

## Relay logic elevator

This is a basic circuit, designed for educational purpose.

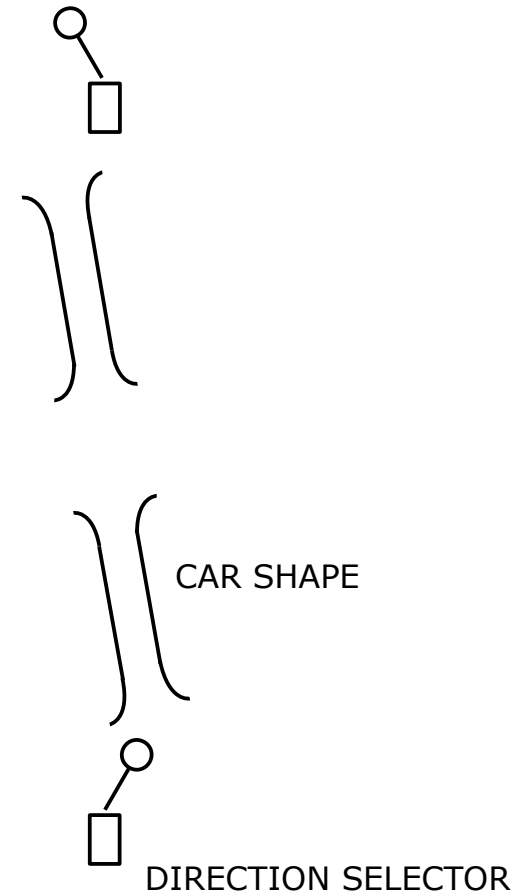
At the start condition the elevator is on the second floor, then the direction selector (S2) is on the central position and the level magnetic switch is open.

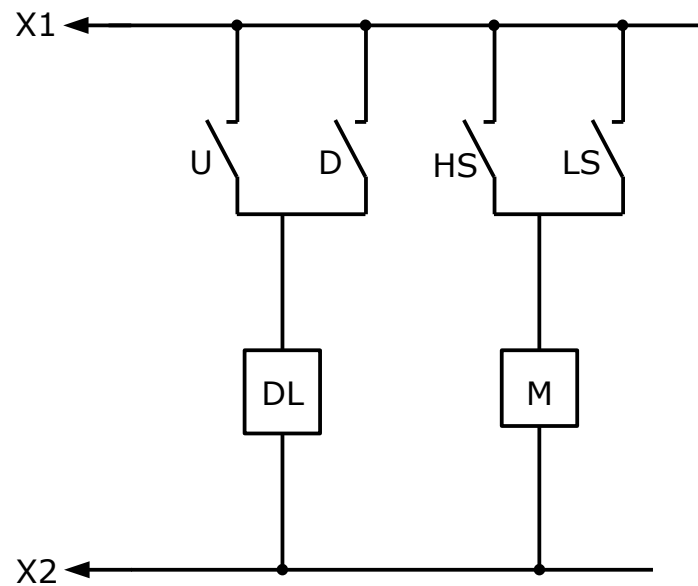
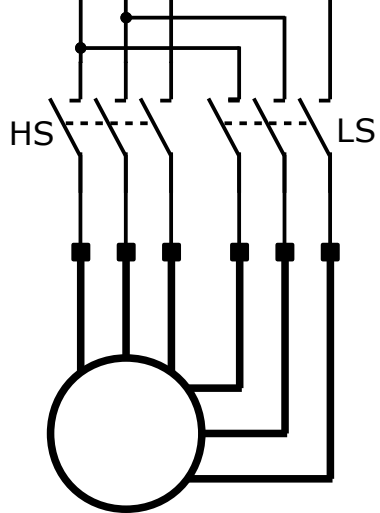
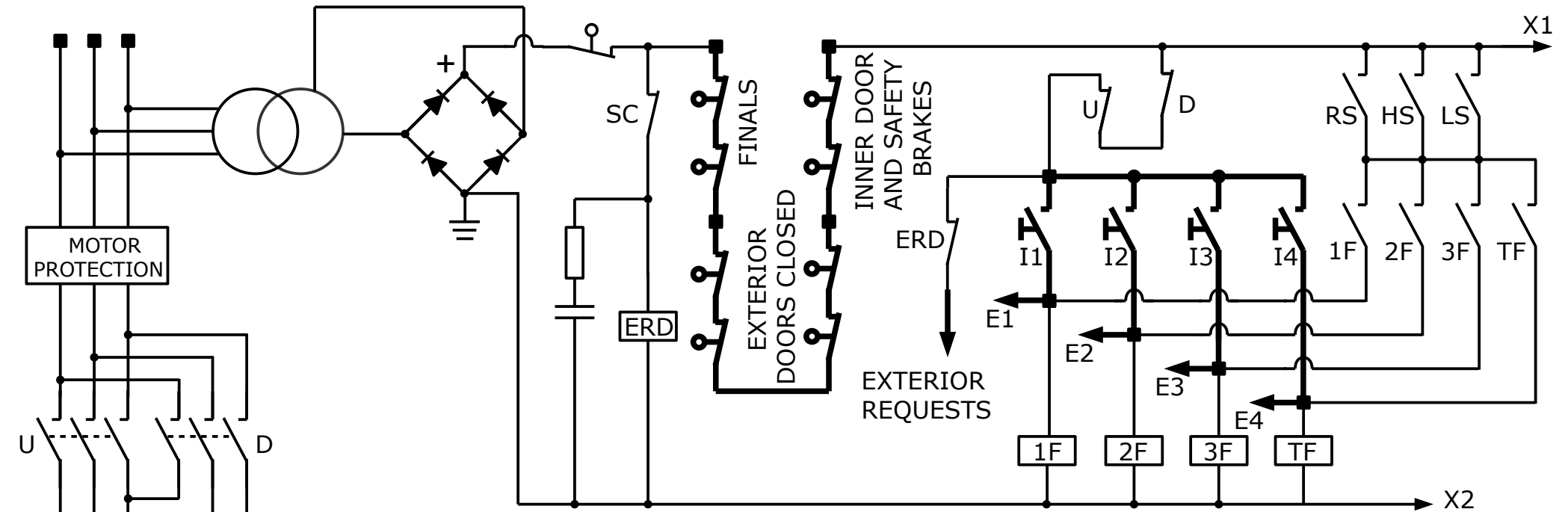
Once the circuit is supplied the SC and RS relays turn on, if the doors are closed.

When pressed the request button (*for example 14*) energizes the request relay. The direction contactor (U) and the speed relay (SR) are also energized. The reset relay (RS) keeps on for few seconds due to the capacitor.

The direction contactor energizes the door locking coil; once the exterior door is locked the high speed relay (HS) turns on and the elevator starts going up.

The level magnetic switch closes; then the direction selector takes the down position. Once the car comes close to the requested floor the direction selector opens. The direction contactor is still energized, while the speed relay turns off due to the diode. The high speed contactor turns off, then the low speed contactor turns on. The request relay turns off. Once the elevator reaches the requested floor the level magnetic switch opens. The contactors and the door locking coil turn off.





- ERD = exterior requests delay
- 1F, 2F, 3F, TF = requests relays
- RS = reset relay
- SR = speed relay
- U, D = direction contactors
- HS = high speed contactor
- LS = low speed contactor
- M = motor brake coil
- DL = door locking coil
- MS = level magnetic switch
- S1, S2, S3, S4 = direction selectors
- I1, I2, I3, I4 = interior requests buttons

