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This handbook has been designed as a guide to the installation and operation of SZ_IO_62R2 module.

1. Introduction

Home automation is "The Internet of Things". It simply means the way all devices are networked together to provide users with a control over their smart home equipment. This Module is an affordable device that provides users with smart control. It is a standalone switch that can connect to a wide range of appliances. It can turn on up to 8 devices at once by pushing one button. Same functionality is provided by RS-232 port from any compatible device. Can be integrated with other automation systems.

2. Product description

2.1. Features

- Supports remotely (RS-232) turning on or off added devices.
- Supports single or toggle input.

- Supports turning on or off up to 8 separately connected devices.
- Easy configuration over RS-232.
- Easy to install, easy to operate and can be activated immediately.

2.2. Functions

- It allows users to assign all added devices to one or different inputs.
- Module allows users to use one device to trigger ON/OFF one or more devices. So, you can connect two devices to separated channels and program them to one or two inputs.

2.3. Parameters

- Package Included: 1pc SZ_IO_62R2 Module
- Size: 6.5 x 7.1 x 2.5 mm (HxWxD)
- Work Voltage: DC 5-12v correct
- Work Current: 25 mA (standby)
- Load Voltage: 5V
- Load Current: 25mA/Channel(MAX)
- Output Type: Discrete
- Control Mode: Physical switch (button), RS-232
- Communication: RS-232, band rate 115200

2.4. Work modes

- Click - one click to turn on or off configured outputs
- Toggle - if input is shorted, opened to ground then turn on or off configured outputs
- RS-232 commands:
 - o cl1 - same as click mode
 - o sl1 - same as toggle ON/OFF mode
 - o out1 - independent output control

3. Product operation mode

3.1. Connecting

To connect controller, you need:

- USB cable(mini or micro USB) depends on your Arduino Nano board
- Laptop/PC
- Software (Termite, putty or similar RS232 terminal)
- Drivers (CH340,FTDI FT232RL, CP2102, PL2032HX) depends on your Arduino Nano board

Connection settings:

- Port = Depends of your installed port in PC (Com1, Com3, ... , ComX)
- Baud = 9600
- DataBits = 8
- StopBits = 1
- Parity = 0
- Handshake = 0

3.2. Configuration

Commands:

conf - list all configured inputs

stat – show status of inputs and outputs

sconf – show config in one string

IXSY 12345678 - Input programming is simple. Just type IXSY 12345678 where X is input number and Y is mode of usage (1 – Toggle ON/OFF, 2 Single clicks), numbers are output number to assign to input.

Example: I1S2 00045000 - assigned 4 and 5 output to input 1 mode Single click.

If all is alright you will see reply "OK"

save - saves the config and reboots controller

3.3. Using

To use hardware buttons/switches just connect button/switch to input and load to output. Program input working mode and assign outputs. After all done, just push button/switch.

Serial commands use RS-232 terminal:

sIX - turn on input X (where X is input number), if all ok you will see reply with status of inputs and outputs.

clX - turn on/off single click input X (where X is input number), if all ok you will see reply with status of inputs and outputs.

outX - turn on/off output X (where X is input number), if all ok you will see reply with status of inputs and outputs.

stat - show status of inputs and outputs

conf - list all configured inputs

help - list of all commands

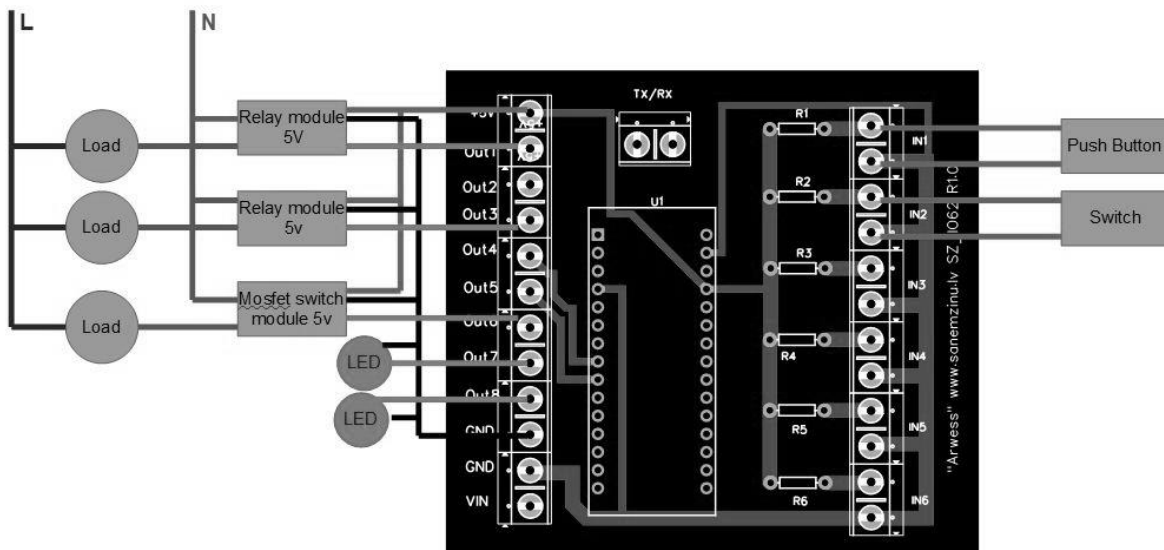
3.4. Resetting to default

Reset from terminal:

DOS1 1 - will reset to default configuration.

save - saves the config and reboots controller

3.5. Wiring scheme diagram



4. Update history

Date	Firmware	Hardware	Description
07.10.2021	1.01	R2	BUG FIX stat function not correctly shows status
18.10.2021	1.02	R2	Added help command in controller