

16 Glossary

The following definitions and terms are used for the *FIRST* Tech Challenge game BIOBUZZ. Defined terms are in ALL CAPITAL LETTERS throughout the manual (for example, ALLIANCE). Competition rules mean what they plainly say. If a word is not given a game definition, then you should use its common conversational meaning.

Term	Definition
ALLIANCE	a cooperative of 2 <i>FIRST</i> Tech Challenge teams
ALLIANCE AREA	an approximately 97 in. (246.40 cm) wide by 54 in. (137.15 cm) deep by infinitely tall volume formed by placing ALLIANCE colored tape onto the flooring surface outside of the FIELD
ALLIANCE CAPTAIN	the designated STUDENT representative from each ALLIANCE lead
ARENA	includes all elements of the game infrastructure that are required to play this season's FTC game including: the FIELD, SCORING ELEMENTS, queue area, team media area, and all equipment needed for FIELD control, ROBOT control, and scorekeeping
ARENA FAULT	an error in ARENA operation
AUTO	the first 30 seconds of the MATCH, during which DRIVERS may not provide input to their ROBOTS, so ROBOTS operate with only their pre-programmed instructions
CELL	a three-dimensional structure that can hold NECTAR and POLLEN
CHASSIS	ROBOT'S MAJOR MECHANISM that enables it to move around a FIELD
COMPONENT	any part in its most basic configuration, which cannot be disassembled without damaging or destroying the part or altering its fundamental function
CONTINUOUS	describes durations that are more than approximately 10 seconds
CONTROL	an action by a ROBOT in which the SCORING ELEMENT is fully supported by or stuck in, on, or under the ROBOT or it intentionally pushes a SCORING ELEMENT to a desired location or in a preferred direction (i.e., herding). CONTROL requires contact with a ROBOT, either directly or transitively through other SCORING ELEMENTS. Typically, CONTROL requires one of the following to be true: A. The SCORING ELEMENT is fully supported by the ROBOT B. The ROBOT is moving the SCORING ELEMENT in a preferred direction with a flat or concave face of the ROBOT
COTS	a standard (i.e., not custom order) part commonly available from a VENDOR for all teams for purchase

CUSTOM CIRCUIT	any active electrical item that is not an actuator (specified in R501) or power regulation device (specified in R505)
DISABLED	The REFEREE instructs the team to stop the ROBOT which will deactivate all outputs, rendering the ROBOT inoperable for the remainder of the MATCH
DISQUALIFIED	the state of a team in which they receive 0 MATCH points and 0 RANKING POINTS in a Qualification MATCH or causes their ALLIANCE to receive 0 MATCH points in a Playoff MATCH
DRIVE COACH	a guide or advisor
DRIVE TEAM	a set of up to 4 people from the same FIRST Tech Challenge team responsible for team performance for a specific MATCH
DRIVER	an operator and controller of the ROBOT
DRIVER STATION	Android device (smartphone or REV Driver Hub) that runs the DRIVER STATION App software to communicate with a ROBOT per R901
FABRICATED ITEM	any COMPONENT or MECHANISM that has been altered, built, cast, constructed, concocted, created, cut, heat treated, machined, manufactured, modified, painted, produced, surface coated, or conjured partially or completely into the final form in which it will be used on the ROBOT
FIELD	an approximately 144 in. by 144 in. (365.75 cm by 365.75 cm) area bounded by the inside surface of the walls
FIELD STAFF	volunteers present in and around the ARENA that are responsible for making sure the MATCHES are cycled through efficiently, fairly, safely, and with a spirit of cooperation, <i>Gracious Professionalism</i> ®, and generosity of spirit
FLOWER	a structure on the FIELD in which POLLEN and NECTAR can be placed into the top, and POLLEN can be removed from the bottom
FTA	FIRST Technical Advisor
GARDEN	an approximately 23 in. (58.40 cm) by 2 in. (5.10 cm) wide and infinitely tall volume defined by the outside edge of blue or red tape in opposite corners of the FIELD
HIVE	a bi-stable structure made up of two CELLS and a connecting assembly that rotates on a pivot
HOME REGION	the region in which a team is assigned and in which they are only eligible to advance from events within
HUMAN PLAYER	a SCORING ELEMENT manager

