

# **Production Supporting Systems in Factories**

**ระบบสนับสนุนการผลิตในโรงงานอุตสาหกรรม**

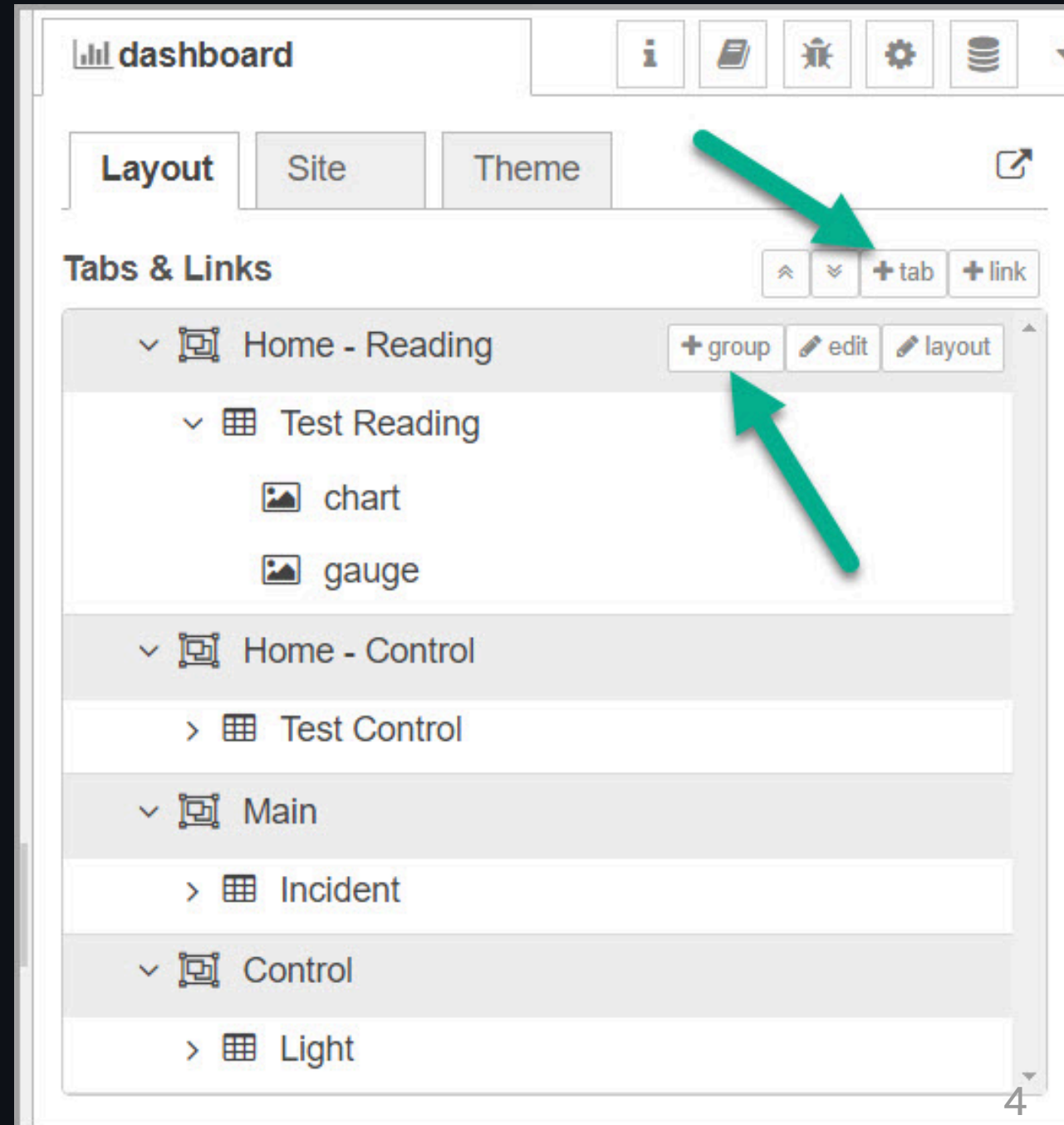
# Dashboard

| Display

