CoderZ League

User Guide

Version 2.4.1

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CoderZ™ reserves the right to update this user guide at any time. Updates to this guide will be distributed to each team's teacher via email.

1. Introducing CoderZ League

CoderZ League is an international virtual competition designed to engage students, regardless of coding experience, with exciting challenges and opportunities to work collaboratively in teams. Register for CoderZ League at https://coderzleague.com/.

2. Important Terms

The following are key CoderZ League terms that are critical to understanding the League structure, regulations, and scoring system:

- ***Team:*** A collection of participants (students) from the same age group and institution working together to achieve the common goal of advancement in the League.
- ***Mission:*** Activities in which all team members program a virtual robot to complete a task and acquire points.
- ***Contribution:*** The number of points contributed to a team by a team member for each mission or challenge.
- ***Challenge:*** A summative, open-ended activity, in which members of a team program the virtual robot to traverse an arena and acquire as many points as possible.
- ***Leaderboard:*** Visible ranking of teams or individuals for a given mission or challenge.
- ***Division:*** Conference or league to which CoderZ League is divided. There are two CoderZ League divisions, based on age group and difficulty of missions and challenges.
- ***Region:*** Geographical areas into which teams of the same division are sorted.

3. League Structure

3.1. Objective

CoderZ League is a virtual competition where teams play against like opposition. The goal of each team is to eliminate all opposition and become the CoderZ League World Champion.

3.2. Divisions

CoderZ League is comprised of two divisions based on age group:

	Age Group	Coding Language(s) Used
CoderZ League Junior	Grades 5-8	Blockly
CoderZ League Pro	Grades 7-12	Blockly and Python

Within each division, teams are further divided by region. Regions include up to 64 teams.

3.3. Stages of Competition

3.3.1. Overview

The League comprises the following stages.

Stage	Summary	Additional info on page:
Preliminaries	Teams complete a series of missions and challenges to determine seeding for the group stage.	
Group	Teams are grouped into groups of four and play each other in a round robin format. The top two teams from each group advance.	
Playoffs	A series of knockout rounds. Half of the teams are eliminated after each successive round until a single world champion emerges.	

3.3.2. Preliminary Stage

3.3.2.1. Overview

In the preliminary stage, teams complete a series of Missions and Challenges to gain points and determine their seeding in the group stage. All teams participating in the preliminaries advance to the group stage.

3.3.2.2. Scoring and Seeding

Teams are ranked based on the amount of points they acquire in the preliminary stage. This ranking determines seeding in the group stage. Teams ranked higher in the preliminary stage are placed in more favorable groups in the group stage.

Teams obtain points by completing missions and challenges.

3.3.2.2.1. Missions

Each individual team member contributes points to their team by completing missions. The maximum number of points that can be contributed per mission is 100. Completing a mission multiple times is permitted. However, points obtained for each time a specific mission is completed is not accumulated. Rather, a team member's **highest score** for that mission is contributed to their team. Multiple students can give contribution for the same mission.

3.3.2.2.2. Challenges

Challenges are summative activities similar to missions but on a larger scale. All team members may participate in the challenges. However, unlike missions, only the highest-scoring team member contributes their score to the team. Challenges may be attempted multiple times. The highest score for a team is always the one contributed to the final ranking.

At the end of the preliminary stage, team scores for each challenge are ranked on a leaderboard. The following point totals are awarded based on final ranking:

Place	Points Awarded
1	7,500
2	5,000
3	3,000
4	2,000
5	1,000
6 - 10	900
11-15	800
16-20	700
21-25	600
26-30	500
31-40	400
41-50	300

51-64	0

Teams cannot share a place on the leaderboard. In the event of a tie, the team to first acquire the tie score will supplant any other teams with that same score.

3.3.2.3. Training Camp

The preliminary stage also includes several tutorial missions to assist students that have never used the CoderZ platform before. These tutorial missions are known as the CoderZ League **Training Camp**.

3.3.2.4. Availability

All preliminary stage missions and challenges, including the Training Camp, will continue to be made available after the completion of the preliminary stage. Any participation following the end of the preliminary stage does not affect team scoring or seeding.

3.3.3. Group Stage

3.3.3.1. Overview

In the group stage, teams are arranged in groups of four and seeded according to the points acquired in the preliminaries. Each region will consist of approximately 16 groups. Two teams (and if necessary, the highest scoring third-place team) will advance from each group to make up a playoff field of 32 teams per region.

