

# Eddie Samuels

## Senior Hardware Engineer

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## EXPERIENCE

**Very** - *Fully distributed IoT engineering firm (San Diego, CA)*  
*Senior Embedded Electrical Engineer*

*August 2020 - Present*

- Working closely with clients to develop system architecture and requirements
- Routing high speed multi-layer microcontroller and microprocessor circuit boards
- Designing low power WiFi, Bluetooth, LTE, and LoRa connected devices
- Developing hardware CI/CD automation tools

**Studlabs Consulting** - *Full-stack hardware consultancy (San Diego, CA)*  
*Owner / Engineer*

*August 2019 - August 2020*

- Outlined system architecture for dash camera based on the RK3399 processor
- Designed and prototyped cryptographic point of sale device
- Schematic capture, PCB routing, and firmware development for proteomics motion controller

**comma.ai** - *Aftermarket self-driving car company (San Francisco/San Diego, CA)*  
*Principal Hardware Engineer*

*June 2016 - July 2019*

- Managed a four person hardware team
- Utilized contract manufacturers to scale production to 10k units
- Schematic capture, part procurement, and high speed PCB routing (MIPI CSI, USB 3.0, PCIe) for Snapdragon and Nvidia processors
- Integrated Linux kernel drivers for I2C, SPI, and UART sensors
- Interfaced with Bash and Python flashing, testing, and setup tools

*Hardware Engineer*

- First hardware hire for the company
- Schematic capture, PCB routing, enclosure CAD, packaging design, and production for CAN to USB interface
- Enclosure CAD, electrical design, and production execution for the eon driver development kit
- Designed and stabilized switched-mode power supplies (SMPS)
- Performed preproduction Device Verification Testing (DVT)

**Lockheed Martin** - *Rotary and Mission Systems Division (Binghamton, NY)*  
*Associate Electrical Engineer*

*June 2015 - June 2016*

- Performed PCB bringup, documentation, and system integration for Joint Strike Fighter test equipment
- Developed MATLAB automated test platform to search for spurious RF emission events

## EDUCATION

**University of Rochester** - *B.S. in Electrical & Computer Engineering*

*August 2011 - May 2015*

## SKILLS

block diagramming, schematic capture, high speed routing, I2C, UART, SPI, board bringup, device verification, enclosure CAD, FDM & SLA 3D printing, production, part procurement, soldering, KiCAD, EagleCAD, Altium, Fusion360, Onshape, Solidworks, Python, NodeJS, React, Git, Bash, Docker, Linux device trees, Buildroot