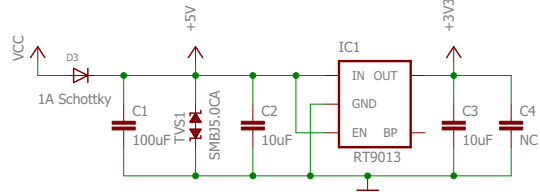


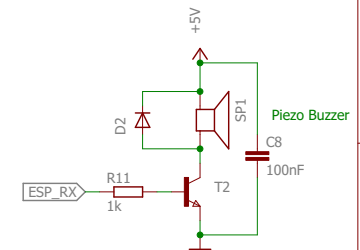
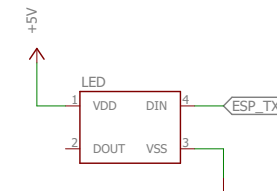
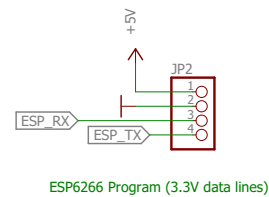
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Output

The output stage circuit diagram shows two main components: a relay driver and an optocoupler.

Relay Driver: A +5V supply is connected to the base of a BJT transistor T1 through a 1kΩ resistor R9. The emitter of T1 is grounded. The collector of T1 is connected to the coil of a relay REL1 through a 10kΩ resistor R10. The relay coil is also connected to ground. The relay is labeled REL1 and RELAYPTH. A diode D1 is connected in parallel with the relay coil, with its cathode to the +5V supply and its anode to the collector of T1. The relay contacts are connected to a 250V, 5A MAX load (JP6) through a fuse F1. The contacts are labeled 1, 2, and 3.

Optocoupler: An optocoupler OC1 (EL357NC) is used for signal isolation. Its input side (LED) is connected to the RELAY_OUT signal through a 470Ω resistor R8. The input side is labeled 1 and 2. The output side (phototransistor) is connected to ground through a 1kΩ resistor R12. The output side is labeled 3 and 4. The optocoupler is labeled OC1 and OPTOCOUPLER EL357NC. The output is connected to a 50V, 40mA MAX load (JP9) through a 1kΩ resistor R12. The output is labeled 1 and 2. The load is labeled JP9 and M025MM.

[illegible]

Machine access Control Fablab Winterthur Designed By Damian Schneider		
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