script WORKZ

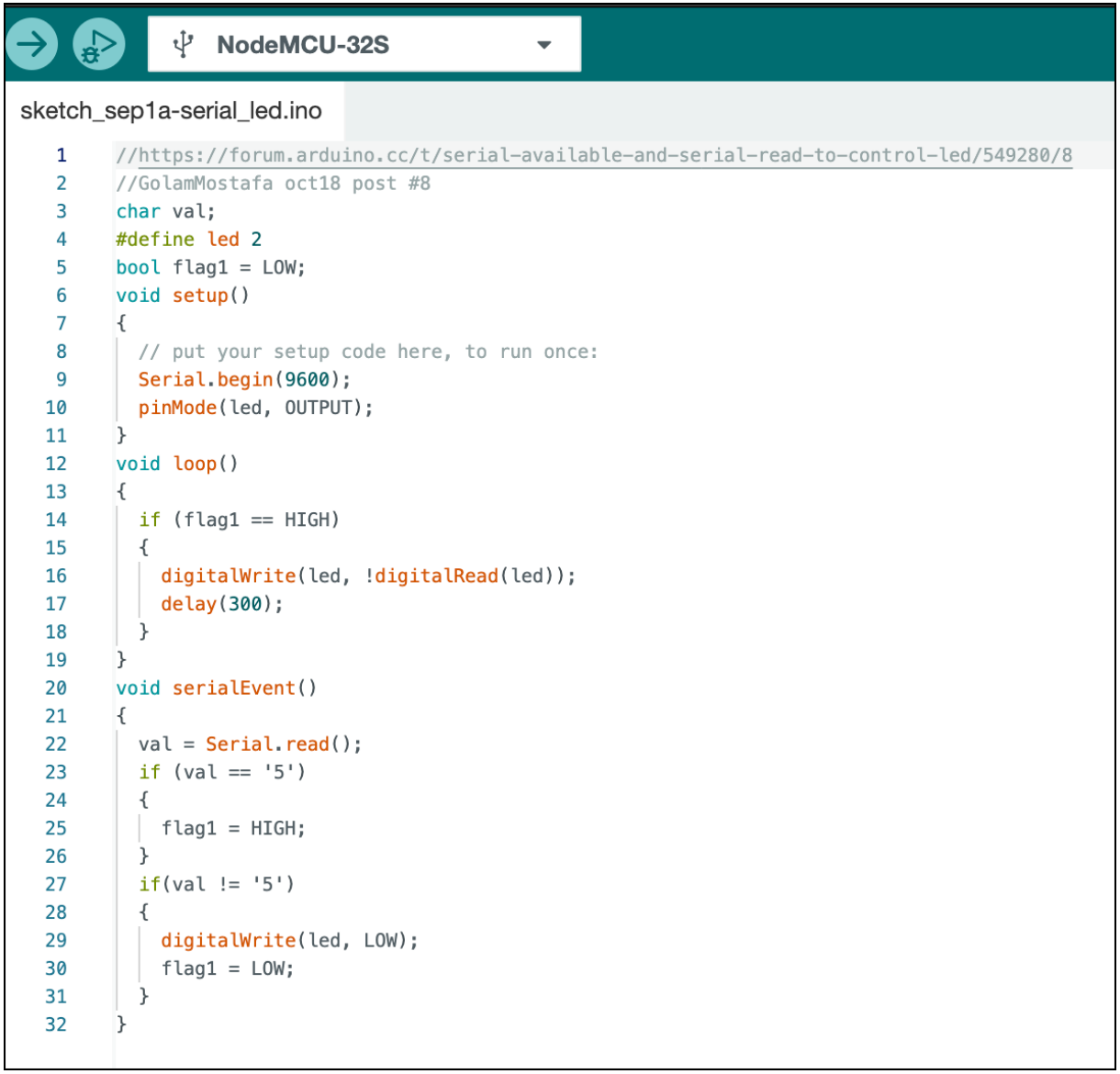
Node-RED + NodeMCU ESP32s + BuiltIn LED thru Serial Port

02 Sept 2023 – Safyzan Salim

Scenario:
To control ESP32's built in led from Node-RED's dashboard thru serial comm.

