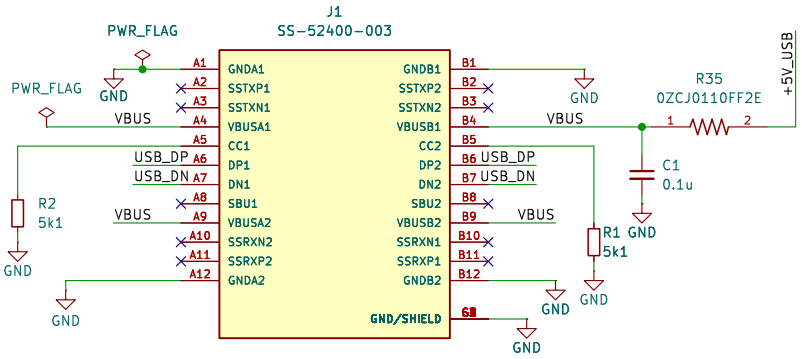
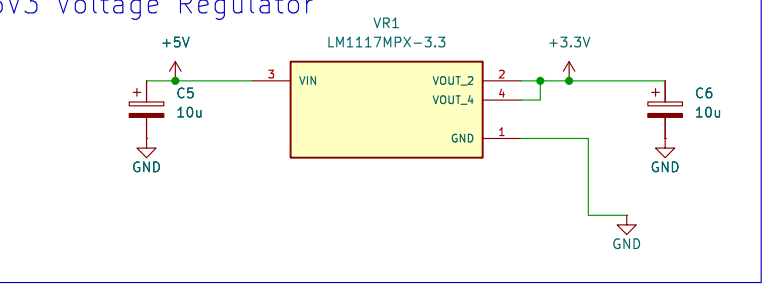
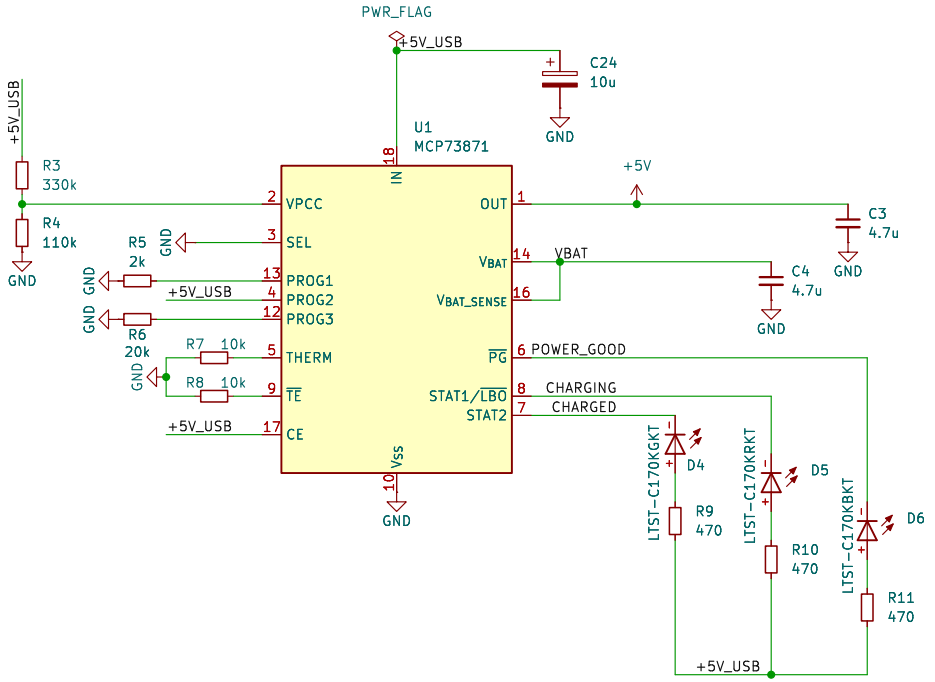
USB



