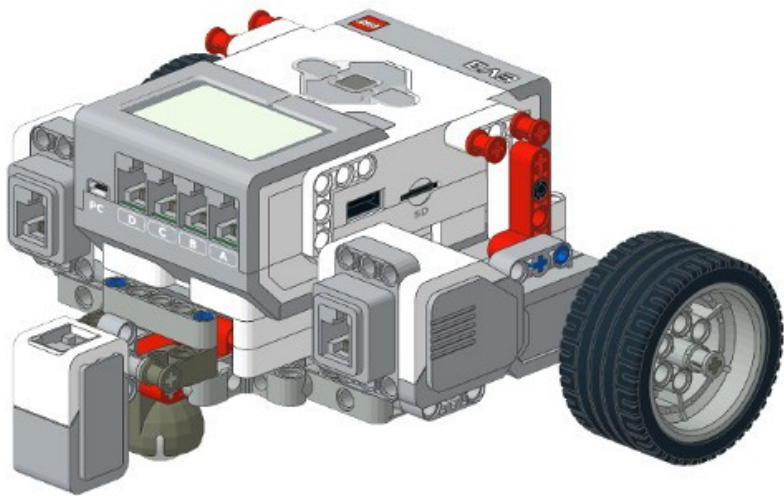


FIRST[®]
LEGO[®]
LEAGUE

CHALLENGE



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Play · Experience · Learn

What is FIRST?

- Non-profit organization that organizes..
 - FIRST Lego League
 - FIRST Tech Challenge
 - FIRST Robotics Competition
- Been running robotics competition since 1992
- Probably the biggest robotics challenge in the world
 - 679,000 participants in 2019-2020 season

