



CREATE Open – Rules Addendum 2015-2016

1) All VRC “Nothing But Net” rules for the game and robot apply unless expressly stated otherwise below.

2) Game Modifications

1. Robots will start from an OFF position. So getting your robot "booted" and active (i.e. linked quickly) is an important consideration.
2. Matches will start with a 25 second autonomous mode, followed by a 95 second driver mode. Remotes must be placed on the ground to start the match. A button(s) may be pressed if required to start the autonomous mode however the remote must stay on the ground and no contact is allowed after 3 seconds of the autonomous mode has elapsed.
3. There will be NO pause between autonomous and driver control. Therefore no autonomous bonus will be awarded.
4. In lieu of an autonomous bonus the following tiered bonus structure will be in effect:
 1. 5 points – 1 or more balls are scored in the low goal
 2. 10 points – 1 or more balls are scored in the high goal
 3. 15 points – 1 or more bonus balls scored in either the low or high goal
 4. No more than one of each bonus may be earned. The maximum autonomous bonus an alliance may earn is 30.
5. Teams touching their remotes outside of designated times may receive a 5 point penalty for their alliance. Egregious infractions may result in disqualification. The one exception to this rule is if a robot has not left it's starting tile a team may touch their remote (NOT their robot) in an effort to start their robot. If such a team starts their robot during autonomous mode they must stop touching their remote prior to their robot leaving it's starting tile. However at all times the remote must be flat on the ground and may not be held.
6. In addition to the regular climbing bonus scores the Open has a third elevation score, the “Outta Here” elevation.
 1. Tier 1 - “I'm Outta Here” - 50 points will be awarded to any robot, maximum of 1 robot per alliance, that:
 1. Gracefully exits the field of play. Falling out is not acceptable.
 2. Is completely outside the field of play when time expires
 3. Is on the Outta Here parking pad (a double foam tiled area adjacent to the starting tile nearest the audience)
 4. The Outta Here action may not start prior to 30 seconds left in the match.
 2. Tier 2 - “You're Outta Here” - 100 points will be awarded to any alliance that can place one of their robots outside the field of play. To earn these points the alliances must:
 1. Gently place a robot outside the field perimeter (pushing a robot out or dropping it are not legal and the robot being placed outside the field of play may not help in any way other than helping to establish the initial connection with the lifting robot)
 2. The robot being placed outside the field may not move their robot and while being lifted outside the field of play must put down their remote.
 3. The “Outta Here” action may not start with more than 30 seconds remaining in the match.
 4. The robot being lifted out of the field of play must be placed on the “Outta Here” parking pad. (This will be a 2'x2' double stacked tile placed just outside the field of play adjacent to the starting tile nearest the audience.)

3) Skills Modifications

1. A modified “I'm Outta Here” Tier 1 bonus applies to both Programming and Driver Skills. The following rules must be followed to get this end of match bonus.
 3. Tier 1 - “I'm Outta Here” - Up to 50 points will be awarded to any robot that:

1. Gracefully exits the field of play. Falling out is not acceptable.
2. Is completely outside the field of play when time expires
3. Is on the Outta Here parking pad (a double foam tiled area adjacent to the starting tile nearest the audience)
4. The Outta Here action may not start prior to 30 seconds left in the match.
5. Ball scores will be doubled up to 50 points. (i.e. If score 10 points via the low and high goals your bonus will be 10 points. If you score 100 points via the low and high goals your bonus will be 50 points.)

4) Robot Build modifications

1. Any control system or material may be used to build the robot. This includes all VEX parts, electronics, motors, etc., but also allows Arduino based control system (or any other) as well as 3D printed parts, laser cut parts, hand made parts, etc.
2. Exotic/expensive materials such as titanium are not allowed. (We want to keep the playing field level). More materials may be added in the future.
3. A maximum of 2 tanks. (Again a desire to keep the playing field level.) Also for this year only VEX pneumatics (pistons and tanks) are allowed.
4. Up to 3 of the batteries listed below may be used. The following is a complete list of competition legal batteries/chargers:
 1. Tenergy NiMH 9.6V 2000mAh High Capacity Battery Pack --- Item No. 11401-01
 2. Tenergy NiMH 8.4V 1600mAh Flat Battery Pack --- Item No. 11328
 3. Tenergy NiMH 7.2V Flat Battery Pack 3000mAh --- Item No. 11204-01
 4. VEX 9.6V Remote Battery NiMH – Discontinued
 5. VEX 7.2V Robot Battery NiMH 2000mAh --- P/N: 276-1456
 6. VEX 7.2V Robot Battery NiMH 3000mAh --- P/N: 276-1491
 7. Tenergy Universal Smart Charger for HiMH/NiCd Battery Packs (6V – 12V) --- Item No. 01025
 8. VEX Smart Charger v2 w/ Power Cord Options --- P/N: 276-2519
5. All parts, EXCEPT pneumatics and the Reoffs, may be modified from their original factory condition. This includes all motors and electronics. Please keep in mind however that safety is a primary concern. Any robot deemed unsafe by the inspectors/referees will not be allowed to compete until the safety issue is resolved or may be disqualified from the tournament.
6. No rare earth magnets or electromagnets, other than those used in shielded motors, may be used as these pose an interference hazard with both electronics and metal.
7. No control system, part or set of parts can act in a fashion that inhibits the normal operation and/or communication of other robots is allowed.
8. No power sources other than pneumatics, batteries or compression (rubber bands, springs, etc.) are allowed.
9. CREATE officials reserve the right to restrict any material or part that interferes with the normal operation of the field or another robot. If you are unsure, ask first.
10. Voltage may not be combined. (i.e. you cannot double your voltage and halve your current.)
11. All battery power must be plugged directly into the Reoff.
12. A single battery must be plugged into circuit A and the output of that circuit must go to power the controller/brain.
13. The output of circuit A may not be combined in parallel with either circuit B or C.
14. Any Reoff (Remote On/Off Switch) constructed prior to the 2015-2016 season must be installed such that the alliance orb can be clearly seen by the referees and is free from obstructions that might cause interference.
15. Any Reoff constructed after June 1st, 2015 must display its two LED strips on two sides of the robot opposite of each other in an area that is clearly visible to referees.
16. A team license plate must be:
 1. Displayed on each side of their robot.
 2. Must be easily identified by judges, referees and announcer
 3. Must have numerals/letters that are at least 1.5” high, at least 1/2” stroke width, and are in a contrasting color from their background.

4) Awards

1. CREATE Open awards share many similarities to awards at events you are accustomed to with one significant exception. Great focus will be given to innovation. i.e. Using new methods of construction (3D printing, etc.) and different types of motors, controllers, etc. We really want to spur creativity.
2. At a few larger events 3D printers will be awarded to the Honor Award recipient, CREATE's highest award.
3. NEW in 2015-2016 is the Sensor Challenge. CREATE will award the team with the most innovative, creative and effective use of a specified sensor, an HOI Apollo control system. This award will be given at both the Nebraska State Championship and the CREATE U.S. Open. To get the specifics of this new challenge contact CREATE at Support@CREATE-Found.org and request the challenge details.