ROBOCUP JUNIOR VICTORIA

Competition overview

- What does the competition look like?

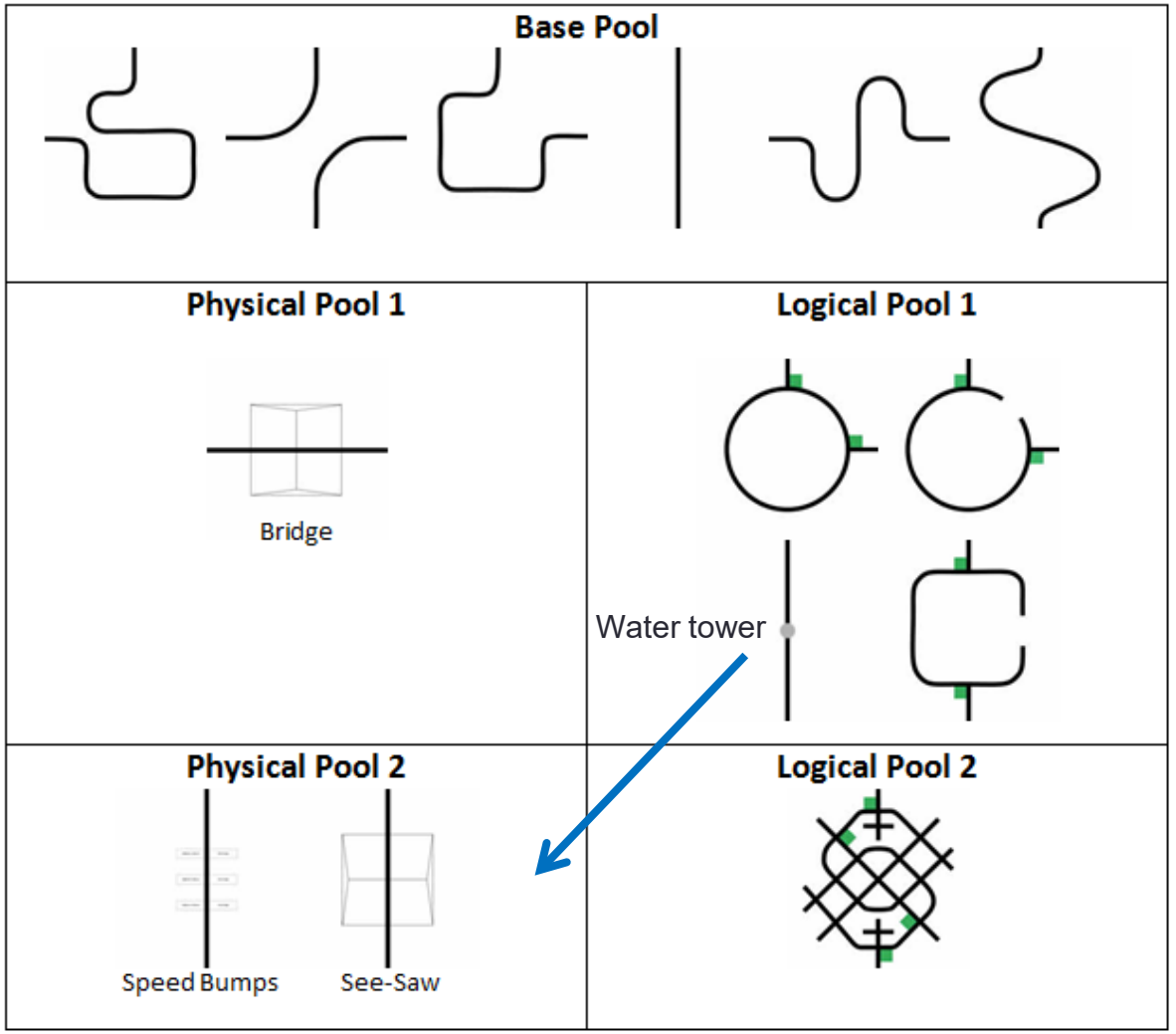
The Course Tiles

The Rescue Tiles
594 mm x 594 mm

Base Pool – line

“**Physical” Pools** – tiles contain physical structure

“**Logical” Pools** – tiles contain a logical challenge



The Challenges

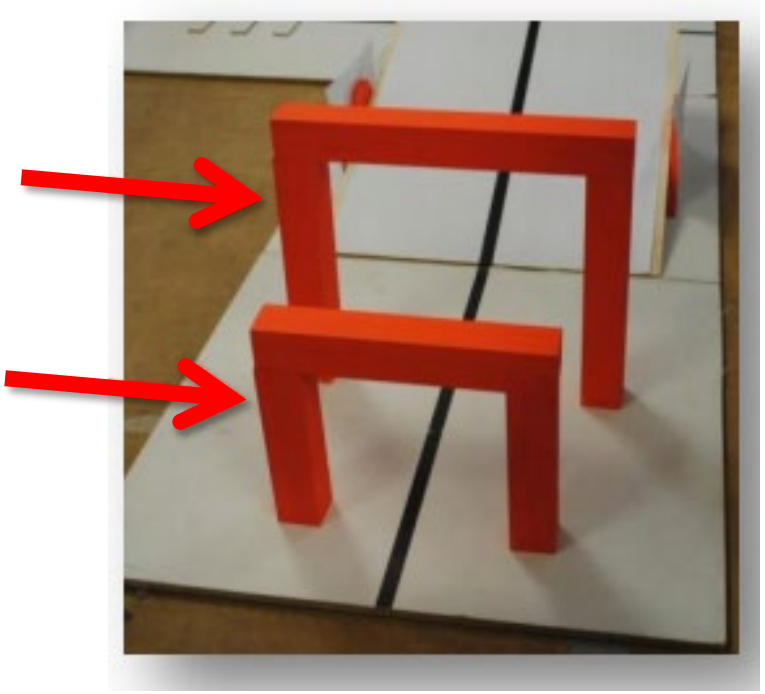
Basic challenges of the competition

- Following lines
- Making decisions at intersections
- Navigating around obstacles
- Traversing over speedbumps, bridges, see-saws and debris
- Moving up and down inclined planes
- Rescuing the Victim and saving the robot

Note: these challenges will differ for different competition levels

Robot Size Limits

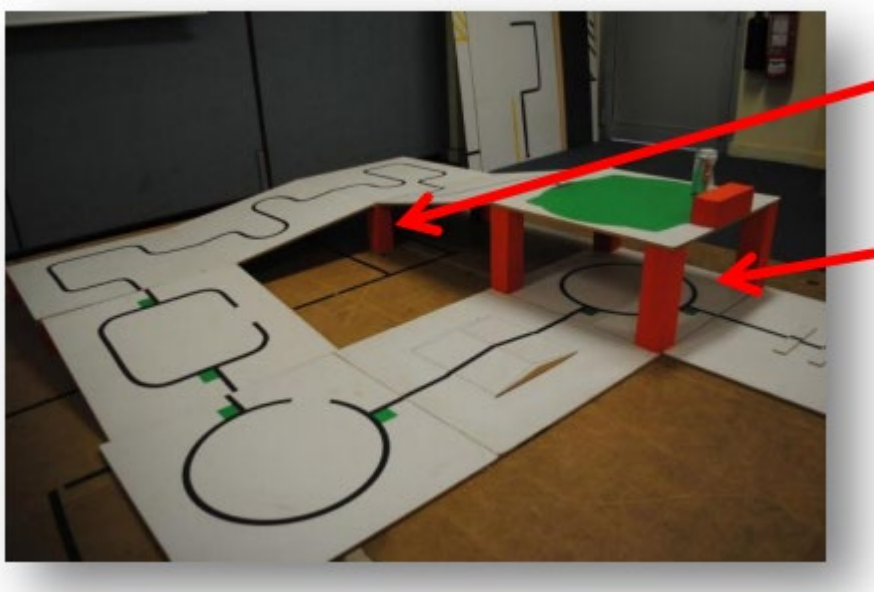
- **Riley Rover (Victoria only) and Open:** Must fit through doorway with internal dimensions of 270 mm x 270 mm
- **Primary and Secondary:** Must fit through doorway with internal dimensions of 180 mm x 180 mm
- Doorway will always be on a straight tile



Tile Elevation

