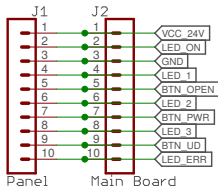


Main PCB as blackbox (only connector):



Voltage (Off and On)

23.2	23.0
20.8	1.3
GND	GND
20.8	1.3
5.1	GND
20.8	1.3
5.1	GND
20.8	1.3
5.1	GND
21.7	5.1

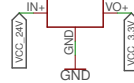
All pins of the connectors potentially carry 24V
=> cannot directly feed into Arduino!

Turning the device on has no effect on the voltages of the LED and the BTN pins. A button press connects to GND, a burning LED causes the voltage to drop from 20.8V to 1.3V, except for the error LED, which drops from 21.7V to 5.1V when turned on.

As the LEDs and the button pins are not disabled when the device appears off, one can still flash the leds programmatically!

Power Supply for ESP8266 (3.3V)

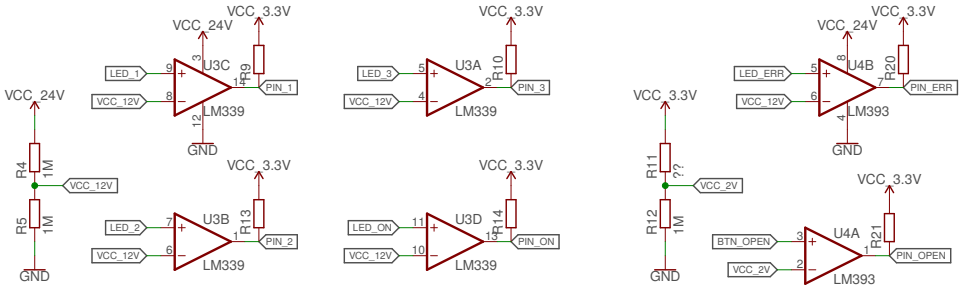
A linear voltage regulator like the L78M05 gets too hot, so a step-down converter is required.



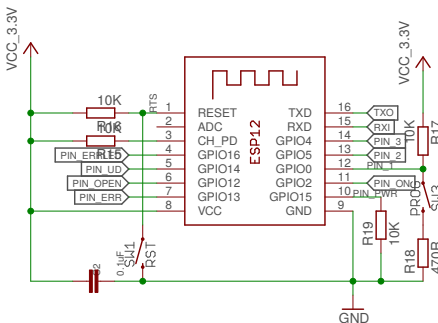
open hardware

Sensors: Detect if LEDs (Power, level, error) are on, check if case open sensor (button) is triggered

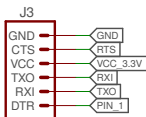
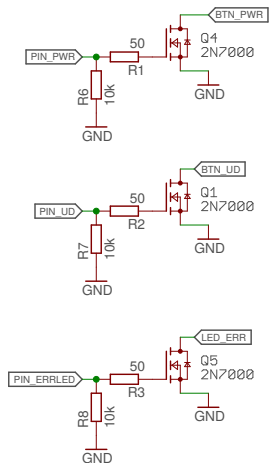
All input pins (PIN_1, PIN_2, PIN_3, PIN_ON, PIN_ERR and PIN_OPEN) must enable internal pull-up resistors!



Microcontroller: ESP8266, Board: ESP-12F



Actuators: Emulate power On/Off button, emulate UP button, override error LED



FTDI Basic MOD

Venta Connected ESP

ESP8266-based WiFi Interface for Venta Humidifier, Version 0.01

TITLE: VentaConnected_ESP8266_V0.01_2018-09-03.FET

Document Number:

REV:
0.01

Date: nicht gespeichert!

Sheet: 1/1