

PCB design capabilities

Schematic capture, PCB layout and embedded firmware for hardware teams. Electuni LLC is a US company founded in 2016. Circuit Board Design is its PCB design division.

500+

PCB designs delivered since 2016

IPC CID+

Certified lead designer

Altium + KiCad

Native design files handed over

STM32 / ESP32

Firmware for the boards we design

SERVICES

Schematic capture

Component selection and lifecycle checks, power distribution design, signal integrity planning, BOM optimization.

KiCad PCB design

Full projects in KiCad as well as Altium Designer. You keep the native files either way.

Testing and validation

Electrical characterization, signal and power integrity validation, thermal analysis.

Manufacturing support

Production files, assembly documentation and liaison with partner manufacturers. We do not fabricate or assemble boards ourselves.

PCB layout

Multi-layer stack-ups, high-speed and impedance-controlled routing, EMI/EMC-aware layout, thermal management, DFM and DFA.

Firmware integration

STM32 and ESP32 firmware, board bring-up, peripheral integration, debug interfaces and production test.

Pre-fab design review and DFM/DFT review

An independent check of schematic, layout and BOM before you commit to fabrication.

Full-stack hardware development

Concept to production through electuni.com: hardware, firmware, mechanical integration and manufacturing support.

DESIGN REVIEW BEFORE FAB

Free quick check

CHECKLIST LEVEL

Send a board that is close to fab. You get written notes in 2 business days.

Production-ready review

FIXED QUOTE PER BOARD, 3 TO 5 BUSINESS DAYS

A written report with findings ranked Critical, Major and Minor. If nothing Critical or Major is found, you pay nothing.

HOW WE QUOTE

- Every board gets a fixed quote before any work starts.
- Layer count, part count, fine-pitch or BGA parts and RF or high-speed routing are what move the number.
- You own the result: native Altium or KiCad files plus production files.

WHERE OUR CLIENTS ARE

USA, UK, Germany, Netherlands, France, Austria and Australia

We work with startups, engineering teams that need extra layout capacity, and design firms that need overflow help.

Next step: send a schematic or a rough spec for a fixed quote, or a board near fab for a free quick check.