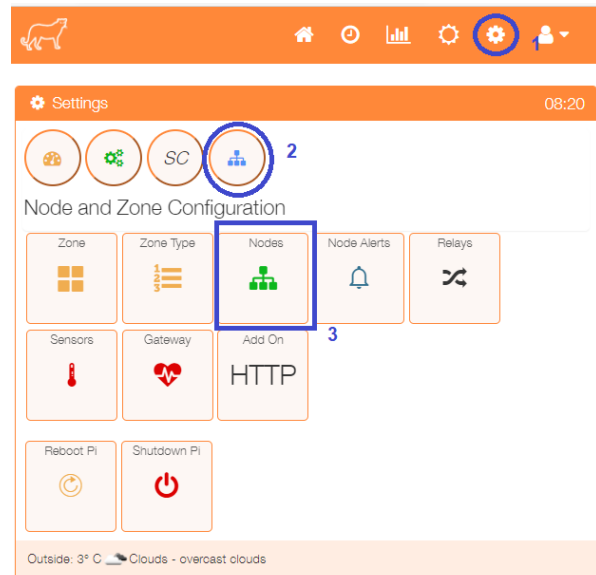# MaxAir Technical – Creating Relay Devices

Relays are created as control devices; they need to be attached to nodes using a 'node_id' and 'child_id'. The nodes can be of any type, e.g., 'MySensors Controllers', 'i2C Controllers' or 'GPIO Controllers'.

Identify the Node_ID and Child_ID

To show the nodes currently available select the Nodes menu item from the Settings/Node and Zone Configuration menu.

The listing shows a number of Sensor nodes and a GPIO Controller Node. For this example, three relay devices will be attached to the GPIO Controller Node.

In order to use the GPIO Controller, we need to know something about the hardware in use. Available GPIO pins will depend on the controller being used. For example, if we are using a Raspberry Pi Model 3B+ the pins 11, 13 and 15 (corresponding to GPIO17. GPIO27 and GPIO22) should be available, if not being used by another application.

Node Setting

You can Add GPIO, I2C relay board as Node, Wireless Nodes are automatically discovered. Nodes attached to any Zone cannot be deleted until detached from the associated Zone.
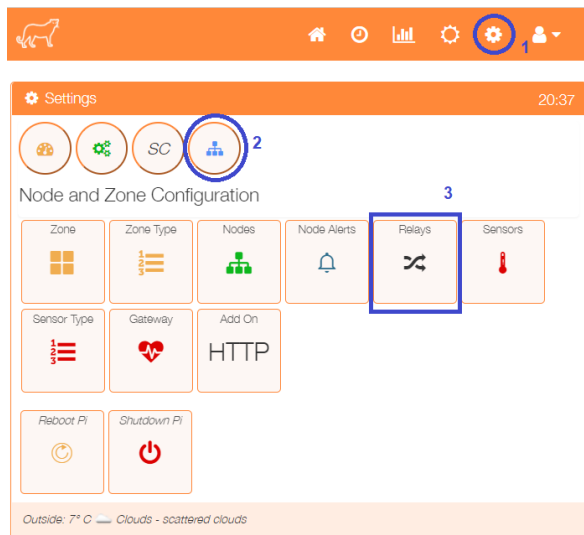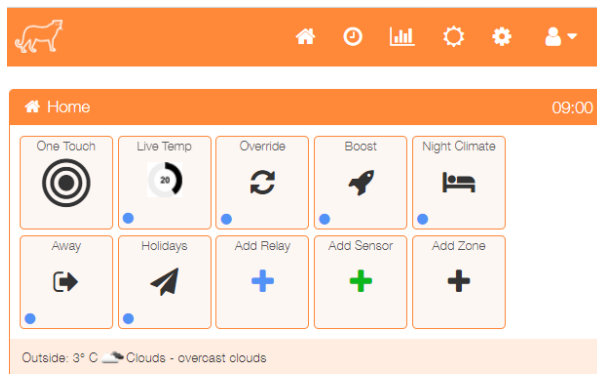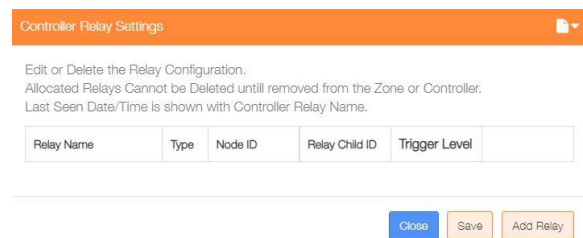
Type	Node ID	Max Number of Child IDs	Name	
MySensor	21	1	Temperature Sensor	🗑
MySensor	30	1	Temperature Sensor	🗑
MySensor	27	0	Temperature Sensor	🗑
MySensor	25	0	Temperature Sensor	🗑
GPIO	0	0	GPIO Controller	🗑
Tasmota	110	55	Tasmota Controller	🗑
Tasmota	120	50	Tasmota Controller	🗑
Dummy	100	3	Dummy Sensor	🗑
MySensor	70	1	Humdity Sensor	🗑

Close   Add Node

The GPIO controller is node_id of 0, we will use child_ids of 11, 13 and 15 for our three relays.

Select the Relays menu item from the Settings/Node and Zone Configuration menu to display a list of any currently configured relays.

Click on the 'Add Relay' button to configure the first relay

An alternative method to go directly to the Add Relay dialogue, is from the Home screen click on the 'One Touch' button then select the 'Add Relay' menu item.

Select the Controller Type e.g. Boiler

Provide a name for this relay device

Select the Relay ID from the dropdown list of available Nodes

Choose the Child ID from the dropdown list, in the case of a GPIO controller, this will be a board pin eg pin 11 (GPIO17).

Select HIGH or LOW trigger level for relay ON.

Click on 'Submit' to add the device.

Repeat the process for the other relays.

Entries will be created in the 'messages_out' queue for each relay so that the state of these relays cab be set.

Reselect the Relays menu item from the Settings/Node and Zone Configuration menu to display the updated list of newly configured relays.

Controller Relay Settings

Edit or Delete the Relay Configuration.
Allocated Relays Cannot be Deleted untill removed from the Zone or Controller.
Last Seen Date/Time is shown with Controller Relay Name.

Relay Name	Type	Node ID	Relay Child ID	Trigger Level		
Hot Water (2020-10-02 16:33:32)	Zone	100	11	HIGH	✏	🗑
Central Heating (2020-10-02 16:33:32)	Zone	100	13	HIGH	✏	🗑
Gas Boiler (2020-10-02 16:33:32)	Boiler	100	15	HIGH	✏	🗑

Close   Save   Add Relay

From this menu the relay configurations can be edited and deleted (if not allocated to a zone).

Note: when relay devices are deleted, the corresponding entry in the 'messages_out' table will be deleted.