Production Supporting Systems in Factories

ระบบสนับสนุนการผลิตในโรงงานอุตสาหกรรม

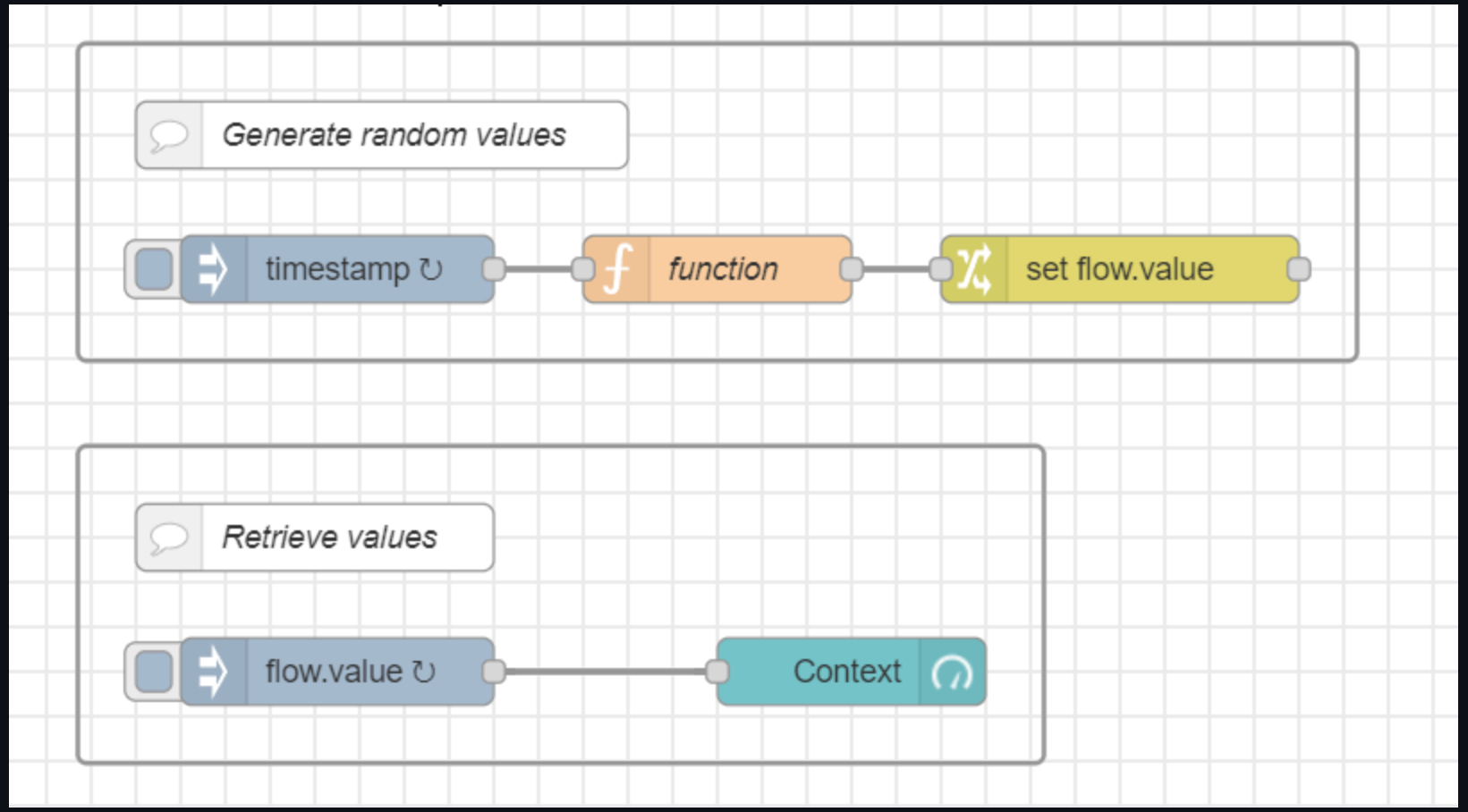
Context

Scope

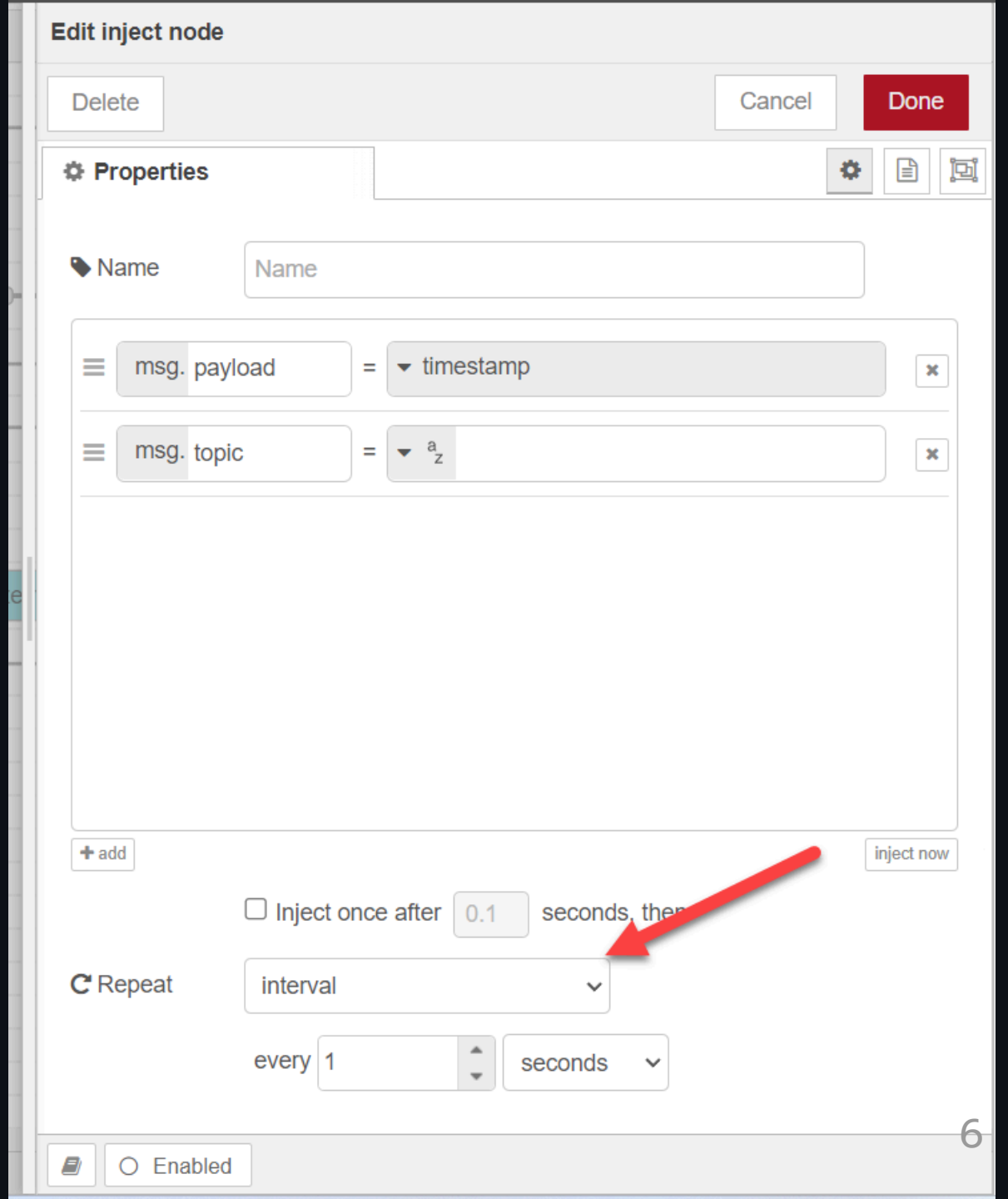
The `scope` of a particular context value.