# Installation

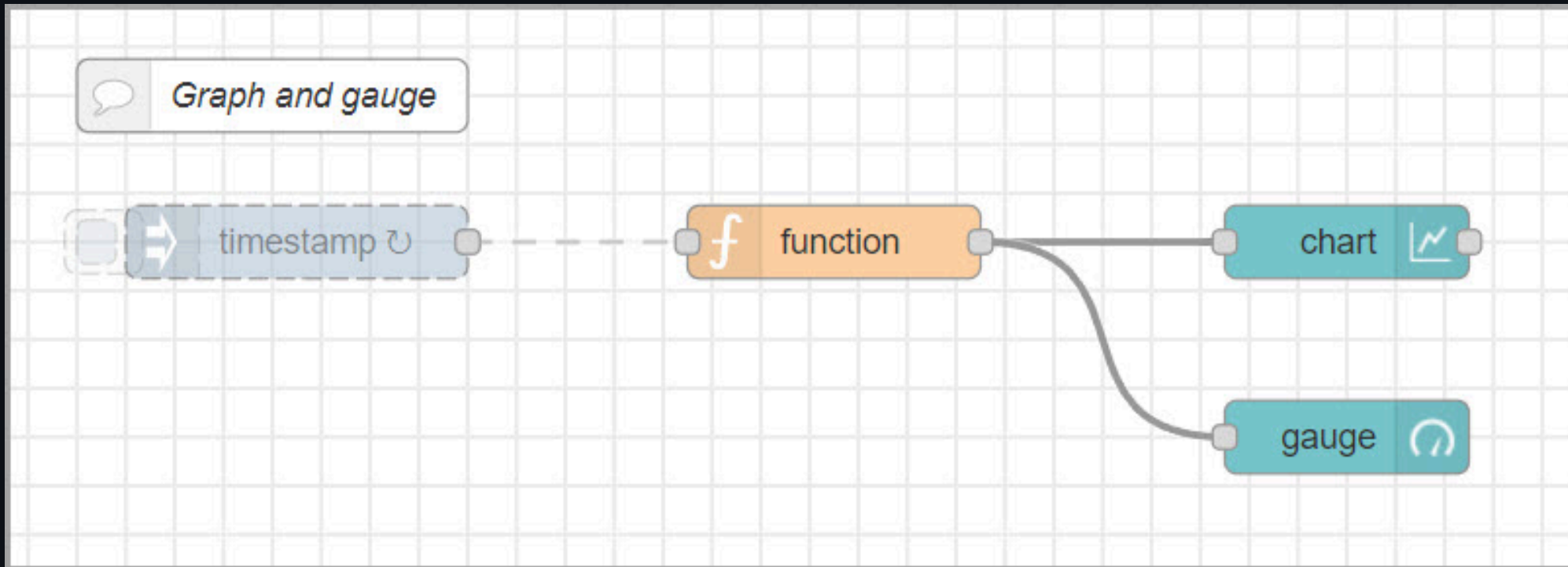
- `pnpm install node-red-dashboard`

- Go to **Dashboard** tab
- Click **+ tab**
  - Edit tab information
- Click **+ group**
  - Edit group information



