

MACSBUG SCH BUT ADDING ESP32-WROOM-32D MODULE INSTEAD DRAFT

TXD0 & RXD0 ARE USED FOR USB ON THE 32D MODULE

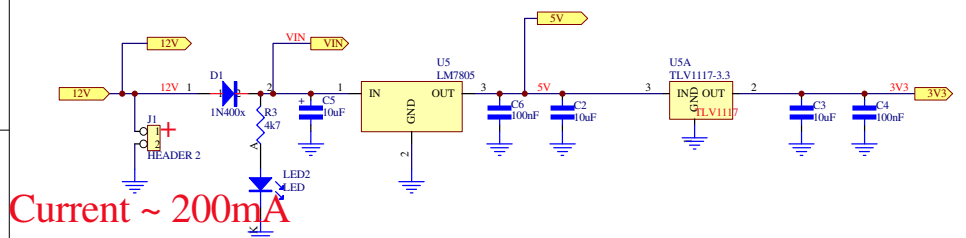
NO ON-BOARD USB PORT!

USES A PLUG IN A USB-TTL BOARD ???

USE 'Setup2_ST7735-john.H'

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POWER SUPPLIES

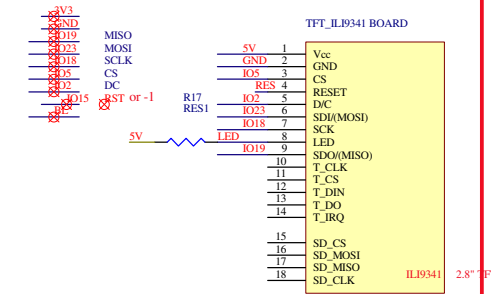


Current ~ 200mA

TFT PORTS

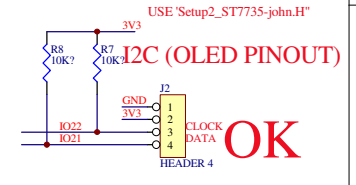
TFT_eSPI LIB
ST7735 DISPLAY ?
USE 'Setup2_ST7735-john.H'
for ESP32 TTGO in NJAD VFO ?

TFT_eSPI LIB
IL9341 DISPLAY ?
use "ESP32_NTP_Clock_Setup.h"



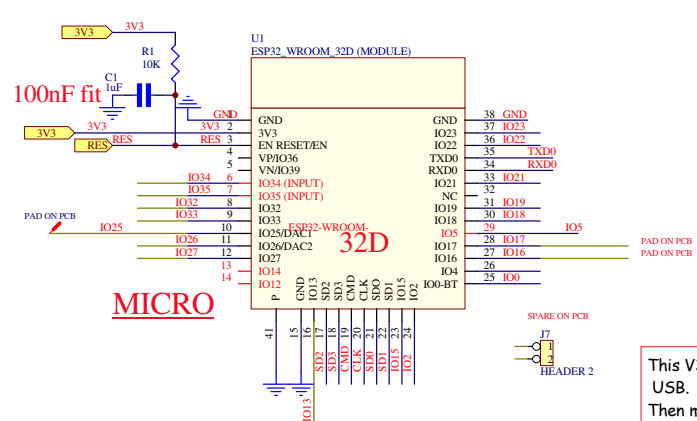
Dec 1st 2025

I2C PORT



OK

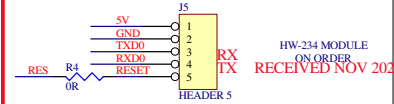
PORTS



Use the red FTDI USB/TTL bd to pgm. eg from Jaycar

PROGRAMMING PORT

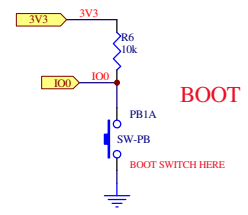
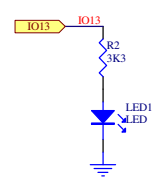
USB ADAPTER FOR PROGRAMMING
DO NOT USE 5V !!!



NOTE, TO BOOT:
POWER ON, WHILE HOLDING 'BOOT' BOTTON THEN RELEASE BOOT.
USE 'ESP DEV_MODULE' TO COMPILE

This V3.0, no USB i/f. see usb_serial.sch to add for on board USB.
Then make it V3.1 ?

HF PTT



NOTE: NOT ALL IO PORTS USED ON HEADERS !

MACSBUG_BOARD_3_32D_Sht2
MACSBUG_BOARD_3_32D_Sht2.sch

12V
IO22
3V3
3V3
V_out
V_out
V_out

NOV 18TH NOW V3,

PCB IS "MACSBUG_BOARD_2_32D-A"

Title DRAFT BOARD FOR ESP32-WROOM-32D MODULE			
Size: A3	Number:	Revision: V3.1	(C) VK3PE 2022
File:	Date: 30-Dec-2025	Time: 14:43:20	Sheet 1 of 2