- `Node` - only visible to the node that set the value
- `Flow` - visible to all nodes on the same flow (or tab in the editor)
- `Global` - visible to all nodes

Use `flow` context to pass values


Generate random values
timestamp ↻
function
set flow.value
Retrieve values
flow.value ↻
Context

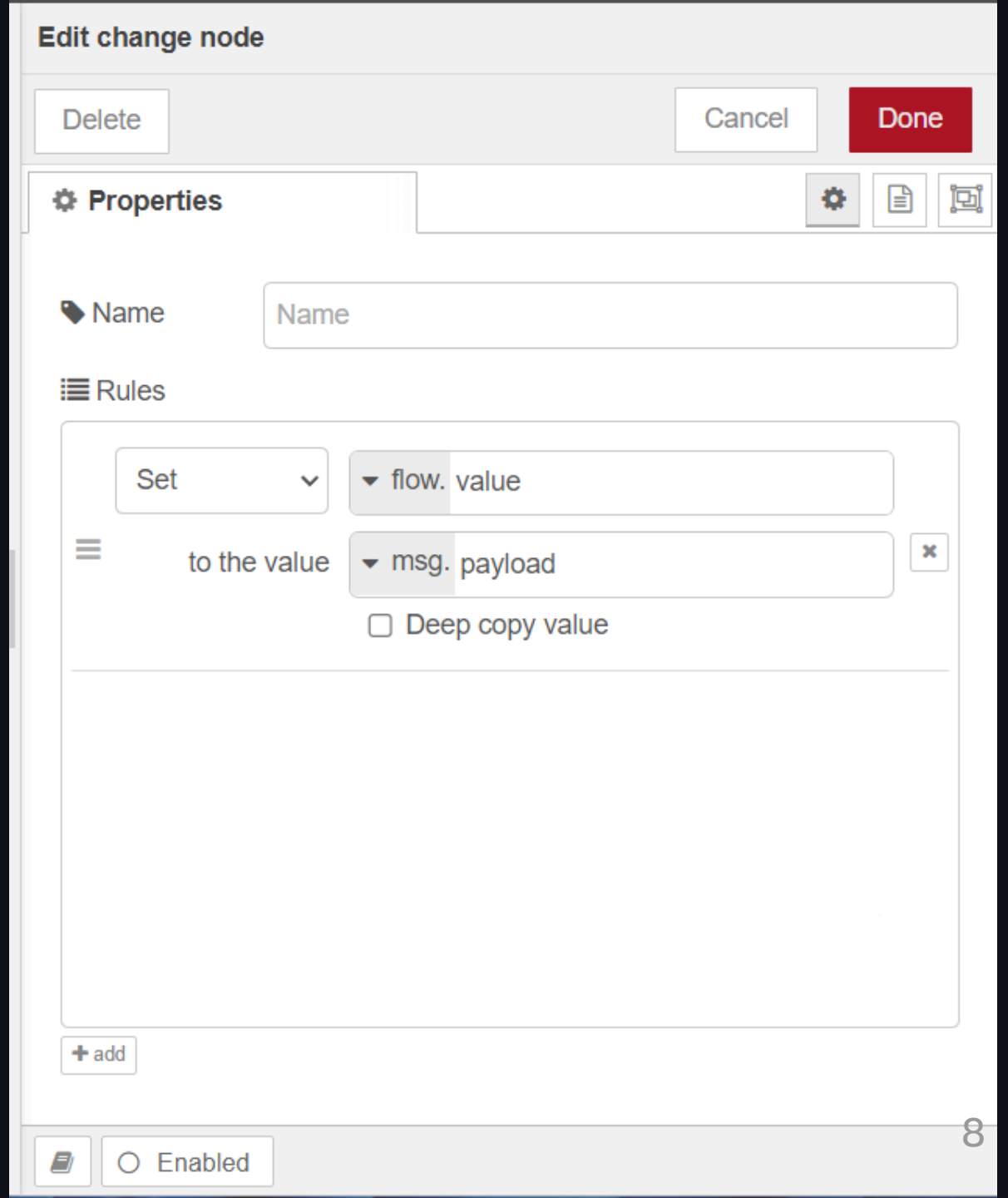
Upper `inject` node



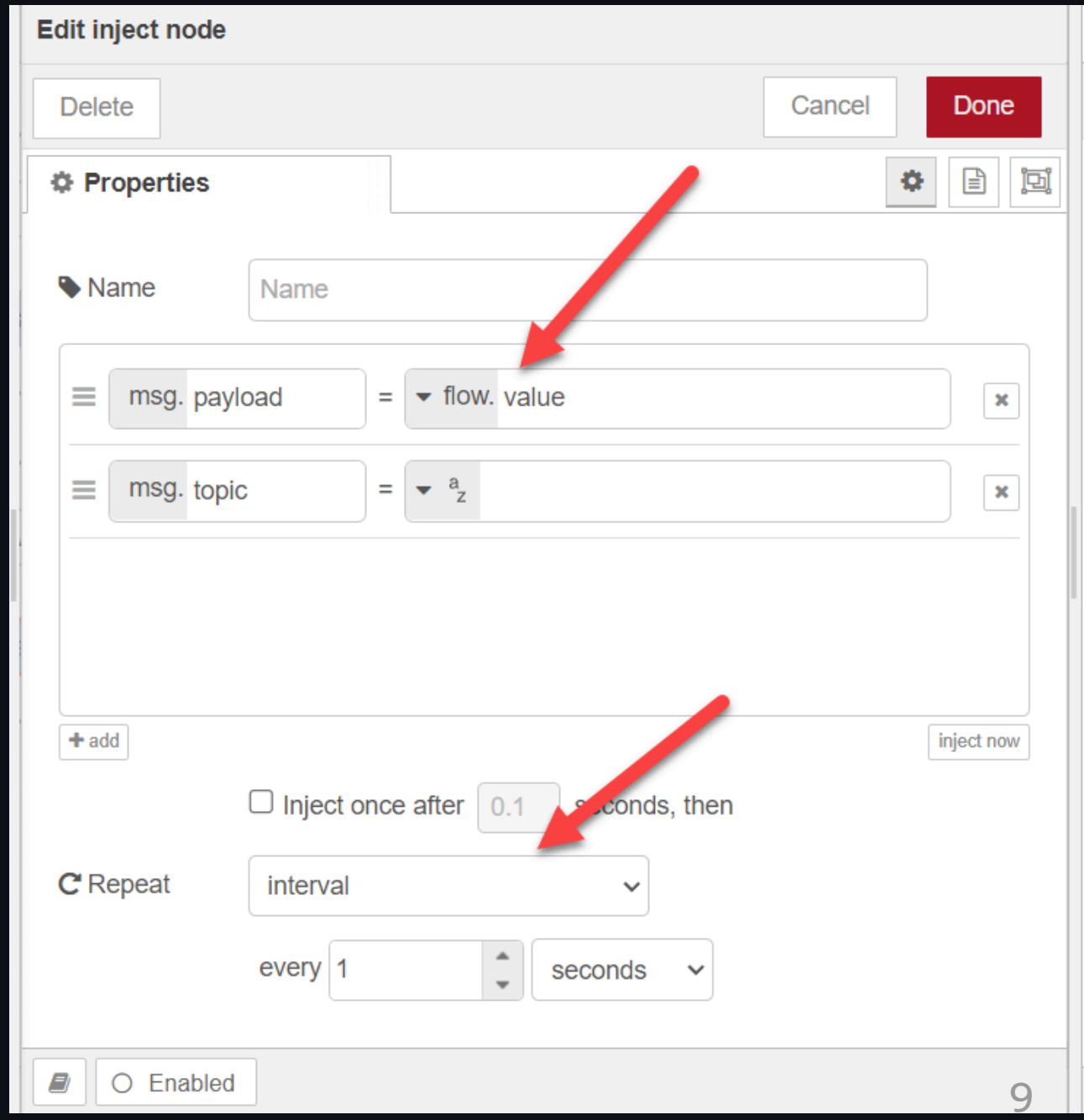
`function` node

```
msg.payload = Math.random();
return msg;
```

