

# ROBOPIT GUIDELINES

## GENERAL RULES:

All robots must fit inside the start zone, no portion of the robot may hang outside the start zone (wires are not included in determining robot size)

Both team's robots will operate simultaneously

During the match, teams are allowed to modify, adjust or repair their robots in their start zone. A robot is considered in the start zone when any portion of the robot (minus the wires) crosses the border around the start zone after fully leaving the start zone. Teams may add/remove any items while in their zone. Teams may even change robots completely while in the start zone

For a robot to be considered outside the start zone and eligible to obtain objects/score points, the robot must start completely inside the start zone and then have any portion of the robot cross the border around the start area. **If the robot does not completely leave the start zone, the robot MUST completely re-enter the start zone with no portion hanging outside the start zone to qualify as back in its base and to not receive a touch penalty.**

Teams are allowed to touch the dodecahedrons once they are inside their start zone.

Robots may be comprised of any non-metal objects, and non-metal objects may be added/used in the start zone at any time (examples: plastic cups, rubber bands, tape, string, etc).

Robots may be built with more than one CPU (examples: 2 EV3s or 1 EV3 and 1 Arduino), but they have to function as a single unit on the play field.

Robots may not leave parts on the field, except for in the scoring zones. If a team's robot has returned to base, but it has left a wheel, an arm, or any other part on the playfield, the part will be returned to the team's start area. Robots may leave parts inside the scoring zone (Example: the robot delivers a tray of game objects into the scoring zone, and leaves the tray.)

Players are not allowed to physically touch the opposing team's robot. Not even to hand it to them during a reset.

If a robot becomes disabled or stalls outside of the team's start area, once the robot is clear of the opposing robot, the robot may be reset. A judge will tell the team when they can reset their robot.

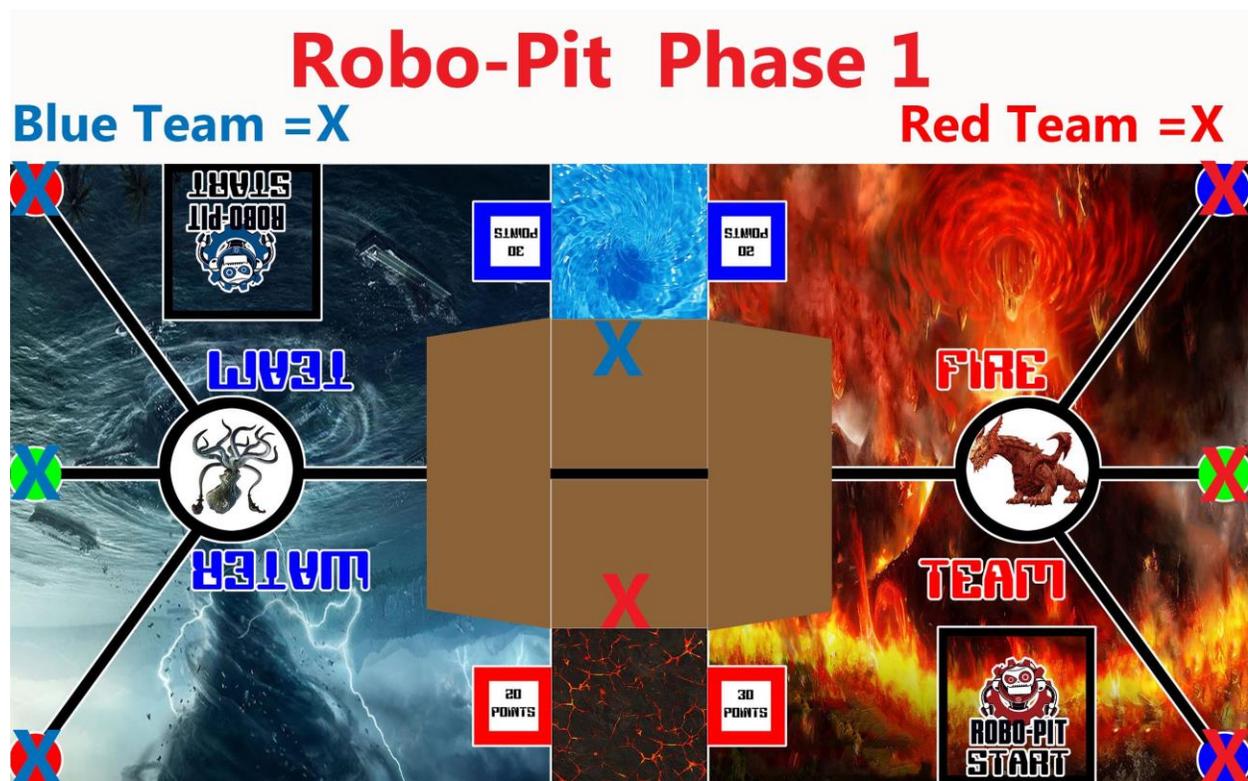
The judge will notify teams when they can remove their robot from the pit, and place it back in their start zone, if a robot falls into a pit.

## PHASE I: (1 minute) - Autonomous mode:

Teams will have one minute to place as many dodecahedrons into their scoring zone.

Robots must operate in full autonomous mode to complete the task. Contact with the opponent's robot is not permitted. Coincidental contact will result in a reset.

**GAME PIECE PLACEMENT:**



**PHASE II: (1 minute) - Remote control mode**

After phase I ends, phase II will immediately begin, and teams will have 1 minute to score with the remaining dodecahedrons that are left on the playfield from phase I. Robots will not be reset to the start zone when phase II begins.

Robots can be controlled via remote control or autonomously.

Robots are allowed full contact with the other robot.

**TOUCHING THE ROBOT OUTSIDE OF THE START AREA:**

If a team touches their robot outside of the start area, the robot must immediately be returned back into the start area. If the robot has a dodecahedron in its possession when touched, the game object will be placed in the closest empty game circle for dodecahedrons of its color. If the dodecahedron has been moved out of its circle, but the robot doesn't have control of it, then the dodecahedron stays where it is outside of its circle.

**SCORING:**

To score, teams must place the dodecahedrons inside their designated scoring area.

Dodecahedrons that are your team's color are worth 25 points. Dodecahedrons that are the opposing team's color and also the green dodecahedron are worth 50 points.

50 points will be awarded to the opposing team if your robot falls into either team's pit while on the bridge, whether on accident or if the opposing team gave you a friendly push!