

STFU_v1 : Parts List + Cost									
Id	Reference	Value	Manufacturer	Mfr. P/N	Vendor	Vendor P/N	QTY	RATE	AMOUNT
1	BT1	2x 2032	MPD (Memory Protection Devic	BHX2-2032-SM	DigiKey	BHX2-2032-SM-ND	1	0.49	0.49
2									
3	C1,C2,C4,C5,C6,C7,C8	100n	Kemet	C0805C104K3RACTU	DigiKey	399-1168-1-ND	7	0.07	0.49
4	C3	100u	Nichicon	UCL1E101MCL16S	DigiKey	493-3937-1-ND	1	0.87	0.87
5	C9	1n	AVX Corporation	08053A102KAT2A	DigiKey	478-6218-1-ND	1	0.24	0.24
6	C10	47n	Taiyo Yuden	TMK212B7473KD-T	DigiKey	587-1280-1-ND	1	0.10	0.10
7	D1 to D60	LED	Cree Inc	CLM3C-WKW-CWBYA453	DigiKey	CLM3C-WKW-CWBYA453CT-ND	60	0.25	15.00
8	D61	Z15V	ON Semiconductor	MM3Z15VT1G	DigiKey	MM3Z15VT1G0SCT-ND	1	0.16	0.16
9	D62	LED	TT Electronics/Optek Technolc	0VLG50C8B9	DigiKey	365-1189-ND	1	0.13	0.13
10	D63	PWR	OSRAM Opto Semiconductors I	LG R971-KN-1-0-20-R18	DigiKey	475-1410-1-ND	1	0.09	0.09
11	D64	IR LED	Kingbright Corp	WP710A10F3C	DigiKey	754-1600-ND	1	0.26	0.26
12	IR1	IRSENSOR	Sharp Microelectronics	GP1UX311QS	DigiKey	425-2528-ND	1	0.96	0.96
13	K1	FTDI	Sullins Connector Solutions	PREC040SAAN-RC	DigiKey	S1012EC-40-ND	1	0.51	0.51
14	K2	ISP	--	--	--	--	1	0.00	0.00
15	K3	I2C	--	--	--	--	1	0.00	0.00
16	K4	SERVO	--	--	--	--	1	0.00	0.00
17	K5	V_SEL	--	--	--	--	1	0.00	0.00
18	P1,P2,P8,P9	CONN_1	--	--	--	--	4	0.00	0.00
19	P3,P5	HAND_HI	--	--	--	--	2	0.00	0.00
20	P4,P6	HAND_LO	--	--	--	--	2	0.00	0.00
21	P7	BATT_12V	On Shore Technology Inc	OSTTA024163	DigiKey	ED2580-ND	1	0.45	0.45
22	P10	MOD	--	--	--	--	0	0.45	0.00
23	Q1	PNP	NXP Semiconductors	PBSS9110Z,135	DigiKey	568-6798-1-ND	1	0.44	0.44

24	Q2	NPN	Fairchild Semiconductor	2N3904BU	<a href="#">DigiKey</a>	2N3904FS-ND	1	0.18	0.18
25	R1,R4,R6,R38,R39	10k	Stackpole Electronics Inc	RMCF0805JT10K0	<a href="#">DigiKey</a>	RMCF0805JT10K0CT-ND	5	0.03	0.15
26	R2, R8 to R37, R40, R41	120E	Stackpole Electronics Inc	RMCF0805JT120R	<a href="#">DigiKey</a>	RMCF0805JT120RCT-ND	33	0.03	0.99
27	R3,R7	1k	Stackpole Electronics Inc	RMCF0805JT1K00	<a href="#">DigiKey</a>	RMCF0805JT1K00CT-ND	2	0.03	0.06
28	R5	20k	Copal Electronics Inc	CT94EP203	<a href="#">DigiKey</a>	CT94EP203-ND	1	0.02	0.02
29	R42	47E	Stackpole Electronics Inc	RMCF0603JT47R0	<a href="#">DigiKey</a>	RMCF0603JT47R0CT-ND	1	0.02	0.02
30	R43	220E	Stackpole Electronics Inc	RMCF0603JT220R	<a href="#">DigiKey</a>	RMCF0603JT220RCT-ND	1	1.30	1.30
31	SW1	SW_STFU	NKK Switches	HP0215AFKP2-S	<a href="#">DigiKey</a>	HP0215AFKP2-S-ND	1	0.75	0.75
32	SW2	RST	TE Connectivity	FSM2JH	<a href="#">DigiKey</a>	450-1649-ND	1	0.20	0.20
33	SW3	SW_ENT	TE Connectivity	FSM2JH	<a href="#">DigiKey</a>	450-1649-ND	1	0.20	0.20
34	TP1,TP2,TP3,TP4,T5,T6	CONN_1	--	--	--	--	6	0.00	0.00
35	U1	ATMEGA328-P	Atmel	ATMEGA328-PU	<a href="#">DigiKey</a>	ATMEGA328-PU-ND	1	2.88	2.88
36	U2	HEF4051B	NXP Semiconductors	HEF4051BT,652	<a href="#">DigiKey</a>	568-3979-5-ND	1	0.49	0.49
37	U3	ULN2803	Texas Instruments	ULN2803ADWR	<a href="#">DigiKey</a>	296-15777-1-ND	1	0.90	0.90
38	U4	7809	STMicroelectronics	L7809CD2T-TR	<a href="#">DigiKey</a>	497-1176-1-ND	1	0.67	0.67
39	U5	7805	ON Semiconductor	NCP1117DT50G	<a href="#">DigiKey</a>	NCP1117DT50G0S-ND	1	0.48	0.48
40	U6	NE555	STMicroelectronics	NE555DT	<a href="#">DigiKey</a>	497-1962-1-ND	1	0.41	0.41
41	X1	16MHz	ECS Inc	ZTT-16.00MX	<a href="#">DigiKey</a>	X908-ND	1	0.70	0.70
Shipping									14.00
Total, Parts (1 kit), US\$									44.59

OTHER PARTS									
SV1	SERVO	Vigor	VTS-08B	<a href="#">RoboSoft Systems</a>			1	9.17	9.17
	Connection Flat Cable						1	0.83	0.83
	Mounting Bracket						1	8.33	8.33

Hardware				1	1.67	1.67
Acrylic (Laser cut)				1	8.33	8.33
PCB1	PCB	OSHPark.com	2 layers, 6.02x4.77 in. (153x121mm). \$143.35 for set of three plus Shipping	1	55.00	55.00
TOTAL, US\$						83.33
TOTAL, US\$						127.92
TOTAL, ₹ , @				60	7675.40	