DIYBMS
CONTROLLER V4.4

ESP32 DEVKIT C

USB SOCKET

Revision
BETA-a317f5f

FID1
RE4

relay 3/4
RE3
RE2

J3

J12

+ D4

GND
input
+5Volt
RE1
FID4
J2

I2C Debug
R16
U12 R25
R5

R13

5V PWR
5V
J5

D3
R12

F1

R15
R18
U9
R11

R10
Q1
K1

D2

Q3
Q2
U6
R14
C4
D5
C3
R8
D7
K

C10
SD CARD
J15

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

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

[JP4] 120ohm RS485
      Terminator [not connected]

[JP5] CANBUS voltage [5v default]
      Track needs to be broken
      to change

diyBMS

SD_CS
SD_MOSI
SD_MISO
SD_SCK

J14

R21 R29
C1
SN65HVD75DR
U5
C6
R19

JP5
5V   3.3V
TJA1057GT/3J
R20 R3
Q4
JP1
120Ω
U1
R2
C7 C11
C2
U2
R26 R7 R28 R27
SW1   SW2

K2

R1
R4
R17
R24 RS485

D1

FID2
J1

RS485
+5V   A   B   GND

E.Stop

ISP
J8

I/O
J4
EXT
A   B   C   D

CANBUS
J7
CANBUS
+5V GND CANH CANL

RX1
TX1

C9 R23
R22
C8
D6
FID3

122.500 mm

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Sheet:
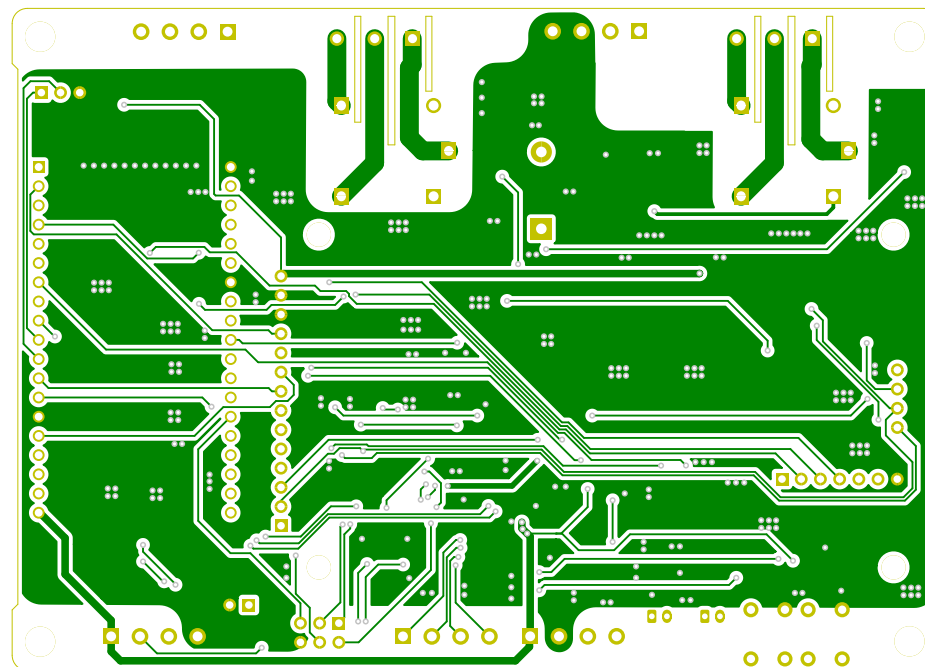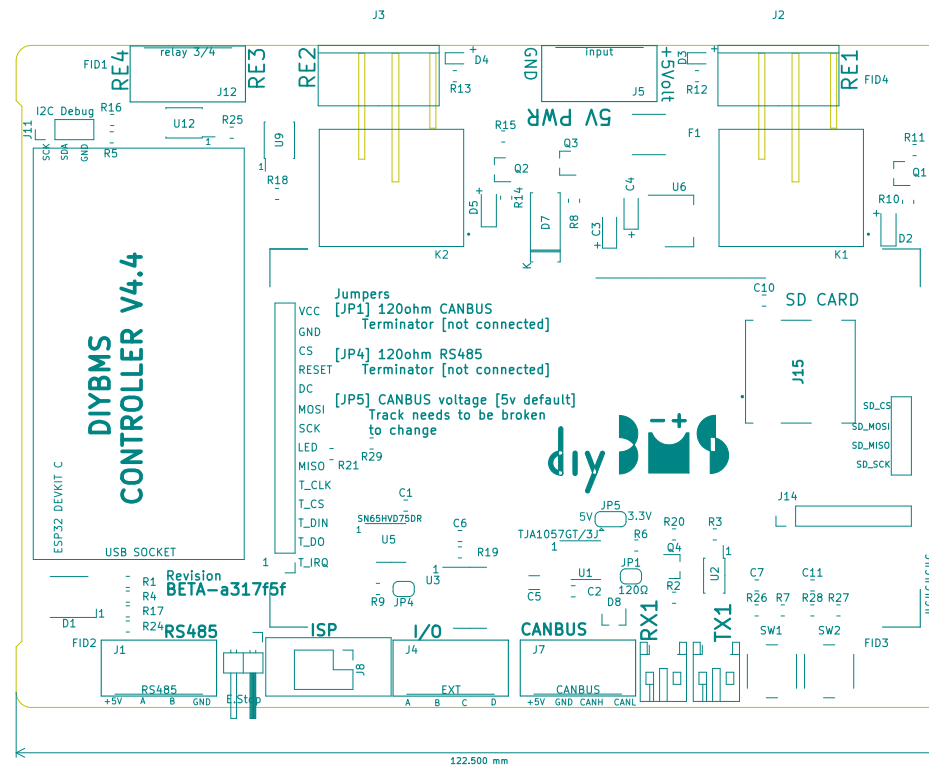File: ControllerCircuit.kicad_pcb
Title: DIYBMS ESP32 Controller
Size: A4   Date: 2021-02-21
KiCad E.D.A.   pcbnew 5.1.9+dfsg1-1bpo10+1
Rev:
Id: 1/1

diybms

github.com/stuartpittaway/diyBMSv4

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https://www.patreon.com/stuartpittaway

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REL+
REL3

REL2
Norm. Open
Common

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

REL1
Norm. Open
Common

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Size: A4   Date: 2021-02-21   Rev:
KiCad E.D.A. pcbnew 5.1.9+dfsg1-1bpo10+1   Id: 1/1