



INTERNATIONAL ROBOTON 2019 – FREQUENTLY ASKED QUESTIONS

LEGO EV3 CHALLENGE

(Updated: 4th OCTOBER 2019)

Q	A
<p>1. Are Teams allowed to bring in pre-programmed robot, pre-written programs, and prebuilt robot?</p>	<p>Apprentice – Teams are allowed to bring in pre-written programs, pre-built and pre-programmed robot.</p> <p>Veteran & Expert – Teams are ONLY allowed to bring in pre-written programs.</p> <p>Please refer to each competition category for more detailed hardware and software related limitations.</p>
<p>2. Can Teams combine parts from different LEGO EV3 sets?</p>	<p>Yes, Teams are allowed to use parts from LEGO EV3 sets and the similar parts from LEGO NXT sets. However, teams are not allowed to combine electronic parts (Sensors, motors, robot brain and etc.) and wheels from LEGO NXT set.</p> <p>Components with different colours from different LEGO Mindstorms sets are allowed (Example: Friction Peg, Beam, 3x5 L Shape, etc.) Refer to EV3 User Guide.</p> <p>If participants are found violating the rules, the judging panel will take action.</p>
<p>3. Are Teams allowed to do modification when the robot is in the Terminal during each competition Rounds?</p>	<p>Teams are allowed to replace the second attachment and reset the robot to its second inspected starting configuration in the terminal. Modifications are not allowed during the competition. (Example: Adding new components onto the robot or rebuild the robot different from its original configuration.) Kindly refer to R&R 6.12</p>
<p>4. How many robot attachments are allowed in the competition?</p> <p>Can I attach two robot attachments together with the robot during the Round?</p>	<p>Only maximum of two robot attachments are allowed in the competition. One attachment on the robot and the other as replacement. Teams have to bring the replacement robot attachment and install it on the robot and alternatively during quarantine and Rounds.</p>
<p>5. When and where is the Quarantine area?</p>	<p>The Quarantine will be conducted in the competition area after testing phase. Judge will do the inspection during Quarantine. All participating teams must pass the Quarantine before proceeding to the Round phase.</p>

<p>6. How can I determine the Robot's starting position for the competition?</p>	<p>In reference of R&R Rule 7.8, the Robot's starting position is that the robot must:</p> <ul style="list-style-type: none"> • Only be contacting the Floor • Fit within a 25cm x 25cm area, bounded by the starting position • Be no taller than 25cm <p>Picture below shows an incorrect Robot's Starting Position</p>  <p>Picture below shows the correct Robot Starting Position</p> 
<p>7. What if the base of the Robot model does not exceed the Terminal, but its top is beyond the Terminal?</p>	<p>Robot must be in the Inspected starting configuration within 25cm x 25cm x 25cm before any run from the Terminal during a Round. Kindly refer R&R 6.7</p>
<p>8. What if the robot parts fell on the field track, are the participants allowed to remove it from the field track?</p>	<p>Yes, participants are allowed to remove the fallen parts if the robot perform as per rule 3.3, participants may retrieve the Robot and any part of the Robot, not limited to Robot parts or attachment which fell on the field track and move back to the Starting Terminal of that Run.</p>
<p>9. Can participants re-attempt any failed missions without resetting?</p>	<p>Yes. Participants are allowed to re-attempt any failed mission as many times as possible after the robot returns to its inspected configuration in the Terminal. If participants want to Reset the field models, the entire field track will be Reset while time will not be stopped.</p>
<p>10. Can the collectible field model be within the terminal?</p>	<p>The Robot can only pass through with the Collectible Field Models. If the Collectible Field Model is within the terminal, the referee will instruct the participant to remove it from the Field Track.</p>

11. Are participants allowed to place/set-up the robot or field model during reset?	<p>During reset, the participants are responsible to setup the Field Models.</p> <p>But the participants are allowed to continue only when the referee confirms that the field models are in the correct configuration. Time will not be stopped during the setup.</p>
12. What is the setup position of the faulty machine?	<p>The starting location (Zone A or Zone B) of the faulty machine will be announced on the competition day.</p> <p>Participants are allowed to choose the setup position (ie: the pointing direction) of the faulty machine within the announced zone.</p>
13. Can the Robot end anywhere in the field track? Or must come back by end of 2 minutes?	Robots are allowed to end anywhere in the field track by end of 2 minutes.
14. What if the robot parts fell on the Hay Bales and Fruits in the Payload and Silo Area?	Any collectible field model that contacting any part of the robot includes robot parts and attachment is considered as no score.
TERMINAL 15. Are Robots allowed to start at any Terminal?	<p>Robots are allowed to start at any terminal.</p> <p>However when the participants reset they may choose another starting terminal.</p>
16. Are Robots allowed to switch from Terminal 1 to Terminal 2 after the Robot returns to terminal?	Team members are not allowed to manually switch the terminal. Robot must travel autonomously to any of the terminal.

MISSION

Q	A
Hay Bale and Fruit	
17. Can the Hay Bale be allowed to be lifted by the robot?	Yes, the Hay Bale is allowed to be lifted at any time
18. Is the Fruit allowed to be lifted by the robot?	Yes, the Fruit is allowed to be lifted at any time.
19. What if the robot loaded extra Hay Bales and fruits onto the Payload?	Maximum of 3 Hay Bales and 2 Fruits onto each payload. There will be no score for any extra Hay Bales or Fruits.
20. How to define Fruit plucked or removed?	Fruit must be totally removed from the tree and the tree must remain in original configuration.
21. What if the Fruit or Hay Bale lies between Payload and Silo? How will the score be considered?	The Fruit or Hay Bale will be considered as Silo score.
22. How many Hay Bales and fruits can team scored in a Silo?	There is no number of limitations of Hay Bales and fruits in the Silo. Teams can score a maximum of six Hay Bales and four fruits at any Silo.
Seed & Seeding Chamber	
23. When should Teams load the Seed on the robot?	Seed must be loaded on the robot before Round starts.
24. What if the robot loaded extra seeds into the Seeding Chamber?	There will be no score for any extra Seeds.
25. How many seeds are allowed to be loaded on the robot?	Maximum of four seeds. Each seed must consist of two LEGO EV3 component assembled together.
26. How to define the Seeds planted accurately?	A seed is considered planted accurately if it is in the correct seeding holes. Robot base must fully touch the seeding chamber surface in order to plant the seed. Kindly refer to Scoring and Setup.
Faulty Machine	
27. How to define Faulty Machine delivered to Service Center?	The Faulty Machine is considered delivered to the Service Center if it is fully within the Service Center. The faulty machine wheels must touch the Service Center surface. The white lines are part of the Service Center Area. Kindly refer to Scoring and Setup.
Payload	
28. Can the robot take the payload and move around the field track?	No, all field models should not be damaged. All field models except for collectible and deliverable field models should not be removed from its original configuration.
29. What will happen if the Robot moves the payload out and moves back into payload area?	There will be no payload score once the payload is moved out from the payload area.