Mechanical

SM Logo   SM Logo

Mouse Bites
Mouse Bites
Mouse Bites
Mouse Bites

Non-TCP   SM Logo   SM Logo   SM Logo

Non-TCP

NodeMCU Board
Mounting Holes

Annunciator Panel
Mounting Holes

M101
NodeMCU
ESP32 WROOM-32

Pin	Name		Name	Pin
1	RESET		TX0	28
2	VP		RX0	27
3	VN			
4	D34		I2C-SCL	29
5	D35		I2C-SDA	26
6	D32			
7	D33		D23	30
8	D25		D19	25
9	D26		D18	24
10	D27		D5	23
11	D14		TX2	22
12	D12		RX2	21
13	D13		D4	20
18	D15		D2	19
15	Vin		3.3V	16

OUTPUT
#define TL2C_SLEEP 35
#define TL2C_RELAY_INT 32
#define TL2C_ZONE1_ACTIVE 14
#define TL2C_ZONE2_ACTIVE 13
#define TL2C_ZONE3_ACTIVE 15

INPUT
#define TL2C_ZONE1_BUTTON 33
#define TL2C_ZONE2_BUTTON 25
#define TL2C_ZONE3_BUTTON 26

SLEEP
STATE_INTERRUPT
ZONE1_BTN
ZONE2_BTN
ZONE3_BTN

Zone1_ACTIVE
Zone2_ACTIVE
Zone3_ACTIVE

I2C_SCL
I2C_SDA

GND GND
14 17

Power will come from the
Mini USB for this system

PWR_FLAG +3V3

PWR_FLAG

GND

Hardware debounce
to save some CPU cycles.

Zone 1 Enable
ZONE_GPIO
U101A
74LS14
1 2 ZONE1_BTN
File: Zone_1_Enable.kicad_sch

Zone 2 Enable
ZONE_GPIO
U101B
74LS14
3 4 ZONE2_BTN
File: Zone_2_Enable.kicad_sch

Zone 3 Enable
ZONE_GPIO
U101C
74LS14
5 6 ZONE3_BTN
File: Zone_3_Enable.kicad_sch

U101D
74LS14
9 8

+3V3

U101E
74LS14
11 10

U101F
74LS14
13 12

74LS14
VCC 14
GND 7
U101G

GND

J101
RJ45
8
7
6 SLEEP
5 STATE_INTERRUPT
4
3 I2C_SCL
2 I2C_SDA
1
GND

J102
NodeMCU
ZONE1_BTN 1
ZONE2_BTN 2
ZONE3_BTN 3
Zone1_ACTIVE 4
Zone2_ACTIVE 5
Zone3_ACTIVE 6
7
8

+3V3

GND

J103
Annunciator
1 ZONE1_BTN
2 ZONE2_BTN
3 ZONE3_BTN
4 Zone1_ACTIVE
5 Zone2_ACTIVE
6 Zone3_ACTIVE
7
8

