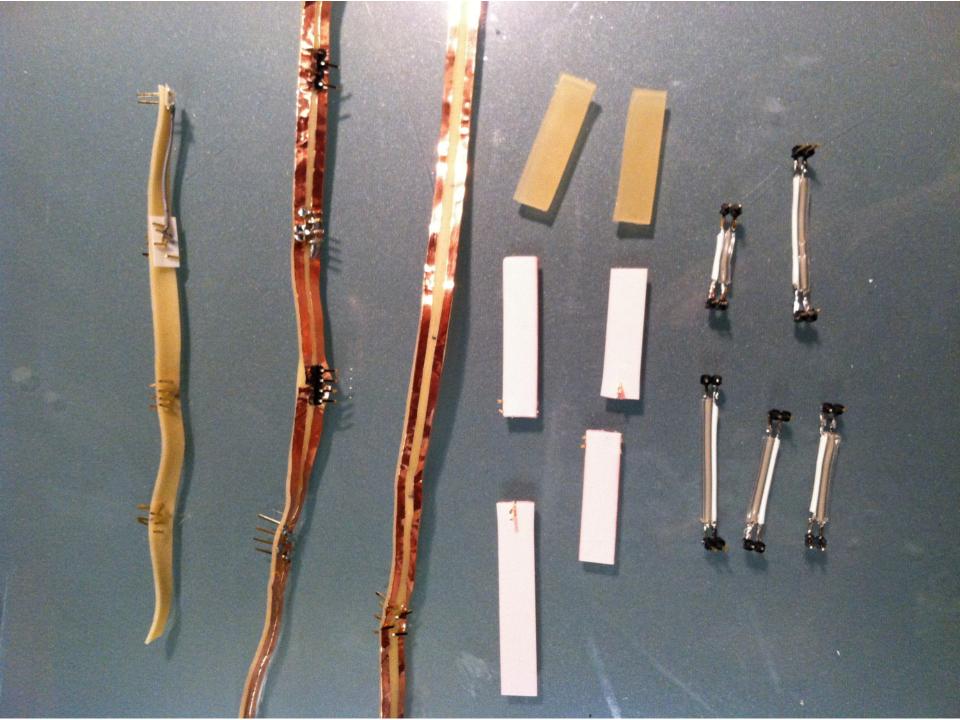






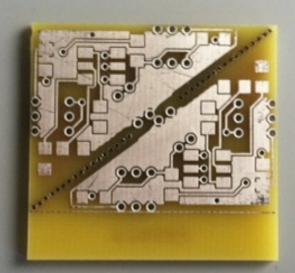


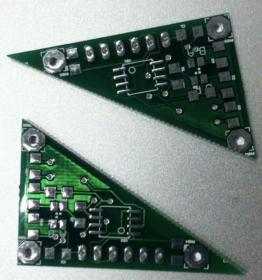




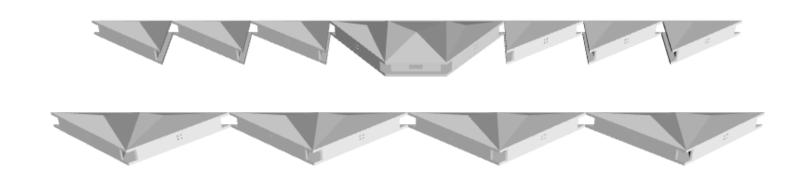




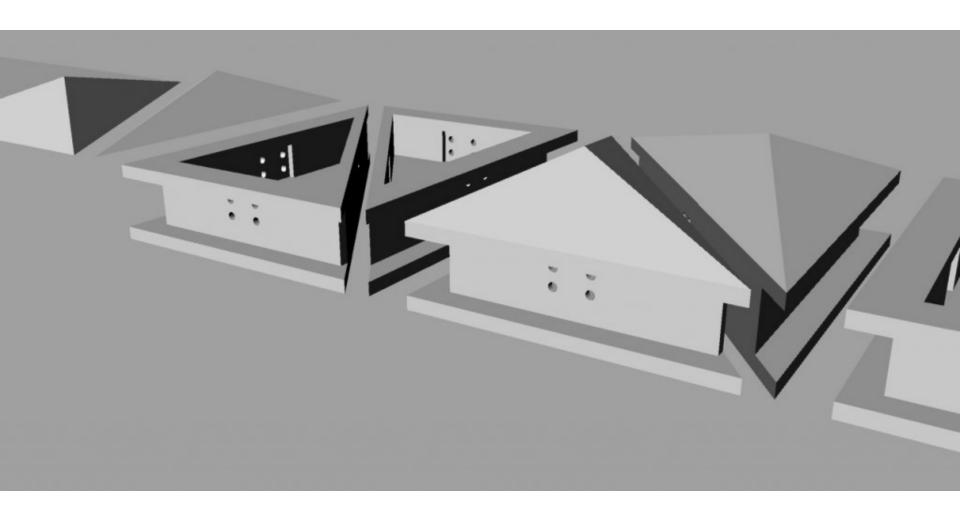




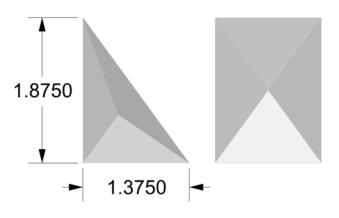












U.T. 1000

Туре	Part	Part #	From	Num Per Unit	U.T. 1	U.T. 100	U.T. 1000
Temperature				1	\$19.57	\$13.15	\$11.27
		ATTINY13A-SSH-			\$0.84	\$0.47	\$0.47
	Attiny13	ND	Digikey		1 \$0.75	\$0.67	\$0.55
		CLV6A-FKB-			Ş0.73	Ş0.07	Ş0.33
	RGB LED	CK1P1G1BB7R3R 3CT-ND	Digikey		1		
	NGD LLD	311-10.0KFRCT-	Digircy		\$0.03	\$0.02	\$0.01
	10 K	ND	Digikey		1		
		311-1.00KFRCT-			\$0.03	\$0.02	\$0.01
	1 K	ND	Digikey		4 \$0.03	\$0.02	\$0.01