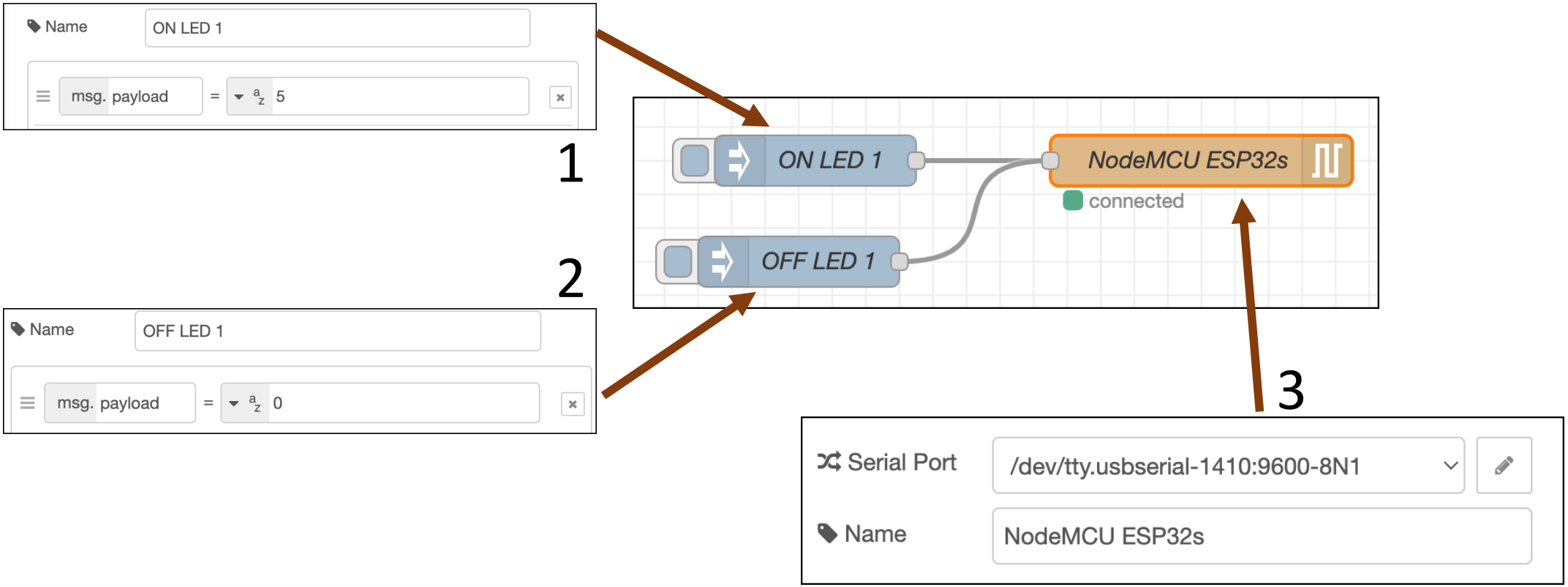
Step 1: Write code for excepting serial input and switch on if the data is 5 (it's a string data)
Step 2: Upload the sketch to NodeMCU ESP32-s & test its function.
Step 3: At Node-RED, add 2 x inject nodes and 1 x serial out node.
Step 4: Configure accordingly – refer to slide 4.
Step 5: Load dashboard – use button as switch.

Download this sketch HERE.