- Flow

- inject, function, chart, gauge



- inject node

### Edit inject node

Delete Cancel Done

#### Properties

Name:

msg. payload = timestamp

msg. topic = a\_z

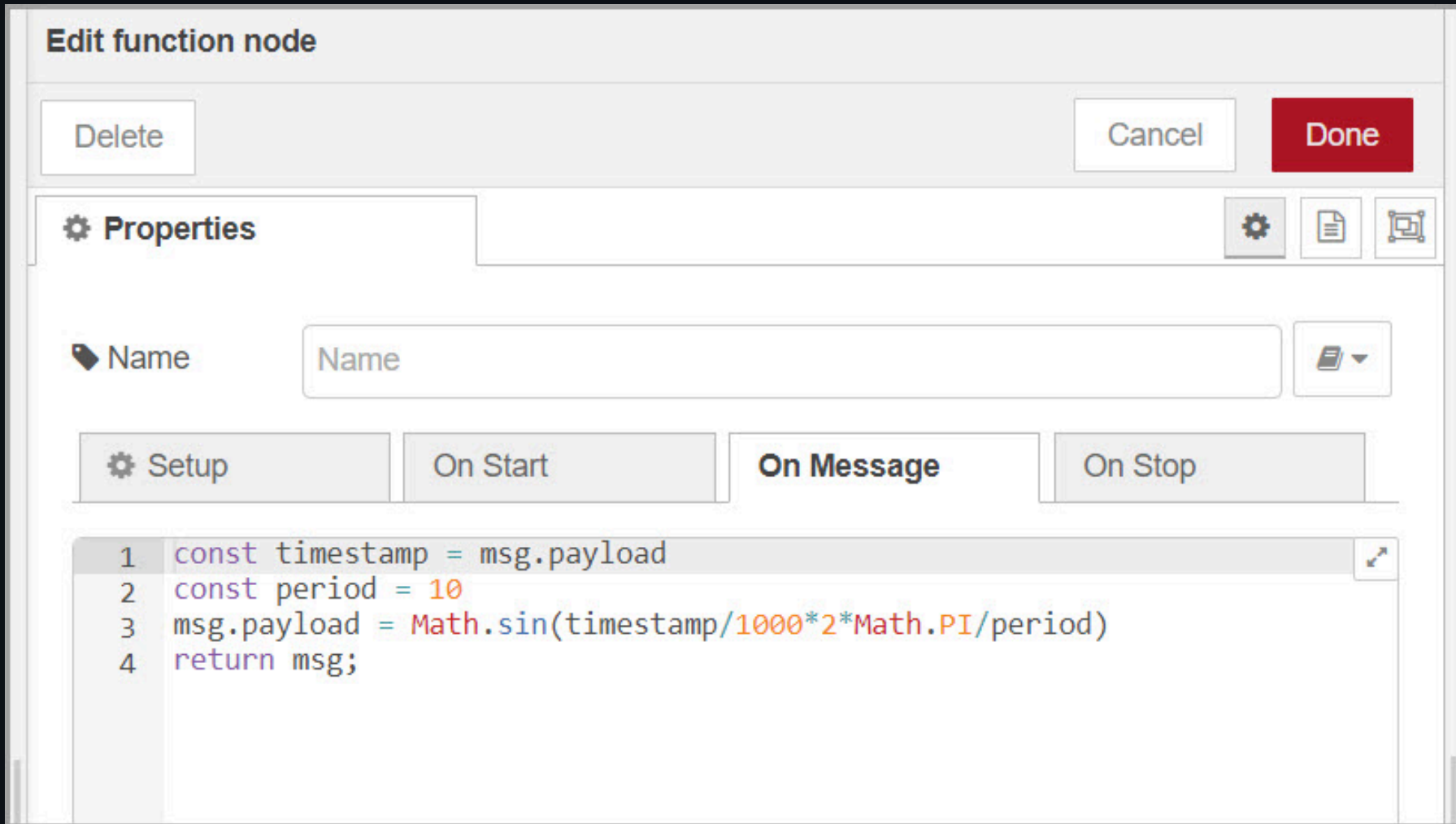
+ add inject now

☐ Inject once after 0.1 seconds, then

Repeat interval

every 0.5 seconds

- **function** node (code on the next page)



```
const timestamp = msg.payload;  
const period = 10;  
msg.payload = Math.sin(((timestamp / 1000) * 2 * Math.PI) / period);  
return msg;
```