INSPECTOR	a person determined by <i>FIRST</i> to accurately and efficiently assess the legality of a given part or the whole of a ROBOT, an event volunteer role
JUDGE	volunteers who determine the teams that receive awards at events
LAUNCH/LAUNCHING	an action by a ROBOT in which the SCORING ELEMENT is shot into the air, propelled across the floor to a desired location or in a preferred direction, or thrown in a forceful way
LEAVE	a scoring achievement in which a ROBOT must move so that it is no longer contacting the perimeter wall
LOADING ZONE	an approximately 23 in. (58.40 cm) wide by 11 in. (27.95 cm) deep infinitely tall volume bounded by red or blue tape and the adjoining FIELD perimeters
LRI	Lead ROBOT INSPECTOR
MAJOR FOUL	a credit of 20 points towards the opponent's MATCH point total
MAJOR MECHANISM	a group of COMPONENTS and/or MECHANISMS assembled together to address at least 1 game challenge: ROBOT movement, SCORING ELEMENT manipulation, FIELD element manipulation, or performance of a scorable task without the assistance of another ROBOT
MATCH	a 30-second AUTO period, an 8-second transition period between AUTO and TELEOP, and a 2-minute TELEOP period in which the ROBOT plays the current season game
MECHANISM	an assembly of COMPONENTS that provide specific functionality on the ROBOT. A MECHANISM can be disassembled (and then reassembled) into individual COMPONENTS without damage to the parts.
MINOR FOUL	a credit of 5 points towards the opponent's MATCH point total
MOMENTARY	describes durations that are fewer than approximately 3 seconds
NECTAR	approximately 3.6 in. (9.1 cm) Gopher ResisDent™ polyethylene balls
OPERATOR CONSOLE	the set of COMPONENTS and MECHANISMS used by the DRIVE TEAM to relay commands to the ROBOT
PARK	a scoring achievement in which a ROBOT must move so that it is at least partially in the LOADING ZONE
PIN/PINNING	an action by a ROBOT that is preventing the movement of an opponent ROBOT by contact, either direct or transitive (such as against a FIELD element)
POLLEN	2.8 in. (7.1 cm) Gopher ResisDent™ polyethylene balls in yellow

POLLINATOR 1 RP	an RP earned when the number of TIPS at or above threshold
POLLINATOR 2 RP	an RP earned when the number of TIPS at or above threshold
PORTFOLIO	a document used as part of the judging process with requirements outlined in A201
RANKING POINTS (RP)	credited to a team based on their ALLIANCE'S performance in Qualification MATCHES
RANKING SCORE (RS)	the average number of RANKING POINTS earned by a team throughout their Qualification MATCHES
RED CARD	a penalty issued by the Head REFEREE for egregious ROBOT or team member behavior or rule violations which results in a team being DISQUALIFIED for the MATCH.
REFEREE	an official who is certified by FIRST to enforce the rules of the current season's game, an event volunteer role
REPEATED	describes actions that happen more than once within a MATCH
ROBOT	an electromechanical assembly built by a FIRST Tech Challenge team to play the current season's game and includes all the basic systems required to be an active participant in the game –power, communications, control, and movement about the FIELD
ROBOT CONTROLLER	Android device (a REV Control Hub (REV-31-1595) or a smartphone Android device connected to a REV Expansion Hub (REV-31-1153)) that runs the ROBOT CONTROLLER app to control the ROBOT as defined in R701
ROBOT SIGN	a required assembly which attaches to the ROBOT and simultaneously identifies a ROBOT'S team number as well as its ALLIANCE affiliation
SCORING ELEMENT	SCORING ELEMENTS for BIOBUZZ are POLLEN and NECTAR
STRATEGIC	describes actions done with the aim of gaining a competitive advantage
STARTING CONFIGURATION	the physical configuration in which a ROBOT starts a MATCH
STUDENT	a person who has not completed high-school, secondary school, or the comparable level in their HOME REGION as of September 1st
SURROGATE	a team randomly assigned by event management software to play an extra Qualification MATCH
SWARM RP	an RP earned when the combined LEAVE + PARK points earned at or above threshold

TELEOP	third period of each MATCH is 2 minutes (2:00) long and called the teleoperated period (TELEOP). During TELEOP, DRIVERS remotely operate ROBOTS
TILE	flooring surface of the FIELD is made of 36 interlocking soft foam TILES
TIP/TIPPED	a scoring criteria in which the HIVE moves from one stable state to the other stable state with the downwards-facing CELL becoming the upwards-facing CELL and the damper on the HIVE that was previously not contacting the frame begins to contact the frame
VENDOR	a legitimate business source for COTS items that satisfies criteria defined in Section 12 ROBOT Construction Rules (R)
VERBAL WARNING	a warning issued by event staff or the Head REFEREE
YELLOW CARD	a warning issued by the Head REFEREE for egregious ROBOT or team member behavior or rule violations