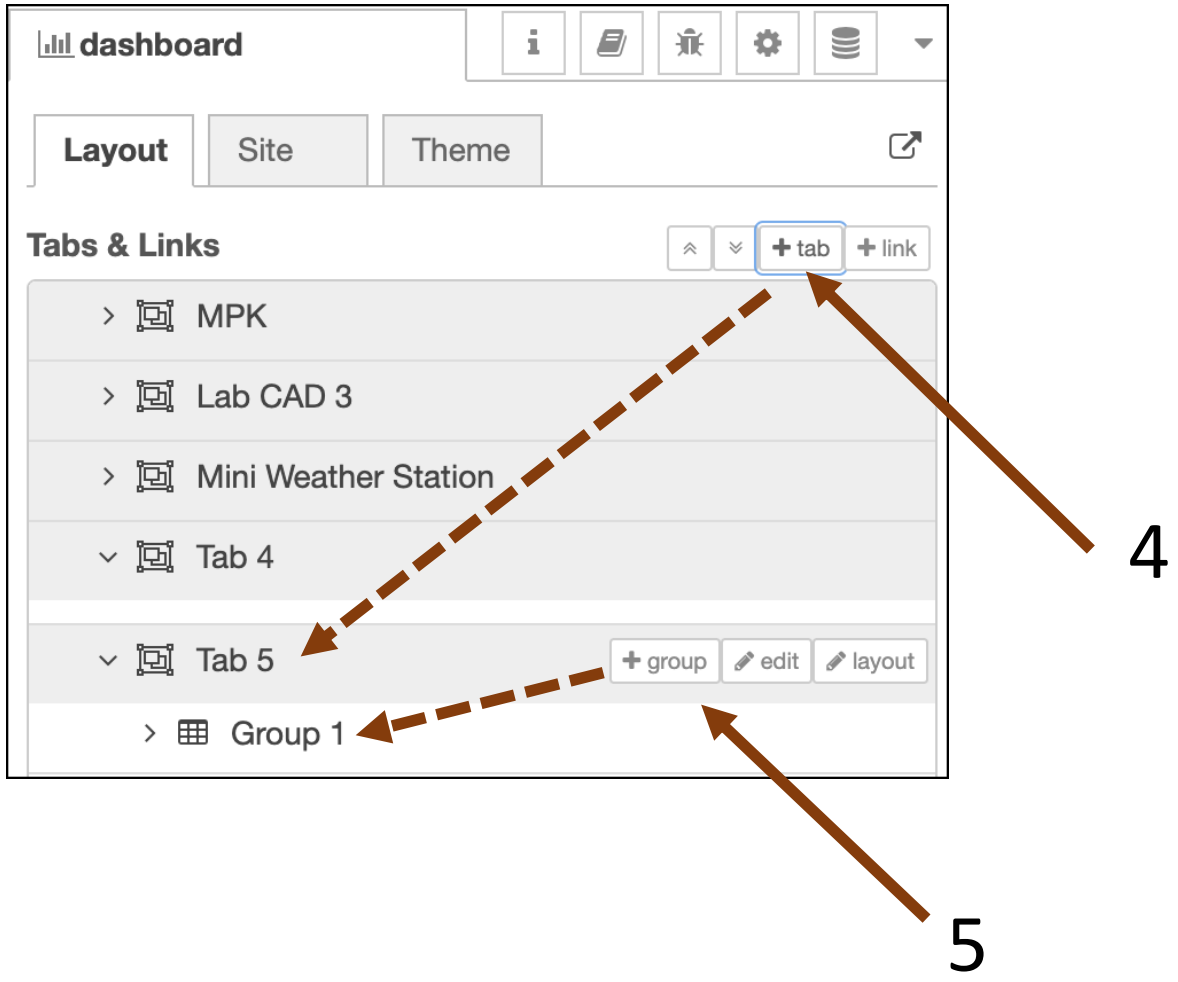



```ino
//https://forum.arduino.cc/t/serial-available-and-serial-read-to-control-led/549280/8
//GolamMostafa oct18 post #8
char val;
#define led 2
bool flag1 = LOW;
void setup()
{
  // put your setup code here, to run once:
  Serial.begin(9600);
  pinMode(led, OUTPUT);
}
void loop()
{
  if (flag1 == HIGH)
  {
    digitalWrite(led, !digitalRead(led));
    delay(300);
  }
}
void serialEvent()
{
  val = Serial.read();
  if (val == '5')
  {
    flag1 = HIGH;
  }
  if(val != '5')
  {
    digitalWrite(led, LOW);
    flag1 = LOW;
  }
}
```

