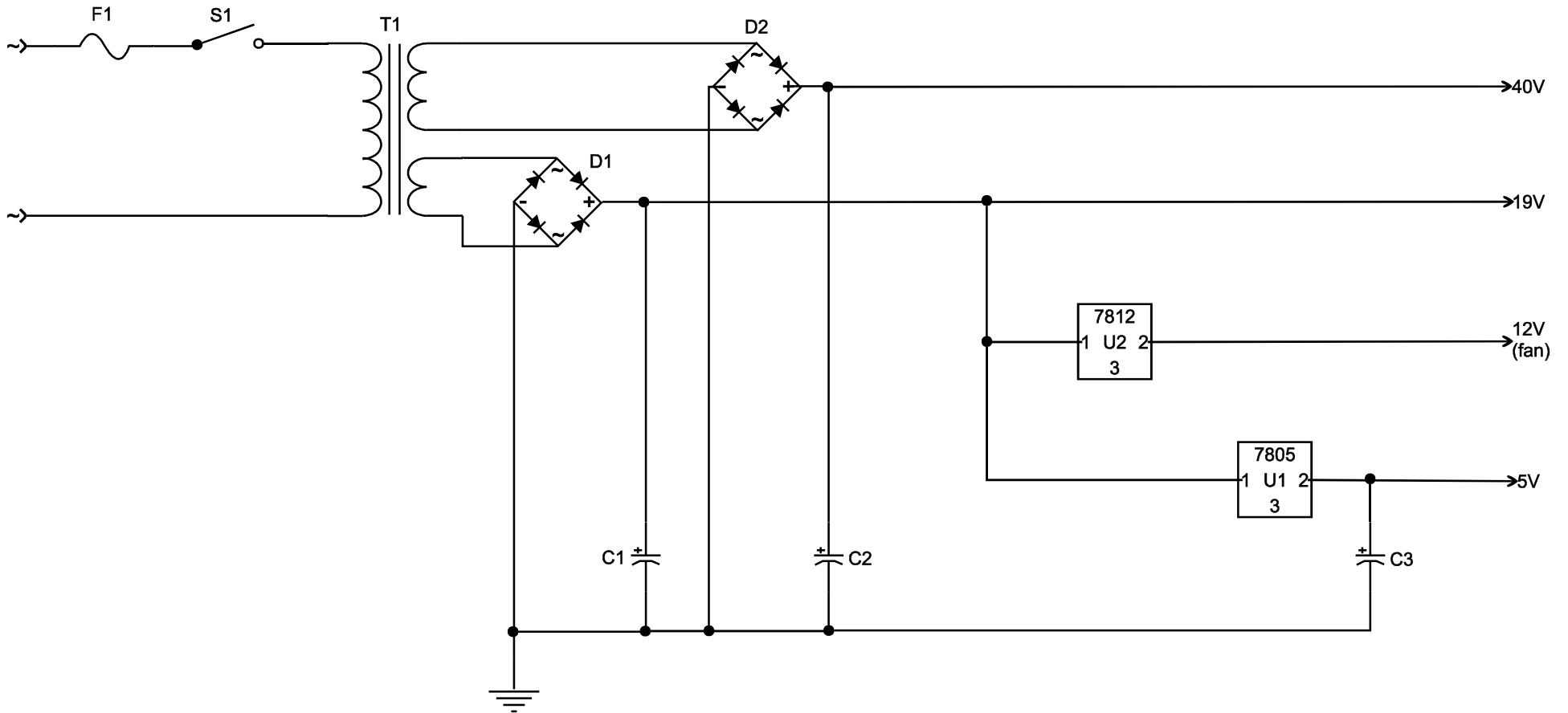


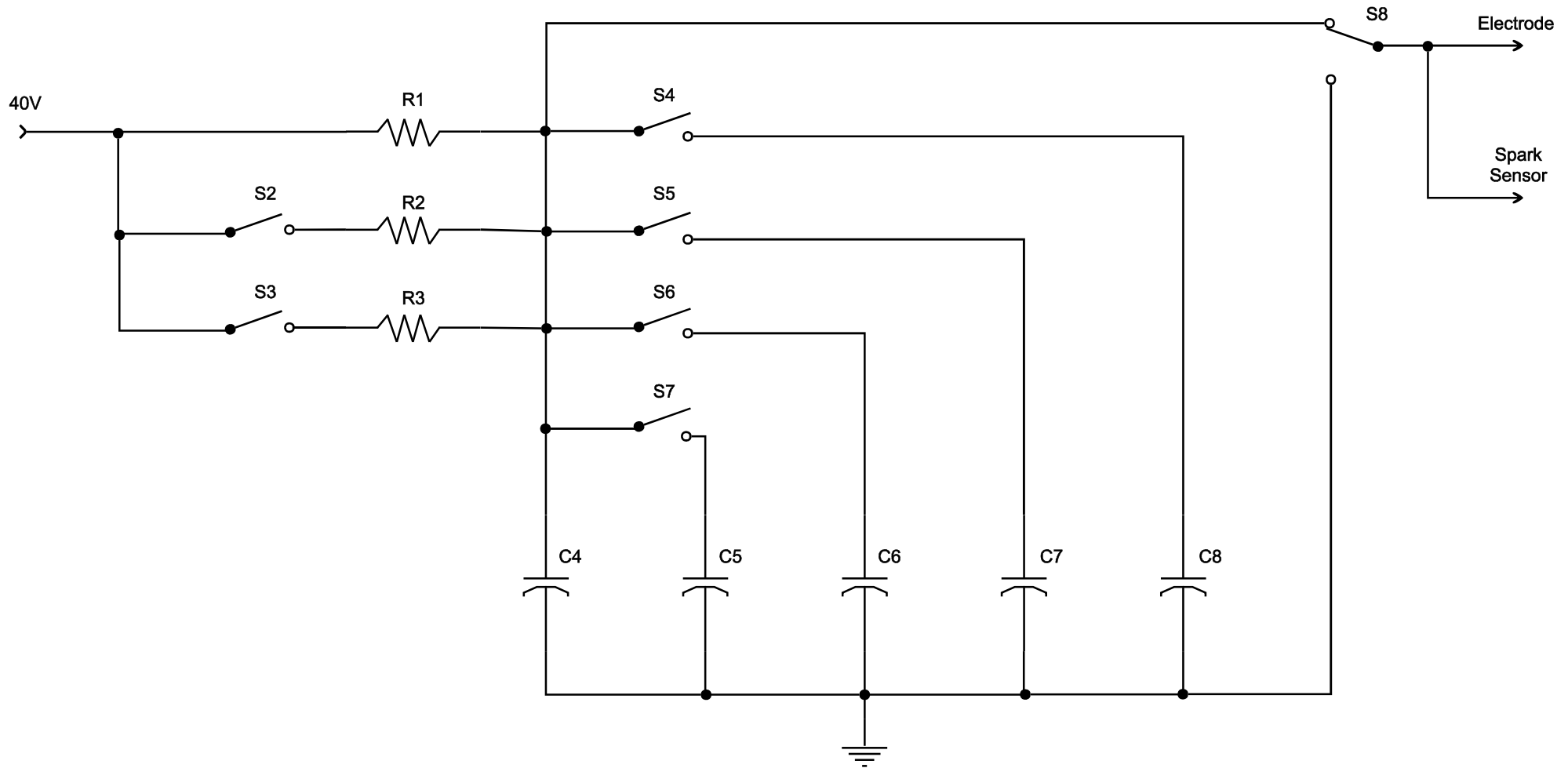
EDM Control Circuit Power Supply



- F1 6A fuse
- S1 SPST 250V 10A
- T1 Rewired microwave oven transformer with two secondary windings: 14VAC and 27VAC
- D1 100V 4A bridge rectifier
- D2 400V 8A bridge rectifier
- C1 4700 50V Electrolytic
- C2 6800 70V Electrolytic
- C3 47 16V Electrolytic
- U1 7812 voltage regulator
- U2 7805 voltage regulator

