

Raphael Abrams  
Senior Electronics  
Design Engineer

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### At a Glance

An experienced engineer with a proven track record of developing products for production at scale as well as delivering custom designs for multi-media events and interactive art.

### Press:

[Startups Seek Tech Solution to Net Neutrality Repeal](#) on The Wall Street Journal, [NYC Resistor Feature](#) on NYT, [iPods for Anarchists](#) on Wired.com, [Ask An Engineer](#) on Adafruit.com

## **Hardware Engineer, Manager at goTenna, 2013-present**

- Created and validated the initial hardware prototype and firmware that resulted in \$1.3M in seed funding
- Designed and launched goTenna's entire product catalogue of five unique hardware products, debugging with a wide range of electronic test equipment
- Wide range of experience with microcontrollers and associated peripherals, including the standards of I2C, SPI, and UART
- Managed a team of three engineers, including an FPGA role, with an annual development budget of \$500,000
- Designed all products with FCC compliance including EMC/EMI testing
- Oversaw and collaborated on a process improvement for waterproofing that reduced BOM costs by 70% and labor costs by 92%
- Designed to American and European safety standards
- Refined design that resulted in 50% improvement of RF link budget across the first generation product to the second generation product
- Implemented product test and calibration fixtures that decrease the production defect rate
- Created and maintained product timeline dashboards and departmental KPIs
- Participated in cross-departmental hiring to pivotal roles like Chief of Staff, VP of Finance, Director of Human Resources, and Director of Product
- Completed two management courses through Union Square Ventures

## **Cofounder at NYC Resistor, 2008-present**

- Cofounder for NYC's original hackerspace
- Participated in decisions to manage the \$100,000 annual budget
- Taught upwards of 40 sessions of introduction to electronics, soft circuits, and eCAD

## **Freelance Electrical Engineer, 2002-2013**

- Built custom electronic products for high-profile clients like Blue Man Group and Bloomingdale's
- Designed and produced an MP3 educational development kit and animatronic robotic kit for Make Magazine
- Created three embedded designs that featured audio outputs, RF capabilities, and on-board file systems for FoxPro that were mass produced for consumer purchase