- **chart node**

**Edit chart node**

Delete Cancel Done

**Properties**

Group [Home - Reading] Test Reading

Size auto

Label chart

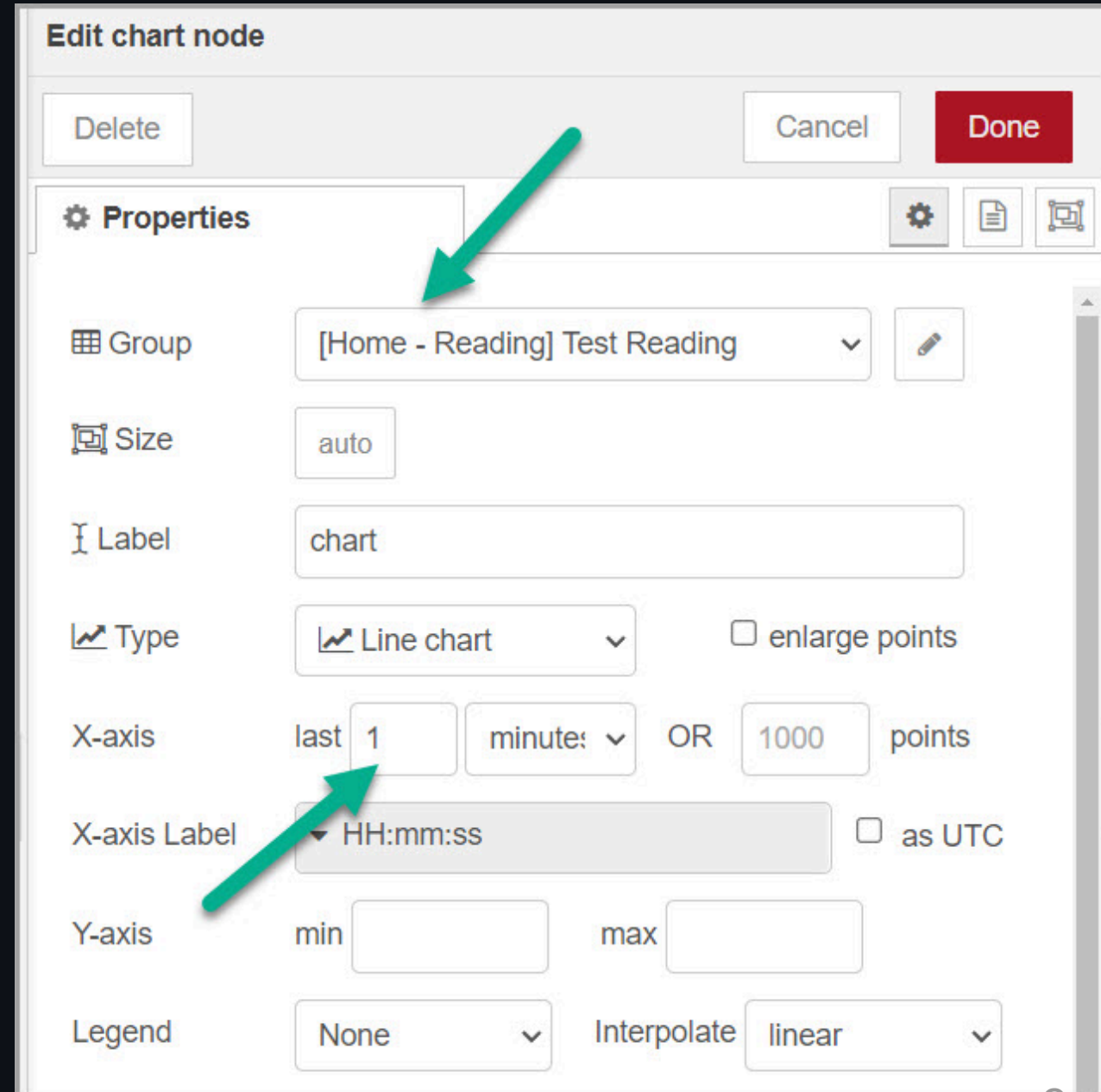
Type Line chart ☐ enlarge points

X-axis last 1 minutes OR 1000 points

X-axis Label HH:mm:ss ☐ as UTC

Y-axis min max

Legend None Interpolate linear



- gauge node

### Edit gauge node

Delete Cancel Done

#### Properties

Group [Home - Reading] Test Reading

Size auto

