Battery

SW3 SS-12F44-G5
9V
BT1 BH9VPC
GND

Voltage Regulator

9V
5V
U3 NCV78M05BDTRKG
IN OUT GND
C8 330nF
C2 100nF
GND

Load cell ADC

5V
Q2 MMBT4403
5V
3.3V 3.3V
E+
C6 0.1uF
C4 10uF
L1 3.3uH
R11 20k
R7 10k
GND GND
R9 8.2k
GND
C5 0.1uF
U1 HX711
1 VSUP   DVDD 16
2 BASE   RATE 15
3 AVDD   XI 14
4 VFB   XO 13
5 AGND   DOUT 12
6 VBG   PD_SCK 11
7 INNA   INPB 10
8 INPA   INNB 9
DAT SCK
X1 22.1184MHz
GND
R6 100
A-
R8 100
A+
C3 0.1uF

TFT Display

5V
U4 Adafruit ILI9341
20 GND   GND 21
19 3-5V   3-5V 22
18 3.3V out   CS 23
17 CLK   C/D 24
16 MISO   WR 25
15 MOSI   RD 26
14 CS   RST 27
13 D/C   Backlite 28
12 RST   X+ 29
11 Lite   Y+ 30
10 Y+   X- 31
9 X+   Y- 32
8 Y-   D0 33
7 X-   D1 34
6 GND   D2 35
5 IM2   D3 36
4 IM1   D4 37
3 IM0   D5 38
2 Card CS   D6 39
1 Card Detect D7 40
CLK MISO MOSI CS D/C RST SD_CS
GND

Teensy 4.0

5V 3.3V
T1 shema
1 GND   Vin 33
2 0   GND 32
3 CEN   3.3V 31
4 A   A9/23 30
5 DAT   A8/22 29
6 SCK   A7/21 28
7 D   A6/20 27
8 B   SCL0/A5/19 26
9 SD_CS   SDA0/A4/18 25
10 CP_TRIG   SDA1/A3/17 24
11 ENCA3.3V SCL1/A2/16 23
12 ENCB3.3V A1/15 22
13 CS   A0/14 21
14 MOSI   LED/13 20
    MISO
Teensy 4.0
VBat 3.3V GND Program On/Off
GND
C D/C EMG6 EMG5 EMG4 EMG3 EMG2 EMG1 CLK

Decoupling capacitors

5V 5V 3.3V
C1 10uF
C9 0.1uF
C7 0.1uF
GND GND GND

Logic Level shifters

3.3V 5V
R1 10k
R2 10k
ENCB3.3V
Q1 BSS138
ENCB

Load cell connector

GND PAD-ROUND-3_2
GND
AVDD PAD-ROUND-3_2
E+
A- PAD-ROUND-3_2
A-
A+ PAD-ROUND-3_2
A+

Contact platform

CP AV-5
CP_TRIG
GND

Encoder RJ45

5V
RJ1 KH-RJ45-58-8P8C
GND
ENCA
ENCB

3.3V 5V
R4 10k
R3 10k
ENCA3.3V
Q3 BSS138
ENCA

Multi directional switch

SW1 TM-4175-B-B
D C
CEN
B A
GND

EMG inputs

3.3V
EMG1 RJ-320B
EMG1
GND

3.3V
EMG2 RJ-320B
EMG2
GND

3.3V
EMG3 RJ-320B
EMG3
GND

3.3V
EMG4 RJ-320B
EMG4
GND

3.3V
EMG5 RJ-320B
EMG5
GND

3.3V
EMG6 RJ-320B
EMG6
GND

TITLE: uLab
REV: 1.0
嘉立创EDA
Company: Chronojump Boscosystem
Sheet: 1/1
Date: 2023-02-13   Drawn By: xaviercanoferrer

Products not available with JLCPCB

BT1: https://www.digikey.co.uk/en/products/detail/mpd-memory-protection-devices/BH9VPC/31510

T1: Teensy 4.0 : https://www.pjrc.com/store/teensy40.html

TFT display: Adafruit 1770 : https://www.adafruit.com/product/1770