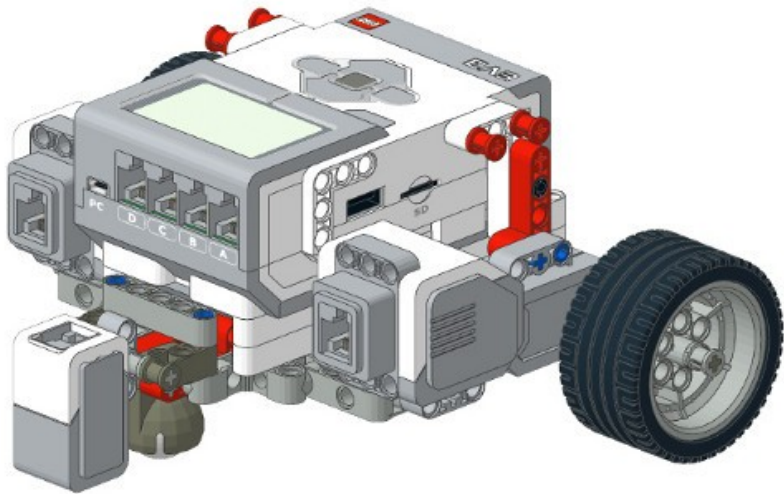


**FIRST<sup>®</sup>  
LEGO<sup>®</sup>  
LEAGUE**

**CHALLENGE**



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# Plans for Today

- Missions Brief
  - M05 Basketball
  - M08 Boccia
- Breakout rooms
  - Attempting the mission

# M05 Basketball

- <https://youtu.be/ntRcZgWvopA?t=131>
- Actual Mission
  - Put cube in basket
  - Move basket to middle or top position
- Modified Mission (Gears)
  - Move box to the top and out of the pole

# M08 Boccia

- <https://youtu.be/ntRcZgWvopA?t=198>
- Actual Mission
  - Push one cube off
  - Color must match the other team
- Modified Mission (Gears)
  - Push any one cube off
  - Many FLL competition follow this modified rule this year due to COVID

# In-person FLL



- Two playing fields, head to head
- Two randomly assigned teams
- Start simultaneously
- Teams may need to cooperate or compete to score

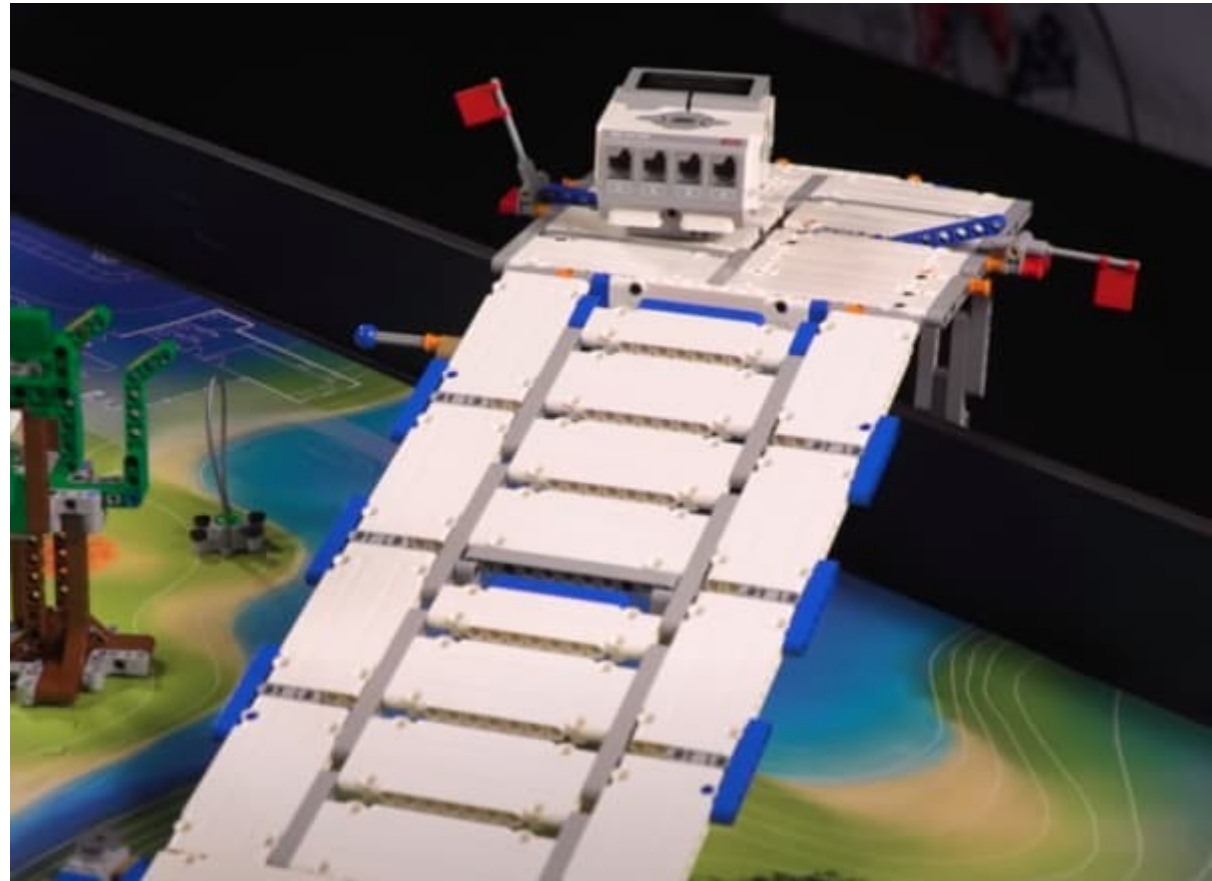
# Example (Cooperate)