change node

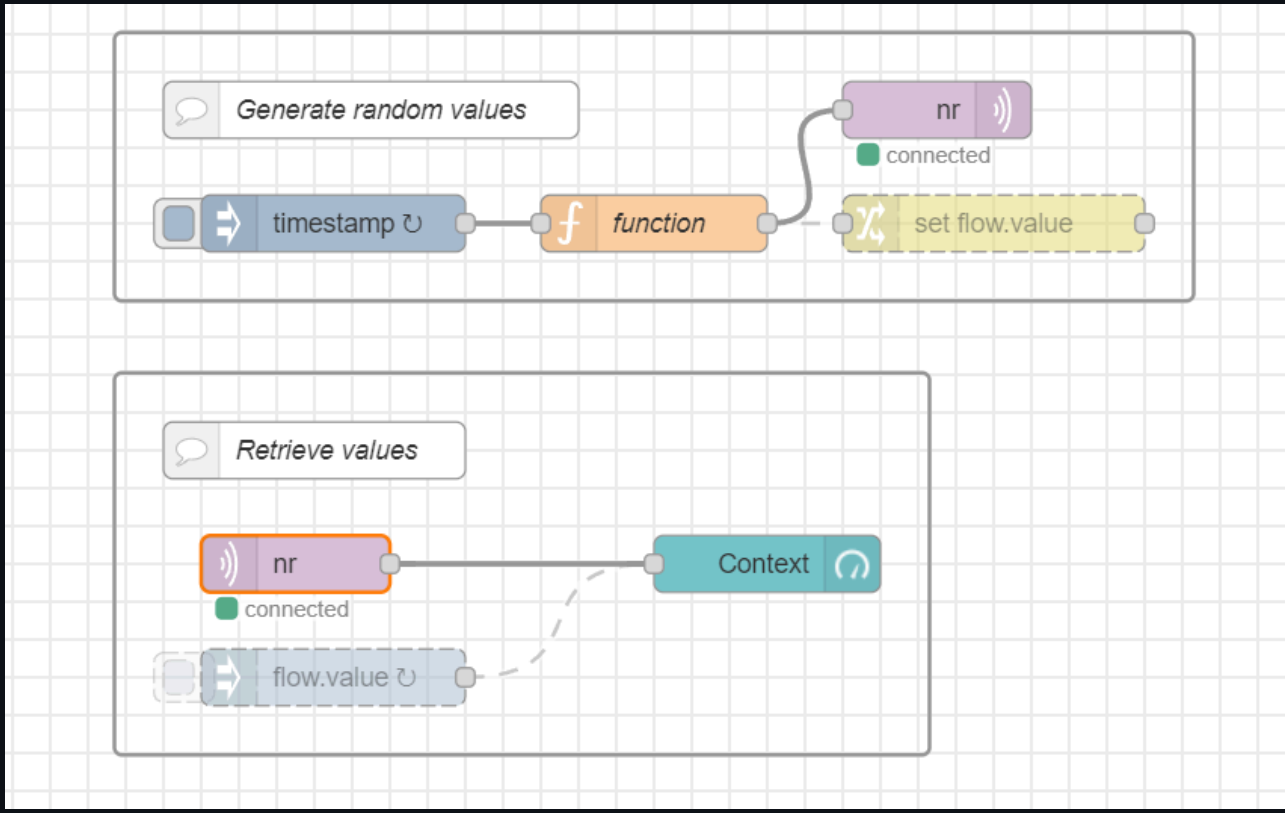

Edit change node
Delete
Cancel
Done
Properties
Name
Name
Rules
Set
flow. value
to the value
msg. payload
Deep copy value
add
Enabled

Lower `inject` node

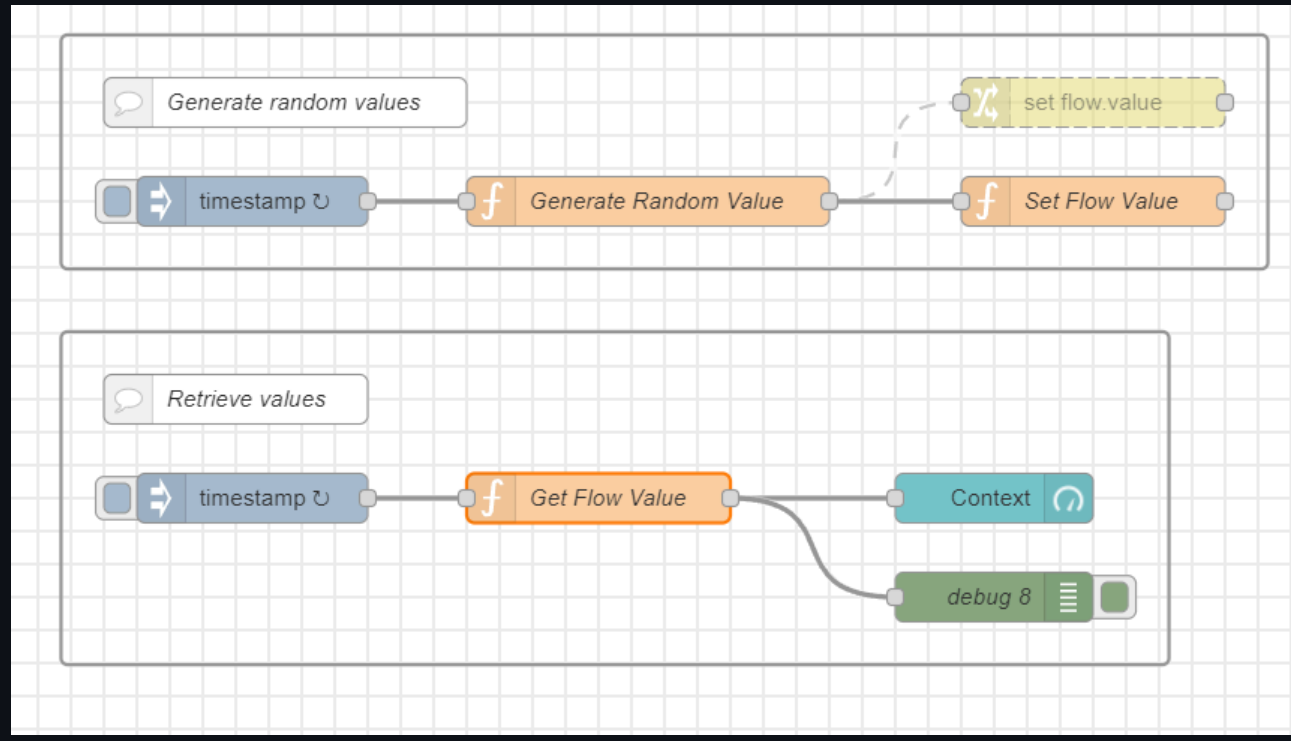


Side note

- You can use `MQTT` protocol to pass "context" information.
  - This is actually a better way.



