

Team Update 09

General

Inspection Checklist

The [Inspection Checklist](#) is available on the [Season Materials webpage](#).

Game Manual

6.2 DRIVE TEAM

Per Table 6-1, each team is allotted up to 3 STUDENTS who may be assigned as DRIVERS or HUMAN PLAYERS. ~~If an ALLIANCE does not have at least 2 HUMAN PLAYERS, If multiple teams on an ALLIANCE do not have 3 STUDENTS at the event to act in these roles,~~ 1 of the ALLIANCE'S teams ~~must~~ may substitute a STUDENT TECHNICIAN as a HUMAN PLAYER ~~to be compliant with Section 6.3.1 for that MATCH only.~~ In this case,

- the Head REFEREE must be notified,
- all HUMAN PLAYER rules now apply to this DRIVE TEAM member, and
- this DRIVE TEAM member is no longer considered a TECHNICIAN for that MATCH.

8.4 BUMPER Rules

R405 *BUMPERS interact with BUMPERS. All BUMPERS must have padding (per R402-A) supported by backing (per R402-B) ~~must entirely fill~~ entirely filling the BUMPER ZONE, a space between 2 ½ in. (~63 mm) and 5 ¾ in. (~146 mm) from the floor.

R411 *BUMPERS indicate your ALLIANCE. Each ROBOT must be able to display red or blue BUMPERS covers to reflect their ALLIANCE color, as assigned in the MATCH schedule distributed at the event (as described in section [10.1 MATCH Schedules](#)). Contrasting markings on outward, upward, or downward surfaces of the BUMPER cover, other than the following, are prohibited:

- those required per R412,
- hook-and-loop tape, snap fasteners, or functional equivalents backed by the hard parts of the BUMPER,
- solid white FIRST logos between 4¾ in. (~121 mm) and 5¼ in. wide (~133 mm) (i.e. comparable to those available in the REEFSCAPE Virtual Kit), and
- narrow areas of underlying cloth exposed at seams, corners, or folds.

R412 *Team number on BUMPERS. Team numbers must be displayed and positioned on the BUMPERS cover such that an observer walking around the perimeter of the ROBOT can unambiguously tell the team's number from any point of view, from as far as approximately 60 ft. (1 829 cm), and meet the following additional criteria:

8.7 Control, Command & Signal Systems

R703 *Use specific Ethernet port for roboRIO. The roboRIO Ethernet port must be connected to

- the wireless bridge port labeled "18-24v PoE" for OpenMesh radios (either directly, via a network switch, via an RPM, or via a Cat5 Ethernet pigtail).

- B. the port labeled “RIO” of a VH-109 radio via (either directly, or via a Cat5 Ethernet pigtail) an RPM, passive PoE injector cable or adapter (whether or not it is used to power the radio), or an Ethernet cable with the appropriate wires removed on the roboRIO end. All wires or adapters used must be fully insulated.
- C. the port labeled “AUX 1” or “AUX 2” of a VH-109 radio with the corresponding DIP switch in the off (default) position (either directly, or via a Cat5 Ethernet pigtail).

10.3 Measurement

T301 *Freeze, ROBOT Measurement, not practice. During the period when the ARENA is open for measurement:

- A. ROBOTS can be enabled, but may neither drive, extend outside their ROBOT PERIMETER, nor interact with (e.g. score, push, pickup, etc.) SCORING ELEMENTS (or anything resembling SCORING ELEMENTS), a CAGE, PROCESSOR, REEF, CORAL STATION, or other FIELD elements.
- B. Humans may touch a SCORING ELEMENT but may not practice with it (e.g. throw ALGAE, or anything resembling ALGAE, or use the CORAL STATION)

Violation: VERBAL WARNING, plus YELLOW CARD if subsequent violations at any point during the event or egregious.

10.6.3.2 BACKUP POOL

After the top ranked ALLIANCE has made their final pick during ALLIANCE Selection, the lead queuer (or their designee) polls the remaining eligible teams. In rank order, the lead queuer (or their designee) will invite remaining teams to accept or decline a position in the BACKUP POOL, i.e. the group of teams willing and able to join an ALLIANCE during the Playoff MATCHES, if needed, until up to 8 teams accept.

T611 *Be there to be a BACKUP TEAM. A team must be present after ALLIANCE Selection to accept the lead queuer’s (or their designee) invitation to join the BACKUP POOL.

Violation: Team is ineligible to be a BACKUP TEAM