Robot Inspector

Certification Test

Important: All volunteers supporting regular season events in the United States and Canada must be screened and assigned using the Volunteer Management System and are required to complete their certification test using the online volunteer certification system.

This test is provided publicly for team use and volunteer certification as needed at events outside of the United States and Canada

Revision History	
Revision	**Description**
V26-27.1	Initial 2026-27 Season Release

Questions

Q1. A first-year Robot Inspector shadows you before teams arrive and asks how to think about the job. Which answer best describes the overall goal of Robot Inspection?

A. Document every rule violation so the Head Referee has a record before matches start.
B. Confirm that each robot is safe and holds no unfair advantage and help teams reach that standard.
C. Move teams through the checklist fast enough that inspections close before the check-in deadline.
D. Apply the Competition Manual strictly and turn away any robot carrying a violation.

Q2. A team opts to use a tablet running the Android operating system as part of their control system, is this allowed?

A. Yes, this is allowed for both the Driver Station and Robot Controller devices.
B. Yes, but only allowed for the Driver Station. Android-based Robot Controllers must be a smartphone device or REV Control Hub.
C. Yes, but only if the device is explicitly on the allowed list or a team outside of North America has written permission from FIRST HQ.
D. No, this is not allowed

Q3. A coach at your table speaks sharply to a student and brushes off your questions. A kind reminder changes nothing. What do you do?

A. Issue a verbal warning and note the behavior on the inspection record.
B. Ask the Head Referee to issue the team a yellow card for conduct.
C. Work with the Lead Robot Inspector to address the behavior.
D. Finish the checklist without comment and report the incident after the event.

Q4. You recognize a team whose robot you have inspected at three previous events this season, passing each time. The inspection line is backing up. How should you approach their inspection at this event?

A. Complete the standardized guided inspection process in full.
B. Based on your past experience with the team, automatically pass the team.
C. Check the items the team says changed since their last event and pass the rest.
D. Ask the Lead Robot Inspector whether returning teams qualify for a short-form inspection.

Q5. Two days before your event, a Team Update clarifies a construction rule in a way that conflicts with a pre-printed copy of the Competition Manual provided at the event. Which version of the rule should you enforce?

A. The pre-printed manual, because it is the official published rule set for the season.
B. The Team Update, because these updates highlight clarifications that are part of the most up to date Competition Manual.
C. Whichever version the team can produce in writing.
D. Neither, until the Lead Robot Inspector confirms the answer with *FIRST*® staff.

Q6. A robot uses a servo which is not on the pre-approved list, is this allowed?

A. No, only pre-approved servos are allowed
B. Yes, if the team can show documentation that it meets the requirements listed in the Competition Manual
C. Yes, if it does not give them a gameplay advantage
D. Yes, any servo may be used for robot construction

Q7. A team arrives for inspection, and you immediately spot an illegal mechanism. How should you proceed?

A. Read the checklist items in order just like any other inspection and have the team answer yes or no to each. Ask the team questions if you need clarification.
B. Ask how many actuators the robot uses so you can check the count against the rule.
C. Ask what the robot does in the game and how it does it, then ask a student to explain the mechanism.
D. Ask the Lead Robot Inspector to run this inspection, since the robot has an unfamiliar part.

Q8. A robot exceeds an extension limit. The fix appears straightforward, and the team knows the mechanism well. What action should you take?

A. Advise the team to return to their pit to address the issue and return for inspection once it has been corrected.
B. Ensure the team understands what changes should be made and give preliminary approval to the fix they propose. The team may need to complete the change in their pit before returning to complete the inspection.
C. Call the Lead Robot Inspector so a second inspector confirms the measurement.
D. Pass the inspection with the understanding that the team will make the correction before matches begin.

Q9. A team has come back to your table twice and still does not meet the criteria to pass inspection. They are running out of ideas and time. What should you do?

A. Work through the checklist with them again.
B. Identify the team to the Lead Robot Inspector and ask that someone work directly with them.
C. Mark the inspection as incomplete and inform the Event Director.
D. Ask the *FIRST* Technical Advisor to look at the robot.

Q10. A robot carries one construction violation that affects neither safety nor competitive fairness, and the team cannot fix it at the event. Who may decide to let the team compete?

A. You, since the violation is not related to safety or fairness.
B. The Head Referee, as the final authority on competition.
C. The Lead Robot Inspector, who may deprioritize construction rules within safety and fairness bounds.
D. The Event Director or PDP

Q11. A team that passed inspection in the morning swaps a major mechanism during lunch and heads for the practice area. They never came back through inspection. What do you do?

A. Immediately tell the team they cannot compete until they re-inspect.
B. Notify the Lead Robot Inspector so re-inspection happens before the team's next match.
C. Log the observation and watch whether the team returns for re-inspection on their own.
D. Ask the Head Referee to hold the team out of the match queue.