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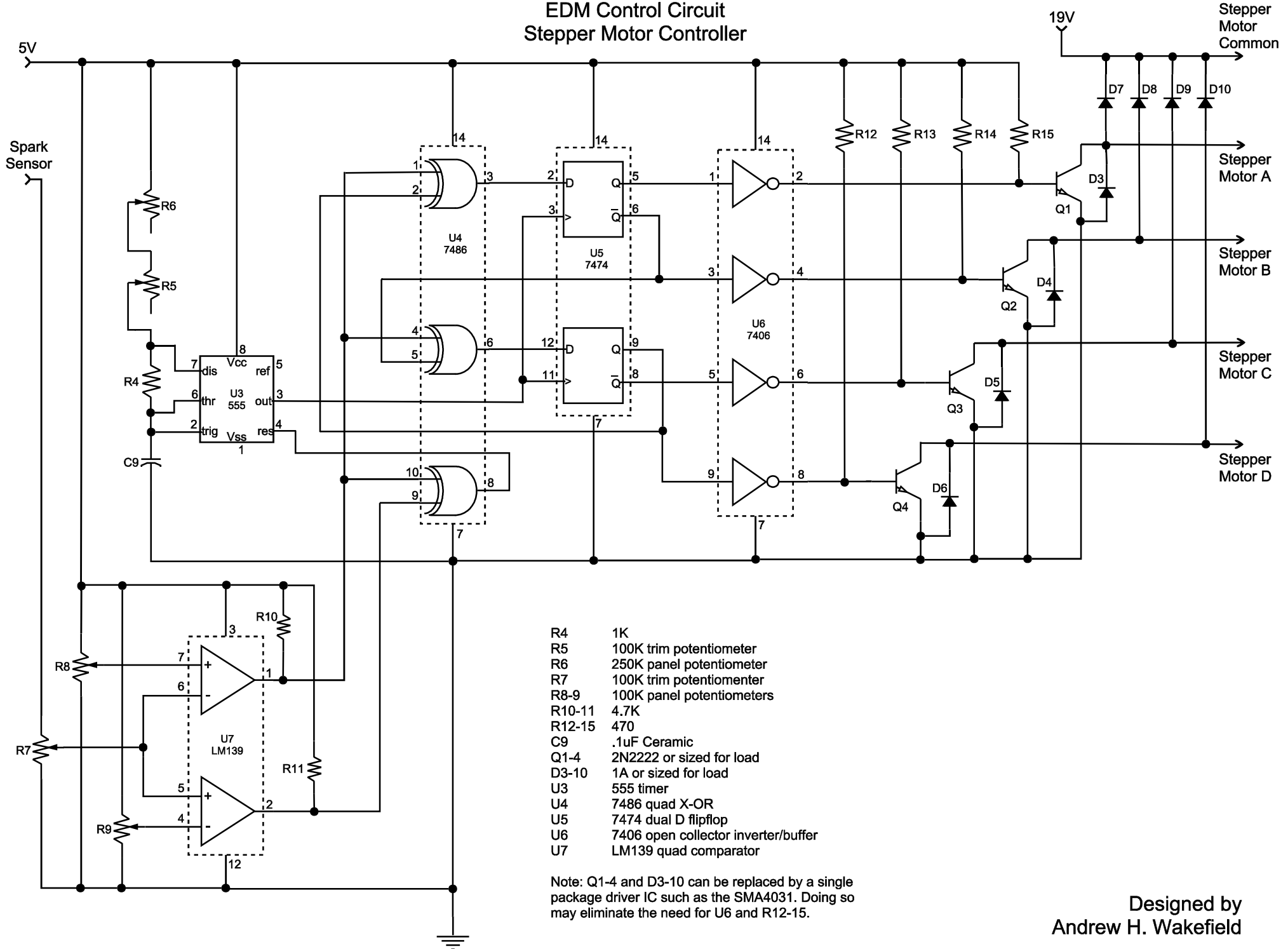
EDM Control Circuit Spark Power



- S2-S7 SPST 250V 10A
- S8 SPDT 250V 10A
- R1-R3 20 200W (Can use 500W halogen bulbs instead)
- C4 1 200V
- C5 47 200V
- C6 120 200V
- C7 220 200V
- C8 470 200V

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EDM Control Circuit Stepper Motor Controller



- R4 1K
- R5 100K trim potentiometer
- R6 250K panel potentiometer
- R7 100K trim potentiometer
- R8-9 100K panel potentiometers
- R10-11 4.7K
- R12-15 470
- C9 .1uF Ceramic
- Q1-4 2N2222 or sized for load
- D3-10 1A or sized for load
- U3 555 timer
- U4 7486 quad X-OR
- U5 7474 dual D flipflop
- U6 7406 open collector inverter/buffer
- U7 LM139 quad comparator

Note: Q1-4 and D3-10 can be replaced by a single package driver IC such as the SMA4031. Doing so may eliminate the need for U6 and R12-15.

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