+3V3

GND

R101
470Ω

Optional

D101
LED

Using 470Ω instead of 270Ω
3mA ≡ 2Wh in 30 days

GND

LEDs
3 Zones
Active
OFF
RED
BLANK

Zone1_ACTIVE   R102 470Ω   D102 LED
Zone2_ACTIVE   R103 470Ω   D103 LED
Zone3_ACTIVE   R104 470Ω   D104 LED

GND

+3V3

R201
4.7kΩ

D201
1N4148

R202
470Ω

○ ZONE_GPIO

C201
0.1µF

GND

SW201
B3F−1150

GND

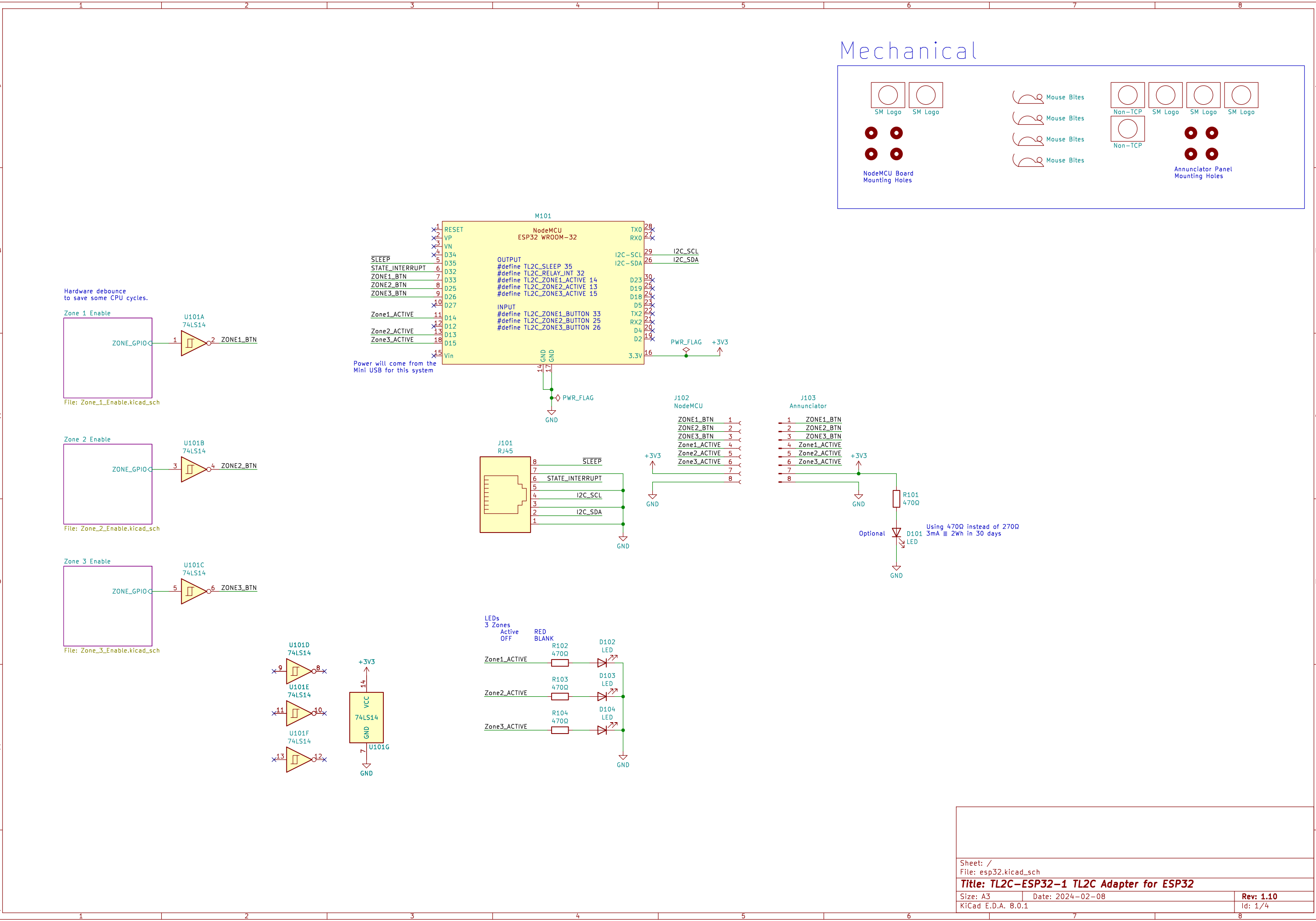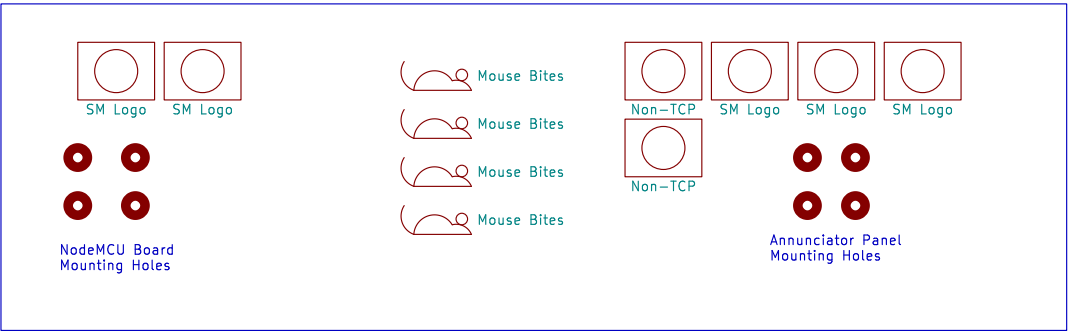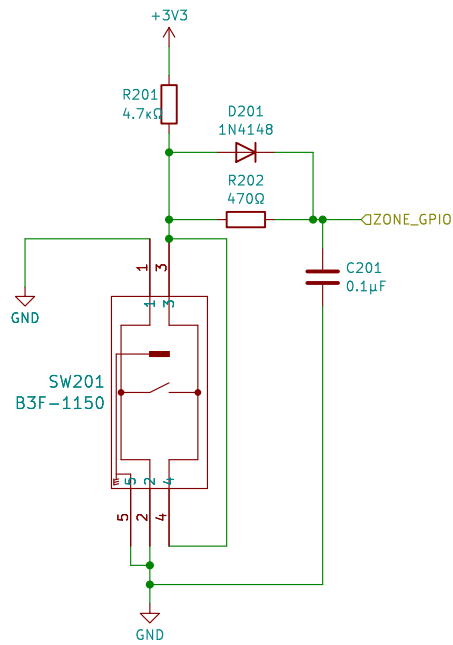**Standard, Projected Plunger Type**
(with Ground Terminal)

B3F-1150, B3F-1152, B3F-1155

PCB Processing Dimensions
(Reference Only) (Top View)
(PCB thickness, t=1.6)

6±0.2

6±0.2   4.5±0.2

1.5

4.5±0.1

4.1±0.1

6.5±0.1

Five, 1±0.05 dia.

2.4 × 2.4±0.1   3.5 dia.

1.8±0.1

7.3±0.2   3.4

4.3±0.2

3.5   0.3

0.7
6.5±0.5   0.7   0.7

7.7±0.5   0.3

Terminal Arrangement/
Internal Connections
(Top View)

4   3

2   1

5

+3V3

R301
4.7kΩ

D301
1N4148

R302
470Ω

○ ZONE_GPIO

GND

C301
0.1µF

SW301
B3F-1150

GND

+3V3

R401
4.7kΩ

D401
1N4148

R402
470Ω

ZONE_GPIO

C401
0.1µF

GND

SW401
B3F-1150

GND