Type Gauge

Label gauge

Value format {{value}}

Units units

Range min -1 max 1

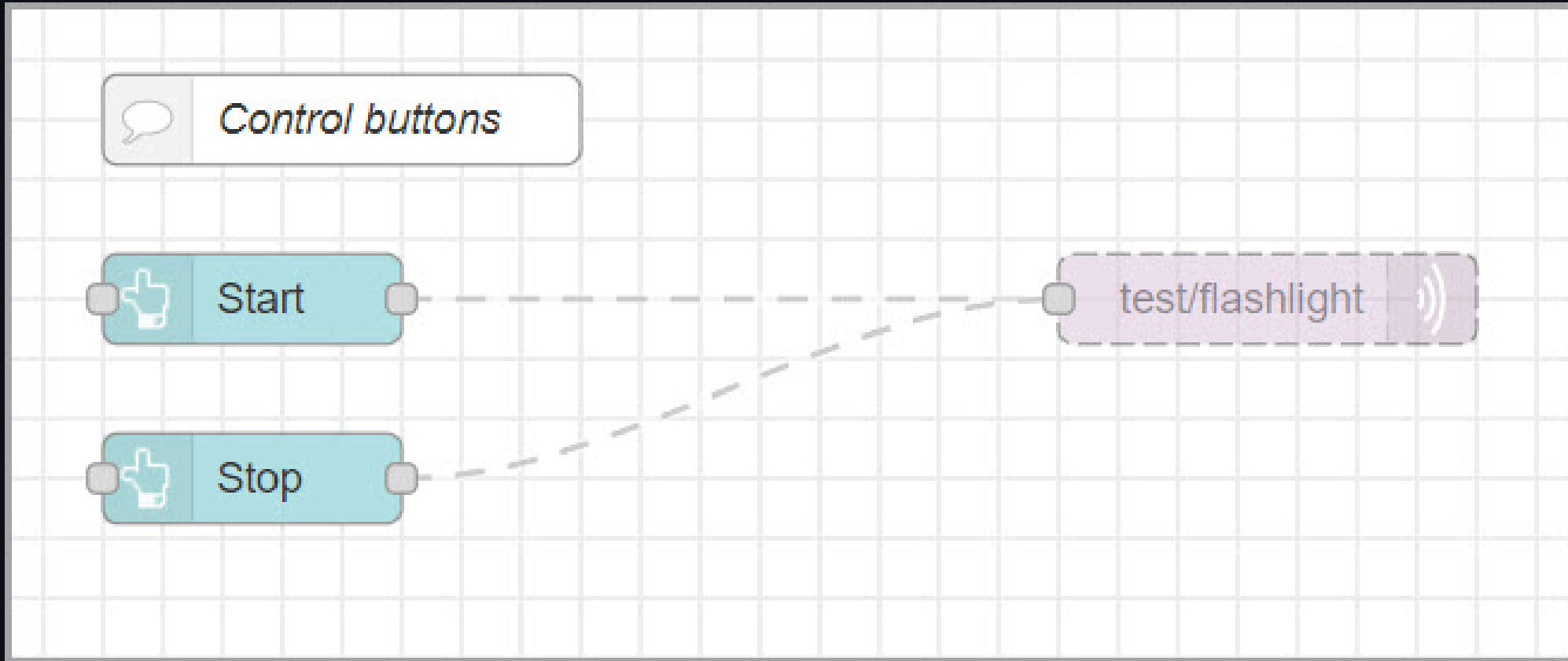
Colour gradient

# Dashboard

Control

- Flow

- button, mqtt out



- button Start

### Edit button node

Delete Cancel Done

#### Properties

Group [Home - Control] Test Control

Size auto

Icon optional icon

Label Start

Tooltip optional tooltip

Color optional text/icon color

Background green

When clicked, send:

Payload  $a_z$  start

Topic msg. topic

→ If msg arrives on input, emulate a button click: ☐

- button Stop

## Edit button node

Delete

Cancel

Done

### Properties

Group

[Home - Control] Test Control

Size

auto

Icon

optional icon

Label

Stop

Tooltip

optional tooltip

Color

optional text/icon color

Background

red

When clicked, send:

Payload

▼ a<sub>z</sub> stop

Topic

▼ msg. topic

- mqtt out node

### Edit mqtt out node

Delete Cancel Done

⚙ Properties

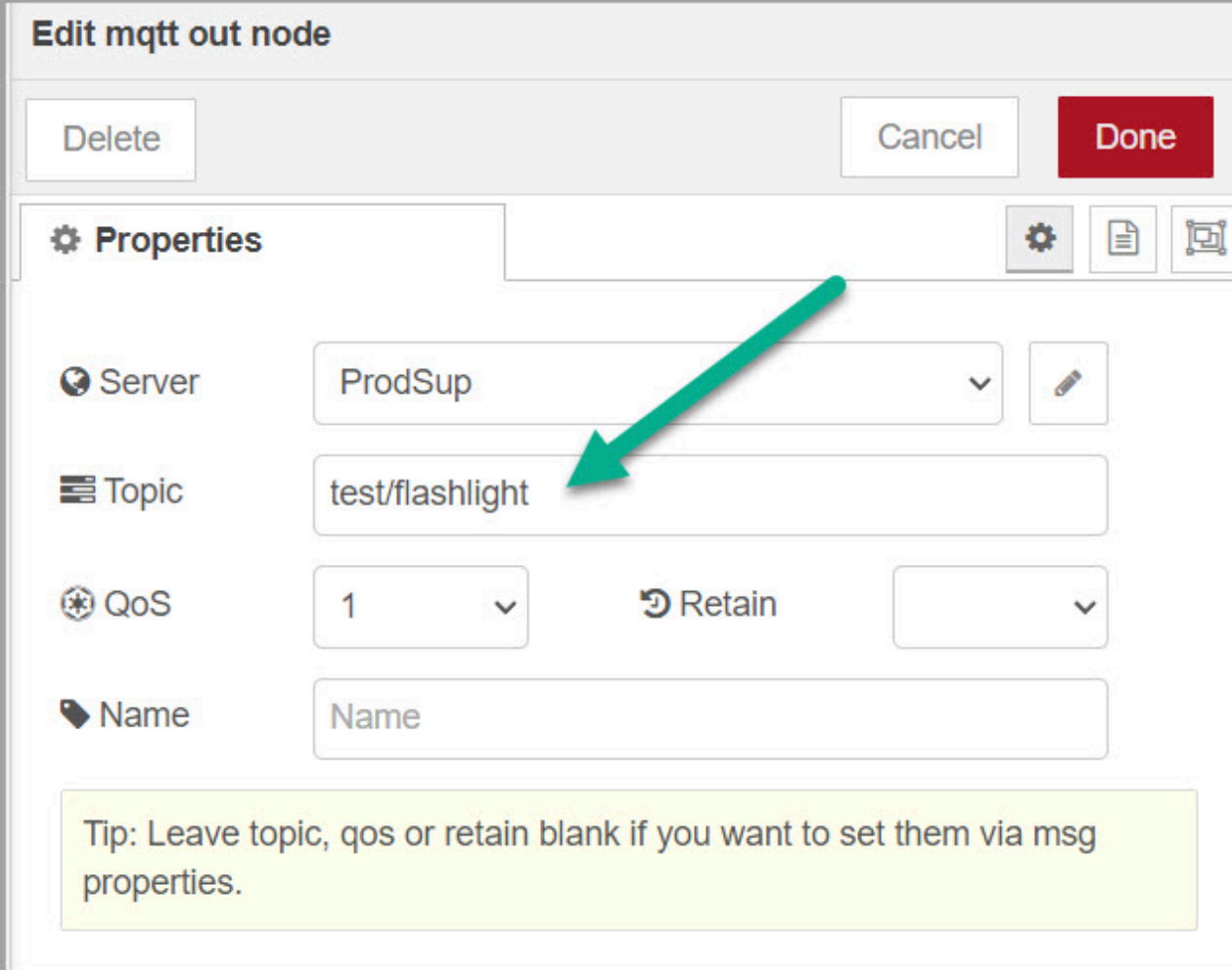
Server ProdSup

Topic test/flashlight

QoS 1 Retain

