



OPEN-SMART

Store: <http://www.aliexpress.com/store/1199788>

TITLE: Rich Shield TWO

Design: Jack

Check: Fred,Chu

Date: 2022.05.17

Vision:

Sheet: 1/1

LED Matrix

U2: HT16K33 LED Driver
16 Step Dimming
VDD: 4.5-5.5V

5V
C3: 100uF/716V
C2: 100nF
GND

P\$28: VDD
P\$26: SCL
P\$27: SDA
P\$1: GND

I2C Address: 0x70

COM0/AD
COM1/KS0
COM2/KS1
COM3/KS2
COM4
COM5
COM6
COM7

28-SOIC

P\$25: 0SEGA
P\$24: 0SEGB
P\$23: 0SEGC
P\$22: 0SEGD
P\$21: 0SEGE
P\$20: 0SEGF
P\$19: 0SEGG
P\$18: 0SEGH
P\$17: 1SEGA
P\$16: 1SEGB
P\$15: 1SEGC
P\$14: 1SEGD
P\$13: 1SEGE
P\$12: 1SEGF
P\$11: 1SEGG
P\$10: 1SEGH

P\$2: DIG0 9
P\$3: DIG1 14
P\$4: DIG2 8
P\$5: DIG3 12
P\$6: DIG4 1
P\$7: DIG5 7
P\$8: DIG6 2
P\$9: DIG7 5

U4: LED matrix common cathode

13: 0SEGA
3: 0SEGB
4: 0SEGC
10: 0SEGD
6: 0SEGE
11: 0SEGF
15: 0SEGG
16: 0SEGH

13: 1SEGA
3: 1SEGB
4: 1SEGC
10: 1SEGD
6: 1SEGE
11: 1SEGF
15: 1SEGG
16: 1SEGH

U3: LED matrix common cathode

DIG0 9
DIG1 14
DIG2 8
DIG3 12
DIG4 1
DIG5 7
DIG6 2
DIG7 5

Battery Display

U5: TM1651

1: GND
2: SG1/KS1
3: SG2/KS2
4: SG3/KS3
5: SG4/KS4
6: SG5/KS5
7: SG6/KS6
8: SG7/KS7

16: K1
15: CLK
14: DIO
13: VDD
12: COM1
11: COM1
10: COM1
9: COM1

R8: 10k
R7: 10k
C7: 100nF
C9: 2.2nF
C8: 2.2nF
GND

COM1: 11: J+
12: I+
13: H+
14: G+
15: F+
16: E+
17: D+
18: C+
19: B+
20: A+

10: G
9: F
8: E
7: D
6: C
5: B
4: A

4 Bit RGB

MOD1

A3/RGB: 1: DI
5V: 2: DO
GND: 3: VCC
GND: 4: GND

6: G
5: F
4: E
3: D
2: C
1: B

OPEN-SMART
Store: <http://www.aliexpress.com/store/1199788>

TITLE: Rich Shield TW0

Design: Jack
Check: Fred.Chu
Date: 2022.05.17
Vision:
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