	Group A	Group B	Group C	Group D	Group E	Group F	Group G	Group H	Group I	Group J	Group K	Group L	Group M	Group N	Group O	Group P
64 Teams	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49

	Group A	Group B	Group C	Group D	Group E	Group F	Group G	Group H	Group I	Group J	Group K	Group L	Group M	Group N	Group O	Group P
63 Teams	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
		63	62	61	60	59	58	57	56	55	54	53	52	51	50	49

	Group A	Group B	Group C	Group D	Group E	Group F	Group G	Group H	Group I	Group J	Group K	Group L	Group M	Group N	Group O	Group P
62 Teams	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
			62	61	60	59	58	57	56	55	54	53	52	51	50	49

	Group A	Group B	Group C	Group D	Group E	Group F	Group G	Group H	Group I	Group J	Group K	Group L	Group M	Group N	Group O	Group P
61 Teams	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
				61	60	59	58	57	56	55	54	53	52	51	50	49

	Group A	Group B	Group C	Group D	Group E	Group F	Group G	Group H	Group I	Group J	Group K	Group L	Group M	Group N	Group O	
60 Teams	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Top 2 3rd places go up as well
	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	

Example group stage seedings for various fields

3.3.3.2. Group Stage Competition

Competition in the group stage involves games between teams and AI robots. The nature of these games will be revealed before the group stage begins.

Teams must submit their codes prior to the code submission deadline (See section 4. League Schedule). Any team member may submit the code for their team.

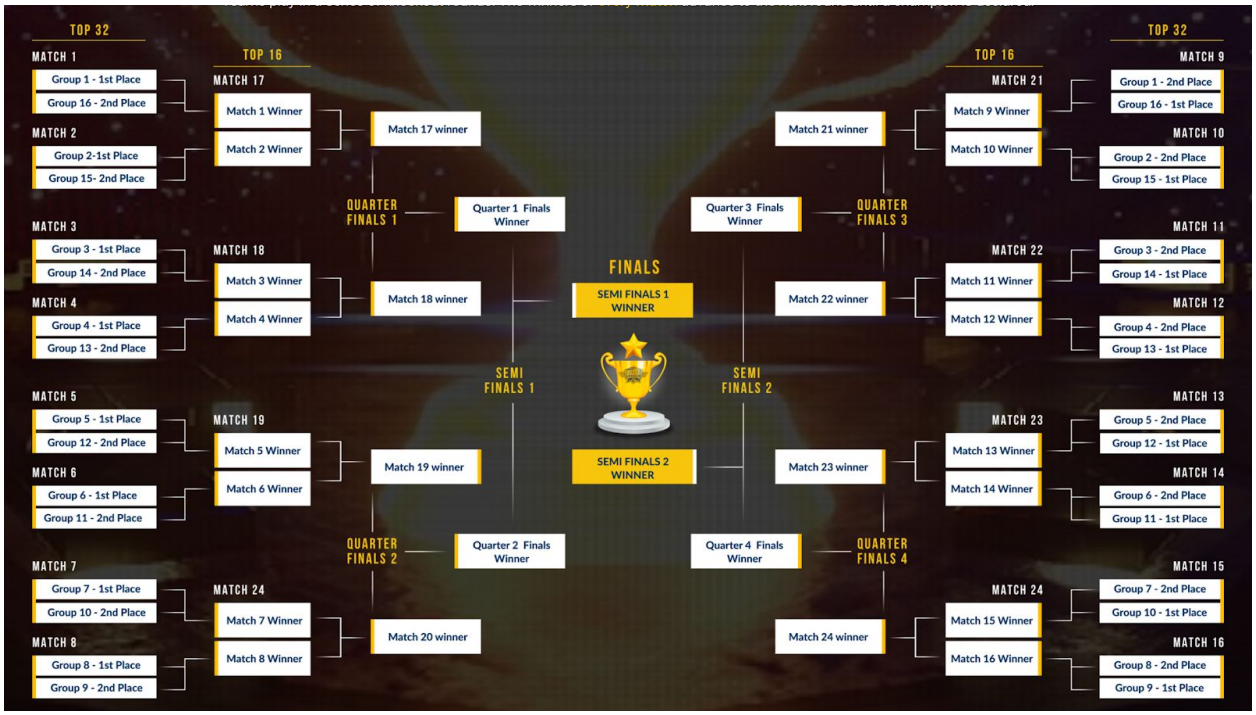
3.3.3.3. Scoring

Points are awarded to each team based on the result of their game against the AI robot. The two teams with the highest scores in the group advance to the round of 32.

