

相比 ICRA 2019 RoboMaster 人工智能挑战赛，2020 RoboMaster 人工智能挑战赛规则：

1. 取消比赛场地中**补给站道具**，弹丸发射补给方式由原来补给站补给或预加弹丸变为占领补给加成区域后获得**可发射一定数量弹丸的权利**，裁判系统通过控制发射机构拨弹结构电源的通断来控制发射弹丸的权利。
2. 场地中单一的防御加成区调整为六个定时随机位置刷新的**加成/惩罚区域**。加成包括**弹丸补给和血量回复**，而惩罚包括**一定时间内禁止发射弹丸和禁止底盘的移动**。
3. 调整比赛场地内障碍块的个数与分布，同时贴有**不同视觉标签以辅助定位**。
4. 场地的四个顶点处增设**哨岗**，每方各拥有对角线处的两个哨岗，哨岗处可安装**单目摄像头**并连接场外操作台的运算设备上，完成对于全场局势进行观察并将信息通过自定义的无线链路分享给己方机器人。
5. 官方**不再提供 UWB 定位基站**，同时也禁止使用 UWB 定位标签进行定位。
6. **区分不同位置的装甲板伤害量**，修改机器人血量、热量等基础参数。
7. 禁止比赛开始前机器人在启动区以随机角度摆放，调整为通过其它方式确保全局定位的作用。
8. 裁判系统将比赛的一些信息共享给所有机器人，例如所有机器人的血量、可发射弹丸量等。

更多信息，请参考 [《ICRA 2019 RoboMaster 人工智能挑战赛规则手册》](#)。

Compared to the competition of last year, several updates have been made to 2020 *RoboMaster* AI Challenge.

9. Canceled the setting of **Official Projectile Supplier**, and changed the supply method from preloading/loading from the Official Projectile Supplier to **gaining the right to launch a certain number of projectile** by occupying the Supply Bonus Zone. The Referee System will control the switch of robots' loading mechanism to control their right to launch projectiles.
10. Replaced the single Defense Bonus Zone with six **bonus/penalty zones** with the roles refreshed regularly. The functions of bonus zones include **projectile supply and HP heal**, while the functions of penalty zones include **launch ban and chassis ban within the required time**.
11. The number and layout of Obstacles set inside the battlefield are also changed, with **different Vision Markers to help with locating**.
12. Each corner of the battlefield will have a **sentry**, and each team have two diagonal sentries. Competition teams can set cameras at their sentries, connect to the computer outside the battlefield to help observing the whole area and share information to every robot of their own teams.
13. **The *RoboMaster* UWB Locating System has been officially removed** from the competition, and teams will not be allowed to use UWB tags for localization.
14. **Differentiated HP deduction caused by armor attack for different armor plates**, reset some basic robot parameters, including HP value and heat.
15. Robots cannot be placed at the starting zone at random angles, and new methods will be applied to ensure the effect of global localization.
16. The referee system will share some information with all robots on the battlefield, for example, every robot's HP and number of projectiles that can be launched.

For details, please refer to [ICRA 2019 RoboMaster AI Challenge Rules Manual](#).