	499 ohm	311-499FRCT-ND	Digikov		1	Ψ0.0 <u>2</u>	Ş0.01
	499 011111	311-499FRC1-ND	Digikey		\$0.24	\$0.09	\$0.05
	1 uF	445-1423-1-ND	Digikey		1		
					\$2.73	\$1.36	\$1.15
	Thermistor	235-1109-1-ND	Digikey		1 1 \$6.14	\$3.07	\$1.50
	PCB		APC		1 \$6.14 \$1.40	\$1.40	\$1.30
	3D print case (p cm^3)	er PA 2200	Shapeways		2	γ1.10	γ1.10
2mm C (6PIN) 2mm 2l	2mm Connect	1 A 2200	Shapeways		\$1.76	\$1.37	\$0.98
		3M9234-ND	Digikey		3	4	40.00
	2mm 2Pin				\$0.12	\$0.10	\$0.80
	Header		Digikey		2 \$0.37	\$0.26	\$0.15
	2mm 4Pin Head	er			1 \$0.37	Ş0.20	\$0.15
ITEM		Battery (1)	Temp (3)	Light (3)		7	otal
Necklace	U.T. 1	\$31.84			5	Ç	142.21
@ 7 units		\$20.12					\$96.05
C :	U.T. 100	Ψ-0:	700.	700	_	¢01.05	