Tiles may be elevated in all but Riley Rover Rescue

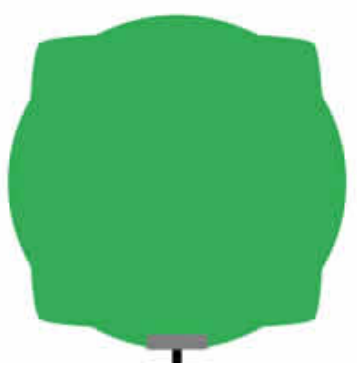
- Elevations are 90, 180 and 270 mm
- Change in elevations will be in increments of 90 mm
- Tunnels may be created (minimum 180 mm clearance, 270 mm for Open Rescue)
- The resulting ramps have less incline than the seesaw
- Ramps won't necessarily be straight line tiles

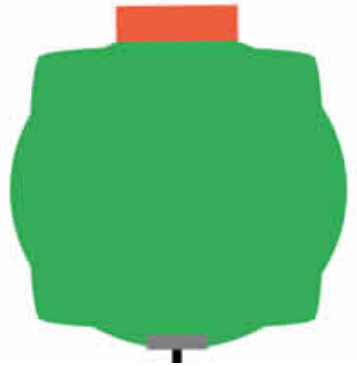


The Rescue Tiles

A successful rescue

- **Riley Rover** – push victim out
- **Primary Rescue** – push victim out, then find way back to line
- **Secondary Rescue** – “control” and release victim outside the “toxic spill”, then find way back to line
- **Open** – “capture” victim and place on raised platform, then find way back to line





To Be Successful

The team must be able to:

- Construct a robot that is best able to meet the challenges
- Program a robot that is best able to meet the challenges

Is there a single best design and a single best program?

- No, but there are common pitfalls that you do want to help your students avoid