

# Holly Hudson

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Network of Things

playground

Not on the internet

1: Your Name

2: One thing you would like to automate  
at your home or office



the repo



[github.com/hollyhudson/not-workshop](https://github.com/hollyhudson/not-workshop)

Step 1:

Install MQTT

mosquitto

mosquitto-clients



the repo



[github.com/hollyhudson/not-workshop](https://github.com/hollyhudson/not-workshop)



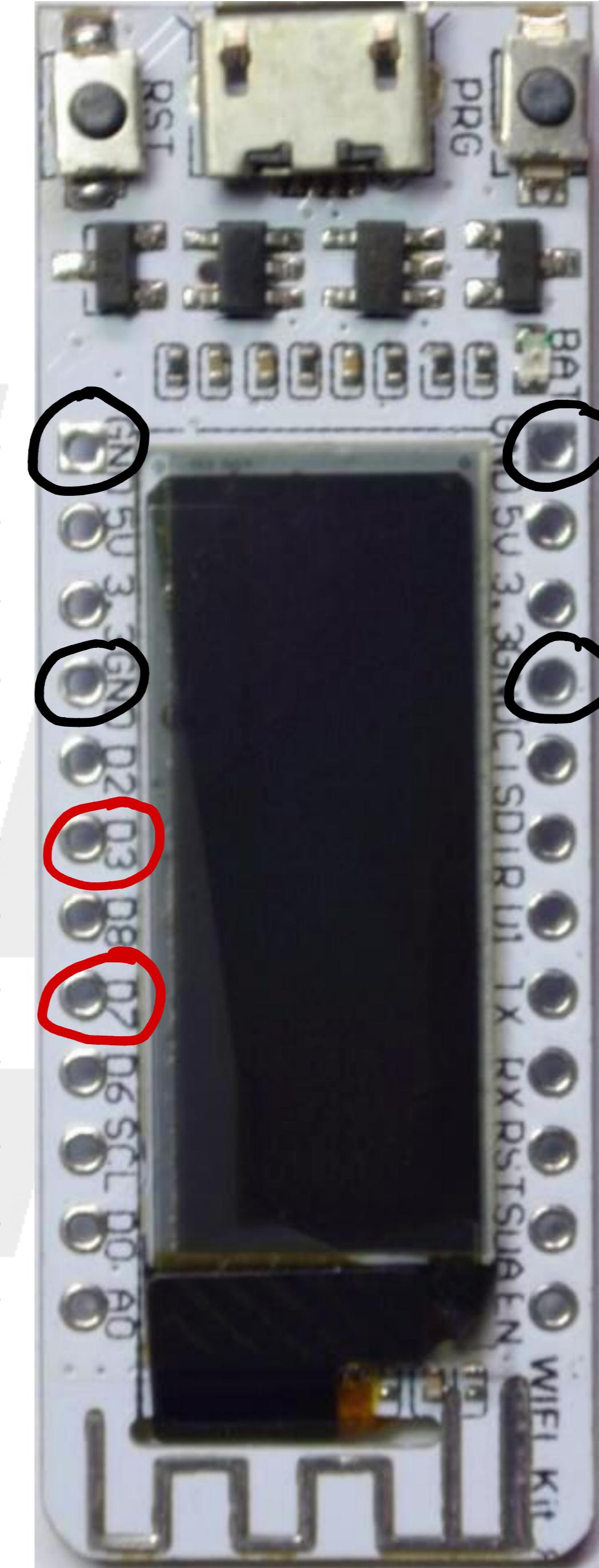
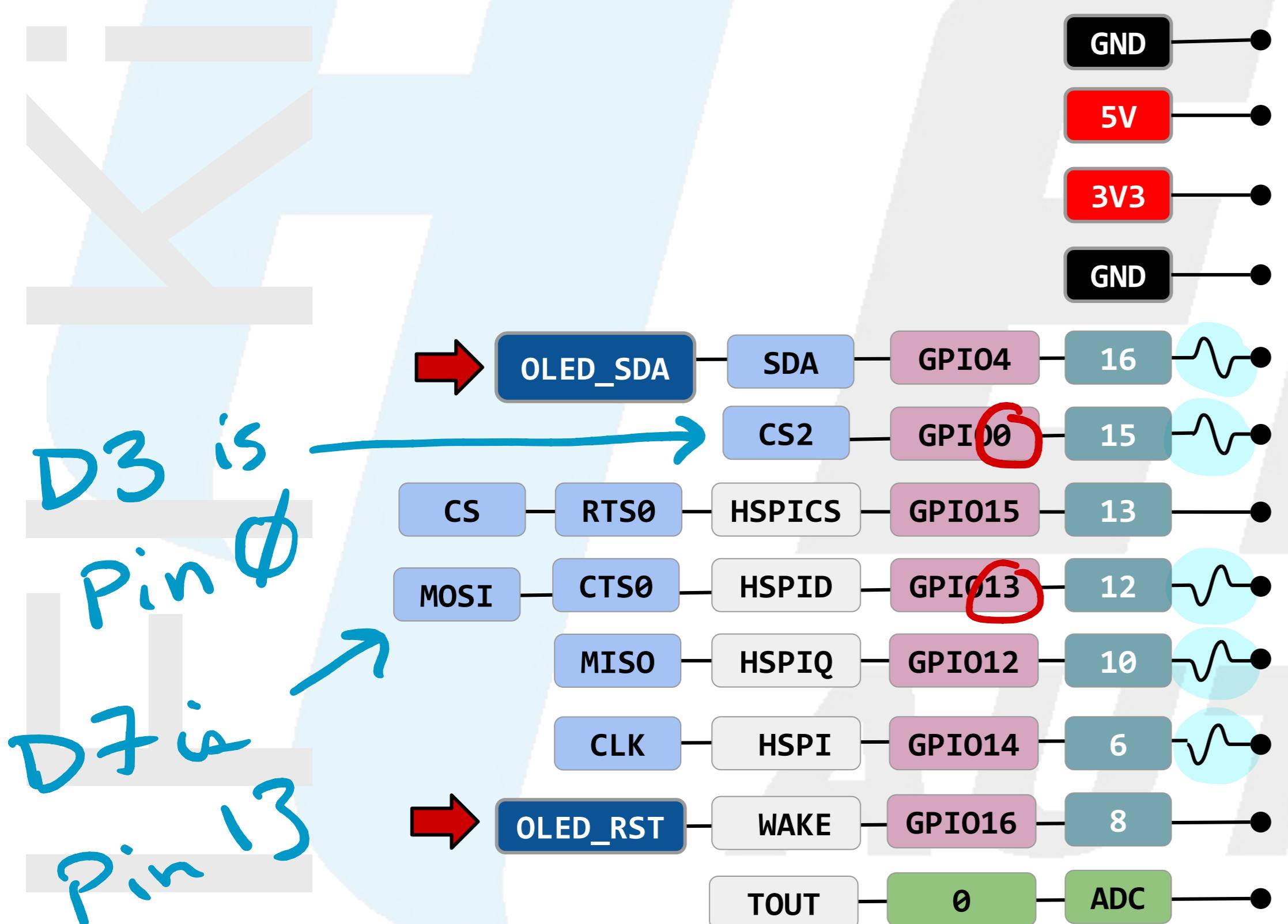
Broker

