



## POSITION DESCRIPTION

### Technical Manager

#### ***Position Summary:***

Join a team that imagines and executes student robotics programs and competitions ranging from entry level remotely operated vehicles to multi-domain autonomous systems. Share your technical expertise with the next generation of engineers and challenge K-16 students with innovative tasks to replicate real-world environments and capabilities. Work with a team of staff, partners, and educators from around the world to engage students in cutting-edge experiences and help build an international community of innovators capable of substantive contributions to the emerging field of robotics and autonomy. (Robots, innovation, and creativity – it's almost too good to be true!)

Within the RoboNation Team, the Technical Manager will serve as technical lead for all programs and competitions. Working closely with partners, this manager will assist Program Managers with technical aspects of program planning, implementation, competition execution, and community engagement.

#### ***Primary Duties and Responsibilities:***

- 1) Technical Competition Management (SeaPerch | RoboBoat | RoboSub | RobotX)
  - Collaborate with respective Program Managers and program sponsors to ensure competition tasks and courses meet objectives and priorities
  - Serve as SeaPerch Technical Director leading the design and development of annual pool courses and advising on technical aspects of other competition components (ex. technical reports)
  - Liaise with Competition Technical Directors (TDs) for RoboBoat, RoboSub, and RobotX
  - Assist TDs with design and construction of competition tasks and courses for RoboBoat, RoboSub, and RobotX
  - Manage execution, implementation, and budget for competition tasks and courses
  - Serve as on-site technical logistics lead for all RoboNation competitions in close coordination with RoboNation's Senior Events Manager and other event partners, including the execution of technical infrastructure (internet, electricity, communications systems, etc.)
  - Create and maintain a collaborative environment with RoboNation staff and TDs to leverage best practices and resources between RoboNation competitions and programs
- 2) Technical Program Support (SeaPerch | SeaGlide | GoSense | RoboBoat | RoboSub | RobotX)
  - Serve as technical advisor and provide technical support for all RoboNation programs and activities
  - Participate in program webinars and other community engagement activities to present technical information and provide technical advice to current and prospective community members
- 3) Other Responsibilities
  - Provide technical expertise as needed for speaking engagement, publications, etc.
  - Represent RoboNation at events to promote RoboNation family of programs
  - Other duties as assigned.

#### ***Supervision***

Reports to: Program Director

[robonation.org](http://robonation.org)

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### **Requirements**

- Team player with a proactive attitude
- Excellent communication skills and ability to translate technical content for non-technical audiences
- Ability to organize tasks, multi-task across programs, and meet deadlines
- Exceptional problem-solving and analysis skills
- Strong attention to detail
- Experience with or willingness to learn new technology platforms (ex. GitHub, Fusion 360, SolidWorks)
- Ability to travel domestically and internationally
- Ability to work outside of regular working hours as needed to meet project milestones and collaborate with international partners
- Experience with robotic competitions or other similar education programs

### **Strongly Desired Qualifications:**

- Bachelor's degree in a field of engineering
- Experience mentoring, coaching, or advising students and/or professional staff
- Experience with computer aided design (CAD), manufacturing, and/or prototyping

### **Other Qualifications That May Help in this Role:**

- Experience with circuits and circuit board design
- Experience with the design, deployment, and operation of on-site audio, streaming and/or internet systems

### **Working Condition**

- Exempt position under the Fair Labor Standard Act (FLSA)
- Full time employment
- Work can be performed outside an office environment (telecommuting)
- Work will be performed at event sites and other locations away from office
- Travel for RoboNation competitions will be required
- Work with a group of awesome people

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### **About RoboNation**

RoboNation is a nonprofit organization whose mission is to provide a pathway of hands-on educational experiences that empower students to find innovative solutions to global challenges. Robotics is the “sweet spot” of the broad world of STEM and our focus is to engage students in interactive efforts, provide increasingly challenging activities, and prepare them for jobs in the ever-growing world of automation and technology.