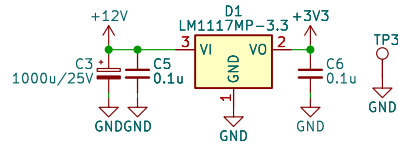
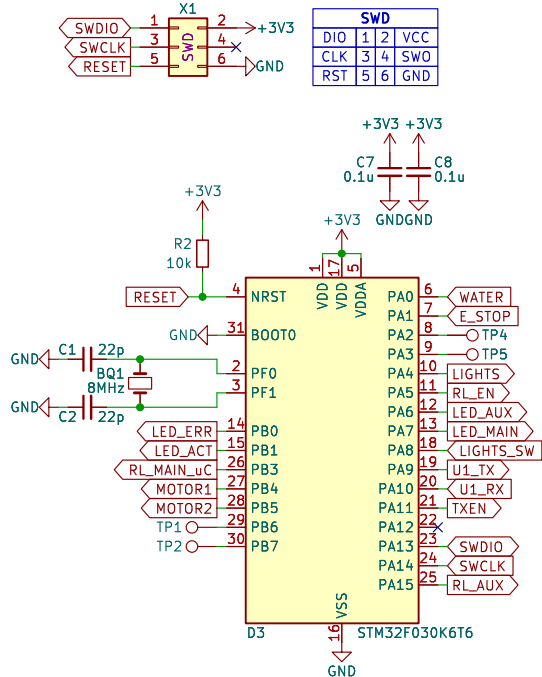


Питание микроконтроллера



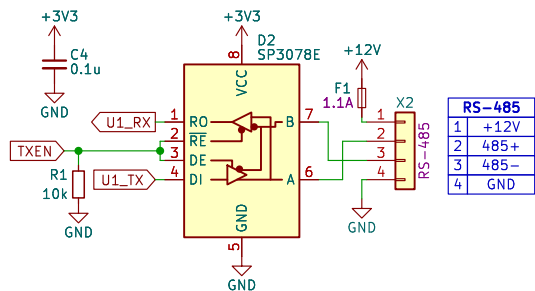
Микроконтроллер



Интерфейс RS-485

The diagram illustrates the RS-485 interface circuit. The RS-485 transceiver (D2 SP3078E) is connected to a +3V3 supply via a 0.1uF capacitor (C4). The TXEN signal is connected to the RO pin (pin 1) through a 10k resistor (R1). The RX pin (pin 2) is connected to U1_RX. The TX pin (pin 3) is connected to U1_TX. The DI pin (pin 4) is connected to the A pin (pin 6). The GND pin (pin 5) is connected to GND. The B pin (pin 7) is connected to the A pin (pin 6) through a 1.1A fuse (F1). The A pin (pin 6) is connected to the RS-485 connector (X2) pin 1. The RS-485 connector (X2) pin 2 is connected to +12V. The RS-485 connector (X2) pin 3 is connected to GND. The RS-485 connector (X2) pin 4 is connected to GND.