Clients

subscribe to temp  
door  
water level

# MiniDK Pinout Diagram

Pins with this arrow are used by on-board OLED, they must not be used for other purpose unless you know what you are doing!



all these pins are ground

GND	NodeMCU Pin
Power	Port pin
Control	Pin function
Serial/I2C/SPI	esp8266 Pin NO.
Analog Pin	
On-board hardware Pin	
CTS	
DTR	
24	GPIO5
26	GPIO1
25	GPIO3
RST	
14	GPIO2
EN	
OLED_SDA	SCL
OLED_RST	TXD0
OLED_CS	CS1
OLED_RTS	RXD0
OLED_MOSI	TXD1
OLED_MISO	
OLED_CLK	

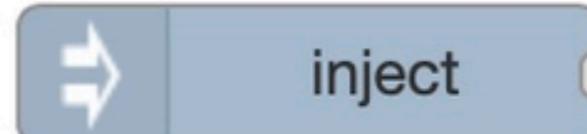
## Notes:

interrupt / pwm / I2C / one-wire are supported on all IOs except D0  
Logic level is 3.3V for all IOs.  
Maximum voltage at A0 is 3.3V!

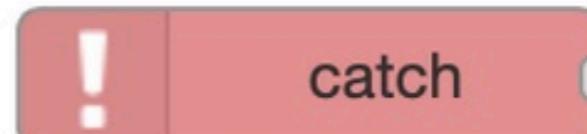
filter nodes

## Flow 1

## input



inject



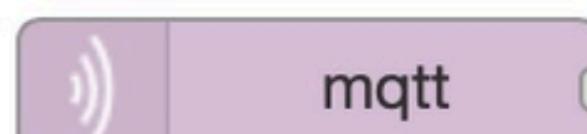
catch



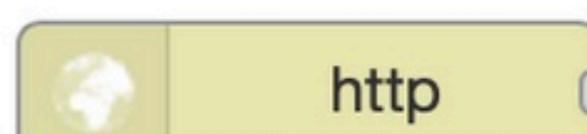
status



link



mqtt



http



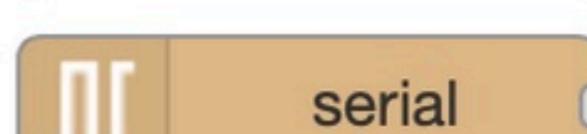
websocket



tcp



udp



serial



Watson IoT

## output



debug

## Dragon Side Data

## AC\_south temp

connected

temp south



limit 1 msg/m

282

temp south



## AC\_south humidity

connected

limit 1 msg/m

282

humidity south

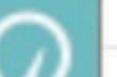


## Vending Side Data

## AC\_north temp

connected

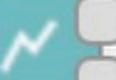
temp north



limit 1 msg/m

281

temp north



## AC north humidity

connected

limit 1 msg/m

281

humidity north



## Dragon Side Buttons

## AC south heat button

## AC south off button

## AC south cool button

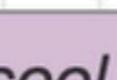
bring the heat



AC south off



AC south cool



connected

THIS IS NOT A TOUCHSCREEN! Go to <http://192.168.1.32:1880/ui> on your own laptop to push the buttons

AC North (Dragon Side)