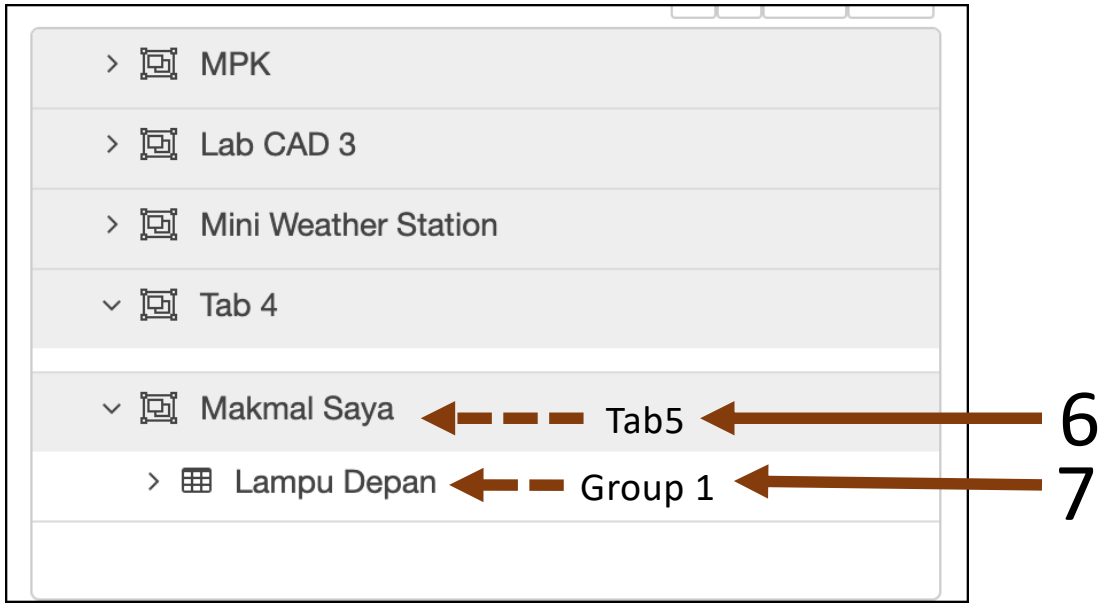
Node-RED: Test by using minimal nodes

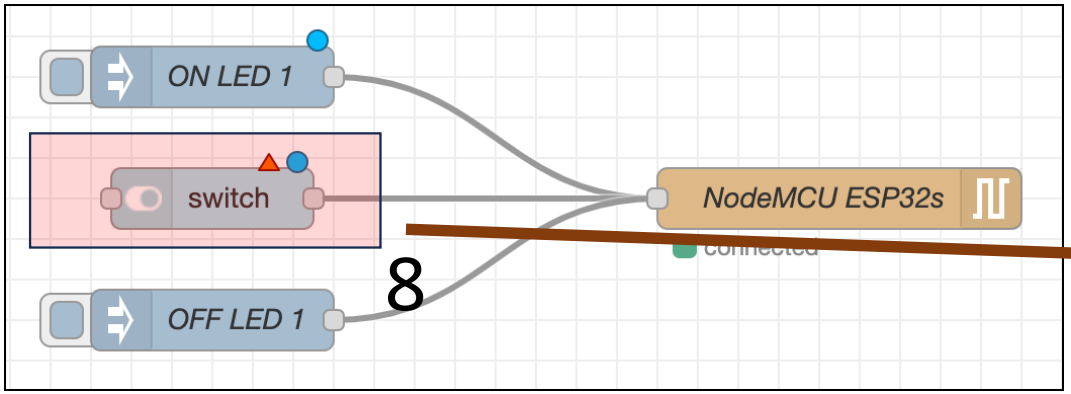


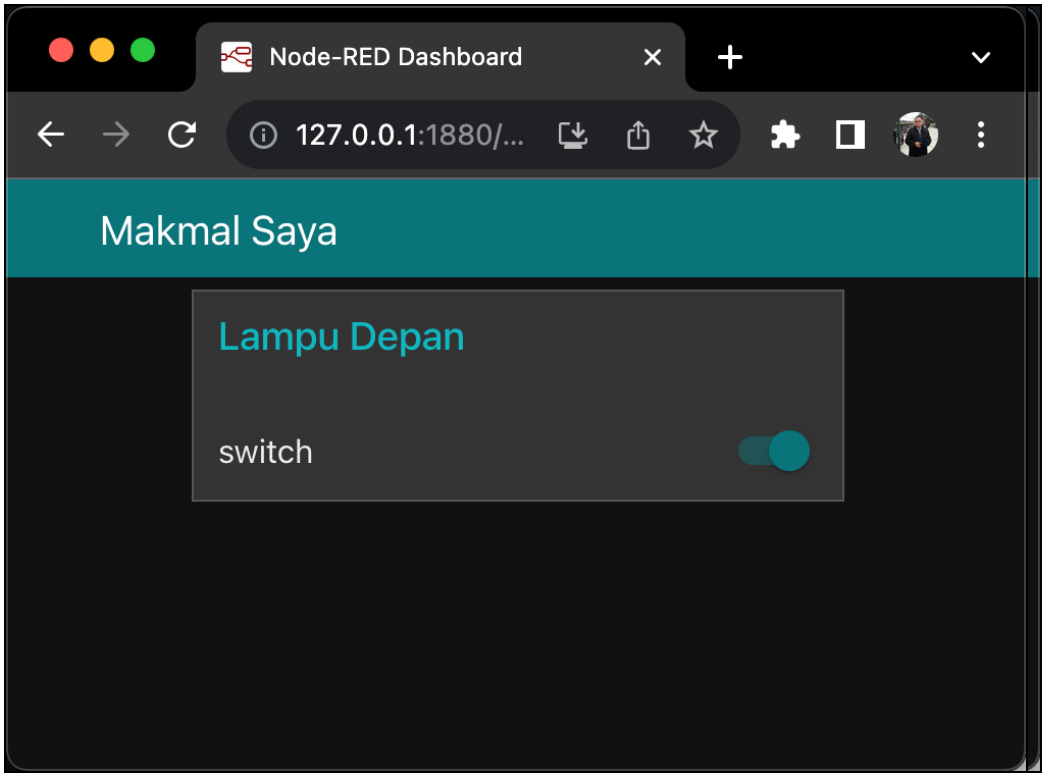
Node-RED: Dashboard → add 1 tab and 1 group