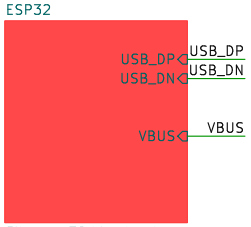
+3V3 Voltage Regulator



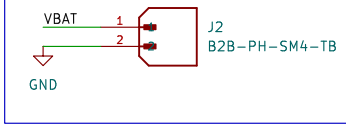
Battery Management Module



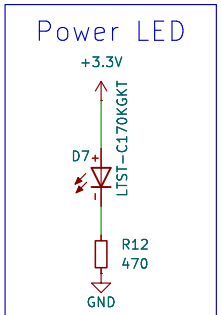
ESP32



Battery Connector



Power LED



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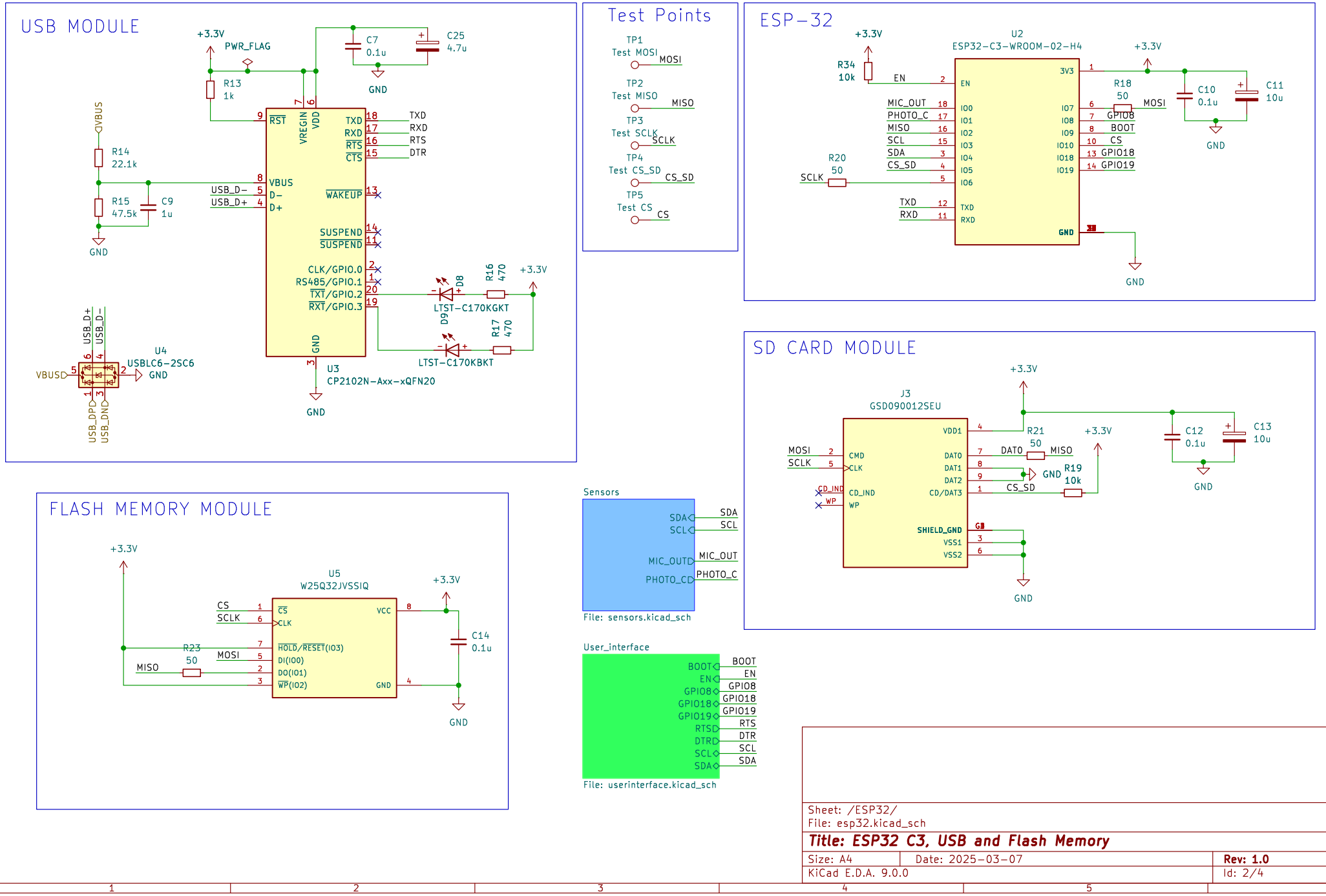
Title: ESP32 from Peter Dalmaris Course – Main

