

Megabot BinaryBall – Rules & Field Setup

RoboRAVE Australia is proud to announce the MEGAbot BinaryBall challenge. The specifics of the MEGAbot challenge will change each year however the size of the arena will stay the same.

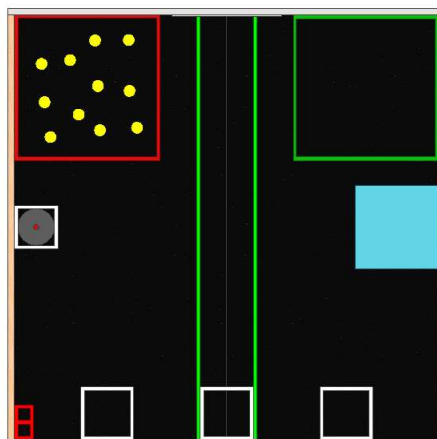
Any robotics platform can be used to win as many points as possible in the 3 minutes allowed.

MEGAbot Robot Design Rules

1. Maximum size of robot starting dimensions are 46 cm x 46 cm x 46 cm. The robot can expand after the start – no US\$1500.00 upper limit on total value of robot parts.
2. No maximum mass of the robot.
3. Size restrictions are strictly enforced to make the competition fair for all competitors. All robots must be measured during registration on the day to receive their quality assurance stickers for competition.
4. Robots must be fully autonomous and have an external power OFF switch in a location that is easy to access by the game referee. No remote control is allowed.
5. Robots must clearly display their team name and national flag for international events.
6. Robots may be made of any 3D printed or shop bought parts however pre-manufactured parts such as arms or claws are not permitted. Teams should be designing and making their own robots. Kit parts are allowed. Email the team at roboraveaustralia.com if in doubt.
7. Any on-board microprocessors, motors and sensors can be used.

The MEGAbot Arena

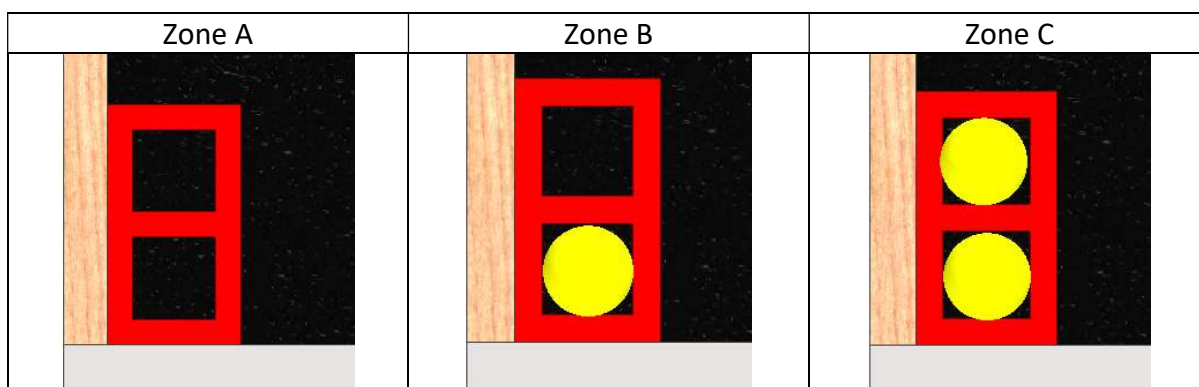
2.4m x 2.4m arena, walls might not be needed – Matt black painted floor made up of 2 sheets of 1200mm x 2400mm, 9mm thick MDF sheets, taped at seams with black cloth tape underneath. The arena has 2.4m small boundary walls on each side, 70mm high by 35mm wide, mounted ON TOP of the base and screwed in place from beneath. The effective floor playing area is thus 2.365m x 2.365m.



6 - Points:

- A tennis ball completely inside area 'F' will score 2 points each
- A tennis ball through 'H' will score 5 points each
- A tennis ball through 'I' will score 10 points each

At the start of game, a randomiser selects zone A, B, or C. If the zone is A, the randomiser zone will have no balls. For zone B, one ball, and for zone C, two balls.



These exact positions of tennis balls correspond to the chosen zone.

- A robot scores 10 points for moving the totem into any zone
- If the totem is in the random selected zone, the robot scores 40 points instead
- 15 points if the robot finishes parked in zone 'F'

NOTES:

Lines are white, green and red electrical tape 19mm wide.

The international tennis balls' diameter = 6.6 cm

Industry standard safety glasses must be worn by all players, staff & spectators within 3 metres of the arena. "Transportation" is defined as a ball being lifted & then moved by a robot.

Keep checking the RoboRAVE Australia website for rule updates.

BinaryBall Rules

Red Cap can be made by wrapping red tape many times around pole

