

2025 Big Time in D9 Robotics Challenge

CONTEST OVERVIEW

The Robotics Challenge is designed as a blind challenge, meaning the challenges and items used will not be revealed until the morning of the contest. Each team will decide on their challenge strategy and will launch their robot from a designated home base. The robot will be programmed to move outside of that base and attempt to complete challenges within the given timeframe.

PARTICIPANT RULES

Contest officials reserve the right to make updates to these rules each year as needed. Please refer to the contest date at the top of this document to ensure you have the latest version. Contest officials may clarify rules during the contest to maintain the intent, objectives, and integrity of the game.

Participation: Participants must be 4-H members currently enrolled in a D9 Texas 4-H Youth Development County program and actively participating in the robotics project. There is currently no qualifying robotics contest at any of the lower levels of competition.

Age Divisions: Age divisions are determined by a participant's grade as of September 1 of the current 4-H year.

Junior	Grades 3, 4, and 5
Intermediate	Grades 6, 7, and 8
Senior	Grades 9, 10, 11, and 12

Teams per County: There is no limit on the number of teams entered per county for 2025. Members must register through 4-H Online. A team will consist of at least three (3) and no more than five (5) members.

Bluetooth and internet connectivity: No internet connection will be provided.

- Bluetooth connections can be made and utilized during Build Time. It is not allowed during Match Play or Finals while the robot is on the playing field.
- Teams are HIGHLY encouraged to ensure their computers' operating system, software/app, and robot firmware are up to date prior to the contest. When teams check-in and are assigned to their "pit", members and their coach should test and resolve any connectivity/pairing issues.
- Teams are encouraged to create a unique name for their hub so that pairing is less confusing and will minimize any mistaken pairings with other robots/computers.

Equipment: Equipment will be checked by contest officials as teams check in for the contest. Any extra equipment or item that does not meet specifications will be returned to the team coach.

- Each team must supply their own equipment. Each team may only bring the items and respective maximum quantity listed in the table below. No infrared beacons (remote) or sensors allowed.
- No pre-assembled robots, arms, etc. allowed. All Lego pieces must be fully disassembled when checking in.
- All Lego® Mindstorm pieces must be in their original factory condition.
- No 3D printed pieces are allowed.
- Teams may use any software that facilitates autonomous movement of the robot, so long as the robot is solely controlled by the programs stored on the HUB or microSD card.
- No remote controllers of any type are allowed.
- No computers or tablets may be brought up to the game tables during Build Time or Match Play. Programming must take place at their individually assigned team "pit" table.
- Note paper may be used for note-taking purposes only. Teams may bring notes to the game table during matches. Paper is not allowed to be used for any other purpose (used on the robot for example).

ITEM	Maximum Quantity
Lego® Mindstorm® EV3, Spike Prime, or Inventor brick/hub Portable, battery powered AC power station (must fit under table workstation) 3-pronged extension cord up to 25' Plastic container or cardboard box for transporting robot and attachments to and from game area	1 each
Laptop computer or tablet with programming software (Lego® or non- Lego® is acceptable)	2
Lego® Mindstorm® EV3, Spike Prime, or Inventor: Building pieces (excludes brick/hub) Battery Motors Ultrasonic sensor Touch sensor Light/color sensor Gyro sensor	Unlimited
USB cable Build Plans (paper or digital) Backup laptop battery Ruler or tape measure Pencil/pen and notepad for design and note-taking purposes Digital or printed game rules (study guides may not be used during match play)	Unlimited

ADA Accommodations: If you need any type of accommodation to participate in this program or have questions about the physical access provided, please contact your Extension office. Requests for accommodation should be made to the most direct program contact through the Extension Office at the time of registration or at least 2 weeks prior to the program or event.

