

STFU_v1 : Parts List + Cost									
Id	Reference	Value	Manufacturer	Mfr. P/N	Vendor	Vendor P/N	QTY	RATE	AMOUNT
1	C1,C2,C4,C5,C7,C8	100n	Kemet	C0805C104K3RACTU	DigiKey	399-1168-1-ND	6	0.07	0.42
2	C3	100u	Nichicon	UCL1E101MCL1G5	DigiKey	493-3937-1-ND	1	0.87	0.87
3	D1 to D60	LED	Cree Inc	CLM3C-WKW-CWBYA453	DigiKey	CLM3C-WKW-CWBYA453CT-ND	60	0.25	15.00
4	D61	Z15V	ON Semiconductor	MM3Z15VT1G	DigiKey	MM3Z15VT1G0SCT-ND	1	0.16	0.16
5	D63	PWR	OSRAM Opto Semiconductors	ILG R971-KN-1-0-20-R18	DigiKey	475-1410-1-ND	1	0.09	0.09
6	IR1	IRSENSOR	Sharp Microelectronics	GP1UX311Q5	DigiKey	425-2528-ND	1	0.96	0.96
7	K1	FTDI	Sullins Connector Solutions	PREC040SAAN-RC	DigiKey	S1012EC-40-ND	1	0.51	0.51
8	K2	ISP	--	--	--	--	1	0.00	0.00
9	K3	I2C	--	--	--	--	1	0.00	0.00
10	K4	SERVO	--	--	--	--	1	0.00	0.00
11	K5	V_SEL	--	--	--	--	1	0.00	0.00
12	P1,P2,P8,P9	CONN_1	--	--	--	--	4	0.00	0.00
13	P3,P5	HAND_HI	--	--	--	--	2	0.00	0.00
14	P4,P6	HAND_LO	--	--	--	--	2	0.00	0.00
15	P7	BATT_12V	On Shore Technology Inc	OSTTA024163	DigiKey	ED2580-ND	1	0.45	0.45
16	Q1	PNP	NXP Semiconductors	PBSS9110Z,135	DigiKey	568-6798-1-ND	1	0.44	0.44
17	R1,R4,R38,R39	10k	Stackpole Electronics Inc	RMCF0805JT10K0	DigiKey	RMCF0805JT10K0CT-ND	4	0.03	0.12
18	R3	1k	Stackpole Electronics Inc	RMCF0805JT1K00	DigiKey	RMCF0805JT1K00CT-ND	1	0.03	0.03
19	R2, R8 to R37, R40	120E	Stackpole Electronics Inc	RMCF0805JT120R	DigiKey	RMCF0805JT120RCT-ND	31	0.03	0.93
20	SW2	RST	TE Connectivity	FSM2JH	DigiKey	450-1649-ND	1	0.20	0.20
21	SW3	SW_ENT	TE Connectivity	FSM2JH	DigiKey	450-1649-ND	1	0.20	0.20
22	TP1,TP2,TP3,TP4,T5,T6	CONN_1	--	--	--	--	6	0.00	0.00
23	U1	ATMEGA328-P	Atmel	ATMEGA328-PU	DigiKey	ATMEGA328-PU-ND	1	2.88	2.88

24	U2	HEF4051B	NXP Semiconductors	HEF4051BT.652	DigiKey	568-3979-5-ND	1	0.49	0.49
25	U3	ULN2803	Texas Instruments	ULN2803ADWR	DigiKey	296-15777-1-ND	1	0.90	0.90
26	U4	7809	STMicroelectronics	L7809CD2T-TR	DigiKey	497-1176-1-ND	1	0.67	0.67
27	U5	7805	ON Semiconductor	NCP1117DT50G	DigiKey	NCP1117DT50G0S-ND	1	0.48	0.48
28	X1	16MHz	ECS Inc	ZTT-16.00MX	DigiKey	X908-ND	1	0.70	0.70
Shipping									14.00
Total, Parts (1 kit), US\$									40.50
OTHER PARTS									
SV1	SERVO	Vigor	VTS-08B	RoboSoft Systems			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\$									123.83
TOTAL, ₹ , @							60		7430.00