

2013

Lock
Tight
Night

NEW TECH

Robotics



The Game

Overview

This section describes the CSA New Tech Robotics Competition game, called *Minebots*.

Objective

The objective of the game is similar to the mode of the popular video game, Minecraft. The object of the game is to collect boxes around the “track” to take back onto your designated building area to stack into a tower. The alliance with the tallest tower will win.

Game Description

Matches are played on a field set up as illustrated in the figure under Section 2. Two Alliances – one “red” and one “blue” – composed of two robots each, compete in each Match. The object of the game is to attain a higher score than the opposing Alliance by collecting, and placing Boxes inside your designated build area to make a tower.

Game Rules:

- Winners are determined by height of tower when time is up.
- All alliances will be randomly chosen.
- There will be two teams to an alliance (one red alliance, one blue alliance)
- **All team members, including coaches, while at the match tables, must wear safety glasses.**
- Each team may have a maximum of two members (4 per alliance) within their game player boundary (Each alliance will have a taped boundary line on the floor). All audience members must be behind the game player boundary.
- Each match will last for a 3 minute time period.
- Both robots from an alliance will start in their designated Pit area (Blue or Red alliance).
- No one may touch the robot from the beginning until the end of the match.
- Only two robots per alliance may be on the track at a time.
- Your robot may not enter your opponent’s Pit area.
- There is not a limit on the number of box that a team may carry at any time.
- Each alliance will be designated a particular side of the track. There is a center wall that divides the track into two sides. Teams must stay on their side.
- Boxes must be returned to the designated alliance build area, and stacked to make a tower.
- There is one designated build area in each alliance side.
- If a box is thrown over the side of the alliance area, or in the restricted zones (either intentionally or unintentionally) then that box becomes void and is out of play.
- Any boxes that are not stacked at the end of the match will not be counted.
- Void boxes will never be returned to the field in a scored position. Scores will be calculated for all the Matches immediately after the Match, once all objects on the field come to rest.
- All boxes must be in the designated taped area fully. If any part of the box is touching the tape it will not be counted. Whether it is in the bonus area or building area.

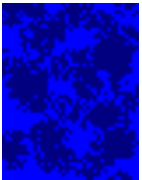
- In the event of a “dead” robot, both robots on the alliance have the ability to get to the opposite side. If both robots on the alliance end up “dead” the match continues and the other alliance is allowed to continue playing for the rest of the match.

S E C T I O N	2	Track Logistics
---------------------------------	---	------------------------



Lava :

- Deadly if touched, a robot may not pass over unless there is a water block on top of the lava.



Water :

- 2 water blocks are located on a single alliance side, 4 in total on the track. All 4 water blocks are located in every section of the track allowing all robots to be able to access them.



Designated Build Area (Red and Blue Alliance) :

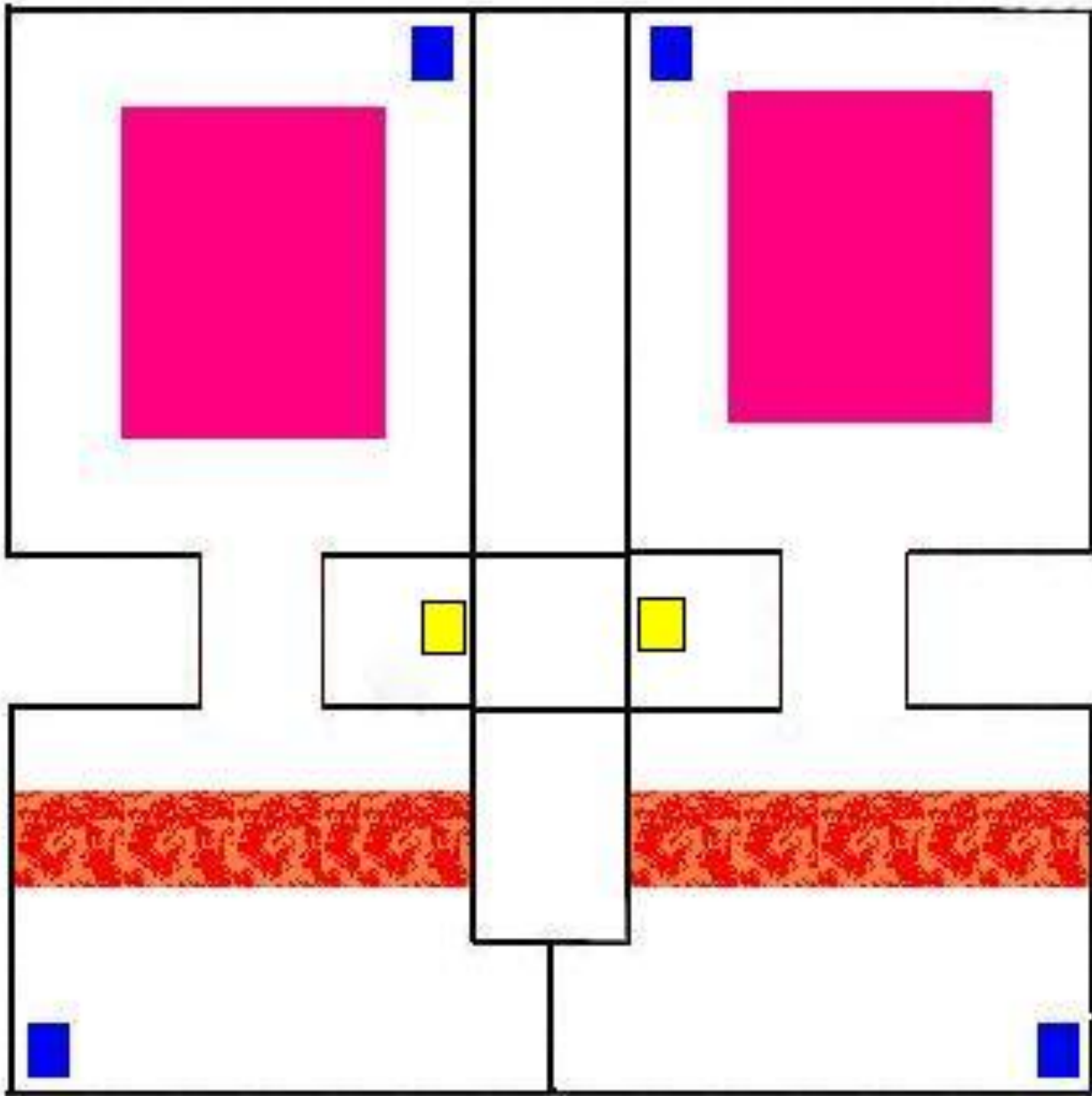
- There is one designated build area on both sides of the track. To ensure both alliances are able to build in their area. This is the scoring area, and only blocks inside this area are counted as scored. Boxes will not be scored until the end of the match.