\$33.81

\$16.84

\$31.20

Type	Part	Part #	From	Num Per Unit	U.T. 1	U.T. 100	U.T. 1000
Temperature				1	\$19.57	\$13.15	\$11.27
	Attiny13	ATTINY13A- SSH-ND CLV6A-FKB-	Digikey		\$0.84 1 \$0.75	\$0.47 \$0.67	\$0.47 \$0.55
	RGB LED	CK1P1G1BB7 R3R3CT-ND 311-10.0KFR			\$0.03	\$0.02	\$0.01
	10 K	CT-ND 311-1.00KFR	Digikey		\$0.03	\$0.02	\$0.01
	1 K	CT-ND 311-499FRCT			\$0.03	\$0.02	\$0.01
	499 ohm	-ND 445-1423-1-	Digikey		\$0.24	\$0.09	\$0.05
	1 uF	ND 235-1109-1-	Digikey		\$2.73	\$1.36	\$1.15
	Thermistor PCB	ND	Digikey APC		1 1 \$6.14	\$3.07	\$1.50
	3D print case (per cm^3)	PA 2200	Shapeways		\$1.40	\$1.40	\$1.40
	2mm Connect (6PIN)	3M9234-ND	Digikey		\$1.76 3	\$1.37	\$0.98
	2mm 2Pin Header	S5802-40-ND			\$0.12 2	\$0.10	\$0.80
	2mm 4Pin He		Digincy		1 \$0.37	\$0.26	\$0.15
Light				1	\$17.22		\$10.40
	Attiny13	ATTINY13A- SSH-ND CLV6A-FKB-	Digikey		\$0.84 1 \$0.75	\$0.47 \$0.67	\$0.47 \$0.55
	RGB LED	311-10.0KFR	Digikey		1 \$0.03	\$0.02	\$0.01
	10 K	CT-ND 311-1.00KFR	Digikey		\$0.03	\$0.02	\$0.01
	1 K	CT-ND 311-499FRCT	Digikey		\$0.03	\$0.02	\$0.01
	499 ohm	-ND 445-1423-1-	Digikey		1 \$0.24	\$0.09	\$0.05
	1 uF Phototransist	ND :365-1162-1-	Digikey		1 \$0.38	\$0.37	\$0.28
	or PCB 3D print case	ND	Digikey APC		1 1 \$6.14 \$1.40	\$3.07 \$1.40	\$1.50 \$1.40
	(per cm^3) 2mm		Shapeways		2 \$1.76	\$1.37	\$0.98
	Connect (6PIN) 2mm 2Pin	3M9234-ND			3 \$0.12	\$0.10	\$0.80
	Header 2mm 4Pin He	S5802-40-ND ader	Digikey		2 1 \$0.37	\$0.26	\$0.15
Proximity Sound							
Pressure Battery/Charger					S31.84	\$20.12	\$16.84
400 mAH - Each	LiPo Battery	PRT-10718	Sparkfun		1 \$7.95	\$6.36	\$6.36
unit requires approximately	4.7 uF	445-1385-2- ND	Digikey		\$0.29 2	\$0.10	\$0.01
30 mAH	2 K ohm	311-2.00KFR CT-ND	Digikey		\$0.03 1	\$0.02	\$0.01
	10 K ohm	311-10.0KFR CT-ND	Digikey		\$0.03 1	\$0.02	\$0.01
	499 ohm	311-499FRCT -ND			\$0.03 1	\$0.02	\$0.01
	1 K ohm	311-1.00KFR CT-ND	Digikey		\$0.03 2	\$0.02	\$0.01
	USB connector	H2961CT-ND			\$1.25 1	\$0.75	\$0.53
	105170-	MCP73831T- 2ACI/OTCT-			\$0.68	\$0.42	\$0.42
	IC for LiPo 2mm Connect	ND	Digikey		\$1.76	\$1.37	\$0.98
	(6PIN) JST connector	3M9234-ND 455-1734-1- ND	Digikey Digikey		2 \$0.51	\$0.37	\$0.32
	PCB 3D print case		APC		\$12.28 \$1.40	\$4.00 \$1.40	\$2.00 \$1.40
ITCA 4	(per cm^3)	PA 2200	Shapeways		4		F-1-1
ITEM Necklace	U.T. 1	Battery (1) \$31.84			6		Fotal \$142.21
@ 7 units	U.T. 100 U.T. 1000	\$31.84 \$20.12 \$16.84					\$96.05 \$81.85

\$81.85

Market

The target group is for technology/design oriented people, all ages – more focused towards females.

Manufacture

Hybrid Approach:

- The circuit boards and components will be premade and soldered.
- The exterior enclosure will be 3D printed (this may change).
- Assembly of each bijoux will be done in house (me). This will be a low maintenance process: Set preassembled circuit board and components onto bottom of enclosure with adhesive, Add magnets, Snap close enclosure
- Design of packaging will be done in house (me).
- Production of packaging/instructions will be done by contract.
- Packaging and shipment will be done in house (me).
- Assembly of bijoux system will be customized by the user.

Kickstarter Project with website for custom purchase, additionally sold as starter kits.