

# Hello,

A warm welcome to all competitors, families, friends and guests. We are proud to invite you to New Zealand Robot Olympiad 2017.

Robot Olympiad is one of the most famous and world recognised robot competitions for school students. We are excited to share this opportunity with all the students involved in this competition.

We hope this competition would be an inspirational drive and be a positive experience for all.

With no much ado, we welcome you to New Zealand Robot Olympiad 2017!



17 - 20 JULY 2017  
**NEW ZEALAND  
ROBOT OLYMPIAD  
2017**

## SCHEDULE

DAY 1	10:00 - 16:00	Robot Soccer
DAY 2	8:30 - 9:00	Registration / Entry
	9:00 - 9:30	Opening Ceremony
	9:30 - 12:30	Battle Cube robot Development
	12:30 - 13:30	Lunch
	13:30 - 16:00	Battle Cube Competition
DAY 3	16:00 - 17:00	Award Ceremony
	9:00 - 9:30	Registration / Entry
	9:30 - 12:30	Line Tracer robot Development
	12:30 - 13:30	Lunch
	13:30 - 16:00	Line Tracer Competition
DAY 4	16:00 - 17:00	Award Ceremony
	9:00 - 9:30	Registration / Entry
	9:30 - 12:30	Creative robot Development
	12:30 - 13:30	Lunch
	13:30 - 17:00	Creative robot Competition
	17:00 - 18:00	Award Ceremony & Closing Ceremony

## ORGANIZERS

NZROA



## SPONSORS



## COMPETITION CATEGORY

- Day 1 : Robot Soccer (NZ only)
- Day 2 : Battle Cube\*
- Day 3 : Line Tracer\* (NZ only)
- Day 4 : Creative Robot\*

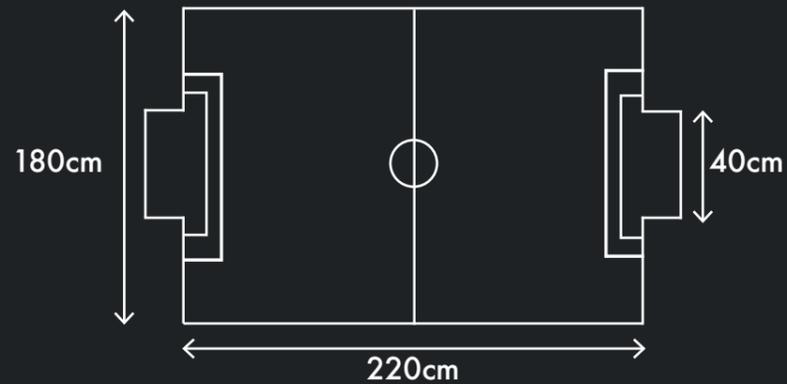
\*ALLOWED TO USE ROBOROBO KIT ONLY

## DIVISION

- Junior A (Y 1-3)\*\*
- Junior B (Y 4-6)\*\*
- Challenge A (Y 7-9)
- Challenge B (Y 10-13)

\*\*OPEN BOOK

## DAY 1: ROBOT SOCCER



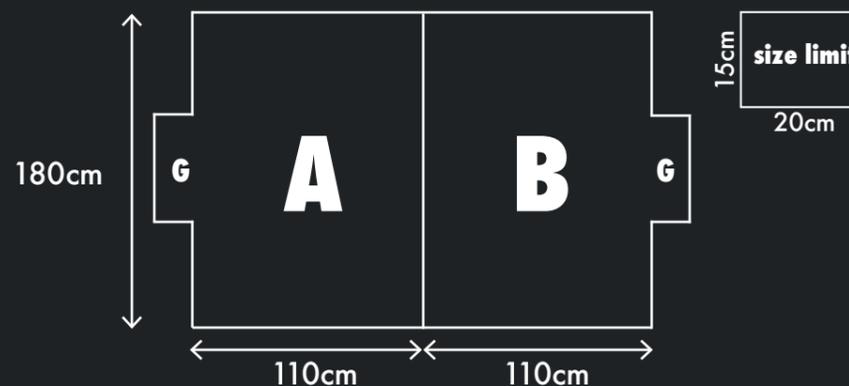
- Soccer Competition using five 7.5cm cube robots
- AI programming needed
- Preparing system before the competition day
- Ranking based on the points from the full league competition
  - Win: 3 points
  - Draw: 1 points to both teams
  - Lose: 0 points
- If the score is same :  
Total Score > Winner > Age (younger team)

## DAY 3: LINE TRACER



- 3 hours (max) given to make line tracer robot that uses IR sensor to follow white line track on site
  - Penalty: 10% lap time added per 5min delay
  - Disqualified after 30min delay
- Must use Roborobo kit
- Course (white line track) presented on site
- Five sets of 1 minute given to each competitor each time to record their best lap time
- Competition order determined by draw. Unable to change the order
- To win, aim to get the shortest lap time
- Individual game

## DAY 2: BATTLE CUBE



- 3 hours (max) given to make wired and/or wireless robot on site.
  - Penalty: 1 more object to move per 5min delay
  - Disqualified after 30min delay
- Must use Roborobo kit
- 1:1 competition
- To win, move all the objects on A/B field to your goal area (G) first
- Tournament Competition
- Competition order by draw
- Individual game

## DAY 4: CREATIVE ROBOT

**Theme:** (To be presented on site)

- 3 hours (max) given to design and make their creative robot suited to the theme on site
  - Penalty: 1 point deduction per 5min delay
  - Disqualified after 30min delay
- Must use Roborobo kit
- Not allowed to make a robot that harms or threatens the opposition
- Judges will evaluate according to below criteria, and will sum up the points to decide the final rank.
  - Design (30 points) : Creativity, Concept, Design note
  - Development (50 points) : Completeness, Operation, Level of complexity
  - Presentation (20 points) : Explanation, Q&A
- Exceptional rules follow IROC rules
- Individual game