Using code


Generate random values
set flow.value
timestamp
Generate Random Value
Set Flow Value
Retrieve values
timestamp
Get Flow Value
Context
debug 8

`Set Flow Value` node

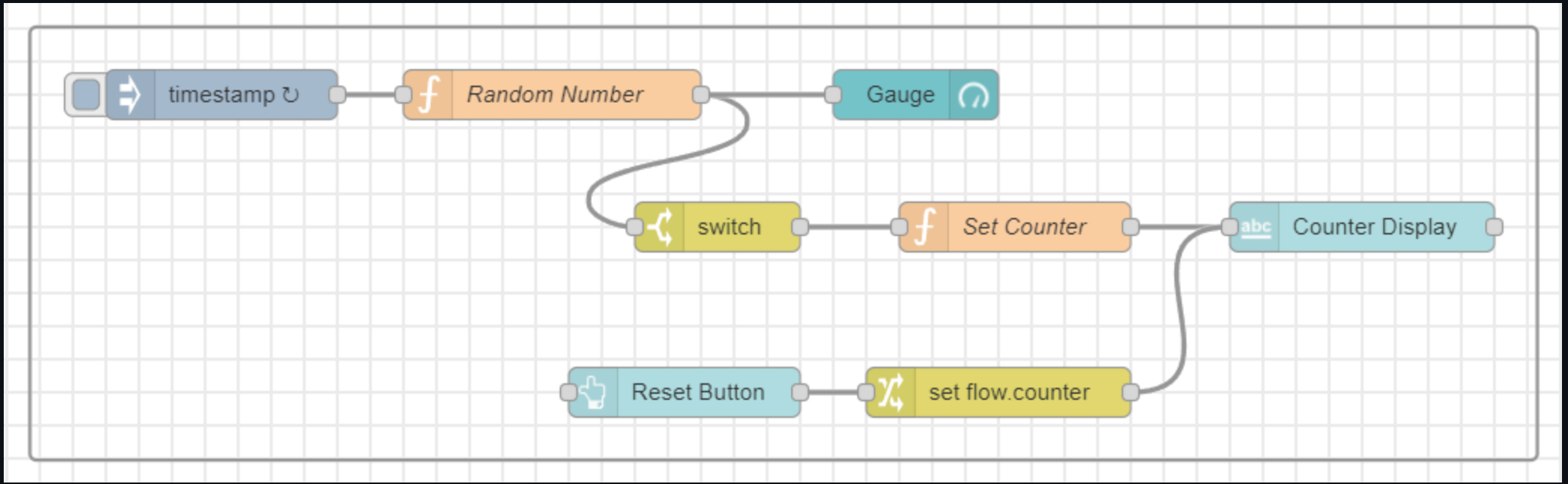
```
flow.set("value", msg.payload);
```

`Get Flow Value` node

```
const value = flow.get("value") ?? 0;
msg.payload = value;
return msg;
```

Counter with reset button

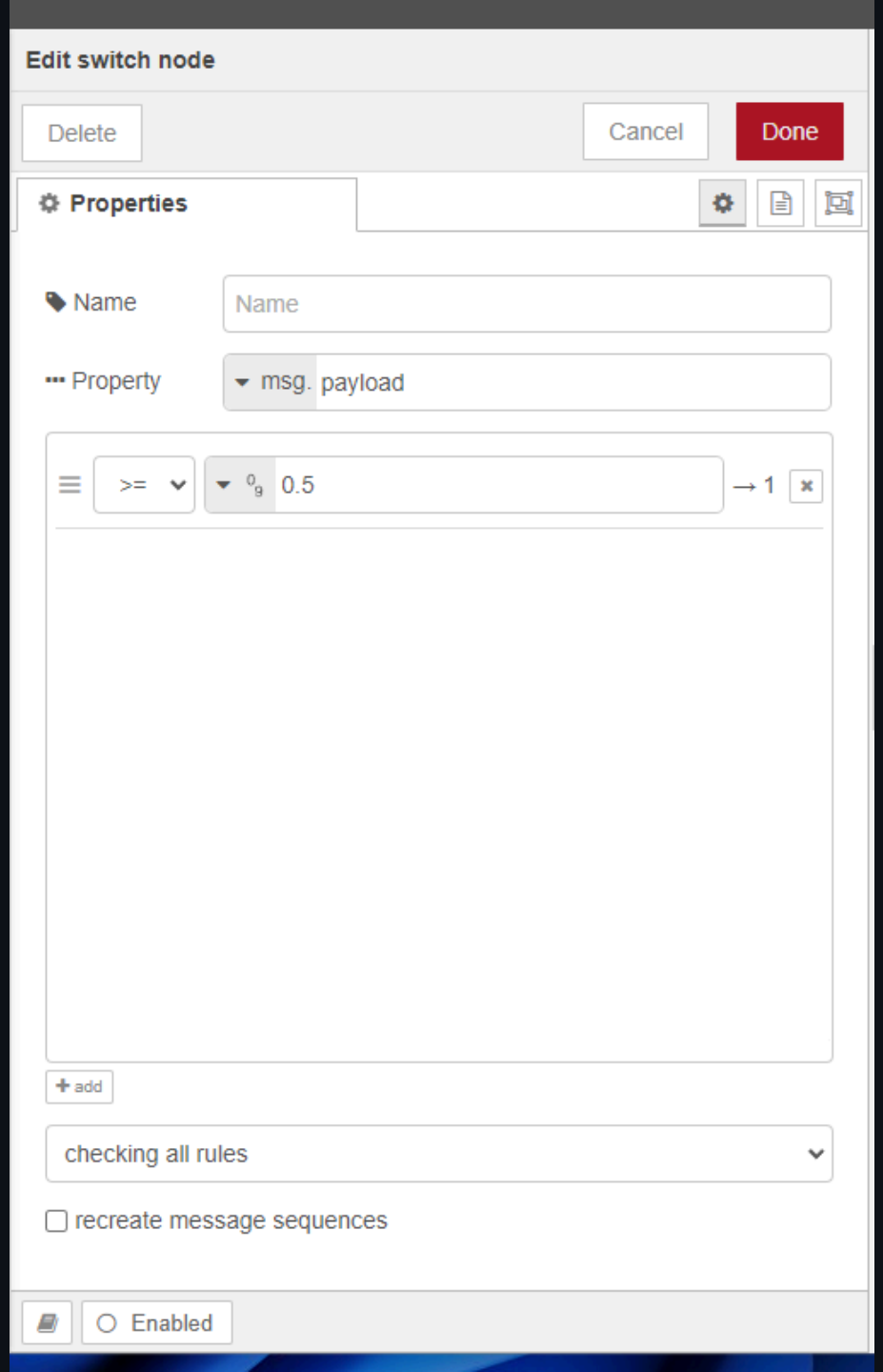
Flow


timestamp ↻
Random Number
Gauge
switch
Set Counter
abc
Counter Display
Reset Button
set flow.counter