Q12. A team presents a COTS (commercially purchased) gripper mechanism with two actuators, each independently controlling one gripper jaw. Under R303, how should the inspector evaluate this mechanism?

A. Reject it because it uses two actuators
B. Reject it because each jaw moves independently
C. Allow it, as this type of gripper is generally considered a single-DoF mechanism
D. Allow it only if both jaws can be mechanically linked

Q13. A student at your inspection table tells you that something someone said to them earlier in the day made them feel unsafe or uncomfortable. What do you do?

A. Ask enough follow-up questions to judge whether the account holds up before you pass it along.
B. Report it to the Event Director or Program Delivery Partner and file through the *FIRST* Reporting Portal.
C. Suggest the student raise it with their coach.
D. Handle it at the table and mention it to the Lead Robot Inspector if it comes up again.

Q14. A robot will not fit the sizing tool as the team presents it. They measured at home and expected it to pass. What do you do *first*?

A. Mark the inspection incomplete and send them back to the pit
B. Verify with the team that the robot is in the correct starting configuration.
C. Press the tool down until the robot fits and check the box.
D. Ask the Lead Robot Inspector to make the call, since the robot sits close to the limit.

Q15. The team's fix will take about fifteen minutes, and they ask to work on the robot at your table so you can re-check it right away. Three teams wait behind them. What do you do?

A. Let them work at the table so you can verify the fix the moment they finish.
B. Explain the fix, send them to the pit with an approved plan, and take the next team.
C. Close your station until they finish so one inspector carries the whole record.
D. Pass them conditionally and ask them to report back before their first match

Q16. You measure a team's maximum extension and record a reading over the limit. The coach pushes back, says your tape was placed wrong, and adds that this robot passed at three events already this season. What do you do?

A. Remind the coach that results from previous events do not influence inspection decisions or outcomes at the current event.
B. Take the measurement again in front of them, explain the rule, and bring in the Lead Robot Inspector if the disagreement stands.
C. Accept the prior results and pass the team.
D. Step away and ask the Lead Robot Inspector to take over the inspection.

Q17. During the safety check you find a rough metal edge on an arm, left by extrusion, and cannot tell whether it poses real danger. What do you do?

A. Pass the item, since student-built robots carry unfinished edges.
B. Run a piece of paper or a soft tile along the concerning edge and judge the risk. If deemed dangerous, advise the team to cover the sharp edge with tape.
C. Advise the team to wear gloves when handling the robot and note the edge in your comments.
D. Rough edges are always a significant safety risk. Advise the team to file all potentially sharp edges before completing the inspection.

Q18. Which of the following is the most appropriate way to communicate with students during inspection?

A. Make a sarcastic comment about an unusual mechanism to show the team that it may not meet the rules.
B. Tell a student who seems distracted to pay attention and act more professionally.
C. Welcome the team to inspection, briefly explain the inspection process, and invite them to ask questions if they need clarification.
D. Use an intimidating tone or imply that the team will have difficulty passing inspection because of their robot design.

Q19. A team asks a rule question you cannot answer with confidence. Which response is recommended?

A. "I'm not certain, so we'll call it legal for now, and you can raise it with the Head Referee."
B. "Great question. Let me bring in our Lead Robot Inspector so we get you the right answer."
C. "That one is above my level. You'll have to take it up with someone else."
D. "Check the Team Q&A when you get back to the pit and tell me what it says."

Q20. Mid-inspection, the Inspection Quick Reference and your reading of the Competition Manual point in different directions. Which governs?

A. The Quick Reference, since it is built for event-day use.
B. The Competition Manual with its Team Updates, since the Quick Reference condenses the rules for convenience.
C. Whichever version the Lead Robot Inspector applied at the last event you attended.
D. The wording on the inspection checklist in the tablet.

Answer Key

Question	Correct Response	Explanation	Source
Q1	B	The Volunteer Manual states that "the goal of the inspection process is to ensure all robots are safe and have no unfair advantage during the competition," and tells inspectors directly that "your role is not to fail a team. You are well-positioned and empowered to help teams pass inspection while ensuring a fair competition."	*Section 1, Lesson 1.1; Purpose of inspection*
Q2	B	The manual says there is a maximum one REV Control Hub OR Android smartphone, and one optional REV Expansion Hub for the ROBOT CONTROLLER. The DRIVER STATION can be a REV Driver Hub or any Android Device.	*Section 4, Lesson 2; Inspection Quick Reference Guide/Inspection Checklist*
Q3	C	The manual says that if "there is an issue with an individual or individuals from a team that warrants specific intervention beyond just a kind reminder, please work with your Lead Robot Inspector to address the issue." The LRI will escalate as needed.	*Section 1, Lessons 1.1 and 1.2; Warnings and cards belong to the Head Referee*
Q4	A	The manual lists among your responsibilities: "Be fair and apply the same thoroughness for every team." Familiarity with a team from a previous event is not a reason to use less rigor during the inspection process.	*Section 1, Lesson 1.3; Equal thoroughness for every team*
Q5	B	Team Updates are reflected in in the current version of the competition manual – the most current version should always be used.	*Section 2, Lesson 2.1; Team Updates take precedence*
Q6	B	Teams must provide the manufacturer's documentation for servos not on this list in order to be allowed to use them in competition (per R502). Servos must be 8W or less maximum mechanical power at 6V, and have 4A or less Max Stall Current at 6V (or greater)	*Section 4, Lesson 2; Inspection Quick Reference Guide*