BRING THE HEAT

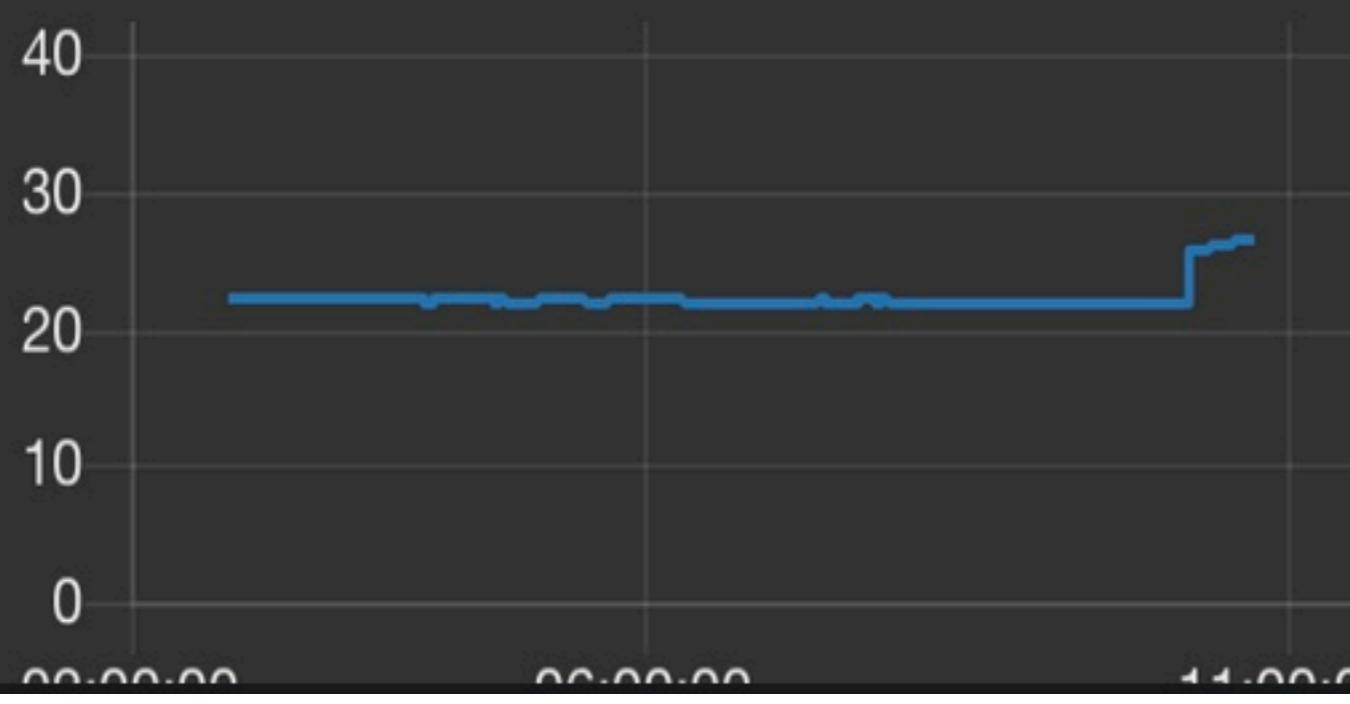
OFF

COOL

Temp



Temp



AC South (Vending Side)

