



RoboMed



Intelligent and Interactive Medical Robotics/Device Projects

V 1.01 – US Kickoff Version for 2020 season.

Official version for World Championship rules will be finalized in Jan 2020.

This file can be found under the **Get Involved** → **RoboMed** page on the website
Coaches are responsible for communicating rules updates to participants

www.robofest.net

robofest@ltu.edu

248-204-3568

Room J233 Taubman Complex, LTU
21000 West 10 Mile Road, Southfield, MI 48075, USA

1. RoboMed Overview

Learning Objectives

- STEM subjects focusing on biomedical system & device design and applications
- Sensor technology and applications
- Computer programming
- Problem solving
- Entrepreneurial skills

Synopsis

- An Open Category competition for intelligent and interactive (bio) medical robotics/device projects
- Event will take place at the Robofest World Championship

2. RoboMed Team Registration

- Two age divisions
 - Senior Division (Grades 9-12)
 - College Division (Undergraduate including Community College students)
- Team Size: Maximum five (5) members
 - Recommend 2 or 3 students per (micro)controller used
 - If a team has only one member, he/she will automatically receive the lowest score for the teamwork category
- Team Registration Fee: \$50
- Related important document - Robofest 2020 General Rules at robofest.net
- Each team member, as well as the coach, must bring the signed [Robofest Consent and Release Form](#) on the day of the event, if not completed on-line

3. Project Requirements/Limitations (1/2)

- The project must be related to (bio)medical and healthcare fields
- The project must include programming to use sensors and/or actuators
- Any (micro)controller and any programming language can be used
- Any material that is safe for humans can be used
- A brief written description of the project is required on the Team Registration page. Revisions to this description and any other team information may be made until the registration site is closed (approximately 10 days prior to the competition day)
- RoboMed competition promotes an entrepreneurial mindset. Therefore sentences about “Opportunity Recognition” and “Value Creation” are encouraged in the project description

3. Project Requirements/Limitations (2/2)

- The demonstration space for each team is limited to a maximum of 64 square ft. including 6ft or 8ft table that is provided by the host. Teams may choose to demonstrate robots/devices on the floor. Exceeding maximum space allowed may result in deduction of points
- Teams must bring all the necessary materials for their presentation
- Projects which have been entered in a previous competition category of any kind can be entered, but team must:
 - Add new features and/or significantly improve or change one or more features
 - Describe the addition/changes in the project description text area of the online team registration form
 - Inform judges during the official presentation that their project is a “continued” form of a previous project

4. Project Presentation

- Teams must present their project to the group of Judges with a formal presentation at a time specified by the Site Host
- Teams will have a maximum of 4 minutes to explain and demonstrate their project to the Judges
- Teams are responsible for keeping track of their 4-minute time limit
- Exceeding time limit may result in deduction of points
- Teams will also present & demonstrate their project to spectators throughout the event

5. Judging

- The Judges will use the rubric that is posted on the “RoboMed” page at robofest.net
- In addition to the formal presentation, Judges will visit the team tables individually to ask additional questions, evaluate robots/devices, and inspect program code at any time within the official judging time blocks, as noted in the program

6. Project Recommendations

- It is requested that teams bring poster boards or other signage to describe their projects
- Hardcopies of team project documents to give to the judges are a plus, but not required
- Highly recommended that each RoboMed team set up a team website and/or publish a video clip on a video sharing site such as YouTube
 - If available, judges will use them to preview the team projects prior to the competition day
 - Teams should plan to bring a laptop to show their video and/or display their website during the competition

7. RoboMed PCA (People's Choice Award)

- During the World Championship Event, spectators will decide the PCA, in addition to the awards decided by official Judges
- Ballot will be provided to spectators who register at the PCA Judge registration table
- Spectators who view a minimum number of RoboMed, Exhibition, and RoboArts presentations (stated on the ballot) will be entered into a raffle for prizes to be awarded at the closing ceremonies
- RoboMed teams will be given labels to distribute to eligible spectators to affix on the ballot on the day of the competition