

## SYSTEM SPECIFICATIONS

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### CORE SYSTEM:

- CPU: Allwinner V3s (ARM Cortex-A7 @ 1.2GHz)
- RAM: 64MB DDR2 @ 400MHz (Integrated SiP)
- STORAGE: SD Interface for OS (SDIO compatible)

### CONNECTIVITY:

- ETHERNET: 100Mbps Interface
- WIRELESS: WiFi & Bluetooth (via ESP32)
- LONG RANGE: LoRa support (via Ra-02)
- USB: USB Host/OTG support
- DEBUG: System UARTs to USB bridge

### DISPLAY & IMAGING:

- CAMERA: MIPI CSI (22-pin connector)
- LCD: RGB-666 Interface with backlight support (40-pin)

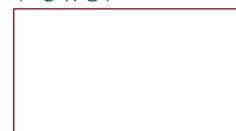
### SENSORS & I/O:

- MOTION: MPU6050 Accelerometer & Gyroscope
- ENVIRONMENT: BME280 Sensor (Temp/Press/Hum)
- AUDIO: 3.5mm Audio Jack
- INPUT: Low-resolution ADC for button matrix
- VISUAL: PCB RGB backlight

### POWER & SOFTWARE:

- REGULATION: DC-DC converters for 3.3V, 1.8V, 1.2V
- OPERATING SYSTEM: Powered by custom Mainline Linux

## Power



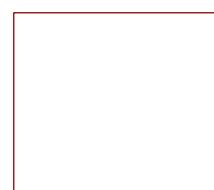
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## Connections



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## CPU



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## Peripherals



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Sheet: /  
File: V3sDevBoard.kicad\_sch

**Title: V3s\_Dev\_Board**

Size: A4 Date: 2025/2026  
KiCad E.D.A. 9.0.6

Rev: A  
Id: 1/5

