

| Ref | Qty | Value | Notes | | |
|----------------|-----|--------------------------|---|--|--|
| C1 | 1 | 47uF/25v, 6.3mm diameter | pre-regulator; electrolytic or tantalum | | |
| C2 | 1 | 100n | power filter for MCU; film or ceramic | | |
| C3 | 1 | 1nF | hardware debounce; film or ceramic; higher values probably ok (up to 2n7 tested) | | |
| C4 | 1 | 10uF/10v, 5.0mm diameter | post-regulator; electric or tantalum | | |
| | | | | | |
| CLR1 | 1 | to taste | only populate if using PCB LED connections; suggest 10-15k for high efficiency LED | | |
| R1 R2 R3 R4 R5 | 5 | 1k | | | |
| | | | | | |
| D1 | 1 | 1N5817 | input polarity protection | | |
| D2 D3 | 2 | SB160 or 1n5817 | coil flyback voltage protection for transistors; 1n4148 probably OK, but Shottky best | | |
| LED1 | 1 | LOW CURRENT/ULTRA BRIGHT | to taste, low current/ultra bright recommended for lowest power consumption | | |
| | | | | | |
| Q1 Q2 Q3 | 3 | 2N7000 | N-Channel MOSFET, bs170 OK; NPN BJT likely ok too (but untested); mind pinout | | |
| | | | | | |
| K1 | 1 | Kemet EC2-3TNU | 3.3v two-coil latching relay | | |
| U1 | 1 | LP2950-3.3_TO92 | 3.3v regulator; cheaper 78L33 OK, be careful of pinout | | |
| U2 | 1 | ATtiny85 or ATtiny13A | | | |