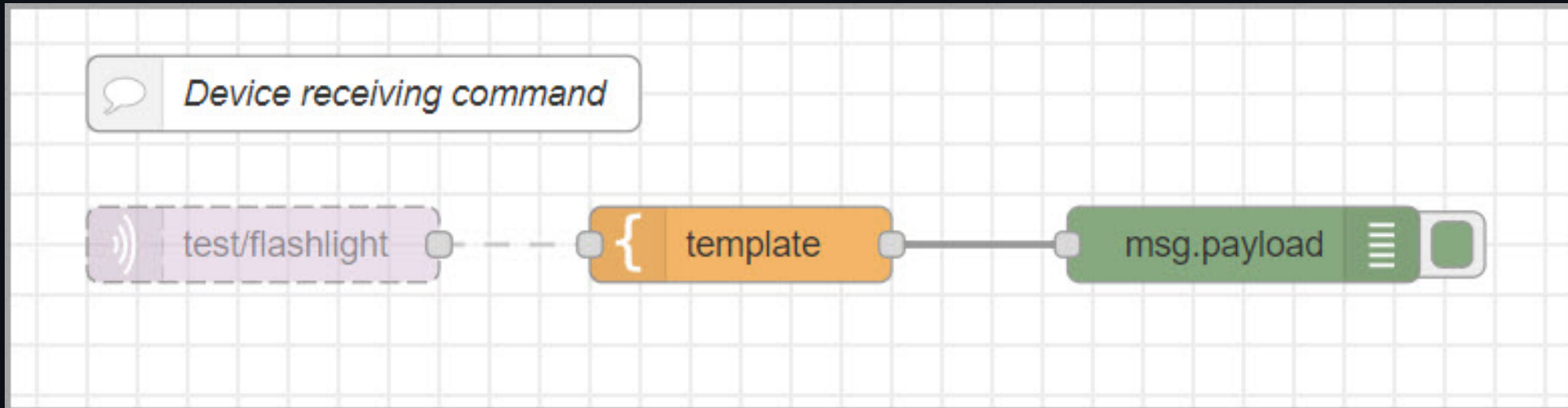
Name Name

Tip: Leave topic, qos or retain blank if you want to set them via msg properties.



- flow

- mqtt in, template, debug





- mqtt in node

**Edit mqtt in node**

Delete Cancel Done

**Properties**

Server ProdSup

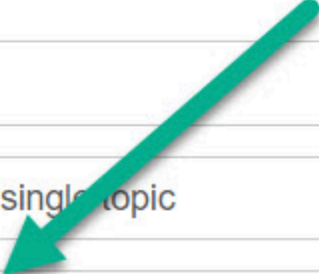
Action Subscribe to single topic

Topic test/flashlight

QoS 1

Output auto-detect (string or buffer)

Name Name




- `template` node


### Edit template node

Delete Cancel Done

⚙ Properties

🏷 Name  

⋮ Property

📄 Template Syntax Highlight:  

```
1 I will {{payload}} now !
```