Main Controller

Source Data From: MainController.SchDoc

Project: PrintingProjectAllDocs.PrjPCB

Variant: U of U Computer Engineering

8/28/2012 1:47:04 PM Report Date:

Print Date:	28-Aug-12	1:47:12 PM					
Designator	Value	Comment	Vendor	Description	Quan	Price	Total Parts Price
R1, R2, R3, R4, R5	1K	Res1	Taydaelectronics	Resistor	5	0.01	\$0.05
D1, D2, D3, D4, D5, D6, D7	1N4001	1N4001	Taydaelectronics	1.0 Ampere General Purpose Rectifier, 1 Amp General Purpose Rectifier	7	0.01	\$0.07
C5, C6, C7, C8, C9	1uF	Сар	Taydaelectronics	Capacitor	5	0.03	\$0.15
Q1, Q2, Q3, Q4, Q5	2N3904	2N3904	Taydaelectronics	NPN General Purpose Amplifier	5	0.01	\$0.05
C2, C4	4.7uF	Сар	Taydaelectronics	Capacitor	2	0.03	\$0.06
C1, C3	470uF	Сар	Taydaelectronics	Capacitor	2	0.03	\$0.06
J1, J2, J3, J4, J5	D Connector 9	D Connector 9	Taydaelectronics	Receptacle Assembly, 9 Position, Right Angle	5	0.48	\$2.40
P3, P9, P12	Header 2	Header 2	Taydaelectronics	Header, 2-Pin	3	0.02	\$0.06
P11	Header 3	Header 3	Taydaelectronics	Header, 3-Pin	1	0.03	\$0.03
P1	Header 4	Header 4	Taydaelectronics	Header, 4-Pin	1	0.04	\$0.04
P2, P5, P8, P14, P16, P17, P18, P19	Header 5	Header 5	Taydaelectronics	Header, 5-Pin	8	0.05	\$0.40
P10	Header 6	Garage_HVAC	Taydaelectronics	Header, 6-Pin	1	0.06	\$0.06
P4	Header 6	Header 6	Taydaelectronics	Header, 6-Pin	1	0.06	\$0.06
P6	Header 7	Header 7	Taydaelectronics	Header, 7-Pin	1	0.07	\$0.07
P13, P15	Header 9	TempSenseBoard1	Taydaelectronics	Header, 9-Pin	2	0.09	\$0.18
VR2	L7805CP	L7805CP	Taydaelectronics	Positive Voltage Regulator	1	0.24	\$0.24
VR1	L7812CP	L7812CP	Taydaelectronics	Positive Voltage Regulator	1	0.24	\$0.24
P7	Plug	Spare	Taydaelectronics	Plug	1	0.00	\$0.00
U3	SN74HC154NT	SN74HC154NT	Digi-Key	4-Line to 16-Line Decoder / Demultiplexer	1	3.70	\$3.70
U1, U2, U5	SN7416N	SN7416N	Taydaelectronics	Hex Inverter Buffer / Driver with High-Voltage Outputs	3	0.18	\$0.54
U4	Teensy2.0++	Teensy2.0++	Taydaelectronics	The teensy 2.0 from www.PJRC.com	1	24.0	\$24.00
	-					Total	\$32.46

Power Board BOM 2 For Schematic Document [PowerAndFanBoard.SchDoc]