`Random Number` (function) node

```
msg.payload = Math.random();
return msg;
```

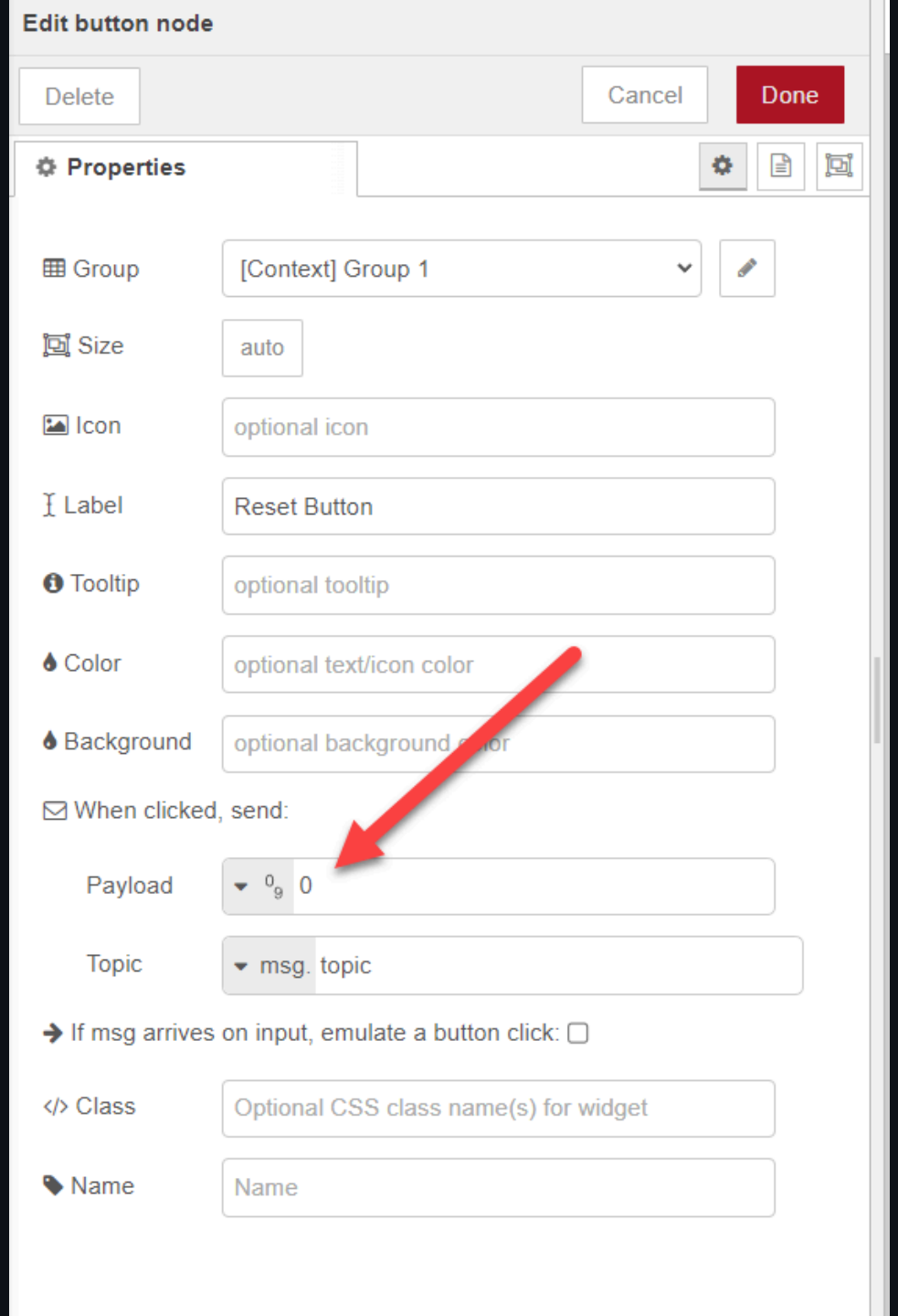
`Switch` node


Edit switch node
Delete
Cancel
Done
Properties
Name
Name
Property
msg.
payload
>=
0.5
→ 1
add
checking all rules
recreate message sequences
Enabled

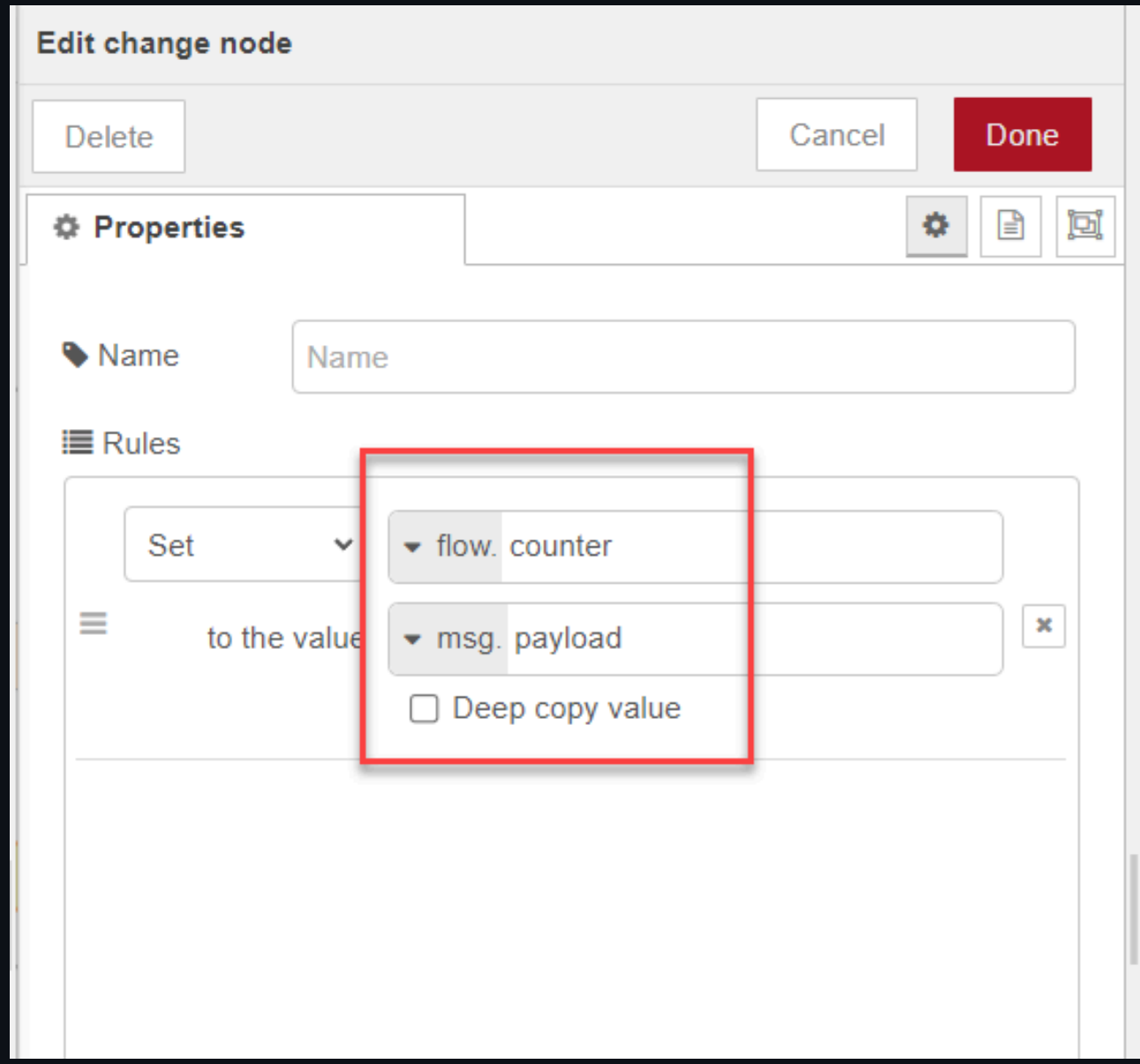
`Set Counter` (Function) node

```
const curCounter = flow.get("counter") ?? 0;
flow.set("counter", curCounter + 1);
msg.payload = curCounter + 1;
return msg;
```

