Team Update 21

General

Last One

Team Update 21 is the final Team Update of the 2024 CRESCENDO presented by Haas season.

FIELD Design

GE-24006 Rev A reflects a material change from ¼ in. polycarbonate to ⅜ in. polycarbonate. The drawing packages and the SOLIDWORKS and STEP models also reflect this modification.

FIRST Championship Playoff Communication Document

The *FIRST* Championship specific Playoff Communication Document is posted.

Inspection Checklist

The Inspection Checklist V3 is updated to reflect the changes to the ROBOT rules described below.

Q&A Closing

The Q&A System closes April 11th at noon (Eastern). Teams attending the *FIRST* Championship are invited to submit questions for the Drivers' Meeting to Pit Administration by Wednesday 3:30pm (Central).

Game Manual

Section 6.5.6 Point Values

Table 6-2 CRESCENDO point values

	MATCH points		Ranking Points	*Coopertition* Points
	AUTO	TELEOP		
MELODY		at least • 18 (15 if *Coopertition* Bonus) AMP & SPEAKER NOTES* for Regional & District level events ~~or~~ • 21 (18 if *Coopertition* Bonus) AMP & SPEAKER NOTES for District Championship events, or • 25 (21 if *Coopertition* Bonus) AMP & SPEAKER NOTES for the *FIRST* Championship	1	

Section 8 ROBOT Construction Rules

The edits below accommodate VH-109 radio use as described in this recent [FIRST Robotics Competition blog post](#) and recommendations included in Vivid Hosting's [Mounting Your Radio page](#).

R103 ***ROBOT weight limit.** The ROBOT weight must not exceed ~~125 lbs~~ 125.5 lbs (~56 kg).

R616 ***Power radio as specified – Part 1.** The wireless bridge (radio) power must be supplied by either:

   A. …
   B. using an Ethernet cable between a REV Radio Power Module (RPM) (P/N REV-11-1856) and the "~~18-24v POE~~RIO" Ethernet port on the wireless bridge, or
   C. directly from the PDP or PDH ports described in R617.

> Note that this prohibits using any other active POE injector device to power the radio but does not prohibit using any PASSIVE CONDUCTORS to inject the VRM or direct PDP/PDH power into an Ethernet cable plugged into the radio port labeled "~~18-24v POE.~~RIO"

R617 ***Power radio as specified – Part 2.**

> Please reference ~~How to Wire an FRC ROBOT~~ Vivid Hosting's [2024 *FIRST* Championship Radio page](#) for wireless bridge wiring information.

R702 ***Communicate with the ROBOT with the specified radio.** 1 ~~OpenMesh~~ Vivid Hosting wireless bridge (P/N: ~~OM5P-AN or OM5P-AC~~VH-109), that has been configured with the appropriate encryption key for your team number at each event, is the only permitted device for communicating to and from the ROBOT during the MATCH.

R703 ***Use specific Ethernet port for roboRIO.** The roboRIO Ethernet port must be connected to the wireless bridge port labeled "~~18-24 vPOE~~RIO" (either directly, via a network switch, via an RPM, or via a CAT5 Ethernet pigtail).