Source Data From: PowerAndFanBoard.SchDoc

Project: PrintingProjectAllDocs.PrjPCB

Variant: U of U Computer Engineering

Report Date: 8/28/2012 1:47:25 PM
Print Date: 28-Aug-12 1:47:37 PM

Print Date:	28-Aug-12	1:47:37 PM					
Designator	Value	Comment	Vendor	Description	Quant	Price	Total Parts Price
C1, C5, C10, C13, C16, C19,	100uF	Сар	Taydaelectronics	Capacitor	7	0.03	\$0.21
C22		_			·		
C2, C6, C9, C11, C14, C18,	10uF	Сар	Taydaelectronics	Capacitor	8	0.03	\$0.24
C20, C23 C3, C7, C12, C15, C17, C21,	0.1uF	Con	Toudoolootronico	Congoiter		0.03	60.0
C3, C7, C12, C15, C17, C21,	U.TuF	Сар	Taydaelectronics	Capacitor	7	0.03	\$0.21
C4	3.3nf	Cap	Taydaelectronics	Capacitor	1	0.03	\$0.03
C8	47uf	Cap	Taydaelectronics	Capacitor	1	0.03	\$0.03
D1, D2, D7, D8, D10, D12,	1N4001	1N4001	Taydaelectronics	1 Amp General Purpose		0.01	\$0.07
D14	1141001	1111001	ray adolooti onloo	Rectifier	7	0.01	ψο.σ.
D3, D5	Diode 1N4148	Diode 1N4148	Taydaelectronics	High Conductance Fast	_	0.01	\$0.02
				Diode	2		
D4, D9, D13, D15, D18, D20,	LED0	RED_LED	Taydaelectronics	Typical INFRARED GaAs	7	0.04	\$0.28
D21				LED	'		
D6, D11, D16, D17, D19,	LED0	GREEN_LED	Taydaelectronics	Typical INFRARED GaAs	7	0.04	\$0.28
D22, D23				LED			20.0
P1	Header 4	Header 4	Taydaelectronics	Header, 4-Pin	1	0.04	\$0.04
P2, P3, P8	Header 3	Header 3	Taydaelectronics	Header, 3-Pin		0.03	\$0.09
P4, P5, P6, P7	Header 2	Header 2	Taydaelectronics	Header, 2-Pin	4	0.02	\$0.08
R1	56k	Res1	Taydaelectronics	Resistor	1	0.01	\$0.01
R2	22k	Res1	Taydaelectronics	Resistor	1	0.01	\$0.01
R3, R6, R9, R12, R14, R17,	330	Res1	Taydaelectronics	Resistor		0.01	\$0.14
R19, R20, R22, R26, R27,					14		
R29, R31, R32	001		-	5		2.24	
R4, R13	30k	Res1	Taydaelectronics	Resistor	2	0.01	\$0.02
R5, R15	7.5k	Res1	Taydaelectronics	Resistor	_	0.01	\$0.02
R7, R16, R21, R24, R25	11k	Res1	Taydaelectronics	Resistor	5	0.01	\$0.05
R8, R10	470	Res1	Taydaelectronics	Resistor		0.01	\$0.02
R11, R18, R23, R28, R30	10k	Res1	Taydaelectronics	Resistor	5	0.01	\$0.05
S1		nintendo_pow er_reset	All Electronics		1	1.0	\$1.00
	et						
U1	LM555CN	LM555CN	Taydaelectronics	Timer	1	0.14	\$0.14
U2, U4, U6	SN7416N	SN7416N	Taydaelectronics	Hex Inverter Buffer /		0.18	\$0.54
				Driver with High-Voltage	3		
U3, U5	LM339N	LM339N	Toudoolootronico	Outputs Low Power Low Offset		0.17	\$0.34
03, 05	LIVISSAIN	LIVISSIN	Taydaelectronics	Voltage Quad	2	0.17	\$0.52
				Comparator	_		
VR1, VR4, VR6	L7812CP	L7812CP	Taydaelectronics	Positive Voltage		0.24	\$0.72
, ,			1.1, 440.000.00.000	Regulator	3	· ·	
VR2, VR3, VR5, VR7	L7805CP	L7805CP	Taydaelectronics	Positive Voltage	4	0.24	\$0.96
			'	Regulator	4		
	•		•	•	•	Total	\$5.60

HVAC & Garage Control

Source Data From:

HeatingAC_Garage.SchDoc

Project:

PrintingProjectAllDocs.PrjPCB

Variant:

U of **U** Computer Engineering

Report Date:

8/28/2012 1:47:59 PM

Print Date:	28-Aug-12	1:48:07 PM					
Designator	Value	Comment	Vendor	Description	Quant	Price	Total Parts Price
C1	0.1uF	Сар	Taydaelectronics	Capacitor	1	0.03	\$0.03
C2	1uF	Сар	Taydaelectronics	Capacitor	1	0.03	\$0.03
D1, D2, D3, D4	LED0	LED_White	Taydaelectronics	Typical INFRARED GaAs LED	4	0.04	\$0.16
D5, D6, D7, D8, D9, D10, D11	1N4001	1N4001	Taydaelectronics	1.0 Ampere General Purpose Rectifier	7	0.01	\$0.07
J1	D Connector 9	D Connector 9	Taydaelectronics	Receptacle Assembly, 9 Position, Right Angle	1	0.48	\$0.48
K1, K2, K3, K4, K5, K6, K7	SPDT	SPDT	Taydaelectronics		7	0.64	\$4.48
P1	Header 2	Header 2	Taydaelectronics	Header, 2-Pin	1	0.02	\$0.02
P2	Header 3	Header 3	Taydaelectronics	Header, 3-Pin	1	0.03	\$0.03
P3	Header 7	Header 7	Taydaelectronics	Header, 7-Pin	1	0.07	\$0.07
Q1, Q2, Q3, Q4, Q5, Q6, Q7	2N3904	2N3904	Taydaelectronics	NPN General Purpose Amplifier	7	0.01	\$0.07
R1, R2, R3, R5	120	Res1	Taydaelectronics	Resistor	4	0.01	\$0.04
R4, R6, R7, R8, R9, R10, R11, R12, R13, R20, R21, R22, R23	3.3k	Res1	Taydaelectronics	Resistor	13	0.01	\$0.13
R14, R15, R16, R17, R18, R19	10k	Res1	Taydaelectronics	Resistor	6	0.01	\$0.06
U1, U3, U4	OptoCoupler	OptoCoupler	Taydaelectronics		3	0.3	\$0.90
U2	SN7416N	SN7416N	Taydaelectronics	Hex Inverter Buffer / Driver with High-Voltage Outputs	1	0.18	\$0.18
	-	·	.	•		Total	\$6.75

Bi-Polar Motor driver BOM 2 For Schematic Document [MotorController.SchDoc]

Source Data From:

MotorController.SchDoc

Project:

PrintingProjectAllDocs.PrjPCB

Variant:

U of **U** Computer Engineering

Report Date:

8/28/2012 1:48:40 PM

Print Date:

28-Aug-12 1:48:53 PM

Print Date:	28-Aug-12	1:48:53 PM			I		
Designator	Value	Comment	Vendor	Description	Quant	Price	Total Parts Price
C1	1uF	Сар	Taydaelectronics	Capacitor	1	0.03	\$0.03
C2	4.7uF	Сар	Taydaelectronics	Capacitor	1	0.03	\$0.03
D1, D2, D3, D4, D5, D6, D7, D8	Diode 1N5408	Diode 1N5408	Taydaelectronics	3 Amp Medium Pow er Silicon Rectifier Diode	8	0.03	\$0.24
D9	LED0	LED0	Taydaelectronics	Typical INFRARED GaAs LED	1	0.04	\$0.04
D10	Diode 1N4148	Diode 1N4148	Taydaelectronics	High Conductance Fast Diode	1	0.01	\$0.01
P1	Header 6	Header 6	Taydaelectronics	Header, 6-Pin	1	0.06	\$0.06
P2	Header 4	Header 4	Taydaelectronics	Header, 4-Pin	1	0.04	\$0.04
Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q10	2N3904	2N3904	Taydaelectronics	NPN General Purpose Amplifier	10	0.01	\$0.10
R1, R2, R3, R5	1K	Res1	Taydaelectronics	Resistor	4	0.01	\$0.04
R4, R6, R7, R8, R9, R10, R17, R18, R19, R20, R22	10k	Res1	Taydaelectronics	Resistor	11	0.01	\$0.11
R11, R13, R14, R15, R21	3.3k	Res1	Taydaelectronics	Resistor	5	0.01	\$0.05
R12, R16	470	Res1	Taydaelectronics	Resistor	2	0.01	\$0.02
U1, U2, U3, U4	TIP126	TIP126	Taydaelectronics	TIP126 -PNP	4	0.35	\$1.40
U5, U6, U7, U8	TIP120	TIP120	Taydaelectronics	NPN 60V -5A TO-220	4	0.26	\$1.04
U9	LM555CN	LM555CN	Taydaelectronics	Timer	1	0.14	\$0.14
U10	MC74HC194N	MC74HC194N	Digi-Key	4-Bit Bidirectional Universal Shift Register	1	0.68	\$0.68
U11	SN754410NE	SN754410NE	U of U	Quadruple Half-H Driver	1	0.00	\$0.00
		.	•	-		Total	\$4.03

