

MANUAL

L.A.W.S & ORDER

PREPARED FOR:

GNG1103B

Overview



Client:
Mines Action Canada

Duration:
3 Months

Price:
50.00\$ - 100.00\$

For:
GNG1103B

PROJECT DESCRIPTION

To support MAC's Stop Killer Robots initiative, the Canadian Robotics and Artificial Intelligence Ethical Design Lab (CRAiEDL) at the University of Ottawa has developed a project for first-year engineering students in the GNG1103 Design Thinking course. This project gamifies the dangers of autonomous warfare using a RoboMaster S1, with specific design and functional requirements to convey MAC's message.

ABOUT THE CLIENT

Technological advancements are rapidly reshaping the relationship between humans and machines, introducing autonomous systems into various sectors, including warfare. Mines Action Canada (MAC) is a prominent non-profit organization dedicated to humanitarian disarmament, focusing on the elimination of devastating indiscriminate weapons like landmines, cluster munitions, and emerging technologies such as Laser Autonomous Weapons Systems (LAWS). Founded as a coalition of over 40 Canadian NGOs, MAC advocates for the rights and digni-

ty of affected civilian populations through public engagement, research, and international collaboration. By fostering partnerships and promoting social justice, MAC works tirelessly to create a safer world, pushing for comprehensive regulations and potential bans on weapons that threaten human rights. Their commitment extends to empowering communities to advocate for disarmament and recovery from the effects of war, with a particular focus on preventing technological innovations that could further endanger civilian populations.



// PROBLEM STATEMENT

There is a need for an accessible, portable, and engaging medium to communicate MAC's warning about LAWS. This medium should immerse players in a gamified scenario that highlights ethical concerns and leaves a lasting impression of the risks associated with autonomous warfare.

// THE SOLUTION

Our team's goal is to address the problem by designing an engaging and thought-provoking game that highlights the ethical concerns surrounding lethal autonomous weapon systems (LAWS) by following the engineering design process.

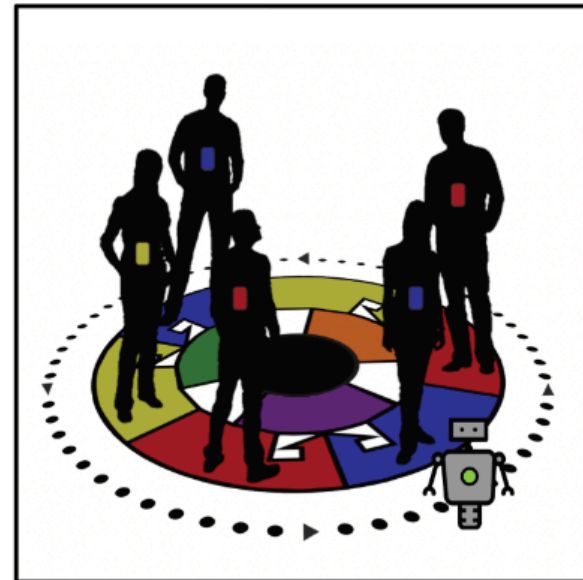
How to Play



- 1** Players are allotted a card of a random primary colour, and stand on the corresponding tiles.



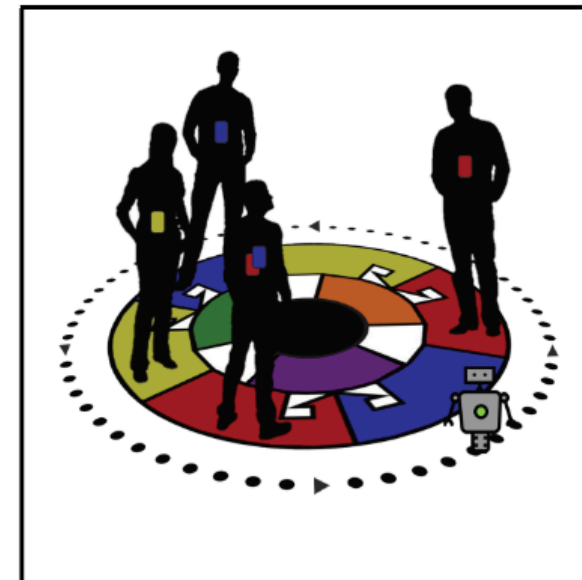
- 2** The robot initialization period begins; the RoboMaster S1 begins to circle the board.



- 3** Players are free to trade their cards between their neighbours. Those who obtain a combination for a secondary colour may move inwards.



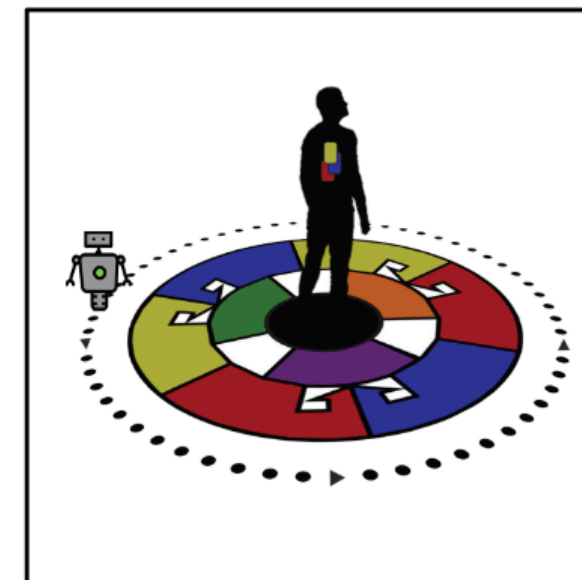
- 4** The RoboMaster S1 will choose a target within the outermost ring. Trading must cease and the target is eliminated.



- 5** Once the target is eliminated, adjacent players may pick up their cards.



- 6** A new roaming period begins. Players may advance through the circle or trade again.



- 7** Steps 2-6 repeat until a single player is located at the centre of the circle.



- 8** The final player is eliminated by the RoboMaster S1, regardless of their standing.