# CRESCENDO — Rules Reference

| Section | Rule | Description | Other | Foul | Tech | Disable | Yellow | Red |
|---|---|---|---|---|---|---|---|---|
| Ref | Q101 | 1 STUDENT, 1 HEAD REFEREE | WBA | | | | | |
| Personal Safety | G101 | HUMANS, stay off the FIELD until green. | VW | | | | SE | |
| Personal Safety | G102 | Never step over the guardrail | VW | | | | SE | |
| Personal Safety | G103 | HUMANS, be careful what you interact with | VW | | | | SE | |
| Personal Safety | G104 | Don't enable your ROBOT while you are on the FIELD | VW | | | | SE | |
| Conduct | G201 | Be a good person | VW | | | | SE | |
| Conduct | G202 | Don't bang on the glass | VW | | | | SE | |
| Conduct | G203 | Don't ask other teams to throw a MATCH | VW | | | | SE | |
| Conduct | G204 | Don't be coerced into throwing a MATCH | VW | | | | SE | |
| Conduct | G205 | Don't throw your own MATCH | VW | | | | SE | |
| Conduct | G206 | Don't collude with opponents to violate rules to earn RPs | IMERP | | | | ✓ | |
| Conduct | G207 | Don't abuse ARENA access | | | | | ✓ | |
| Conduct | G208 | Show up to your MATCHES | DQ | | | | | |
| Conduct | G209 | Enter only 1 ROBOT | VW | | | | | |
| Conduct | G210 | ROBOTS cannot intentionally detach or leave parts in the FIELD | | | | | | ✓ |
| Conduct | G211 | No forcing opponent to violate rules | NP | ✓, R | R | | | |
| Conduct | G212 | Egregious or exceptional violations | | | | | ✓ or | ✓ |
| Pre-MATCH | G301 | Be prompt | VW | | SSP | 2min | | |
| Pre-MATCH | G302 | You can't bring/use anything you want | WSUSC | | | | DM | |
| Pre-MATCH | G303 | ROBOTS must be in starting configuration | WSUSC | | | NQ | | URAMWRT |
| AUTO | G401 | HUMANS behind the starting lines during AUTO | | ✓ | | | | |
| AUTO | G402 | Don't touch controls except E-STOP/A-STOP during AUTO | | ✓ | | | ✓ | |
| AUTO | G403 | Only 1 NOTE at a time during AUTO | | | PGP | | | |
| AUTO | G404 | ROBOT outside of their ALLIANCE WING may not cause NOTE to travel into or through their WING, if not in contact with ROBOT during AUTO | | | ✓ | | | |
| AUTO | G405 | Don't touch opponent ROBOT or NOTES across CENTER LINE during AUTO (PIC per RT6.25) | | | PIC | | | |
| GAME PIECES | G406 | ROBOTS can't use GAME PIECES to ease or amplify challenge | | | PGP | | | |
| GAME PIECES | G407 | ROBOTS can't intentionally eject NOTES out of FIELD | | | PGP | | | |
| GAME PIECES | G408 | ROBOTS can't eject HIGH NOTES from FIELD or enter them in AMPS, SPEAKERS, or TRAPS, or score them on MICROPHONES | SHNRIERP | | PGP | | | |
| GAME PIECES | G409 | 1 NOTE at a time during TELEOP, except in SOURCE ZONE | PGP | | | | S3F2 | |
| GAME PIECES | G410 | Don't damage GAME PIECES (SE requirement per HRQ221) | VW | | SE and R | FDL | | |
| ROBOT | G411 | ROBOTS must be safe | | | | ✓ | | |
| ROBOT | G412 | Keep BUMPERS in BUMPER ZONE | | ✓ | | | | |
| ROBOT | G413 | ROBOTS ≤4 ft tall; no extensions beyond 1 ft from FRAME PERIMETER (Exc SA - G212 per HRQ222; NPIDNSA per RT6.17) | NPIDNSA | ✓ or SA | | | Exc SA or | Exc SA |
| ROBOT | G414 | No shooting from opponent's WING into own ALLIANCE WING during TELEOP | | ✓, R | R | | | |
| ROBOT | G415 | No grabbing, grasping, attaching to, entangling with, or suspending from ARENA ELEMENTS except CHAIN and GAME PIECES | | | ✓, R or M | FDL | R or M | |
| ROBOT | G416 | ROBOT can't use mechanism to reduce working length of CHAIN | HRDRI | | | | | |
| Opponent Interaction | G417 | Stay out of other ROBOTS | Mutually exclusive, most punitive | ✓ | | | | |
| Opponent Interaction | G418 | No damaging opponent ROBOTS, deliberately or within FRAME PERIMETER regardless of intent | | | ✓, UD | | ✓ | UD |
| Opponent Interaction | G419 | Don't deliberately tip or entangle with an opponent ROBOT | | | ✓, C or UD | | ✓ | C or UD |
| Opponent Interaction | G420 | There's a 5-count on PINS (15sec - G212 excessive violation) | | ✓ | 5sec | | 15sec or | 15sec |
| Opponent Interaction | G421 | Don't collude with partners to shut down major parts of GAME PLAY | | | ✓, 5sec | | | |
| Opponent Interaction | G422 | PODIUM protection prior to last 20 sec of MATCH | | | ✓ | | | |
| Opponent Interaction | G423 | SOURCE/AMP ZONE protection | | | ✓ | | | |
| Opponent Interaction | G424 | No contact with hanging opponent from STAGE, or contact if either ROBOT in STAGE ZONE during last 20 sec | OERPQM | | | | | |
| HUMAN | G425 | HUMANS can't leave starting zones | | ✓ | | | | |
| HUMAN | G426 | COACHES and other teams: hands off the controls | | | ✓ | | | M |
| HUMAN | G427 | HUMAN players can not extend into the CHUTE | | ✓ | | | | |
| HUMAN | G428 | HUMANS can't use GAME PIECES to ease or amplify challenge | | | PGP | | | |
| HUMAN | G429 | NOTES enter FIELD only through SOURCE (FNA - G212 egregious violation) | | | PGP | | FNA or | FNA |
| HUMAN | G430 | HIGH NOTES only entered onto FIELD during last 20 sec of MATCH by HUMAN in front of COACH LINE | | ✓ | | | | |
| Post-MATCH | G501 | Leave promptly after MATCH | VW | | | | SE | |
| Inspection | I102 | Get inspected before playing MATCH | PM→DQ | | | | | ASM→All |
| Tournament | T201 | Replayed MATCHES will start using same conditions | WSUSC | | | | | |
| Tournament | T301 | ROBOTS will not drive, extend, or interact with FIELD ELEMENTS prior to Qualification MATCHES | VW | | | | SE or Egr | |

