



Job Description

Engine Development Engineer

Key Responsibilities

- Develop (system, structural, mechanism) pulse detonation engine
- Modeling and CAE analysis
- Support engine fabrication
- Design, support and conduct test fire experiment
- Collect, and analyze data from test fire experiment
- Integrate engine system with flight system
- Design and draw technical drawings for engine parts
- Coordinate with suppliers for outsourced part fabrication

Requirements/Essential Skills

- Strong understanding and at least 2 years of experience in mechanical design and calculation in relevant field
- Experience in CAE modeling (3D CAD software proficiency such as Autodesk Fusion 360, able to understand and draw technical drawing)
- Experienced with numerical analysis software such as MATLAB
- Microcontroller embedded programming (RISC, Arduino, Raspberry Pi, etc)
- Heat transfer calculation
- Experience in various experiment, data collection, data analysis, and using measurement tools.
- Solid understanding in combustion, hydraulics, structural, materials, and mechanical engineering
- Participated in complex development project in relevant field
- Understand various materials and components, its properties and manufacturing process (metal, plastic, FRP, avionics, etc.)
- Bachelor's degree from an accredited institution, with a concentration in Aeronautical, Astronautical, Aerospace, or Mechanical Engineering

Basic/other Skills

- Knowledgeable in flight dynamics, mechanism and avionics of airplane and rocket
- English proficiency (equal or above TOEIC 550, TOEFL iBT 57 points)
- Able to find, analyze and solve problem independently
- Familiar with various fabrication method (CNC lathe, milling, 3D printing, etc)
- Experienced with handling high pressure gas
- Experienced in driving semi-trailer truck
- Knowledge of Japanese is not required but useful
- Proactive and have enough flexibility to move and/or support other team
- Experience working in small diverse teams



Job Description

UAV/Spaceplane Engineer

Key Responsibilities

- Research and Development of UAV/Spaceplane
- Flight subsystem development (flight control computer, electrical, flight instrument, etc.)
- Data analysis (CFD, structural, etc.)
- UAV/Spaceplane assembly
- Design, support and conduct test flight
- Collect, and analyze data from test flight
- Integrate engine system with flight system
- Design and draw technical drawings for UAV system and subsystems
- Ground-air communication system development
- Coordinate with suppliers for outsourced part fabrication

Requirements/Essential Skills

- Strong understanding and extensive experience in mechanical design, data analysis (FEM and others), and software suite such as Autodesk Fusion 360, and XLR5
- Experience in CAE modeling (3D CAD software proficiency, able to understand and draw technical drawing)
- Understand various materials and components, its properties and manufacturing process (metal, plastic, FRP, avionics, etc.)
- Embedded programming (Arduino, Raspberry Pi, etc)
- Knowledgeable in basics of flight dynamics, mechanism and avionics of airplane and rocket
- Bachelor's degree from an accredited institution, with a concentration in Aeronautical, Astronautical, Aerospace, Electronics, Telecommunication or Mechanical Engineering

Basic/other Skills

- Experience in piloting RC/Drone (fixed wing)
- English proficiency (equal or above TOEIC 550, TOEFL iBT 57 points)
- Able to find, analyze and solve problem independently
- Familiar with various fabrication method (CNC lathe, milling, 3D printing, composite material layup, etc)
- Knowledge of Japanese is not required but useful
- Proactive and have enough flexibility to move and/or support other team
- Experience working in small diverse teams

Location

Hekinan city, Aichi prefecture, Japan. Occasional trip and short term stay in Okinawa may be required.

Intake process

Download required application documents on the link below

Fill documents and send to info@pdas.co.jp

https://pdas.co.jp/documents/PDAS_member_documents-set.zip

Candidate that pass document screening will be contacted to schedule interview.

Please address any question to info@pdas.co.jp

About PD Aerospace

PD Aerospace is a space start-up company that was founded in 2007. PD Aerospace is fully reusable space plane equipped with original technology engine (technology successfully tested in 2017). PD Aerospace is currently developing unmanned space plane to cultivate core technology and planned to start commercial manned spaceflight in 2024.