

ROBOT UPRISING:

MICRO INVADERS

GAME LOGIC

The game is played between two teams battling each other in short 3 round showdowns. Each team has two autonomous robots playing for their side at a time. All teams start with 0 points. Teams can either try to increase their points or decrease opponent's pointst.

The points are increased by collecting positive energy cores, balls, to the team's base and the points are lost by receiving negative energy cores or by receiving other penalties. A point is given when an energy core stays inside the base and does not bounce off. After point is given, the ball is removed from the base. Robots are not allowed to go intentionally inside their own base.

If the team receives 3 negative energy cores, their base is destroyed and the opponent wins. If both teams are alive at the end of a tournament, the team holding greater energy count will overpower their opponent and win. In case of a tie, the team that has collected most positive energy cores wins. If still tie, the team that collected energy cores faster wins.

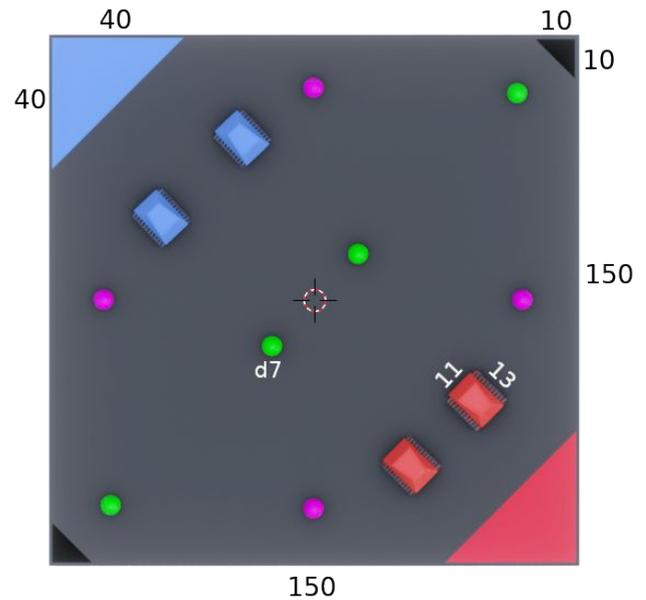
STARTING SETUP

The game is played in a square-shaped 1.5x1.5m arena with multiple energy cores located on the arena. Two corners of the arena will function as bases, one for each team. At the start of each round the competing robots are placed in front of their base.

ENERGY CORES

Energy cores are presented in the challenge as light and hollow balls in the area. The robots are able to push them around with ease.

- Green, positive cores (gain +1 point)
- Pink, negative cores (lose -1 point)



- = Green, positive energy cores
- = Pink, negative energy cores

S / s = Scoring areas / Bases. Robots starting positions are in front of the scoring area, between negative cores.

PENALTIES

If a robot breaks down, gets tilted etc and the team wants to pull their robot out of the game arena during an ongoing round, the team will lose points. After the pull-out the robot can return to the arena from their starting position. Note that the time of the ongoing round won't stop while team is fixing their robot.

ROBOTS

The team receives their robot kit around 1 month before competition. Customizing the robot is not allowed for Micro Invaders.

TEAM QUALIFICATIONS

The game takes in teams of 2 to 3 programmers. Teams are selected based on their application. Team's skills and motivation will be considered.

ARENA SPECIFICATIONS

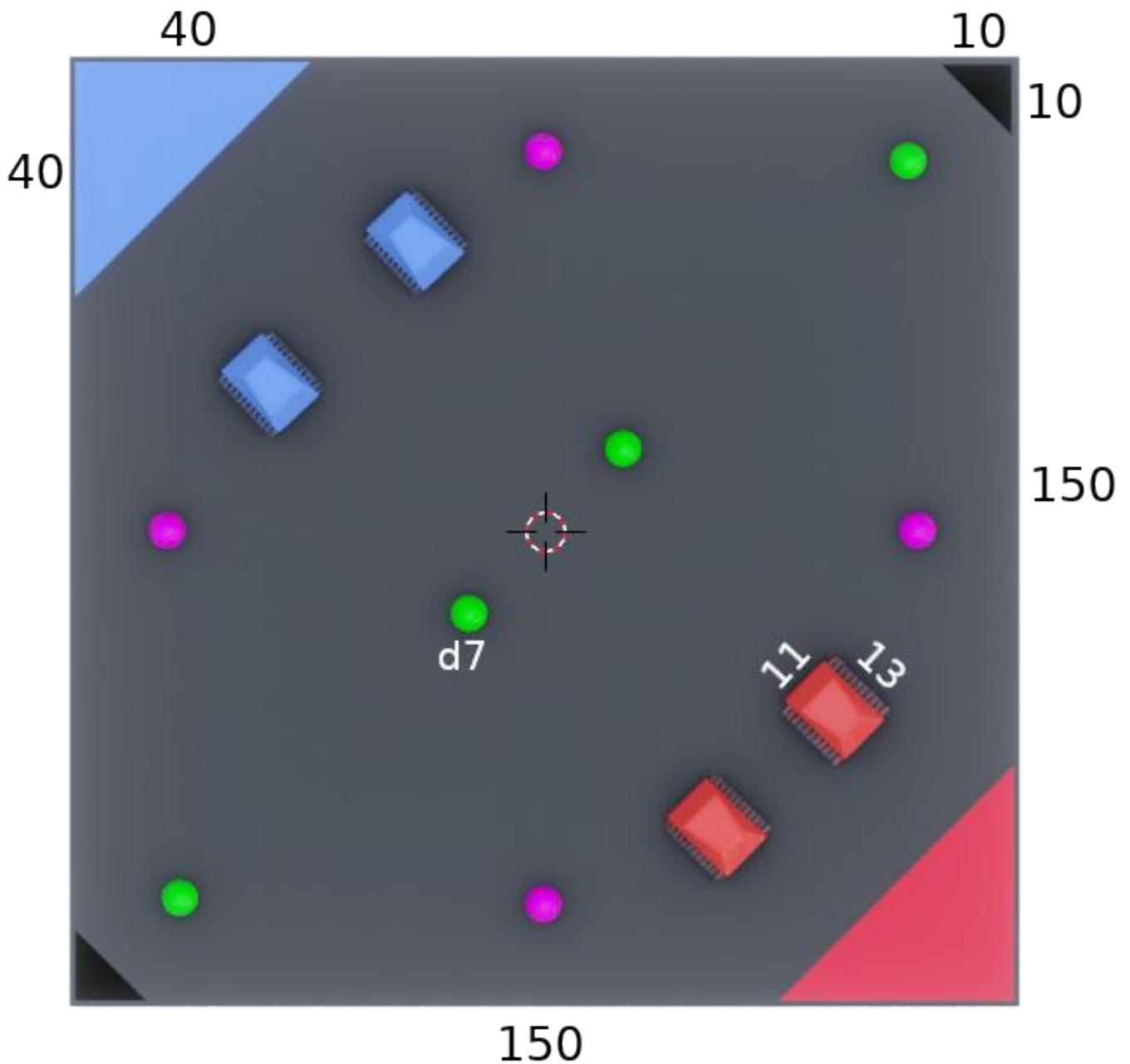


Illustration units are in centimeters, but overall image is not to accurate scale.

The game is played on a 1,5m x 1,5m square arena. Two opposing corners are designated as scoring areas for the blue and the red team.

The two corners marked with black, have small bumpers that prevent the balls from getting stuck in the corners, where the robots might have trouble retrieving them.

The balls / energy cores have a diameter of 7cm.

The robots are roughly 13cm x 11cm.

Everything is subject to change.