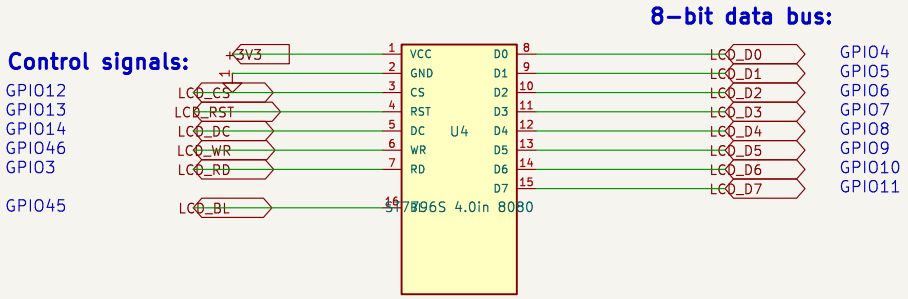
DISPLAY – ST7796S 4.0in 320x480

8–bit 8080 parallel interface (mandatory for SNES emulation speed)



Design Notes:

- 8080 parallel: 1 pixel (16–bit RGB565) = 2 bus cycles
- SPI alternative: 16 clock cycles per pixel (too slow for 60fps SNES)
- GPIO4–11 form contiguous 8–bit bus for efficient register–level DMA
- WR strobes data on rising edge, RD directly from GPIO3

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

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