`button` node

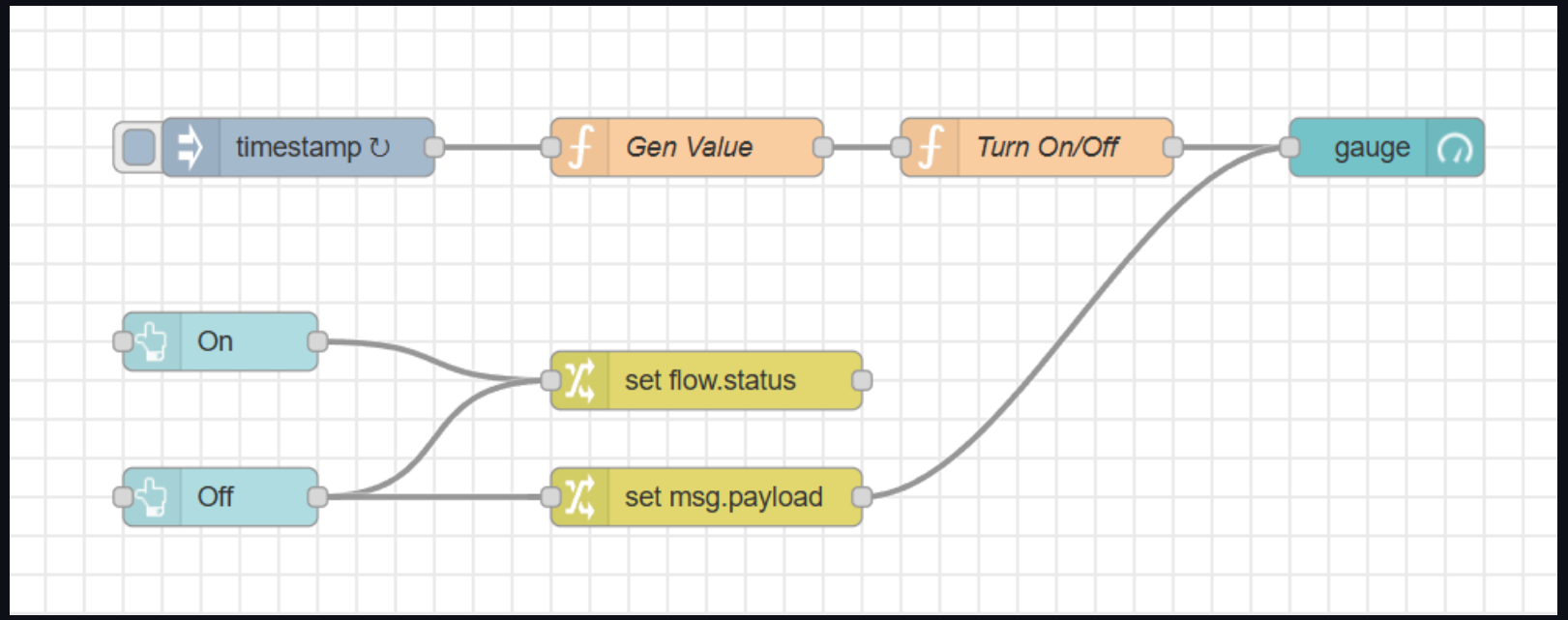

Edit button node
Delete
Cancel
Done
Properties
Group
[Context] Group 1
Size
auto
Icon
optional icon
Label
Reset Button
Tooltip
optional tooltip
Color
optional text/icon color
Background
optional background color
When clicked, send:
Payload
0
Topic
msg. topic
If msg arrives on input, emulate a button click:
Class
Optional CSS class name(s) for widget
Name
Name

`change` node


Edit change node
Delete
Cancel
Done
Properties
Name
Name
Rules
Set
flow. counter
to the value
msg. payload
Deep copy value

