

DEMOMAZE

 BEST ROBOTICS

Yes! We are offering our Classic BEST Robotics hub competition wherever restrictions allow it. Each hub decides the competition format that it will offer. **BEST Classic** format will be a minimally modified version of the pre-COVID program with format changes only to address the safety of all participants and volunteers. As we return our lives to normalcy, and in locations where it is possible, this multi-team **BEST Classic** competition event will be implemented while continuing to follow all local, state, and national guidelines concerning health safety. That may mean personal protective equipment, social distancing, frequent sanitizing, limiting spectators, limiting the number of participants and or new formats to stagger teams' attendance when needed. The exact requirements depend on the location and local restrictions. **BEST Classic** is a program that continues to offer classic BEST Robotics education and excitement to the students within the reality constraints of our continuing pandemic recovery.



What is BEST Classic?

BEST Classic is your typical BEST Robotics competition with all the activities that you are familiar with. Robotics kits are provided to teams, who then design and build their robot to solve the game “problem”. A final competition event (game day) is held at a central venue to judge each team’s robot performance on the game field and other required activities. All appropriate medical safety precautions will be implemented as deemed necessary as we return to in-person events. Teams will still organize themselves, design and construct their robot just as they normally would. Some activities may be judged online if restrictions warrant it. Our 2021 game, "Demo Daze", again supports all competition formats.

What is unique from the pre-COVID Classic BEST competition?

Schedule/Timeline

The competition timeline has been extended to 8-weeks from Kickoff to Game Day. This extension is to allow more flexibility for our hubs in scheduling events and to provide teams with more time to acclimate themselves to any changes or restrictions that may affect them.

Designing/Building the Robot

Robotics kits are provided by your local hub on or near your hub’s kickoff date. The hub will provide all details about how Kickoff will be performed and how and where kits will be distributed to participating teams if there are any changes to the norm. Your team will design and construct a robot from the provided kit materials to solve the game "problem". We are also continuing the Critical Design Review (CDR) activity this year where your team will present details of their robot design to the judges and gain valuable feedback. The CDR will occur in week 5 of the competition.

Robots on the Game Field

Your team will compete head-to-head against other teams at a competition event site in a similar fashion to past competitions you have attended. However, the format and scheduling of your matches may be modified to accommodate medical safety precautions. Your hub will detail what is changing in this area (if anything), when to show up for your matches and how they will be run. All appropriate safety measures such as personal protective equipment, social distancing and sanitizing will be implemented at the competition site, as needed. Our goal is to return to events that are as close to pre-COVID activities as possible.

Familiar BEST Activities

The same BEST Robotics activities you are familiar with will continue in our BEST Classic competition.

Engineering Notebook - no change to this traditional deliverable documenting your engineering process, industry research and game strategy.

Marketing Presentation - same criteria as in past years; return to in-person presentations in front of a judging panel is the goal. The marketing presentation may be hosted as an online meeting with judges if deemed necessary by the hub.

Team Exhibit – Our goal with the BEST Classic competition is to return Team Exhibits to the in-person show case of your publicity and community relations activities that existed in 2019. Your hub will determine if virtual exhibits will be allowed for those teams who may need this option.

Student Interviews - Student interviews with judges are expected to take place at the Team Exhibits as a minimum.

Skills Challenges

Additional skills challenges may be offered by the hub that will test your students' skills and knowledge and enhance their overall experience. Each is an exciting new opportunity to expand your students' education. Check with your local hub for the list of skills challenges they will offer.

BESTMania IQ Challenge - So you think your students are pretty smart, eh? Let them try the weekly BESTMania IQ Challenge, collect points for their team and learn a few new things along the way. Lots of twists and turns and ways to boost their score each week. They can also earn points all week long through the MathZing Prep challenges; SAT and Grade8 math prep for points! Join the games at <https://www.mathzing.com/bestmania.php>.

BEST Minecraft Challenge - Yep, you guessed it, a Minecraft game modeled after our 2021 game, Demo Daze! Get online, compete as a team, beat the clock to score as many points as you can. Solve puzzles and learn more about the game theme and real-world implications as you try to achieve milestones and create new materials. Anyone can play, but your game time is limited so play wisely!

Robot Modeling Challenge - Take your team's robot design to the next level. Model it in a 3D environment where you can simulate its movements. Maybe your students are skilled enough to demonstrate it in action on the Demo Daze virtual game field! Import from CAD tools or model it from scratch in Mathworks Simscape Multibody environment. Take your time, do as much as you can, earn points for each accomplishment.

Engineering Drawings Challenge - Many teams already use Computer Aided Design (CAD) in the development of their robot. Let them take it one step further and create masterful drawings that will win this award! Engineering drawings are important throughout industry. Learning how to produce proper drawings will be an incredible boost to their resume.

Website Design Challenge - Your students can learn how to design a website and earn points for the skills they demonstrate. They can use this platform to learn how to program in a variety of languages including HTML, CSS, Java, Python, and others. Help

them tap into their artistic side to create a visually appealing and functional website. Website design is a great skill to have in their portfolio. It's all about the design!

Video Design Challenge - Video is a common tool we use every day it seems. All our mobile devices have video cameras. But there is an art (and great skill) in creating a good video. Students can learn about the basics of photography and videography as they develop a custom video on one of our select topic areas. They could be crowned Master of Video Design!

What do I do now?

Find a hub and register your team to participate at the [BEST National Registry](http://www.bestrobotics.org).

BEST Robotics is working tirelessly to provide our students with the best opportunities and education possible during these difficult times. We encourage everyone to not let this difficult time change that. Adapt and overcome...be a part of the solution!



<http://www.bestrobotics.org>

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