



Power Electronics Engineer

ABOUT MightyFly

Do you want to change the world? MightyFly is creating the future of logistics with autonomous cargo aircraft. Our mission is to provide rapid and efficient access to goods. Join the MightyFly team and help us change the world.

MightyFly is leading the logistics revolution. Existing logistics infrastructure is time and resource intensive. We are building the future of logistics with autonomous, carbon neutral cargo aircraft with a cargo capacity of 500 pounds and a range of 600 miles. Our logistics service will enable consumers to access affordable expedited delivery from all retailers, anywhere on the globe. It will make it possible for businesses to offer affordable expedited delivery. MightyFly's just-in-time logistics using unmanned aircraft will fundamentally transform how goods move around the globe.

ABOUT THE ROLE

As power electronics electrical engineer, you will be responsible for planning and leading the design, architecture, implementation and testing of electronic systems onboard MightyFly's hybrid-electric eVTOL aircraft.

This role requires a strong fundamental understanding of eVTOL hybrid power systems, battery control and management, and safety critical design. Our ideal candidate must be self-motivated, passionate about hybrid aircraft development, and resilient to quickly adapt to direction changes.

The candidate must have a strong interest in working in a small, fast paced team where a variety of skills will need to be applied day to day, and in which new skills will constantly need to be learned.

WHAT YOU'LL DO

- Be responsible for design, development and integration of the powertrain hardware, power electronics, control system and software for the aircraft's eVTOL and hybrid-electric powertrain systems.
- Contribute to high-level planning and architecture discussions in collaboration with other team members
- Support requirements development and documentation
- Design and implementation of experiments to test and validate performance and functionality
- Design and perform experiments to validate battery performance models
- Generate technical drawings of systems, components, and interfaces



- Wire harness design, fabrication, and test
- Manage prototype production and contract manufacturers
- Participate in flight tests to validate system functionality
- Document design and test for the purpose of FAA certification

WHAT YOU'LL BRING

- General
 - A passion for building systems from the ground up
 - A can-do attitude for tackling and solving complex problems
 - Be a self-starter with the ability to work and thrive in a dynamic and fast-paced environment
- Technical
 - 4-6 years power electronics engineering experience
 - Custom PCB design experience from schematic entry and board layout through fabrication, assembly, and test
 - Familiarity and experience with high performance vehicles (electric vehicles (EV), hybrid electric, race vehicles, Solar Car, Formula SAE, etc) including the design process and components
 - Experience in design and fabrication for automotive or aerospace environments (extreme temperature, shock, vibration, etc)
 - Design experience with motors, motor controllers, power supplies, inverters / converters, and/or power electronics
 - Basic knowledge of circuit topologies and design processes for AC-DC and DC-DC systems
 - Understanding of designing for fault tolerance, reliability, and manufacturing
 - Experience modelling, developing and testing power electronics systems, including the development of test and validation plans at all levels from SIL to full vehicle
 - Familiarity with communication protocols like CAN, USB, SPI, I2C, etc
 - Familiarity with FMEA
- Planning & Partnering
 - Ability to plan and deliver on time
 - Ability to translate product requirements into technical implementation plans
 - Organizational skills
 - Written and verbal communication skills
- Nice to have
 - Experience with various battery chemistries and related battery management systems
 - Educational background or work experience in automotive power electronics
 - Familiarity with aviation certification standards & processes
 - Experience with large UAVs or VTOL aircraft

WHAT ELSE YOU NEED TO KNOW

Equal opportunity:



MightyFly is an equal opportunity employer and prohibits discrimination and harassment of any type. We do not discriminate based upon race, religion, color, national origin, sex (including pregnancy, childbirth, reproductive health decisions, or related medical conditions), sexual orientation, gender identity, gender expression, age, status as a protected veteran, status as an individual with a disability, genetic information, political views or activity, or other applicable legally protected characteristics.

Diversity:

MightyFly values diversity and welcomes applications from those who are traditionally underrepresented in the tech industry. We are an international team led by a female CEO.

Job Location:

- Bay Area.

Culture:

- We are aviation and aerospace enthusiasts who believe the sky is *not* the limit.
- **Teamwork:** We believe that to achieve great results we need great teamwork.
- **Working hard:** Building reliable aviation and logistics products is really hard but also exciting, challenging, and rewarding.
- **Having fun:** We believe that hard work needs to be coupled with fun. We love hanging out beyond the workday, hosting team dinners, and organizing fun activities. We love the outdoors and outdoor sports. And of course, we love flying.
- **Celebrating wins large and small.**
- **Creativity.** We love and encourage creativity. The best ideas emerge when our working environment fosters out-of-the-box thinking.
- **Humility:** Let's leave the ego at the door so we can work together to create meaningful solutions.
- **Equity, inclusivity, and respect** for the diversity of life and work experiences that each individual brings to the team.
- **Transparency, honesty, and integrity.**

Benefits:

- Competitive health, dental, and vision insurance.
- Unlimited paid time off.
- Stock option plan.
- Working on cutting-edge products to transform our future.
- Working with a diverse and highly skilled team.
- Shaping and defining company culture and values.

APPLY

Email a copy of your resume with a brief introduction about yourself to jobs@mightyfly.com