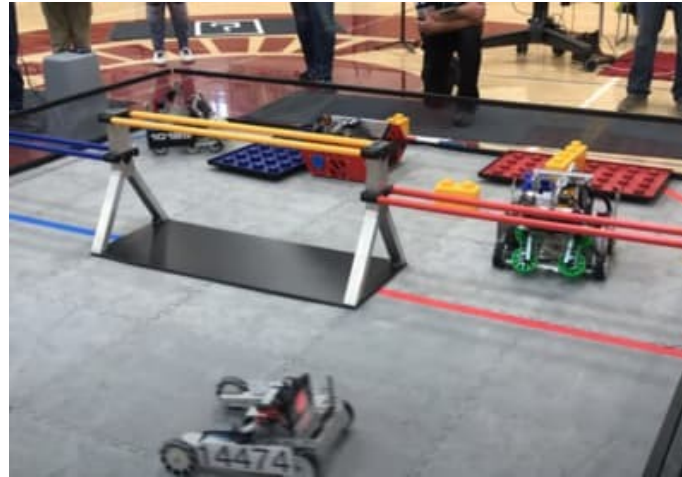
FIRST Competitions



FLL Challenge

<https://youtu.be/FSIXAofECho>

Age: 10 to 16
Around 200 Teams in
Singapore



FTC

<https://youtu.be/jAxH5NU0IMc>

Age: 12 to 18
Not available in Singapore



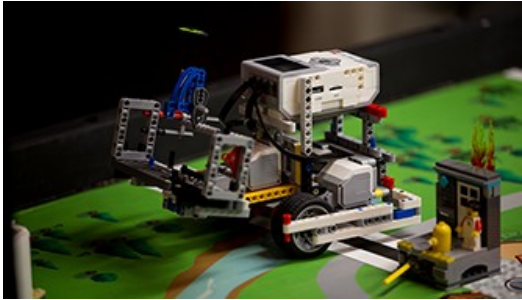
FRC

<https://youtu.be/Hm5wUN8BbNg>

Age: 14 to 18
Not available in Singapore



CHALLENGE



Robot Game



Innovation Project

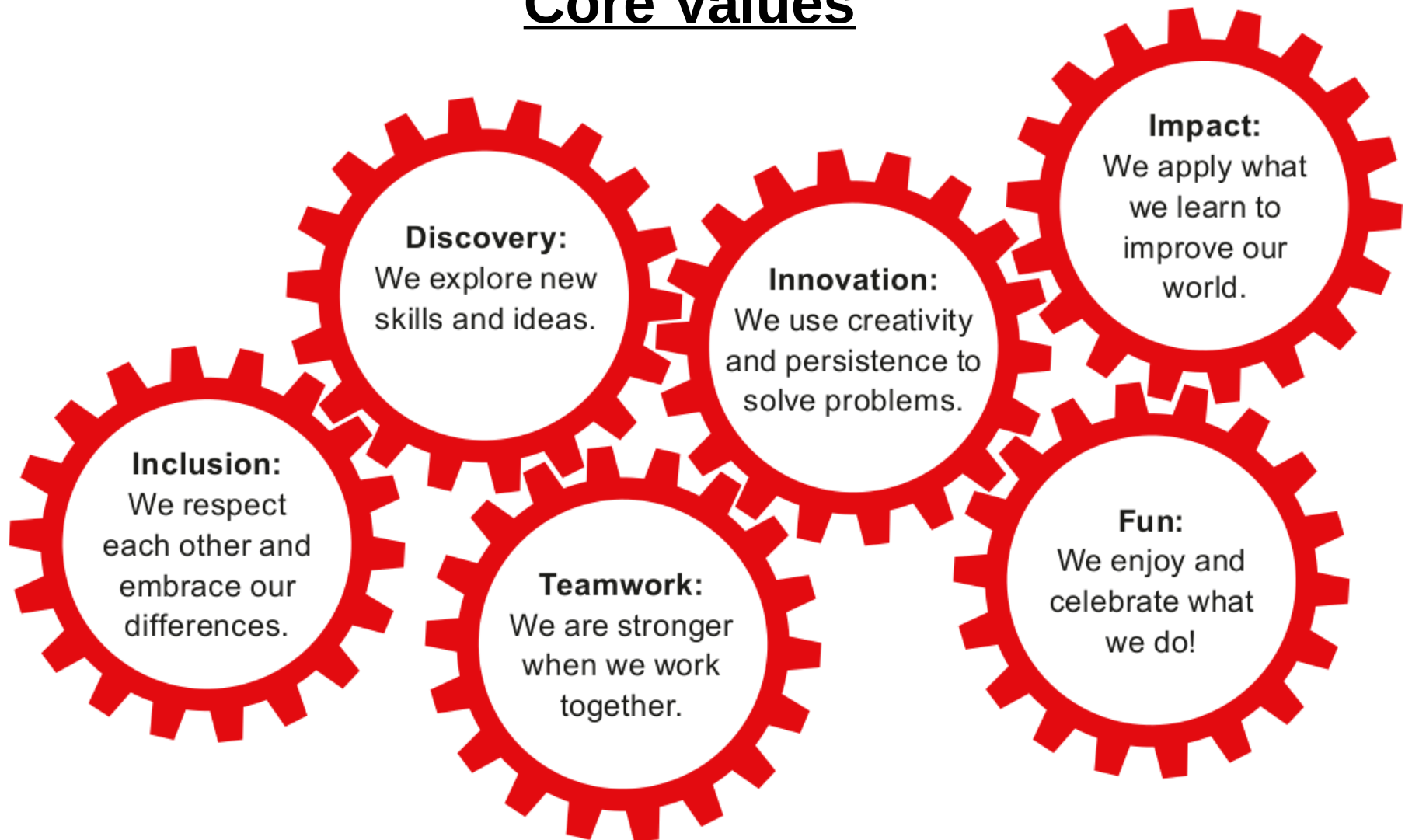


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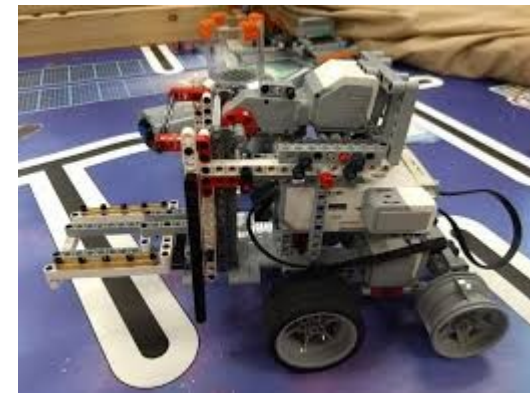
Core Values



Robot Game



- Challenge!
 - 17 missions
 - 2.5 minutes
- Robot!
 - Design
 - Build
 - Program
- Missions Description
 - <https://youtu.be/onsl9ke2Vho>



Innovation Project



- Challenge!
 - Identify a specific problem linked to the theme
 - Research problem
- Design
 - Think of a solution
 - Build a prototype
- Share
 - Share on website
 - Share with experts and others
 - Present to judges!
(5 mins)





Innovation Project (Example)

Problem

- Children with learning disabilities or autism tend to have poor motor skills
- As a result, they struggle to participate in sports and tend to be inactive

Research

- Consulted students, teachers, physiotherapists at special schools
- Evaluated current solutions by physiotherapists

Developed

- Pinball machine designed to improve motor skills
- Built prototype, tested in special schools with students, consulted specialists
- Improved design



'Fizzball', by Ctrl+Alt+Del



Impact

- 60 sets for first school, orders for more from second school
- Production and sponsorship plan
- Partnership with local charity

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