

TOUR OF THE PHILIPPINES (ELEMENTARY SCHOOL)

Robot is required to trace the tracked line from the starting point and complete the circuit in the shortest time possible.

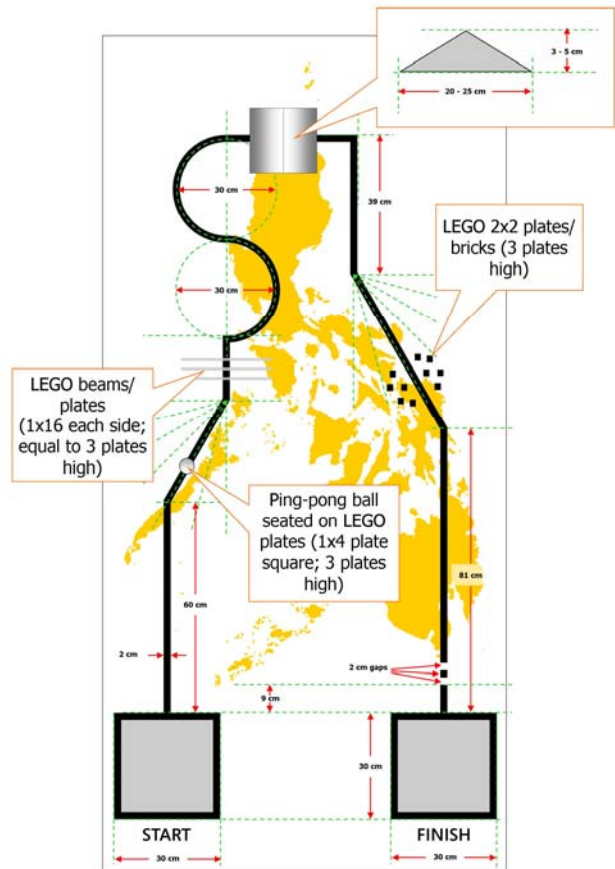
Court:

There will be some surprise rules.

TOUR OF THE PHILIPPINES (ELEMENTARY SCHOOL)



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< the error tolerance of court: $\pm 50\text{mm}$ >

1. The court is made of several materials such as wood, plastic, etc and may be color-painted according to each competition's specific needs.
2. The court is 2370mm long, 1150mm wide.

2. Rules:

1. The track dimension is 1150mm x 2370mm. The tracked line width is 20 mm ± 2 mm.
2. The circuit consists of at least one each of the following five features (missions):
 Ramp
 Obstacles
 Hurdles
 Curves
Ping-pong ball to be moved and/or carried back to finish area
3. **The number and exact sequence and positions of the missions a, b, & c will be announced at competition day and will be used for the whole tournament. The curves and the ping-pong ball have fixed positions. The ping-pong ball will be placed on top of a lego stud. The Ramp, Obstacles and Hurdles will be fixed to the playing field (for example, using a double-sided tape).**
4. The starting point will be selected randomly and announced at competition day and will be used for the whole tournament.
5. The trial playing field (and trial starting point) will be provided at the trial period. It may not be the same as the tournament playing field.
6. The robot must trace the track line from the starting point, complete the circuit, and come back to the finish area.
7. **The robot must be immediately stopped by its operator when the referee declares that it has miss-tracked, or when the robot has successfully crossed the finish line. Miss-tracked means all parts of the robot or the robot's vertical projection is on one side of the track. The robot should conform to the robot dimensions of 250 mm long and 250 mm wide from the starting area to the finish area.**

3. Mission Points:

Passing the ramp	= 15 points
Passing the Obstacles	= 15 points
Completing the Curves	= 15 points
Passing the hurdles	= 15 points
Ping-pong ball moved and/or carried back to the finish area	= 40 points

4. Total Score:

15 points (Ramp) + 15 points (Obstacles) + 15 points (Curves) + 15 points (Hurdles)
 + 40 points (Ping-pong ball to finish area)