Turning sensor display on and off

Flow

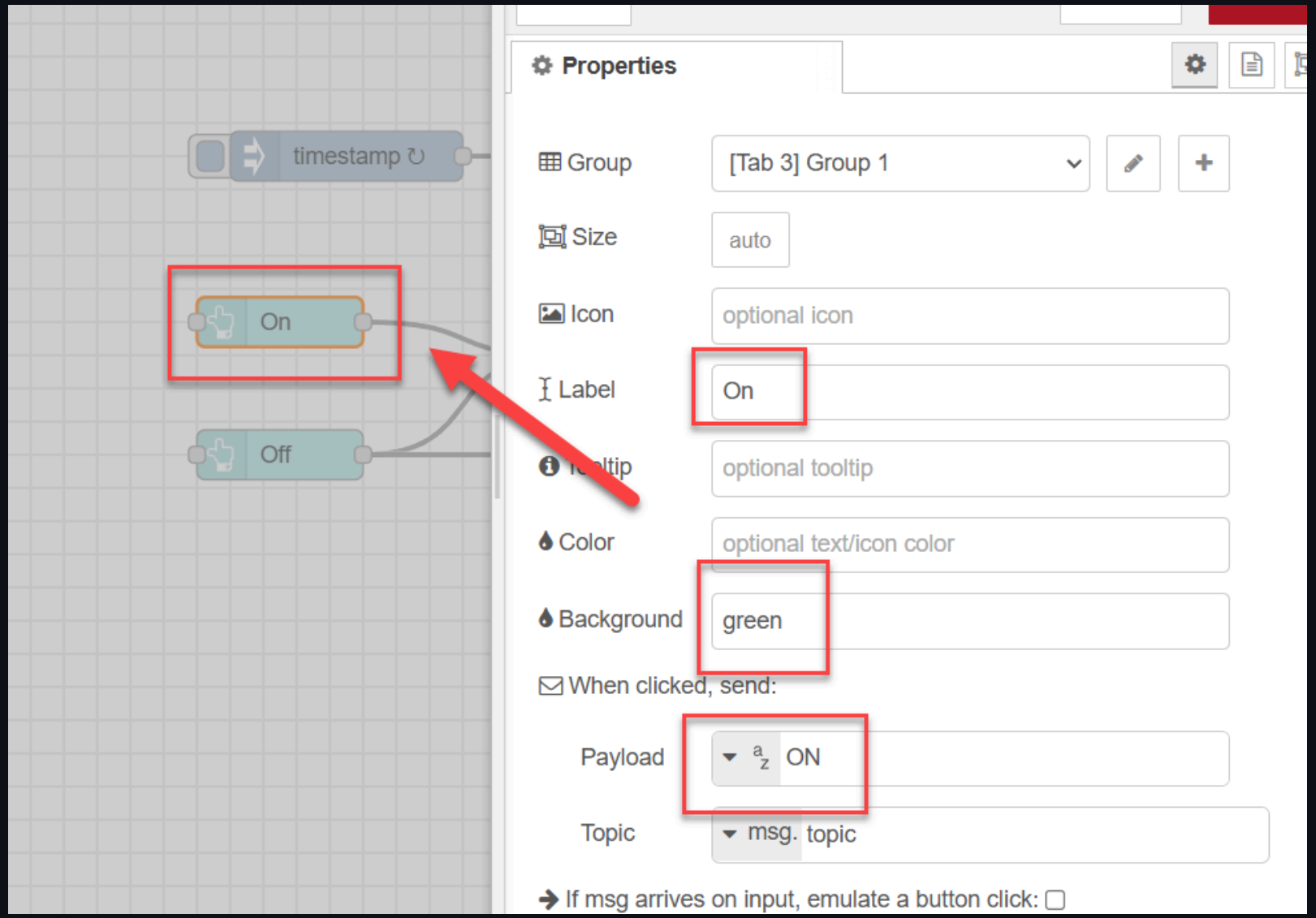

timestamp ↻
Gen Value
Turn On/Off
gauge
On
set flow.status
Off
set msg.payload

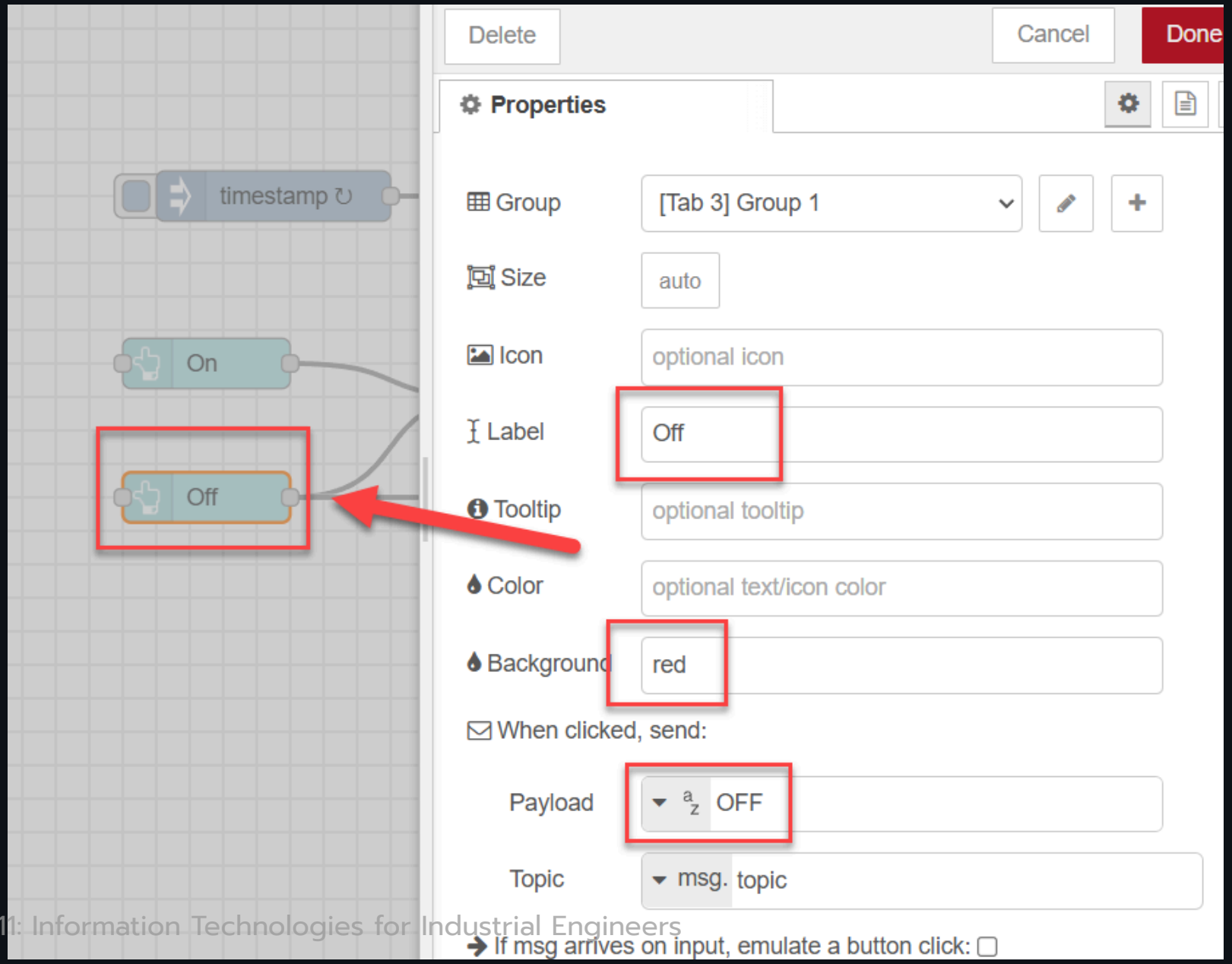
`function` node (Gen Value)