Size: A4	Date: 2025-03-02	**Rev: 1.0**
KiCad E.D.A. 9.0.0		Id: 1/4


USB MODULE
+3.3V
PWR_FLAG
C7
0.1u
C25
4.7u
GND
R13
1k
VBUS
R14
22.1k
R15
47.5k
C9
1u
GND
RST
VREGIN
VDD
TXD
RXD
RTS
CTS
VBUS
D-
D+
WAKEUP
SUSPEND
SUSPEND
CLK/GPIO.0
RS485/GPIO.1
TXT/GPIO.2
RXT/GPIO.3
GND
USB_D-
USB_D+
TXD
RXD
RTS
DTR
U3
CP2102N-Axx-xQFN20
GND
D8
LTST-C170KGKT
R16
470
+3.3V
D9
LTST-C170KBKT
R17
470
USB_D+
USB_D-
U4
USBLC6-2SC6
VBUSD
GND
USB_DPD
USB_DND
Test Points
TP1
Test MOSI
MOSI
TP2
Test MISO
MISO
TP3
Test SCLK
SCLK
TP4
Test CS_SD
CS_SD
TP5
Test CS
CS
ESP-32
+3.3V
U2
ESP32-C3-WROOM-02-H4
R34
10k
EN
MIC_OUT
PHOTO_C
MISO
SCL
SDA
CS_SD
R20
50
SCLK
TXD
RXD
3V3
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
IO10
IO18
IO19
GND
R18
50
MOSI
GPIO8
BOOT
CS
GPIO18
GPIO19
C10
0.1u
C11
10u
GND
SD CARD MODULE
+3.3V
J3
GSD090012SEU
MOSI
SCLK
CMD
CLK
CD_IND
WP
VDD1
DAT0
DAT1
DAT2
CD/DAT3
SHIELD_GND
VSS1
VSS2
R21
50
DAT0
MISO
GND
R19
10k
CS_SD
+3.3V
C12
0.1u
C13
10u
GND
FLASH MEMORY MODULE
+3.3V
U5
W25Q32JVSSIQ
CS
SCLK
MISO
R23
50
MOSI
CS
CLK
HOLD/RESET(IO3)
DI(IO0)
DO(IO1)
WP(IO2)
VCC
GND
+3.3V
C14
0.1u
GND
Sensors
SDA
SCL
MIC_OUT
PHOTO_C
SDA
SCL
MIC_OUT
PHOTO_C
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User_interface
BOOT
EN
GPIO8
GPIO18
GPIO19
RTS
DTR
SCL
SDA
BOOT
EN
GPIO8
GPIO18
GPIO19
RTS
DTR
SCL
SDA
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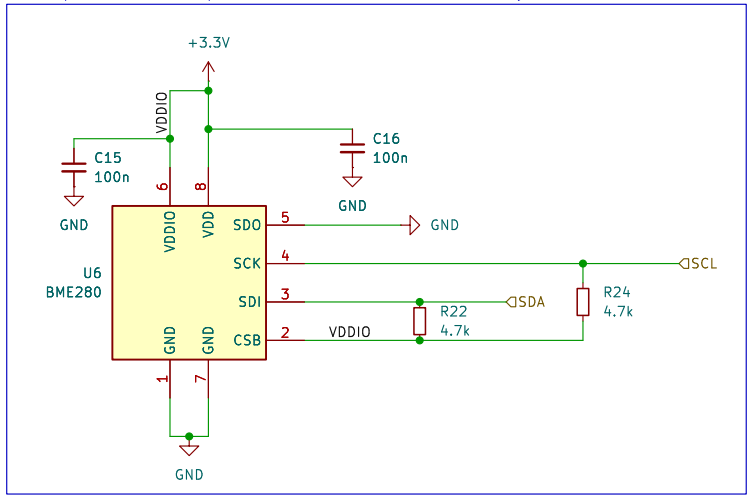
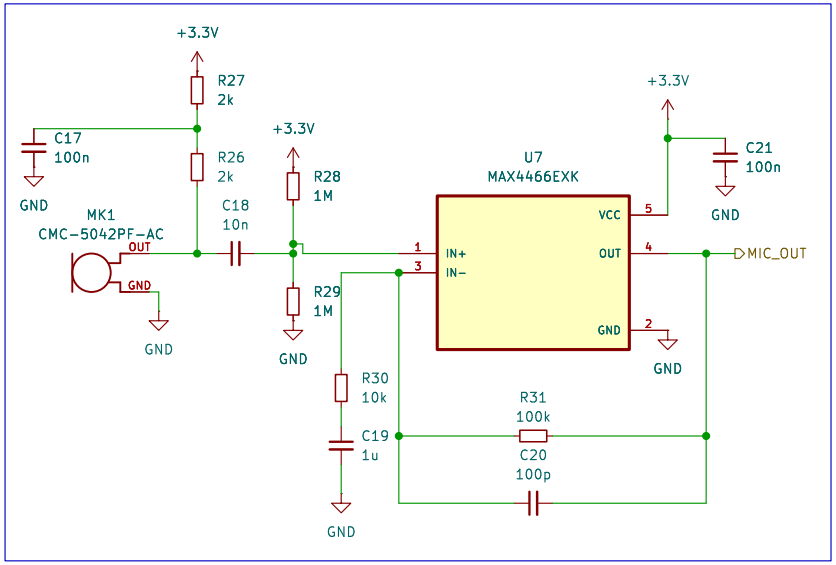
Title: ESP32 C3, USB and Flash Memory
Size: A4
Date: 2025-03-07
Rev: 1.0
KiCad E.D.A. 9.0.0
Id: 2/4