- Both teams must discuss and agree on which color to push
- Both teams gets more points if the colors are the same



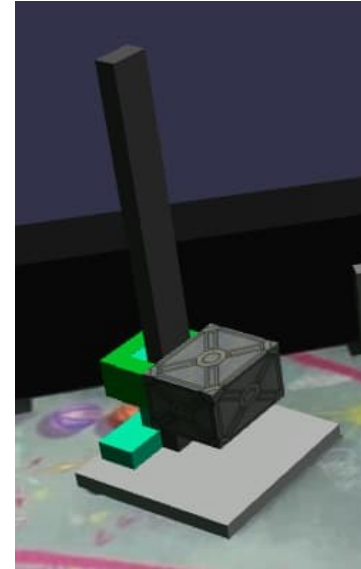
# Example (Compete)

- Robot ending on the bridge gets points
- Only space for one robot
- If another robot is there, push it off!



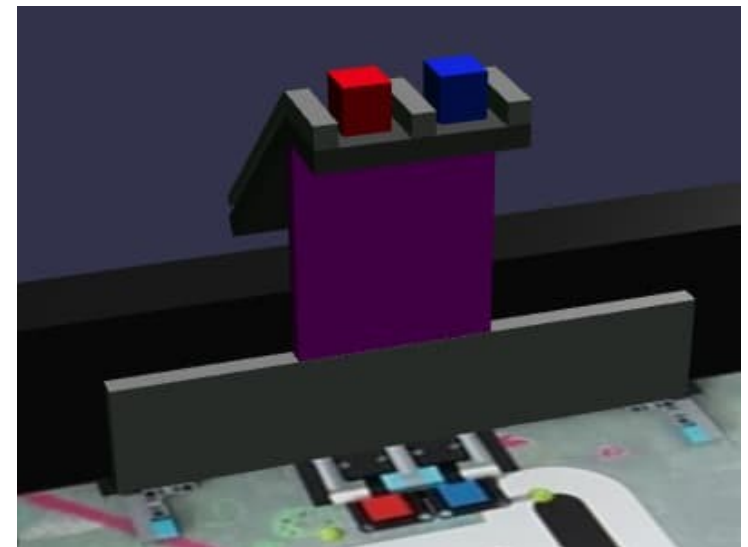
# Simulation in Gears

- Tutorials and FLL World
  - <http://a9i.sg/gears-tutorial>
- Missions (Breakout rooms)
  - M05 Basketball
    - Push the box to the top and off the pole
  - M08 Boccia
    - Push any one box off
- Demo
  - Linear Actuator
  - Mission



**M05  
Basketball**

**M08 Boccia**





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