RS-485	
1	+12V
2	485+
3	485-
4	GND



Коммутация 220В

220V IN

IN L

IN N

L_IN

N_IN

RL_MAIN

R3 10k

VT1

AO3400A

VD2

PMLL4148

VD3

PMLL4148

VD4

PMLL4148

VT2

R4 10k

AO3400A

G2RL-1A-E

K1

G2RL-1A-E

K2

G2RL-2A

K3

L_MAIN

N_MAIN

L_AUX

N_AUX

MAIN1 L

MAIN1 N

MAIN2 L

MAIN2 N

AUX N

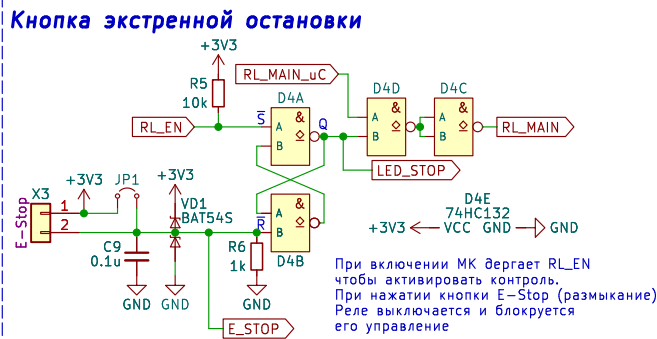
AUX L

AUX N

AUX L

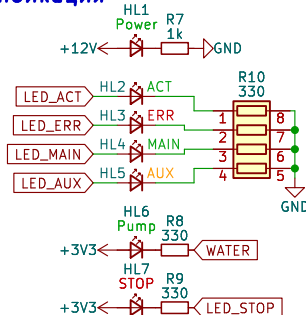
Блоки питания
радиатора
охлаждения

Отдельно включаемое
оборудование

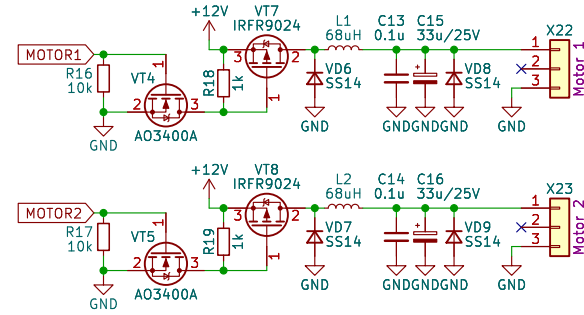


LED-индикация

The diagram illustrates the LED indication circuit. It features four LEDs: ACT, ERR, MAIN, and AUX. Each LED is connected to a specific pin (HL1, HL2, HL3, HL4, HL5) and a resistor (R7, R8, R9, R10). The LEDs are connected to a +12V supply. The diagram also shows a connection to a GND pin. On the right, there are four push buttons labeled H1, H2, H3, and H4, each connected to a GND pin.

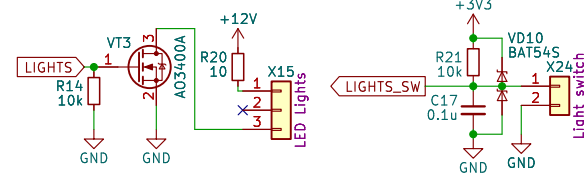


Коллекторные моторы



LED освещение

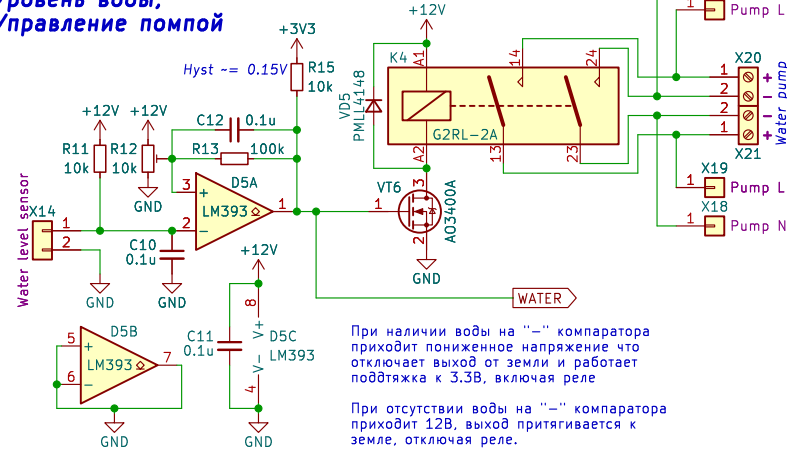
The diagram shows a +12V supply connected to a 10k resistor (R14) and a 10 ohm resistor (R20). The +12V line also goes through a 400A MOSFET (VT3) and an LED strip (X15). The MOSFET gate is connected to a +3V3 supply through a 10k resistor (R21). The MOSFET drain is connected to the LED strip. The LED strip is connected to GND. A switch (X24) is connected to the +3V3 supply and the MOSFET gate. The switch is labeled 'Light switch'.



Уровень воды, Управление помпой

При наличии воды на "-" компаратора приходит пониженное напряжение что отключает выход от земли и работает подтяжка к 3.3В, включая реле

При отсутствии воды на "-" компаратора приходит 12В, выход притягивается к земле, отключая реле.



При наличии воды на "+" компаратора приходит пониженное напряжение что отключает выход от земли и работает подтяжка к 3.3В, включая реле

При отсутствии воды на "—" компаратора приходит 12В, выход притягивается к земле, отключая реле.

Sheet: /
File: RS485_Relay_V2R1.kicad_sch

Title: RS485_Relay V2 module

Size: A4	Date:
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Rev: 1

Id: 1/1