

Practical No. 4

Aim: Setup a physical button switch and trigger and led in node red and python w debounce

Step 1: get gpio pin in node and configure it

Edit rpi-gpio in node

Delete Cancel Done

Properties

MISO - GPIO09 - 21	22 - GPIO25
SCLK - GPIO11 - 23	24 - GPIO8 - CE0
Ground - 25	26 - GPIO7 - CE1
SD - 27	28 - SC
GPIO05 - 29	30 - Ground
GPIO06 - 31	32 - GPIO12
GPIO13 - 33	34 - Ground
GPIO19 - 35	36 - GPIO16
GPIO26 - 37	38 - GPIO20
Ground - 39	40 - GPIO21

↑ Resistor? pullup Debounce 25 mS

☒ Read initial state of pin on deploy/restart?

Name button

Pins in Use: 11

Step 2: get gpio pin out node and configure it

Edit rpi-gpio out node

Delete Cancel Done

Properties

MISO - GPIO09 - 21	22 - GPIO25
SCLK - GPIO11 - 23	24 - GPIO8 - CE0
Ground - 25	26 - GPIO7 - CE1
SD - 27	28 - SC
GPIO05 - 29	30 - Ground
GPIO06 - 31	32 - GPIO12
GPIO13 - 33	34 - Ground
GPIO19 - 35	36 - GPIO16
GPIO26 - 37	38 - GPIO20
Ground - 39	40 - GPIO21

Type Digital output

☐ Initialise pin state?

Name bulb

Pins in Use: 11

Tip: For digital output - input must be 0 or 1.

Step 3: get switch node and configure it

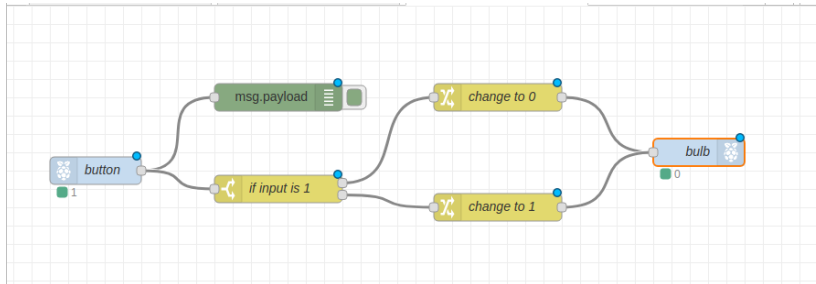
The screenshot shows the 'Edit switch node' dialog. At the top, there are 'Delete', 'Cancel', and 'Done' buttons. Below is the 'Properties' tab. The 'Name' field contains 'if input is 1'. The 'Property' dropdown is set to 'msg. payload'. There are two rules listed: the first rule has a condition '==' and a value '1', with a result of '→ 1'; the second rule is labeled 'otherwise' with a result of '→ 2'. At the bottom, there is an 'add' button and a dropdown menu currently showing 'checking all rules'.

Step 4: get change node and configure it

The screenshot shows the 'Edit change node' dialog. It has 'Delete', 'Cancel', and 'Done' buttons at the top. The 'Name' field is 'change to 0'. Under the 'Rules' section, there is one rule with the action 'Set' on the 'msg. payload' property, with the value '0'. An 'add' button is at the bottom left.

The screenshot shows the 'Edit change node' dialog. It has 'Delete', 'Cancel', and 'Done' buttons at the top. The 'Name' field is 'change to 1'. Under the 'Rules' section, there is one rule with the action 'Set' on the 'msg. payload' property, with the value '1'. An 'add' button is at the bottom left.

Step 4: link all nodes and deploy the circuit



Output :