RULES OF PLAY	
No cell phones or other types of communication devices are allowed in the pit or contest areas. Exceptions include medical devices.	
Contest Schedule	Below is an example of a typical contest schedule: Team check-in Orientation (30 min) Coach Time (10 min) Build Time (3 hours) Match Play Announcement of Finalists Finals (Results / Awards will follow the final round)
Check In	Teams will report to the designated location and time for check-in and submit their robot and additional pieces/equipment for initial inspection. After check-in, each team will be directed to a team pit (table and chairs) where they can work on their robot and programming.
Orientation	An orientation will be provided for all participants where judges will review the challenges, rules and scoring. Coaches will be permitted to meet with their team for a 10-minute period prior to build time, following orientation. This time should be used to help team members develop a plan and foster positive youth development and to ensure proper Bluetooth/USB connections.
Build Time	After orientation, each team will have 3 hours of Build Time for designing, building, programming and testing of their robot.
	If time permits, teams are allowed to make alterations to their robot design and/or program between matches.

	During Build Time and Match Play, contestants are not allowed to communicate with anyone outside of the contest (coaches, parents, siblings, etc.). Exceptions include medical emergencies. Contestants are welcome to ask questions to contest officials or other contestants.
Match Play	When match play begins, teams must report immediately to the game table when called. The robot must be powered up and ready for inspection when they arrive at the game table. Failure to report to the game table and/or get the robot to a ready in a timely manner may result in the team forfeiting the match.
	A match will be 3 minutes in length. The official timekeeper and announcer will have a countdown to start and stop. Any activities performed by the robot after time has been called will not count for points.
	Contestants may retrieve their robot at any time during the match without penalty. When retrieved, the robot must be returned to the PLAYER ZONE.
	Contest officials will not assist with any retrievals.
	When the contestant is retrieving the robot, he/she may do so any time during the match in order to start/re-attempt challenges, but must not manipulate, interfere, or intercept game pieces on the board during retrieval *unless game piece is in robot's possession. If contestants physically alter where game pieces sit or land on the game board during retrieval, they may be subject to penalties or disqualification from the match.
	Possession is defined as a game piece that is not touching the playing surface and is under the control of the robot. Items in possession of a robot may be retrieved once any part/piece of the robot has broken the plane of the PLAYER ZONE boundary.
	If the robot is in possession of a game piece in the GAME ZONE, and the robot is retrieved by the player, the game official will return the game piece(s) to its original location/state.
	A robot that has possession of a game piece may be retrieved during the match. A robot that loses possession of a game piece during the match (i.e. - robot drops piece outside of the player zone) the piece can no longer be retrieved by contestants.
	A player is not allowed to touch any game piece except when the piece is completely inside the PLAYER ZONE boundary, OR if the robot is deemed in the PLAYER ZONE AND in full possession of a game piece(s). Once the piece is deemed inside the PLAYER ZONE, contestants may remove the game piece from the game table/robot and store it in the RESOURCE TRAY.
	If a contestant intentionally touches a game piece in the GAME ZONE, the team will be given a 100-point penalty per occurrence. In such cases, the piece will be returned to its original starting position by contest officials as quickly as possible.
	All competing team members are allowed around the game table during competition, and any member may touch the robot when necessary.
	Teams not competing must remain at their tables or staging area.
	Good sportsmanship is always expected. This is crucial during practice times. Practice time on the game table may be limited as build time progresses.
	Only registered contestants and designated contest officials will be allowed in the robot Challenge pit areas. Due to space limitations, parents and other spectators must remain outside the designated contest area. Spectators may be allowed to enter the contest area during finals.
	Teams that experience equipment malfunction(s) may not replace the equipment with supplies outside the contest area. Instead, team members must work together and be creative in completing preparations without the malfunctioning/missing equipment or visit with other teams to borrow the needed part.
	Any contestant, coach, or spectator that becomes disruptive or does not exhibit sportsmanship, may be removed from the contest area at the sole discretion of contest officials and/or show (host) management.
	Teams must clean up their pit areas prior to the awards ceremony. Teams not advancing to finals are free to leave once their pit area has been cleaned and are dismissed by contest officials.
	Final rankings will be shared with the contest host for them to post or distribute following the contest.