

MCU – ESP32–S3–WROOM–1 N16R8

Dual–core LX7 @ 240MHz, 16MB Flash, 8MB PSRAM

GPIO ASSIGNMENT TABLE

Display (8080 parallel):

GPIO4–11 = D0–D7 (8–bit data bus)
GPIO12=CS GPIO13=RST GPIO14=DC
GPIO46=WR GPIO3=RD GPIO45=BL

Audio (I2S):

GPIO15=BCLK GPIO16=LRCK GPIO17=DOUT

SD Card (SPI):

GPIO36=MOSI GPIO37=MISO GPIO38=CLK GPIO39=CS

Controls (active low, 10k pull–up):

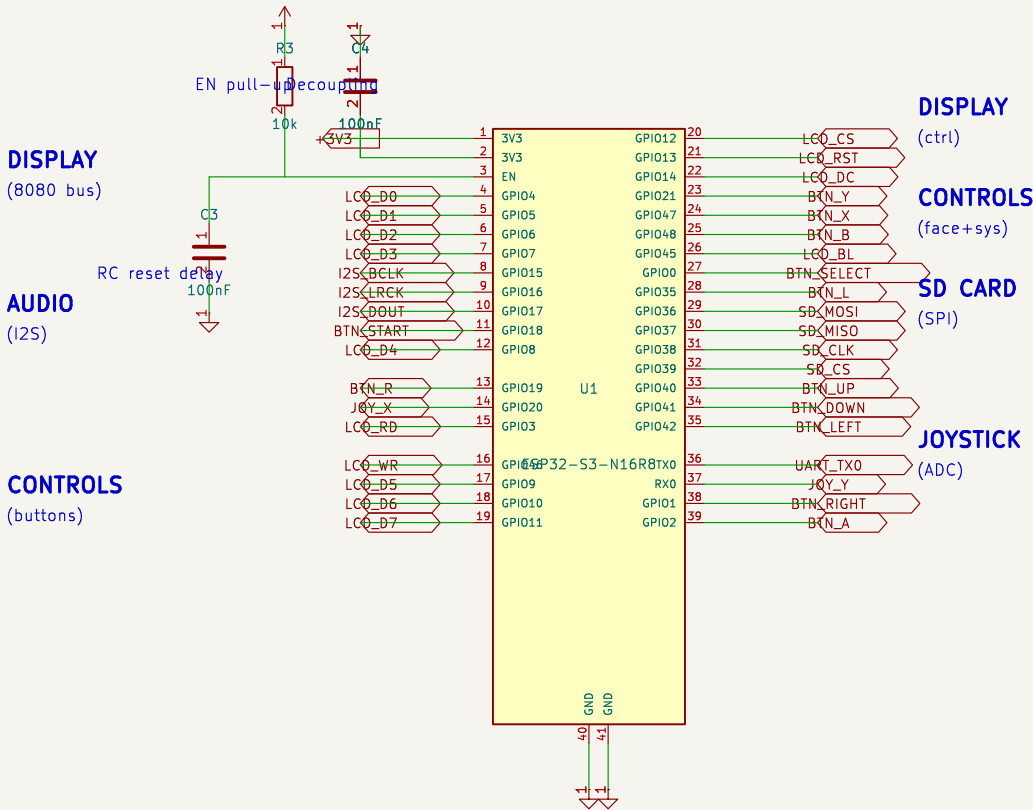
D–pad: GPIO40=UP 41=DOWN 42=LEFT 1=RIGHT
Face: GPIO2=A 48=B 47=X 21=Y
Sys: GPIO18=START 0=SELECT 35=L 19=R

Joystick (ADC, optional):

GPIO20=X_AXIS (ADC2_CH9)
GPIO44/RX0=Y_AXIS (ADC2_CH7)

Reserved (do not use):

GPIO26–32 = Octal PSRAM (internal)
GPIO43 = TX0 (debug UART output)



Generated by scripts/generate_schematics
ESP32 Emu Turbo – Handheld Retro Console

Sheet: /
File: 02-mcu.kicad_sch

Title: MCU – ESP32–S3–WROOM–1 N16R8

Size: A3
KiCad E.D.A. 9.0.7

Date:

Rev:

Id: 2/1