## Code / Explanation

| Code | Explanation |
|---|---|
| 2min | If not MATCH-ready within 2 minutes of warning or not making good faith effort |
| S3F2 | Simultaneous control of 3 NOTES; frequent control of 2 NOTES |
| 5sec | For every additional 5 seconds in which the situation is not corrected |
| 15sec | For egregious pinning (more than 15 seconds) |
| All | For entire Alliance |
| ASM | If after start of the MATCH |
| C | If greater than CONTINUOUS (10 seconds) |
| DM | If during MATCH |
| DQ | Disqualified |
| Egr | If egregious |
| Exc | If excessive |
| FDL | If further damage likely |
| FNA | HUMAN feeding NOTES from AMP |
| HRDRI | Head referee discretion for re-inspection |
| IMERP | ALLIANCE ineligible for MELODY and ENSEMBLE RPs |
| M | If greater than MOMENTARY (3 seconds) |
| NP | No penalty assessed to other ALLIANCE |
| NPIDNSA | No penalty if damaged and not used for strategic advantage |
| NQ | If not a quick remedy |
| OERPQM | Opponent awarded ENSEMBLE RP if during Qualification MATCH |
| PGP | Per GAME PIECE |
| PIC | Per Item Contacted |
| PM | If prior to MATCH |
| R | If REPEATED |
| SA | If impedes or enables scoring action |
| SE | If subsequent violations during event |
| SSP | If subsequent violations during same tournament phase |
| SHNRIERP | Scored HIGH NOTE by ROBOT on MICROPHONE makes ALLIANCE ineligible for ENSEMBLE RP |
| UD | Upon disablement |
| URAMWRT | Uninspected ROBOT playing, ALLIANCE RED CARD; modified without re-inspection ROBOT playing, TEAM RED CARD |
| VW | Verbal warning |
| WBA | Will be addressed by HR/LRI/Mgmt |
| WSUSC | MATCH won't start until situation corrected |

## Awards / Scoring

| Award | Type/Criteria | AUTO | TELEOP |
|---|---|---|---|
| LEAVE | | 2 | |
| NOTES | AMP NOTE | 2 | 1 |
| NOTES | SPEAKER NOTE (not AMPLIFIED) | 5 | 2 |
| NOTES | SPEAKER NOTE (AMPLIFIED) | | 5 |
| STAGE | PARK | | 1 |
| STAGE | ONSTAGE (not SPOTLIT) | | 3 |
| STAGE | ONSTAGE (SPOTLIT) | | 5 |
| STAGE | HARMONY (two ROBOTS ONSTAGE via same CHAIN) | | 2 |
| STAGE | NOTE in TRAP (max 1/TRAP) | | 5 |
| FOUL | Per FOUL incurred by opponent | | 2 |
| TECH FOUL | Per TECH FOUL incurred by opponent | | 5 |
| COOPERTITION BONUS | COOPERTITION BUTTON on both ALLIANCES used within first 45 sec of TELEOP | | 1 CP |
| MELODY | At least 18 AMP & SPEAKER NOTES (COOPERTITION BONUS reduces threshold to 15) | | 1 RP |
| ENSEMBLE | At least 10 STAGE points and at least 2 ONSTAGE ROBOTS | | 1 RP |
| Tie | Equal MATCH points between ALLIANCES | | 1 RP |
| Win | The ALLIANCE that has more MATCH points than other | | 2 RP |

**ROBOT Scoring Assessment**

**LEAVE Criteria:**
ROBOT BUMPERS must completely clear ROBOT STARTING ZONE at any point during AUTO

**PARK Criteria:**
ROBOT BUMPERS partially or completely contained in their STAGE ZONE at end of MATCH and does not meet ONSTAGE criteria

**ONSTAGE Criteria:**
ROBOT may only be contacting:
- Truss legs via ROBOT BUMPERS
- GAME PIECES
- CHAIN-facing vertical surfaces of core or nearest flap (with regards to CHAIN used by ONSTAGE ROBOT)
- Carpet-facing surface of their core
- A single CHAIN (on their STAGE)
- Another ROBOT qualified for ONSTAGE points
- Another ROBOT awarded ENSEMBLE RP because of G424 infraction
- An opponent ROBOT

CRESCENDO℠
PRESENTED BY HAAS