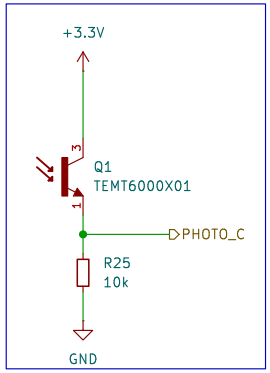
Temperature, pressure and humidity sensor



Microphone



Photosensor



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Title: ESP32 – Sensors sheet		
Size: A4	Date: 2025-03-20	**Rev: 1.0**
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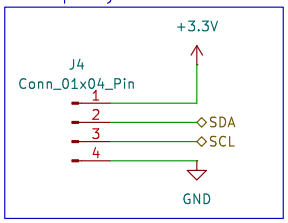
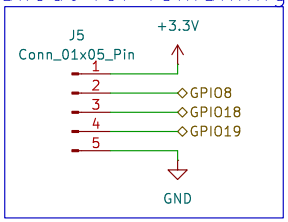
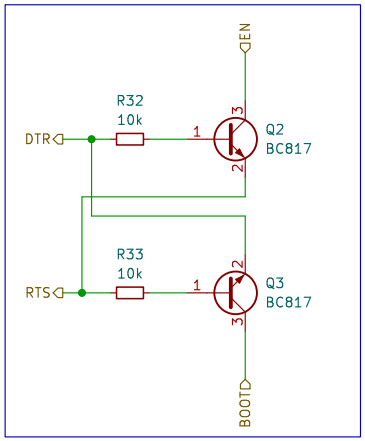
OLED display connector (I2C)



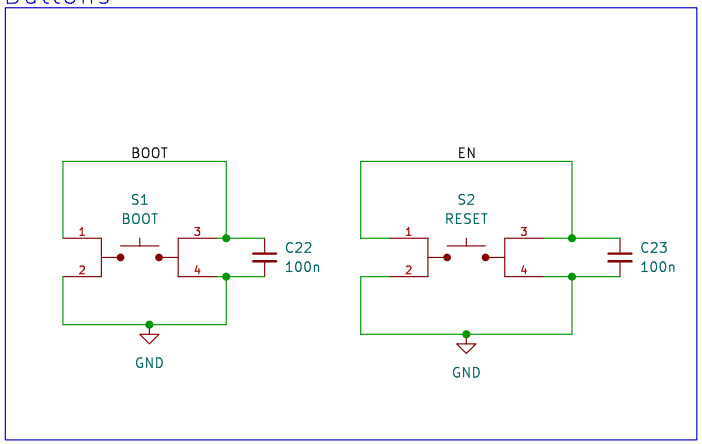
Breakout for remaining pins



Boot circuit



Buttons



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Size: A4	Date:	**Rev:**
KiCad E.D.A. 9.0.0		Id: 4/4