Damper Section

Source Data From:

DamperSection.SchDoc

Project:

PrintingProjectAllDocs.PrjPCB

Variant:

U of **U** Computer Engineering

Report Date:

8/28/2012

1:49:22 PM

Print Date:

28-Aug-12

1:49:34 PM

Designator	Value	Comment	Vendor	Description	Quant	Price	Total Parts Price
	1N4001	1N4001	Taydaelectronics	1.0 Ampere General		0.01	\$0.16
D8, D9, D10, D11, D12, D15,				Purpose Rectifier	16		
D16, D17, D18							
D13, D14, D19, D20	LED0	LED_White	Taydaelectronics	Typical INFRARED GaAs LED	4	0.04	\$0.16
J1, J2, J3, J4	D Connector 9	D Connector 9	Taydaelectronics	Receptacle Assembly, 9 Position, Right Angle	4	0.48	\$1.92
K1, K2, K3, K4, K5, K6, K7,	SPDT	SPDT	Taydaelectronics			0.64	\$10.24
K8, K9, K10, K11, K12, K13,					16		
K14, K15, K16							
P1	Header 4	Header 4	Taydaelectronics	Header, 4-Pin	1	0.04	\$0.04
P2	Header 2	Header 2	Taydaelectronics	Header, 2-Pin	1	0.02	\$0.02
P3	Header 7	Header 7	Taydaelectronics	Header, 7-Pin	1	0.07	\$0.07
Q1, Q2, Q3, Q4, Q5, Q6, Q7,	2N3904	2N3904	Taydaelectronics	NPN General Purpose		0.01	\$0.20
Q8, Q9, Q10, Q11, Q12,				Amplifier	20		
Q13, Q14, Q15, Q16, Q17,					20		
Q18, Q19, Q20							
R1, R2, R3, R4, R7, R8, R9,	10k	Res1	Taydaelectronics	Resistor		0.01	\$0.26
R10, R11, R12, R13, R16,							
R17, R18, R21, R22, R23,					26		
R25, R26, R30, R31, R32,							
R33, R35, R36, R37							
R5, R6, R14, R15, R24, R29,	1M	Res1	Taydaelectronics	Resistor	8	0.01	\$0.08
R34, R39							
R19, R20, R27, R28	120	Res1	Taydaelectronics	Resistor	4	0.01	\$0.04
R38, R40	1K	Res1	Taydaelectronics	Resistor	2	0.01	\$0.02
-	•	•	•	-	-	Total	\$13.21

Sprinkler Control BOM 2 For Schematic Document [SprinklerBoard.SchDoc]

Source Data From:

SprinklerBoard.SchDoc

Project:

PrintingProjectAllDocs.PrjPCB

Variant:

U of **U** Computer Engineering

Report Date:

8/28/2012 1:50:16 PM

Print Date: 28-Aug-12

1:50:28 PM

Designator	Value	Comment	Vendor	Description	Quant	Price	Total Parts Price
D1, D2, D3, D4, D5, D6	1N4001	1N4001	Taydaelectronics	1.0 Ampere General Purpose Rectifier	6	0.01	\$0.06
D7, D8, D9, D10, D11, D12	LED0	LED_White	Taydaelectronics	Typical INFRARED GaAs LED	6	0.04	\$0.24
J1	D Connector 9	D Connector 9	Taydaelectronics	Receptacle Assembly, 9 Position, Right Angle	1	0.48	\$0.48
K1, K2, K3, K4, K5, K6	SPDT	SPDT	Taydaelectronics		6	0.64	\$3.84
P1	Header 7	Header 7	Taydaelectronics	Header, 7-Pin	1	0.07	\$0.07
Q1, Q2, Q3, Q4, Q5, Q6	2N3904	2N3904	Taydaelectronics	NPN General Purpose Amplifier	6	0.01	\$0.06
R1, R2, R3, R4, R5, R6, R7, R8	1K	Res1	Taydaelectronics	Resistor	8	0.01	\$0.08
R9, R10, R11, R12, R13, R14	120	Res1	Taydaelectronics	Resistor	6	0.01	\$0.06
U1	SN7416N	SN7416N	Taydaelectronics	Hex Inverter Buffer / Driver with High-Voltage Outputs	1	0.18	\$0.18
U2	74AC138B	74AC138B	Taydaelectronics	3-to-8 Line Decoder Inverting	1	0.25	\$0.25
			,			Total	\$5.32

Temperature Sensor Control BOM 2 For Schematic Document [TemperatureSensorBlock)

Source Data From: TemperatureSensorBlock.SchDoc

Project: PrintingProjectAllDocs.PrjPCB

Variant: U of U Computer Engineering

Report Date: 8/28/2012 1:51:10 PM

Print Date: 28-Aug-12 1:51:18 PM

Designator	Value	Comment	Vendor	Description	Quant	Price	Total Parts Price
C1, C2, C4, C5	100pF	Сар	Taydaelectronics	Capacitor	4	0.03	\$0.12
C3	4.7uF	Сар	Taydaelectronics	Capacitor	1	0.03	\$0.03
P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P12, P13, P14, P15, P16, P17, P18, P19, P20, P21, P22, P23, P24, P25, P26, P27, P28, P29,	Header 2	Header 2	Taydaelectronics	Header, 2-Pin	32	0.02	\$0.64
P30, P31, P32, P33 P11	Header 12	Header 12	Taydaelectronics	Header, 12-Pin	1	0.12	\$0.12
R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32	15k	Res1	Taydaelectronics	Resistor	32	0.01	\$0.32
U1, U2, U3, U4	CD4051BCN	CD4051BCN	Taydaelectronics	8-Channel Analog Multiplexer/Demultiplexer	4	0.23	\$0.92
	-	•	-	-	-	Total	\$2.15

Wireless Communication Controller BOM 2 For Schematic Document [WirelessCommunication Controller BOM 2 For Schematic Document [Wireless Communication Controller BOM 2 For Schematic Document [Wireless Con