3.3.4. Playoffs

3.3.4.1. Overview

The playoffs are a knockout tournament. 32 teams from each region compete in head-to-head games. Half of the teams are eliminated after each round until a single team, the regional champion, remains. Regional champions play each other in the CoderZ League World Championship. The structure for each regional playoff tournament is shown here:



3.3.4.2. Playoff Competition

Playoff competition involves teams playing each other in head-to-head games, where each team programs a robot in advance of the game. The winner of each game advances to the next round, while the losing team is eliminated.

The nature of the games will be similar to those of the group stage.

3.3.4.3. Code Submission

Codes for the playoff games are not submitted before every game. Rather, they are submitted only prior to the commencement of the following rounds:

- Round of 32
- Quarterfinals
- Finals

Thus, the same submitted code is used for the round of 32 and (if applicable) the round of 16. Teams advancing from the round of 16 submit a second code which is used for the quarterfinals and (if applicable) the semifinals. Teams advancing to the finals and third place game submit a third code which is used for that round.

4. League Schedule

For a list of all key dates for CoderZ League, go to https://coderzleague.com/schedule/.

5. Rules and Regulations

5.1. *Teams and Rosters*

Teams consist of a maximum of 30 students from the *designated age group* and include:

- At least one teacher
- A team captain

The teacher is responsible for the registration of all team members and for the appointment of a captain. Team captains may be reassigned.

5.1.1. Responsibilities of the Captain

The captain is responsible for:

- Submitting/uploading the team's name and logo (flag)
- Submitting team codes in the playoff rounds

5.1.2. Team Members

The following are rules with respect to team members:

- The age limit for each division will be strictly enforced.
- Students may only participate using their own personal username assigned to them by the teacher. Once a username is assigned, the student may not code using a different username unless permitted by CoderZ Administration.
- A student may participate in both CoderZ League divisions but may not participate on multiple teams in the same division.
- Adding or removing students from a team to manipulate the team score is not allowed and will result in harsh penalties.

5.1.3. Logos and Sponsorship

- Copyrighted and trademarked images may not be used as team logos. CoderZ is not liable for the representation and use of these images.
- Teams may be sponsored and change their names and logos to reflect that sponsorship.
- Businesses dealing in tobacco / smoking, pornography, alcohol, and/or gambling may not sponsor teams in CoderZ League.

5.2. Honesty and Integrity

CoderZ League is a fully virtual competition, and thus the League's Administration relies on the honesty of the teams, students, and teachers. Should a team perform any form of misconduct, CoderZ League Administration holds the right to disqualify said team.

- Teachers, parents, mentors, or any sort of outside help to the teams is allowed. It is, however, forbidden that said parties will write, change, or modify any of the team's solutions to the Missions and Challenges. Teams whose solutions seem suspicious to CoderZ League Administration will be investigated.
- A student may not solve a teammate's Mission for that teammate, but may help, advise, and suggest solutions.

5.3. Code Submission

The deadlines for submitting the teams' codes are **final**. Teams must make sure they submit their programs on time. CoderZ will not make any exceptions regarding this matter, and thus teams must ensure they have a stable internet connection before submitting. Codes may be resubmitted, as long as this is performed before the submission deadline.

6. The CoderZ League Platform

6.1. Access to CoderZ League

Participation in CoderZ League requires the CoderZ League platform. Access to CoderZ and CoderZ League is provided after completion of the registration and payment process on the CoderZ League website http://www.coderzleague.com or via an official representative of CoderZ League.

6.2. Using the Platform

6.2.1. General

Visit the CoderZ Knowledge Base to learn about:

- Creating your team (class) and managing your roster, including adding and removing students
- Troubleshooting
- Minimum computer requirements