Bonus Build Area

- This is a special space which allows teams to have competition between each other, if a team places a box **FULLY inside the designated area**, the opposing teams final score will be cut in half. Multiple boxes inside the area will NOT create multiple deductions.

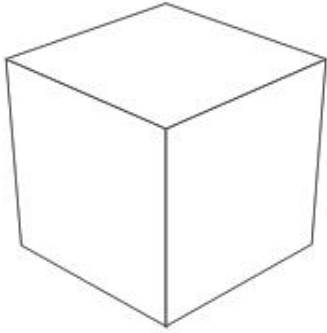
S E C T I O N	2	Track Logistics (Cont.)
---------------------------------	---	--------------------------------



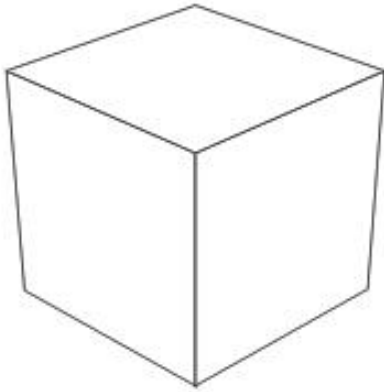
S
E
C
T
I
O
N

2

Track Logistics (Cont.)



2'' Boxes as building blocks



4'' Boxes as building blocks

S
E
C
T
I
O
N

3

The Robot

[Overview](#)

[This section describes the rules regarding the Robot.](#)

Robot Rules

Advisors/Chaperones/Mentors are prohibited from touching any portion of the robot throughout the Lock Tight Night event. An advisor/chaperone/mentor will receive a warning after a first offense, but repeated offenses will result in disqualification.

- Each team is limited to the contents of **one** and **only one** standard competition kit. (Please see a Lock Tight Night Staff Member if you would like a detailed parts list.)
- Only robot components may be used in the robot (i.e. no cardboard, manuals, Styrofoam, etc. may be used). The only exception would be those items specifically designated as “Presents” that would be given out by official game representatives throughout the event.
- Only ONE robot per team (two per alliance) may compete in the VEX Challenge.
- Teams must use 2 large wheels. (This is to ensure teams are able to get over the ‘door’ in the center of the track)

Inspections

- Each robot will be required to pass inspection prior to competition.
- Teams may be requested to submit to random spot-inspections by event personnel.

Size

- The robot footprint (top view) at the start of the contest can be no larger than 12” X 13”.
- There is no weight limit for the robot.

Safety rules

- If at any given time the Robot operation or team actions are deemed unsafe or have damaged the Track, Elements, or scoring objects, by determination of the referees, the offending team may be disqualified. The robot will require re-inspection before it may again take the field.
- If a Robot goes completely out-of-bounds (outside the playing field), it will be disabled for the remainder of the Match.
- Robots may not intentionally detach parts during any Match, or leave any mechanisms on the field.
- Strategies aimed solely at the destruction, damage, tipping over, or Entanglement of Robots are not part of the ethos of the Robotics Competition and are not allowed.
- All teams are responsible for the actions of their Robots. This goes for the teams who are driving recklessly and potentially causing damage, but also goes for teams who drive around with a small wheel base and arm extended. Teams should design their Robots such that they are not tipped over or damaged by the minor contact.

S E C T I O N	<h1>4</h1>	<h1>The Facility</h1>
		Overview

This section describes the rules regarding the facilities of CSA New Tech.

Lab/Tool Room

- Students must be accompanied by their school representative or other Lock Tight Night Staff adult while in the facility.
- Safety Glasses must be worn at all times in the Lab facility.

Furniture/Walls

- Please do not move furniture in any location of the facility. This includes chairs/tables in the Café/Competition area, as well as furniture in classrooms and hallways.
- Paint on the wall tends to chip, so be careful when moving about the building.

Trash/Clean-up

- Please clean up after yourself, and if a trash can is full, please notify a Lock Tight staff member, so that it may be emptied.
- Please recycle bottles and cans in the recycling bin in the Competition area.
- Team pits will be inspected prior to teams being permitted to leave the premises.

Closed Spaces

- Students may not enter areas designated as "RESTRICTED." Students found to be in these areas will face disqualification.

Respect

- Please be considerate of other teams near you in the pit areas (i.e. loud music, taunting, etc.)
- Please be patient with Lock Tight Night Staff and Volunteers. We are here to make this a fun and exciting experience.