Stuart Pittaway

Sheet:
File: ControllerCircuit.kicad_pcb

Title: DIYBMS ESP32 Controller
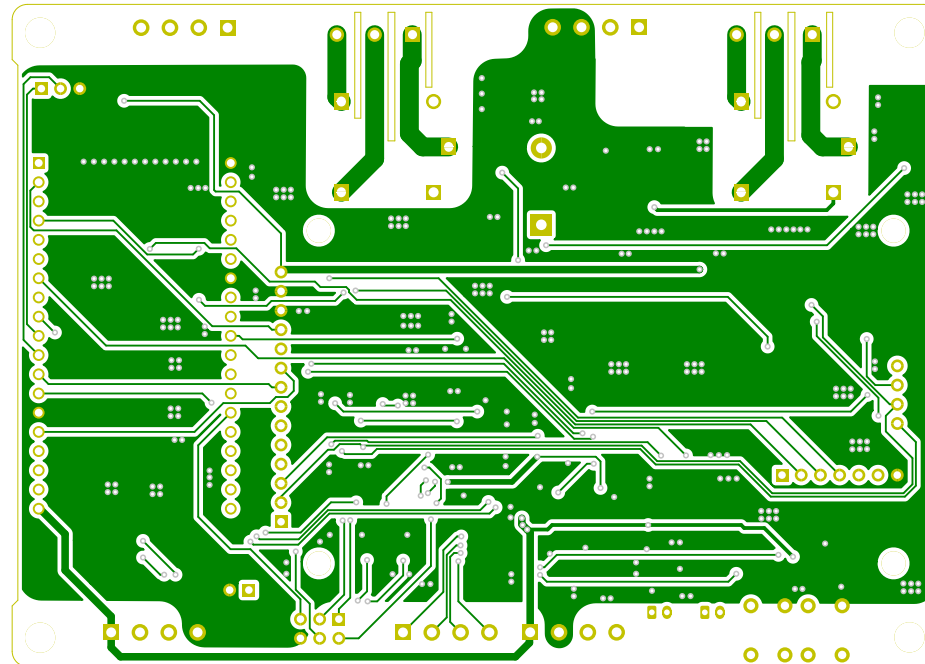
| Size: A4 | Date: 2021—02—21 | Rev: |
| KiCad E.D.A. pcbnew 5.1.9+dfsg1—1bpo10+1 | | Id: 1/1 |

DIYBMS
CONTROLLER V4.5

ESP32 DEVKIT C

USB SOCKET

diyBMS

FID1
RE4
FID2

RE3

J3
RE2

relay 3/4

J12
U12 R25
R16
I2C Debug
J11
SCK SDA GND
R5
R18
U9
R13
+ D4

GND
input

J5

5V PWR

+5Volt
D3
+
R12

RE1
FID4

R15
R11

F1
Q1

D5 +
R14
Q2
R10
R8
D7
U6
C4
C3 +
D2

K2
K.
K1

VCC
GND
CS
RESET
DC
MOSI
SCK
LED
MISO R21
T_CLK
T_CS
T_DIN
T_DO
T_IRQ

R29

C1
SN65HVD75DR
U5
C6
R19

C10

SD CARD

J15

SD_CS
SD_MOSI
SD_MISO
SD_SCK

Jumpers
[JP1] 120ohm CANBUS
Terminator [not connected]

[JP4] 120ohm RS485
Terminator [not connected]

TXS0102DCU
U1
C8
C9
R20 R3
JP1
120Ω
Q4
U7
SN65HVD1050D
R6
R2

J14

C7
C11
R26 R7 R28 R27
SW1
SW2
FID3

Revision
BETA-03c62d0
R1
R4
R17
R24 RS485
D1
FID2
J1
RS485
+5V   A   B   GND

ISP
J8

E-Stop

I/O
J4
EXT
A   B   C   D

CANBUS
J7
CANBUS
+5V GND CANH CANL

RX1

TX1

R9 JP4
U3
C2
C5
D8
R1

U2

RX

TX

122.500 mm

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REL
+4
RE3

REL
Norm. Open
Common
Norm.

POWER INPUT
GND
GND
+5Volt
+5Volt
DC INPUT 5V REGULATED
SUPPLY @ 2AMP MIN

REL
Norm. Open
Common
Norm.

diy pcb

github.com/stuartpittaway/diyBMSv4

Thank you to Patreon.com supporters, without you this project wouldn't exist
https://www.patreon.com/stuartpittaway

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