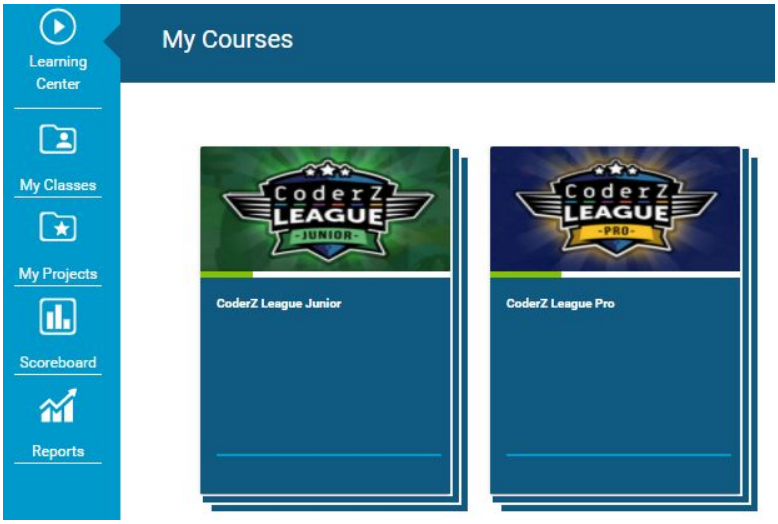
6.2.2. Missions and Challenges

6.2.2.1. Access

See League Schedule on page to learn when access to Missions and Challenges becomes available.

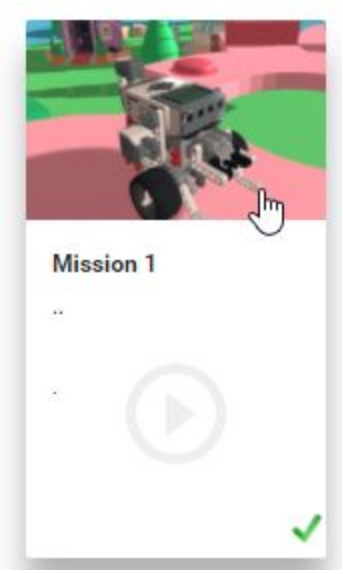
To access a mission or challenge:

1. Go to https://play.gocoderz.com.
2. Navigate to **Learning Center > My Courses**.
3. Select your division.



4. Select the category that you want to enter.

5. Select the desired Mission or Challenge.



6.2.2.2. Mission Completion

Team members acquire points by performing tasks in the missions. Points are not contributed unless the mission is completed. Contributions are calculated automatically.

For a mission to be completed, the win condition must be met. The win condition is found at the top-right corner of the mission simulation screen.

In the example below, the team member must knock one ball into the hole to complete the mission.

6.2.2.3. Challenge Completion

Challenges are open-ended, and there is no limit to the amount of points that can be scored for a challenge. Rather, the highest score for each team is submitted (automatically), and that score is ranked.

To view the number of points awarded to a team based on this ranking, see Challenges on page .

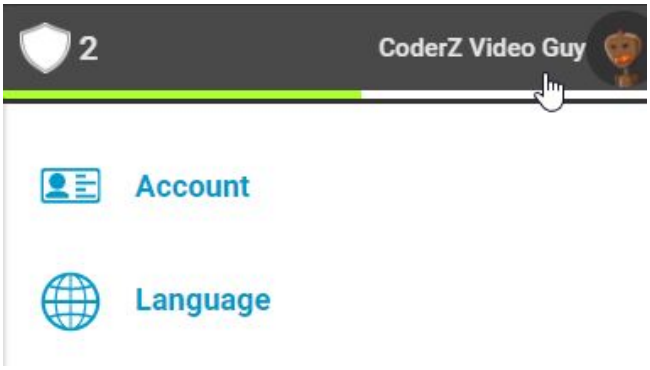
6.2.3. Profiles

6.2.3.1. Overview

There are three types of profiles for CoderZ League, each with different levels of permission and access. They are:

- Student
- Team
- Teacher

To access your profile, click your name at the top-right corner of the CoderZ screen.



6.2.3.2. Student Profiles

Teams are made up of student team members. Student profiles include:

- Information about the student's team
- The number of student contributions to his or her team

6.2.3.3. Team Profiles

Team profiles are accessible to teachers and captains. These profiles include the team's name, flag, and score.

6.2.3.4. Teacher Profiles

In their profiles, teachers have access to:

- The team roster list
- Details of their students, including number of contributions and last login time.

7. CoderZ League Awards

Aside from the CoderZ League World Champions, CoderZ League grants awards to teams and individuals at the various stages of the competition.

A small sample of these awards includes:

- ***MVP*** – Awarded to the team member who contributed the most to his or her team during the preliminary stage.
- ***Solution Award*** – Given to the team with the most creative and unique solution.
- ***Challenger Award*** – Conferred to the team that scored the most points for a single challenge.