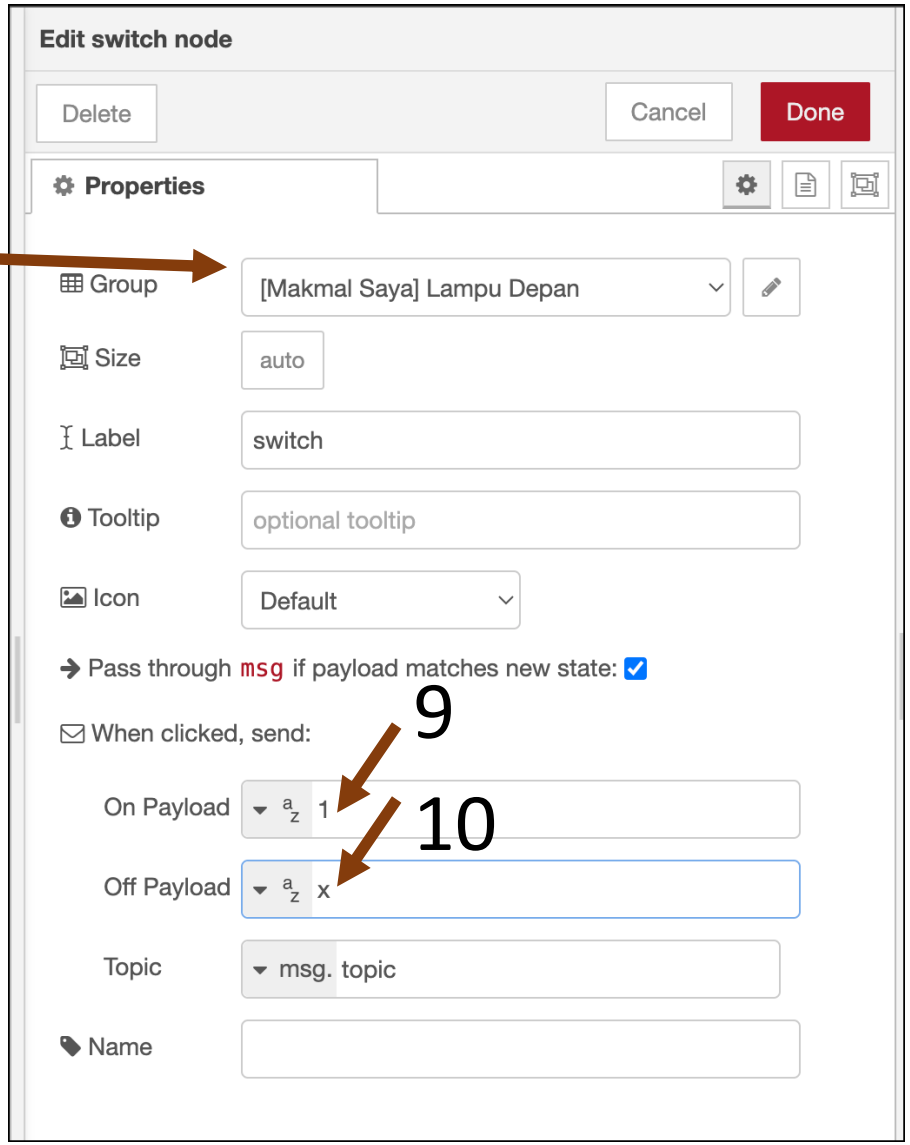


Node-RED: Dashboard → add 1 tab and change the properties accordingly.




ON LED 1
switch
NodeMCU ESP32s
connected
OFF LED 1
8


Node-RED Dashboard
127.0.0.1:1880/...
Makmal Saya
Lampu Depan
switch


Edit switch node
Delete
Cancel
Done
Properties
Group
[Makmal Saya] Lampu Depan
Size
auto
Label
switch
Tooltip
optional tooltip
Icon
Default
Pass through msg if payload matches new state:
When clicked, send:
On Payload
1
Off Payload
x
Topic
msg. topic
Name
9
10

END