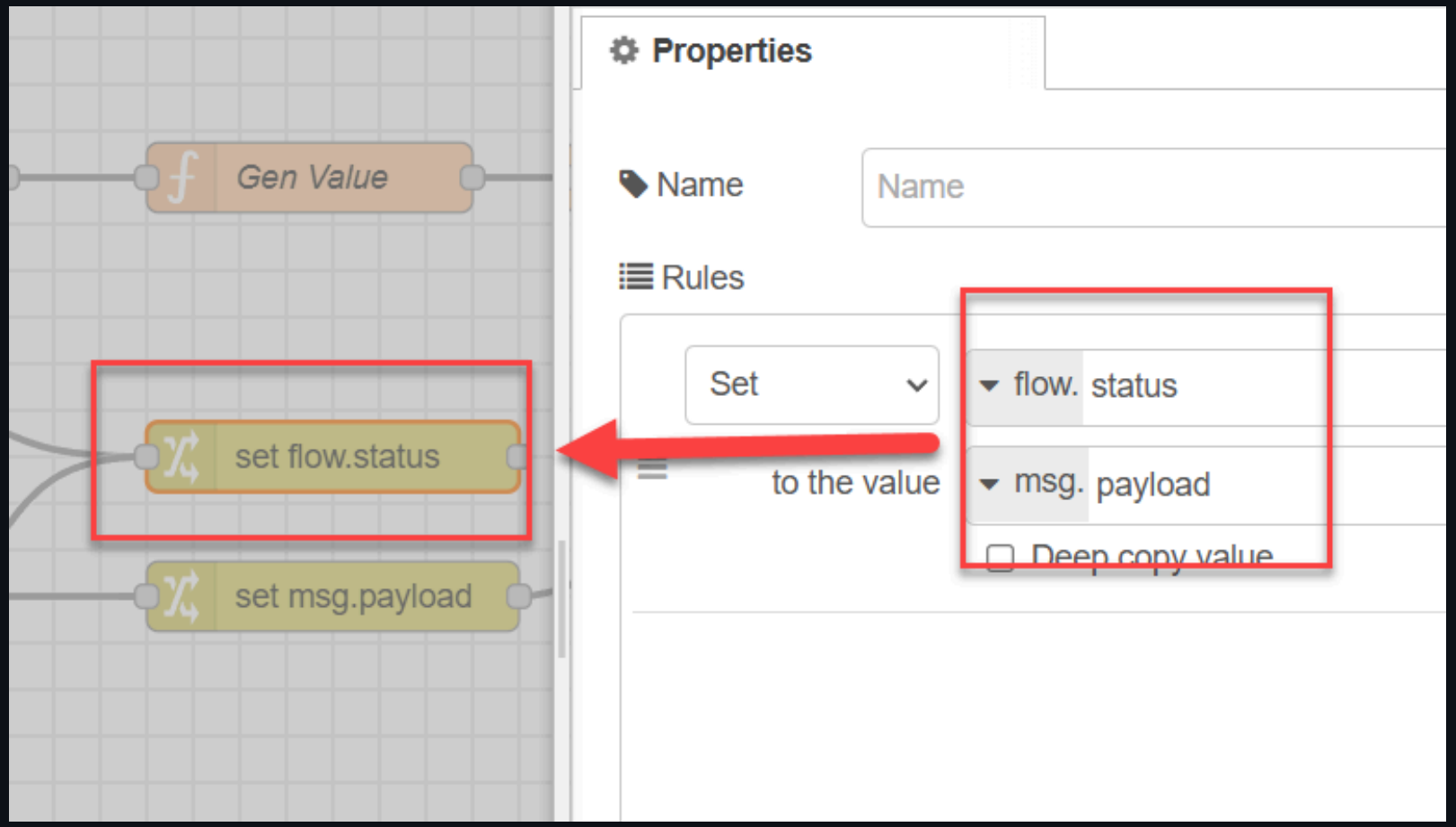
```
msg.payload = Math.random();
return msg;
```

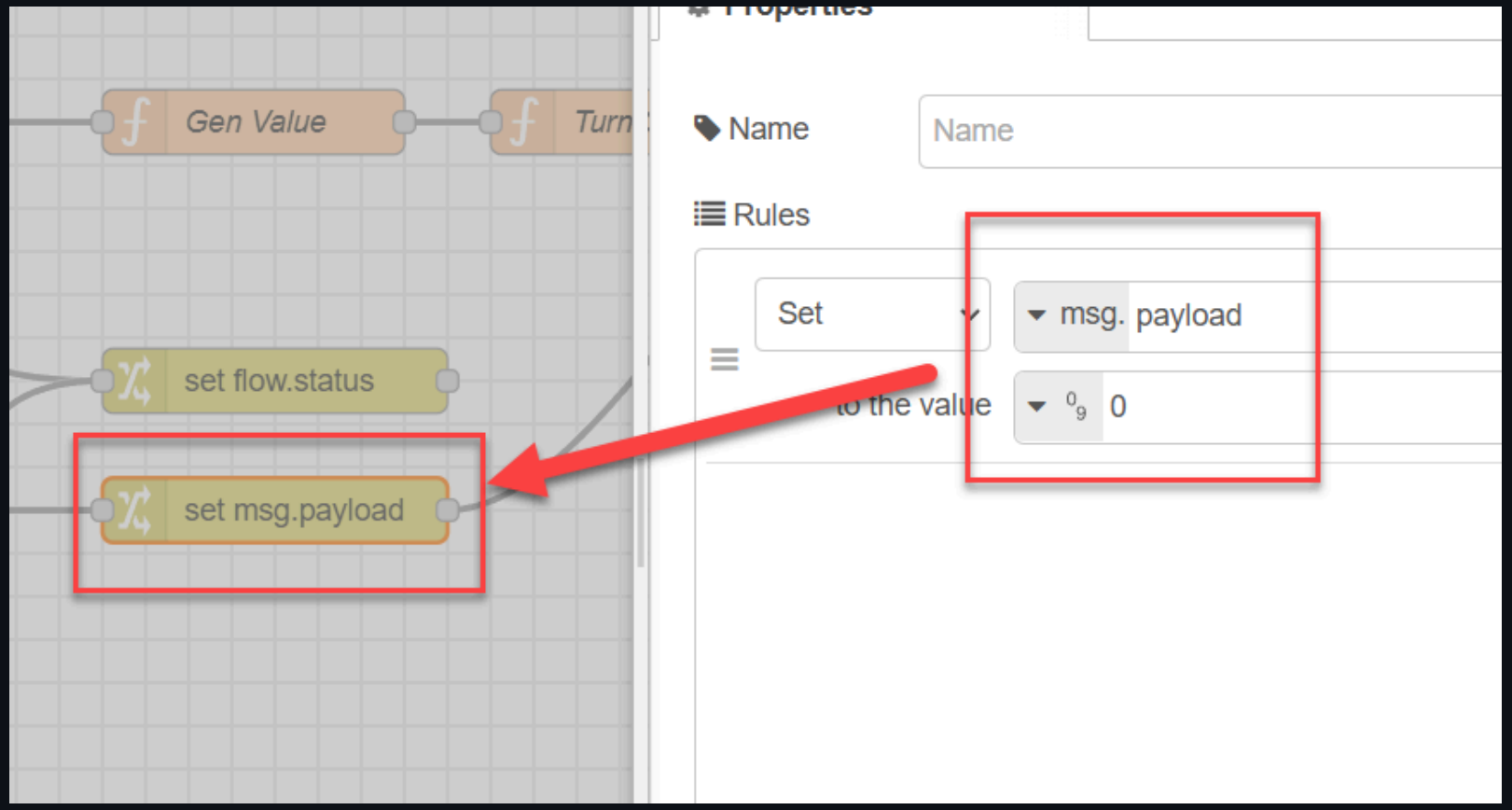
`function` node (Turn On/Off)

```
const status = flow.get("status") ?? "OFF";
if (status === "ON") {
  return msg;
} else {
  // Do nothing
}
```


timestamp
On
Off
Properties
Group
[Tab 3] Group 1
Size
auto
Icon
optional icon
Label
On
optional tooltip
Color
optional text/icon color
Background
green
When clicked, send:
Payload
ON
Topic
msg. topic
If msg arrives on input, emulate a button click:


timestamp
On
Off
Delete
Cancel
Done
Properties
Group
[Tab 3] Group 1
Size
auto
Icon
optional icon
Label
Off
Tooltip
optional tooltip
Color
optional text/icon color
Background
red
When clicked, send:
Payload
OFF
Topic
msg. topic
If msg arrives on input, emulate a button click:


Gen Value
set flow.status
set msg.payload
Properties
Name
Name
Rules
Set
flow.
status
to the value
msg.
payload
Deep copy value


Gen Value
Turn
set flow.status
set msg.payload
Name
Name
Rules
Set
msg. payload
to the value
0