

LEGO ROBOTICS QUESTION AND ANSWER

Last updated April 24, 2017

Q: Is the team able to bring a prebuilt mechanical arm, if yes, does it need to be attached to the robot?

A: Yes! Pre-built prototypes are encouraged. Once your robot re-enters the marked pit areas you will be able to add and remove attachments depending on how you want to shift your strategy in the match.

Q: What type of game obstacles should the students bring? Is there anywhere that the students can find information about obstacles to build?

A: There is no longer a need to build your own obstacles (*this is an idea for following years, but had to be redacted for this year*), however other than the pictures that are provided in the links, no other information will be available until teams can see the field set up. Teams are encouraged to have some models in mind or pre-built that can be easily modified/iterated.

Q: What can be attached to the base robot?

A: So long as the robot can fit in the 30cm square at the start of the match, any strategic attachments can be attached to the robot. There will not be a formal *robot inspection* phase, however the Technical Chair will be advising teams accordingly if there are any issues.

Q: Are there any guidelines of what can be on the base robot?

A: So long as the robot can fit in the 30cm square at the start of the match, any attachments to the robot should not impede your teammate for each match. You are encouraged to share and discuss strategy.

Q: Are the teams able to bring a practice mat to the competition?

A: There will not be any space to set up practice fields or mats for the competition. Teams are encouraged to bring pictures provided through the links and be prepare to quickly take some measurements and notes during their match.

Q: Can string be used to assist the lift going up/down?

A: the robots should only be built and use Lego components. There might be "string" from other Lego Sets (eg the Lego WeDo kits) or other models, which would be fine, but we would not want to see teams showing up with non-lego material.

As robots will be cooperating together, it would also be good to keep in mind that the string does not tangle up with other robots or your own operations.

Q: Are there any hints or directions beyond what is written in the scopes available

This type of competition is quite different from what you might expect from an FLL competition, and more inline with and FIRST FRC style, where there is both autonomous programming and remote (by bluetooth and the Lego Commander App) control of the robot.

You can activate program on the EV3 Brick, which waiting with the Commander App loaded (students can customize their controller layout for their optimization).

After the 25 second autonomous period, your team would use the remote control (teleoperated) to control the robot and continue to work together with another team to score points.

When you drive your robot into the safe zone, you can remove and swap attachments.

If your robot ends up on its side, or pinned, you can take a touch penalty to bring it back to the start zone.

towards the end of the match there are bonus challenges involving balancing a team's robot on the lever.

Scores are tallied up, and teams will win based on a cumulative scoring throughout the day.