



Parts list

Description	Quantity	Reference ID
AC Voltage Source, 230V, 50Hz, 0Deg	1	V2
AC Voltage Source, 0V, 50Hz, 0Deg	1	V3
Capacitor, 8.2pF	1	C2
Capacitor, 104nF	5	C23, C24, C21, C19, C11
Capacitor, 220nF	1	C3
Capacitor, 4.7nF	3	C14, C13, C4
Capacitor, 33nF	1	C1
Connector	199	
Crystal, ideal	1	Y1
Diode, D1N4007	5	D13, D12, D11, D14, D3
Diode, 1N4148	4	D16, D15, D10, D9
Ground	1	0
LED, green_LED	6	D7, D6, D5, D2, D4, D1
NPN Transistor, ideal	1	Q1
Node	58	
Nonlinear Transformer, pq-4-24	1	T2
Nonlinear Transformer, PP3-12	1	T1
Nonlinear Transformer, ideal	1	T3
Polarized Capacitor, 470µF	1	C25

Polarized Capacitor, 47 μ F	2	C18, C17
Polarized Capacitor, 1 μ F	4	C8, C15, C6, C7
Polarized Capacitor, 10 μ F	4	C12, C20, C9, C5
Polarized Capacitor, 100 μ F	1	C22
Polarized Capacitor, 4.7 μ F	1	C10
Potentiometer, [R], 497k Ω , 50%, 5%	1	R46
Potentiometer, [R], 115.6 Ω , 50%, 5%	1	R52
Potentiometer, [R], 296.5k Ω , 50%, 5%	1	R49
Relay, ideal	1	R51
Resistor, 18k Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 5%	1	R3
Resistor, 10M Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 5%	1	R7
Resistor, 100k Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 5%	1	R22
Resistor, 10k Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 5%	1	R48
Resistor, 180 Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 5%	1	R50
Resistor, 1k Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 5%	5	R53, R19, R12, R21, R47
Resistor, 1.2k Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 5%	1	R45
Resistor, 2.7k Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 5%	6	R1, R6, R13, R9, R8, R4
Resistor, 4.7k Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 5%	2	R20, R17
Resistor, 15k Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 5%	1	R5
Resistor, 68k Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 5%	1	R18
Resistor, 220k Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 5%	2	R14, R2
Resistor, 3.9k Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 5%	2	R16, R15
Resistor, 604 Ω , 0 Ω / $^{\circ}$ C, 0 Ω / $^{\circ}$ C ² , 2%	1	R11
Switch, [Space]	1	S1
Textbox	70	PART66, PART35, PART67, PART68, PART69, PART71, PART72, PART73, PART70, PART55, PART56, PART28, PART27, PART65, PART15, PART43, PART7, PART42, PART30, PART29, PART36, PART47, PART53, PART64, PART63, PART62, PART33, PART61, PART60, PART59, PART16, PART57, PART51, PART23, PART52, PART54, PART50, PART49, PART48, PART46, PART44, PART41, PART40, PART19, PART37, PART39, PART22, PART25, PART6, PART38, PART11, PART9, PART10, PART13, PART12, PART8, PART20, PART1, PART5, PART34, PART4, PART32, PART31, PART21, PART14, PART26, PART24, PART18, PART2, PART3
Voltage-Controlled Voltage Source, 5V/V	1	V1