Q7	A	Inspectors should follow the checklist and use the same process for every inspection and should be comfortable asking for clarification when required.	*Section 2, Lesson 2.3; Conversational inspection approach*
Q8	B	The manual says to "work with the team to find acceptable solutions" and that "it is best if the team leaves inspection with a remediation plan that has received preliminary approval from an inspector." This will help the team feel confident that the adjustment will help them pass inspection.	*Section 2, Lesson 2.3; Remediation plan with preliminary approval*
Q9	B	The manual is explicit: "If a team repeatedly fails inspection, identify the team to the Lead Robot Inspector and ask that they find someone to work directly with the team."	*Section 2, Lesson 2.4; Repeated failures*
Q10	C	The manual states that within the bounds of safety and fair competition, "the Lead Robot Inspector is empowered to deprioritize some robot construction rules to allow a team to participate." When a team cannot pass even with help, the Lead Robot Inspector, *FIRST* Technical Advisor, Event Director, and Program Delivery Partner decide together how to proceed.	*Section 2, Lesson 2.4; Authority to deprioritize construction rules*
Q11	B	The manual requires re-inspection when "a team makes significant changes to their robot or their programming during the day." Your job here is to observe and escalate. The Lead Robot Inspector holds the authority and the relationships to coordinate re-inspection with the team and, if needed, the Head Referee.	*Section 2, Lesson 2.4; Re-inspection trigger after robot changes*
Q12	C	The manual says that "COTS COMPONENTS and MECHANISMS must not exceed a single degree of mechanical freedom (DoF). Examples of allowed COTS single degree of freedom MECHANISMS and COMPONENTS are as follows:" (R303)	*Section 4, Inspection Quick Reference/Inspection Checklist*

Q13	B	The manual directs volunteers to "call the Event Director and/or the Program Delivery Partner and inform them of the issue and seek assistance as needed," and to "ensure all issues are reported in a timely manner using the *FIRST* Reporting Portal." Youth protection concerns cover a wide range of one-time or ongoing issues, and reporting them is the volunteer's job.	*Section 2, Lesson 2.5; Youth protection reporting*
Q14	B	Under R101, "robots may be initialized to comply" with the starting configuration limit, so the first question is whether the team's intended starting position fits. If it does, the check passes. If it does not, you now know exactly what has to change and can build a plan with the team.	*Section 3, Scenario 1; Robot does not fit the sizing tool*
Q15	B	The Section 3 scenario guidance is direct on this point: the inspection table is not a repair station. Letting teams work there "creates congestion, limits your availability to other teams waiting for inspection, and puts you in the role of supervising repairs rather than inspecting." Send the team back with a clear plan and re-inspect when they return.	*Section 3, Scenario 1; Repairs at the inspection table*
Q16	B	Prior event inspections are not binding at this event, but the coach may still have a fair point about measurement technique. Re-measuring in the open shows the team your method, and the Lead Robot Inspector is available to settle disputes that a direct conversation cannot. You should never be the last word on a contested call.	*Section 3, Scenario 4; Disputed measurement*
Q17	B	The manual tells inspectors who spot a potential sharp edge that "they may use other tools such as a piece of paper or a spare soft tile to evaluate how sharp the edge is. If either the paper or the tile is sliced on the sharp edge, guide the team to file the edge or cover with tape.	*Section 3, Scenario 5; Sharp edge risk assessment*
Q18	C	Inspectors' interactions with students should always be positive, supportive, and team-focused.	*Section 4, Lesson 2. Scripts for Team Interactions*

Q19	B	Inspectors are encouraged to ask the Lead Robot Inspector about unfamiliar parts and difficult calls. If there is uncertainty, an inspector should not hesitate to ask for help.	*Section 5, Lesson 5.3; Escalation script*
Q20	B	The Competition Manual, including the most recent Team Updates, remains the authoritative source.	*Section 5, Lesson 5.2; Quick Reference against the Competition Manual*