BRING THE HEAT

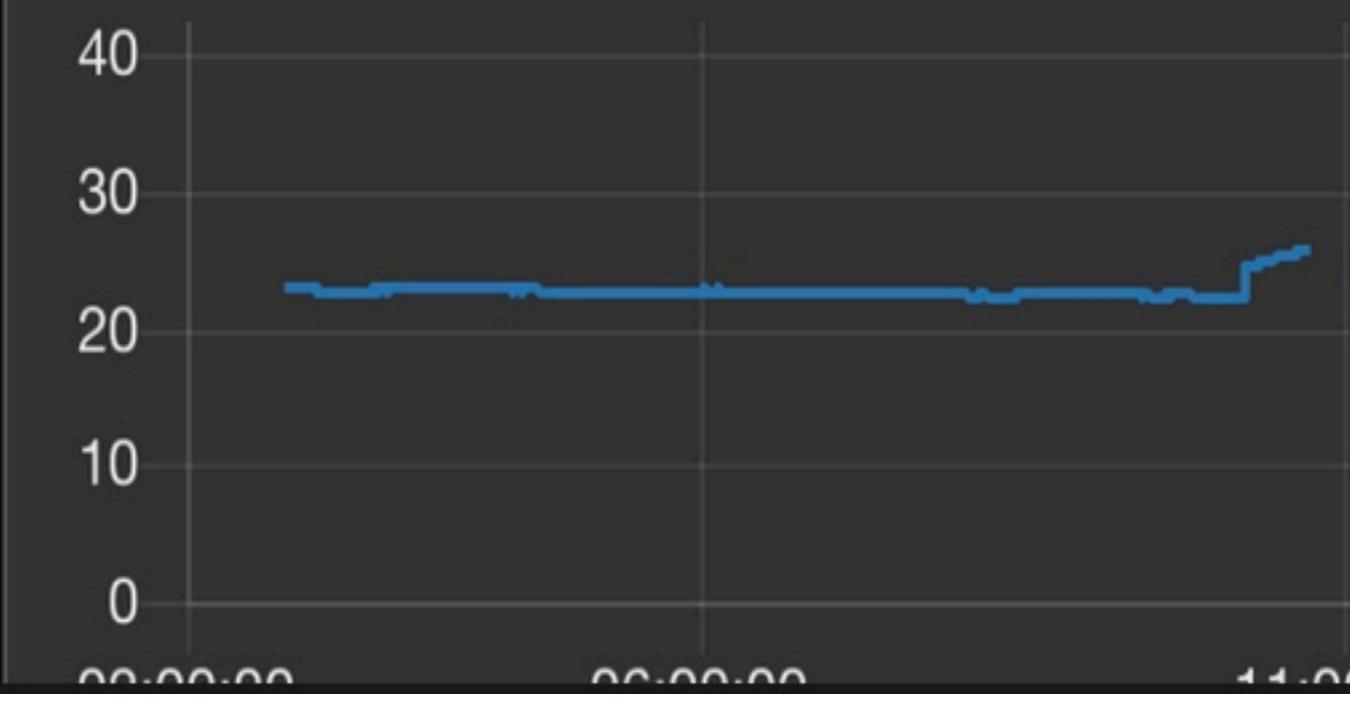
OFF

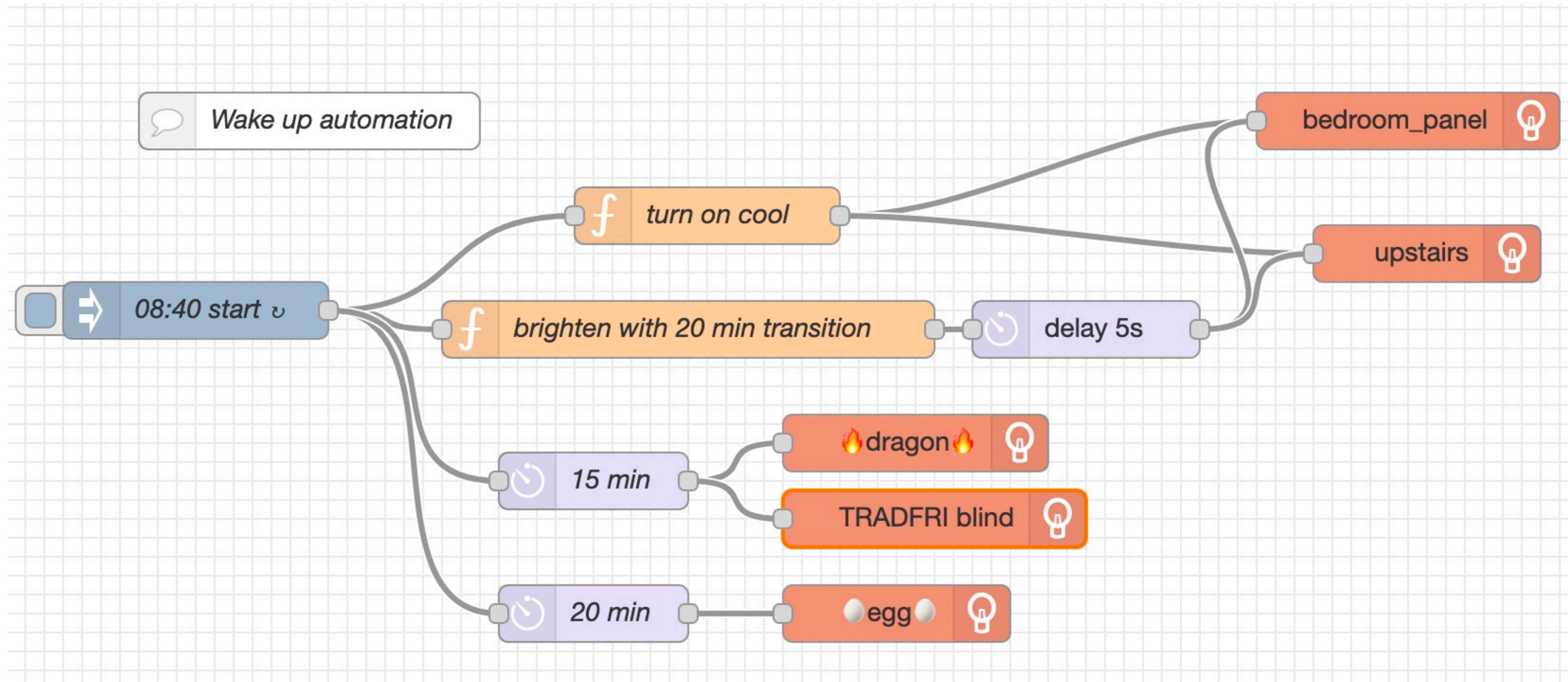
COOL

Temp



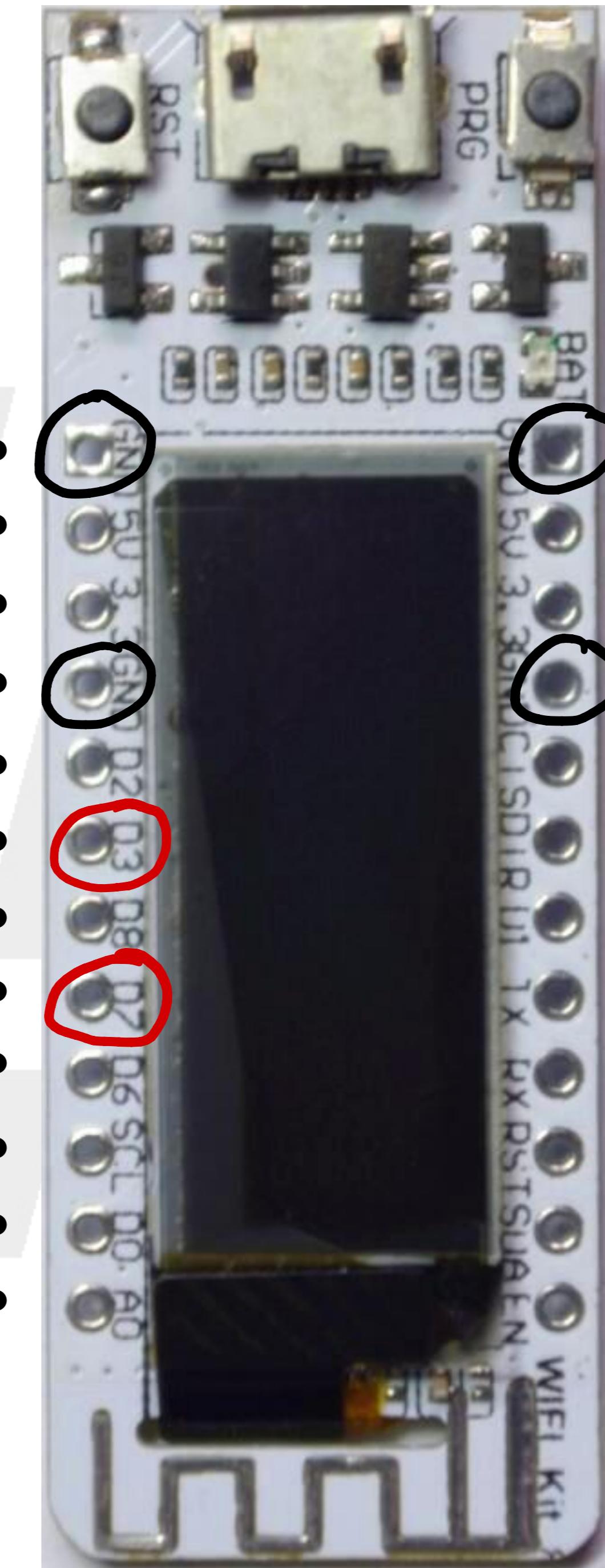
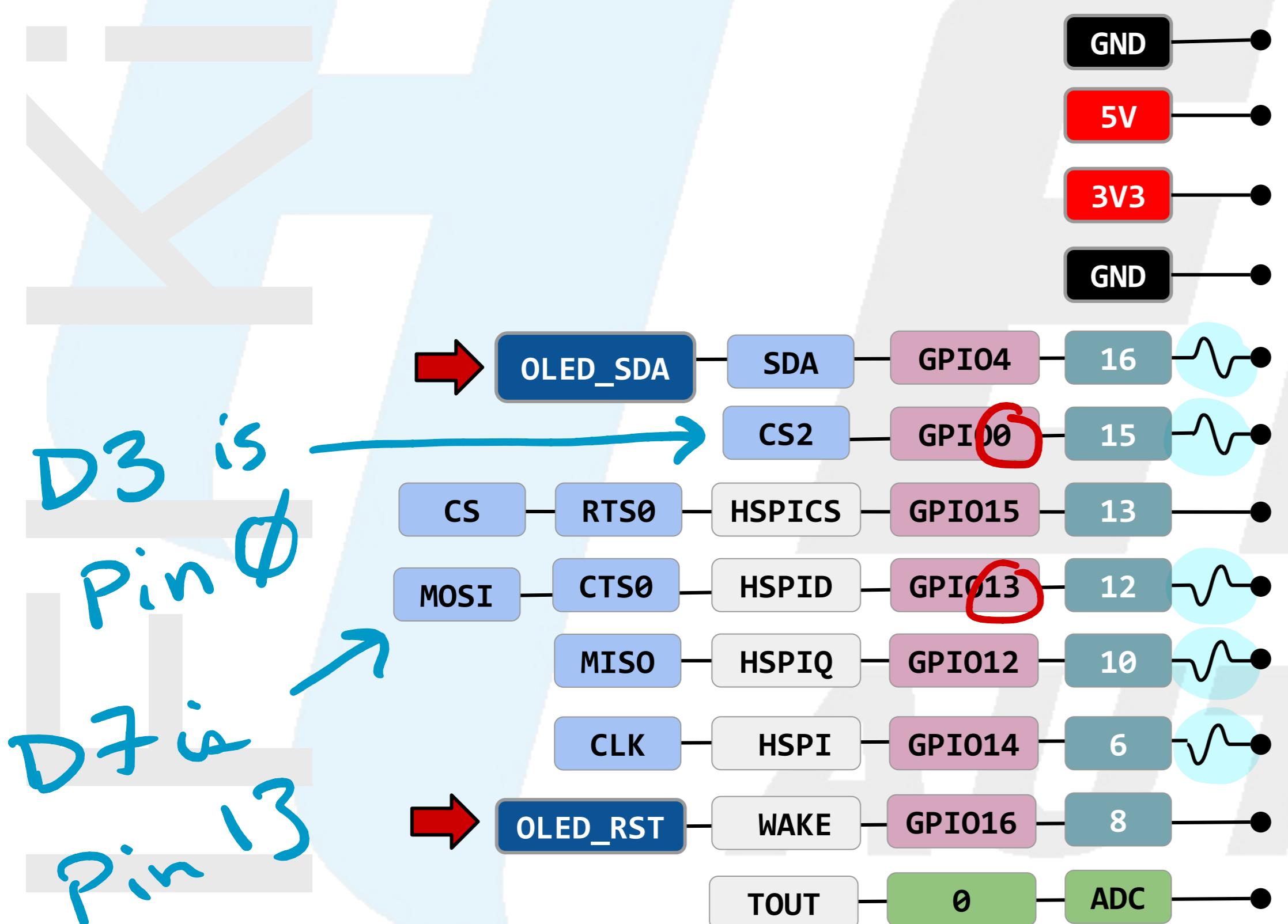
Temp





# MiniDK Pinout Diagram

Pins with this arrow are used by on-board OLED, they must not be used for other purpose unless you know what you are doing!



*all these pins are ground*

GND	NodeMCU Pin
Power	Port pin
5V	Pin function
3V3	esp8266 Pin NO.
GND	Analog Pin
CTS	On-board hardware Pin
DTR	
24	
GPIO5	
SCL	
OLED_SCL	
26	
GPIO1	
TXD0	
CS1	
25	
GPIO3	
RXD0	
RST	
14	
GPIO2	
TXD1	
EN	
RTS0	
HSPICS	
GPIO15	
13	
MOSI	
CTS0	
HSPID	
GPIO13	
12	
MISO	
HSPIQ	
GPIO12	
10	
CLK	
HSPI	
GPIO14	
6	
OLED_RST	
WAKE	
GPIO16	
8	
TOUT	
0	
ADC	

## Notes:

interrupt / pwm / I2C / one-wire are supported on all IOs except D0  
Logic level is 3.3V for all IOs.  
Maximum voltage at A0 is 3.3V!