

# Team Update 10

## GENERAL

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A new assembly, GE-20028, has been added to the drawings and SOLIDWORKS files. During each MATCH, the assemblies will be secured to the hard stops, as shown in the drawings and SOLIDWORKS model. After the MATCH completes, the assembly will be lowered by FIELD STAFF to aid in the FIELD reset procedure of locking the GENERATOR SWITCH. The complete details are outlined below:

- The [Field Drawings – season specific](#) drawing package has been updated with the following changes:
  - GE-20000 has been modified to update the tolerances in title block, tolerances in provided dimensions, and include the use of the GE-20028 assembly
  - GE-20026 - Generator Switch Lock Out – Daisy Chain has been added
  - GE-20027 - Generator Switch Lock Out – Magnet has been added
  - GE-20028 - Generator Switch Lock Out – Field Attachment has been added
- The [Layout and Marking Diagram](#) drawing package has been updated with the following changes:
  - GE-20000 updated per above notes
  - Updated tolerances
- The [FIRST Official CAD Models](#) SOLIDWORKS version has been updated with the following change:
  - GE-20028, which includes GE-20026 and GE-20027, has been added to the GE-20000 assembly.

## EVENT MANUAL

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No changes.

# GAME AND SEASON MANUAL

## 3.5.1 CONTROL PANEL

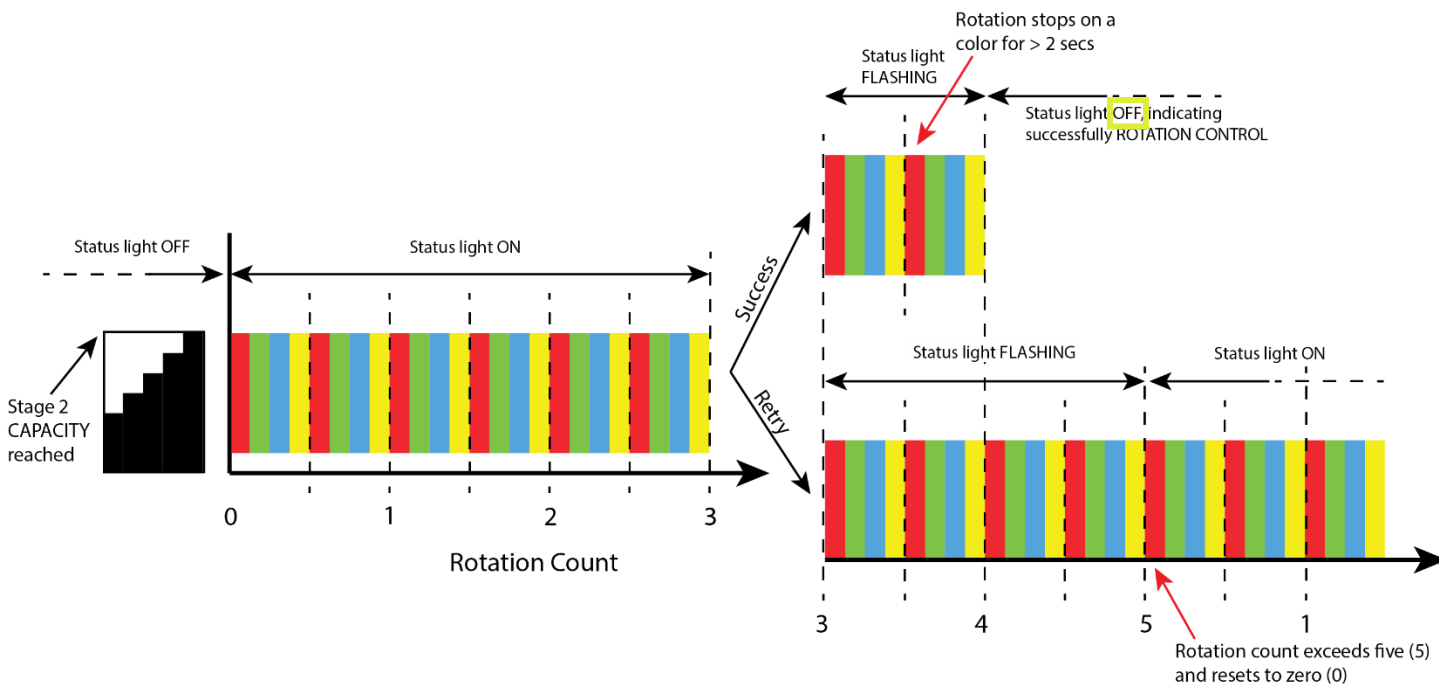


Figure 3-24 CONTROL PANEL ROTATION CONTROL example

## 4.4.1 POWER PORT Scoring

The final assessment of POWER CELLS scored in POWER PORTS is made five (5) seconds after the ARENA timer displays zero (0) following the AUTO and TELEOP, respectively.

POWER CELLS scored during the five (5) seconds after the ARENA timer displays zero (0) following AUTO earn AUTO points and, if STAGE 1 has been ACTIVATED, count towards STAGE 2 CAPACITY.

## 9.2 General ROBOT Design

**R5.** The ROBOT weight must not exceed 125 lbs. (~56 kg). When determining weight, the basic ROBOT structure and all elements of all additional MECHANISMS that might be used in a single configuration of the ROBOT shall be weighed together (see I3). For the purposes of determining compliance with the weight limitations, the following items are excluded:

- A. ROBOT BUMPERS
- B. ROBOT battery and its associated half of the Anderson cable quick connect/disconnect pair (including no more than 12 in. (~30 cm) of cable per leg, the associated cable lugs, connecting bolts, and insulation)
- C. tags used for location detection systems if provided by the event.

## 9.4 Budget Constraints & Fabrication Schedule

**R11.** The total cost of all items on the ROBOT (i.e all items presented at Inspection per I3: MECHANISMS, configurations, and decorations that will be used on the ROBOT in MATCHES without re-inspection) including software, shall not exceed \$5000 USD. All costs are to be determined as explained in Budget Constraints & Fabrication Schedule. Exceptions are as follows:

- A. individual items that are less than \$5 USD each, as purchasable from a VENDOR,
- B. items from the team's current year's KOP (identical functional replacements may be used to meet this criteria), up to the KOP quantity (including the rookie KOP items), and
- C. Specific exempt items:
  - i. One (1) Inertial Measurement Unit (Note that R12 still applies)
  - ii. Rockwell Automation sensors available through *FIRST* Choice in any season
  - iii. tags used for location detection systems if provided by the event.

## 9.8 Control, Command, & Signals System

**R63.** No form of wireless communication shall be used to communicate to, from, or within the ROBOT, except those required per R58, and R62, and tags used for location detection systems if provided by the event.