

<b>Job Title:</b>	Design Engineer	<b>FLSA Category:</b>	Exempt
<b>Department:</b>	Drafting/Engineering	<b>Position Type:</b>	Full Time
<b>Location:</b>	1100 Holland Road Suffolk, VA 23434	<b>Supervisor:</b>	Engineering Department Manager

#### Job Description

The Design Engineer is an integral part of the AMADAS development team. The team members work collaboratively and independently on product design. Team members may work independently leading projects or collaboratively supporting one another's projects. This style of work creates a position that requires participation in all aspects of product development including:

- Problem/opportunity identification
- Defining overall project/program objectives and key results
- Creating and analyzing potential solutions
- 3D modeling of experimental machinery
- Specifying and sourcing purchased components
- Supporting prototype construction
- Conducting extensive field validations and trials
- Supporting prototype-to-production transitions
- Managing continuous design improvement opportunities

#### Essential Duties and Responsibilities

- Engage in both large and small-scale project development and refinement work.
- Achieve individual project goals and assist team members in achieving group project goals
- Use 3D modeling software to conceptualize and prove mechanical designs.
- Perform computations that verify performance, structural, and/or safety factors.
- Provide "hands-on" floor support with manufacturing and assembly teams.
- Lead and support extensive prototype field testing and validation work.
- Assist in creating manufacturing process documentation (bills of materials, parts catalogs, operation manuals, SOPs)
- Adhere to design and safety guidelines as defined by ASABE, OSHA, FEMA

#### Qualifications and Education Requirements

- Bachelor's degree in Mechanical Engineering, Biological, Agricultural, or Biosystems Engineering, or similar technical concentrations.
- Strong skillset in 3D modeling software(s).
- Attention to detail and record-keeping.

- General understanding of metalwork in fabrication and the manufacturing practices and technologies associated with mass production.
- Specific experience in Creo Parametric software.
- Structural analysis experience (ex. FEA)
- Willingness to do physical labor through shops and fieldwork.
- Ability to travel and work independently, safely, and responsibly for extended periods and be available during odd, or off regularly scheduled hours.
- Experience in agricultural farming operations (tillage, irrigation, crop harvesting)
- Ability to operate and maintain agricultural equipment.
- Knowledge of precision agriculture technologies and practices
- General comprehension of mobile electronic, hydraulic, and pneumatic systems.
- Knowledge and comfort in performing general metal fabrication tasks.
- Mechanical-related background.

#### **Equipment Used**

- Personal computer and a variety of office software applications including word processing, email, and file management.
- Standard office equipment such as printers, copy machines, fax machines, and multi-line desk phone.

#### **Physical Requirements**

- Sedentary work that primarily involves sitting/standing.
- Ability to concentrate for extended periods of time paying close attention to detail.
- Ability to manually move, lift, carry, pull or push objects weighing up to 50lbs.
- Repetitive use of arms, hands and fingers.
- Close vision, distance vision, peripheral vision, depth perception and ability to adjust focus.
- Ability to ascend/descend, work atop and use stairs/ladders.
- Ability to work in outdoor weather conditions during inclement weather (inclement weather defined as severe or harsh weather that is potentially cold, wet, hot, with temperatures above and below 100°F/32°F)
- May be required to wear personal protective equipment (PPE) including but not limited to: hard hat, safety glasses/goggles, ear plugs/muffs, masks/respirators, safety vests, gloves and steel-toe boots.