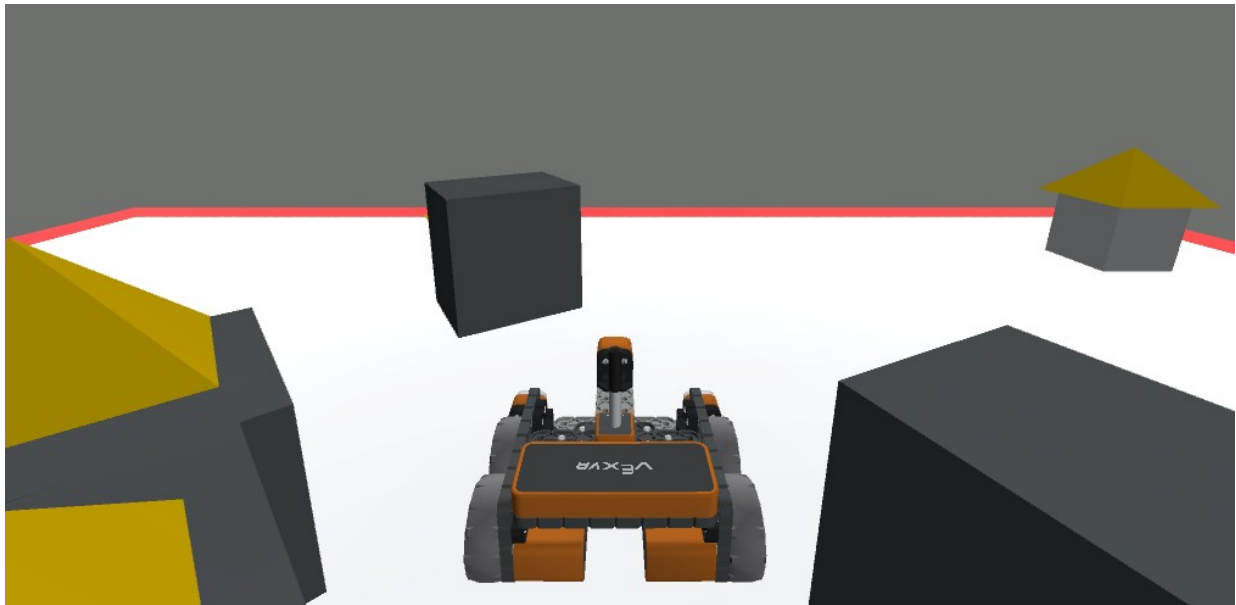# DYNAMIC CASTLE CRASHER

<u>Introduction to VEX VR</u>:
VEXcode VR allows students to program a virtual robot online in their browser by visiting vr.vex.com. The programming environment is based on VEXcode, the same programming environment that is used for all VEX robots. For introductory tutorials on VEX VR in Russian, visit vexrobotics.kz/vexvr.

Introduction to Castle Crasher: The competition is played on the "Dynamic Castle Crasher" playground of the VEX Virtual Reality platform, located at vr.vex.com. On the field are a number of randomly placed castles composed of a total of 27 elements.

Objective: The objective of the game is to program the robot to push as many elements as possible off the table within 2 minutes.

Eligibility: Competition is open to students who will be between the ages of 9 and 13 on January 10, 2021. Teams consist of 1 student only.

Registration and Submission: Registration on the website www.kirc.kz must be completed after completing the task, since during registration you must attach your program file. Your program file can be downloaded from vr.vex.com and should have the extension ".vrblocks"; other file types (e.g. pdf) will not be considered.

Deadline: The deadline for submissions is January 5[h] at 23:59 Almaty, Kazakhstan time.

Rules and Scoring:

1. The primary task is to knock the most parts of the castles off the field. Time will be considered only when there is a tie in the number of pieces pushed off the field.

2. If the Robot falls off the field, then the round ends: the number of elements pushed off the table will be recorded, as will the time at which the robot fell.

3. If a Robot is successful in pushing all 27 elements off the table, the time will be stopped immediately after the last element is pushed off the table.

4. Maximum time is 3 minutes (180 seconds). At this time the program will be stopped and the number of elements that have been knocked off the table will be recorded.

5. The referees will upload your program to VEX VR and run your program twice with the layout of castles that is randomly given by the software.

6. The average of a team's two scores will be taken. The winner is the team with the best average score (pieces knocked off table). If there is a tie, then the team's average time will be used as a tiebreaker.

Example Scoresheet (Team 2 is winner):

	Attempt 1		Attempt 2		Average	
	Elements KO	Time	Elements KO	Time	Elements KO	Time
Team 1	22	120	5	44	12.5	82
Team 2	16	120	18	120	**17**	**120**
Team 3	11	68	5	18	8	43