Source Data From: WirelessCommunications.SchDoc

Project: PrintingProjectAllDocs.PrjPCB

Variant: U of U Computer Engineering

Report Date: 8/28/2012 1:52:04 PM

Print Date: 28-Aug-12 1:52:15 PM

Plill Date.	Fillit Date. Zo-Aug-12 1:32:13 FW								
Designator	Value	Comment	Vendor	Description	Quant	Price	Total Parts Price		
C1	0.1uF	Сар	Taydaelectronics	Capacitor	1	0.03	\$0.03		
C2	1.0uF	Сар	Taydaelectronics	Capacitor	1	0.03	\$0.03		
P1	Header 5	Header 5	Taydaelectronics	Header, 5-Pin	1	0.05	\$0.05		
P2, P7, P8, P9	Header 2	Header 2	Taydaelectronics	Header, 2-Pin	4	0.02	\$0.08		
P3, P4, P5	Header 10	Header 10	Taydaelectronics	Header, 10-Pin	3	0.10	\$0.30		
P6	Header 7	Header 7	Taydaelectronics	Header, 7-Pin	1	0.07	\$0.07		
R1	10k	Res1	Taydaelectronics	Resistor	1	0.01	\$0.01		
T1	RFM12 transceiver	RFM12 transceiver	futurlec	w w w .futurlec.com 433 MHZ transceiver	1	7.90	\$7.90		
U1	Teensy2.0	Teensy	PJRC	The teensy 2.0 from www.PJRC.com, chang clock to 8MHz		16.00	\$16.00		
	_					Total	\$24.47		

Microphone Mixer

Source Data From:

MicMixer.SchDoc

Project:

PrintingProjectAllDocs.PrjPCB

Variant:

U of U Computer Engineering

Report Date:

8/28/2012

1:53:06 PM

Print Date:

28-Aug-12

1:53:21 PM

Designator	Value	Comment	Vendor	Description	Quant	Price	Total Parts Price
C1, C2, C3, C4, C5, C6, C7, C8, C9, C10	4.7uF, 10uF, 22uF	Сар	Taydaelectronics	Capacitor	10	0.03	\$0.30
MK1, MK2, MK3, MK4, MK5, MK6, MK7, MK8, MK9, MK10, MK11, MK12, MK13, MK14, MK15, MK16	Mic1	Mic1	Taydaelectronics	Microphone	16	0.25	\$4.00
P1	Header 9	Header 9	Taydaelectronics	Header, 9-Pin	1	0.09	\$0.09
P2, P3, P4, P5, P6, P7, P8, P9	Header 2	Header 2	Taydaelectronics	Header, 2-Pin	8	0.02	\$0.16
P10, P11	Header 3	Header 3	Taydaelectronics	Header, 3-Pin	2	0.03	\$0.06
Q1, Q2	BC548B	BC548B	Taydaelectronics	NPN General Purpose Amplifier	2	0.01	\$0.02
Q3, Q4	2N3904	2N3904	Taydaelectronics	NPN General Purpose Amplifier	2	0.01	\$0.02
R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14	1K, 5.6K, 10k, 220K	Res1	Taydaelectronics	Resistor	14	0.01	\$0.14
U1, U2, U3, U4	CD4051BCN	CD4051BCN	Taydaelectronics	8-Channel Analog Multiplexer/Demultiplexer	4	0.23	\$0.92
		•		•	•	Total	\$5.71

Speaker Mixer

Source Data From:

SpeakerMixer.SchDoc

Project:

PrintingProjectAllDocs.PrjPCB

Variant:

U of U Computer Engineering

Report Date:

8/28/2012 1:54:09 PM

Print Date: 28-Aug-12

1:54:22 PM

Print Date:	28-Aug-12	1:54:22 PM					
Designator	Value	Comment	Vendor	Description	Quant	Price	Total Parts Price
D1, D2, D3, D4	LED0	LED_White	Taydaelectronics	Typical INFRARED GaAs LED	4	0.04	\$0.16
P1	Header 8	Header 8	Taydaelectronics	Header, 8-Pin	1	0.08	\$0.08
P2, P3, P4, P5, P6, P7, P8, P9, P10	Header 3	Header 3	Taydaelectronics	Header, 3-Pin	9	0.03	\$0.27
Q1, Q2, Q3, Q4	2N3904	2N3904	Taydaelectronics	NPN General Purpose Amplifier	4	0.01	\$0.04
R1, R2, R5, R6	100	Res1	Taydaelectronics	Resistor	4	0.01	\$0.04
R3, R4, R7, R8	8.2K	Res1	Taydaelectronics	Resistor	4	0.01	\$0.04
U1, U2	CD4051BCN	CD4051BCN	Taydaelectronics	8-Channel Analog Multiplexer/Demultiplexer		0.23	\$0.46
	•	*				Total	\$1.09