Maximum score: 100 points

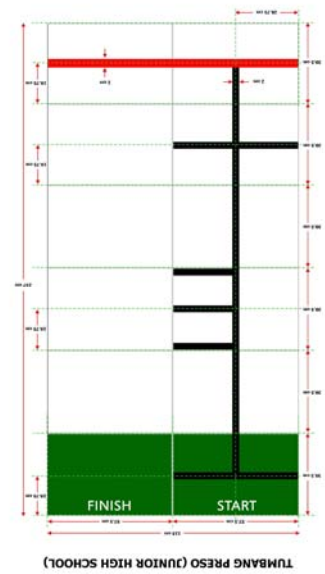
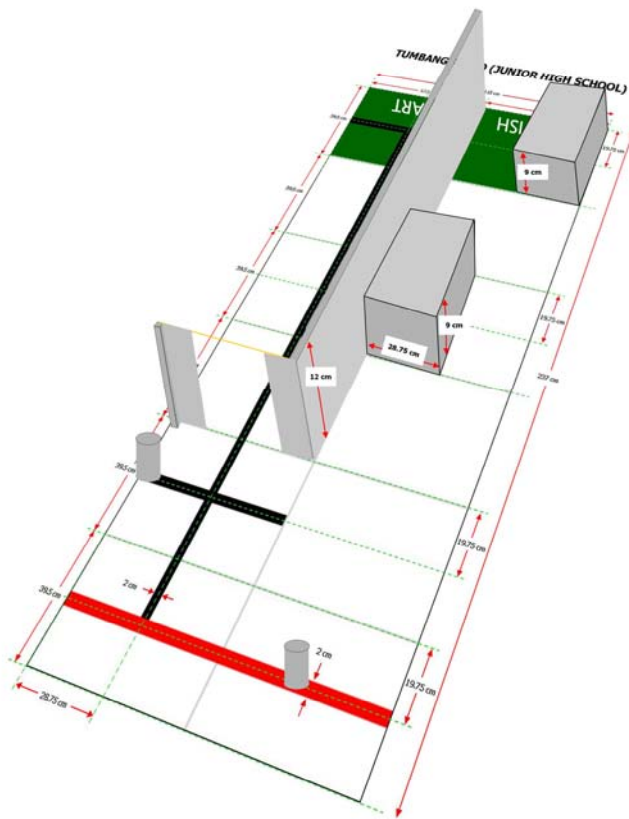
If the competing teams acquire the same points, the ranking is decided by the record time.

TUMBANG PRESO (JUNIOR HIGH SCHOOL)

Robot is required to trace the tracked line from the starting point, knock down a bottle, secure and bring along a bottle to the finish line.

1. Court:

A surprise rule will be announced on the competition day.



< the error tolerance of court: $\pm 50\text{mm}$ >

1. The court is made of several materials such as wood, plastic, etc and may be color-painted
According to each competition's specific needs.

2. The court is 2370mm long, 1150mm wide.

2. Rules:

1. 1 The track dimension is 1150mm x 2370mm. The tracked line width is $20 \text{ mm} \pm 2 \text{ mm}$.
2. The robot must follow the track from the starting point, trigger a switch to open the door (flags). The sequence of the switches will be announced during the competition.
3. The robot will pass through the door without touching the flags and go straight to the next sector
4. The robot must knock down the bottle on the next sector, the position of the bottle will be announced during the competition.
5. After knocking the bottle, the robot will move on the next sector and secure another bottle. The position of the bottle will be announced during the competition.
6. The robot must carry and bring home the bottle to the finish line.

3. Scoring:

1) Mission Points

- Passing through sector A = 10 points
- Non-touching of the flags = 30 points
- Knocking of the bottle = 10 points
- Passing through sector B = 10 points
- Robot touches the finish area = 20 points
- Bottle leaves sector B = 10 points
- The bottle reaches the green zone = 10 points

2) Total score

- 10 points (Passing Sector A) + 30 points (Non-Touching the Flags) + 10 points (Knocking the Bottle) + 10 points (Passing Sector B) + 20 points (Robot Touches the Finish Area) + 10 points (Bottle Leaves sector B) + 10 points (Reaches the Green Zone) = 100 points

If the competing teams acquire the same points, the ranking is decided by the record of time.

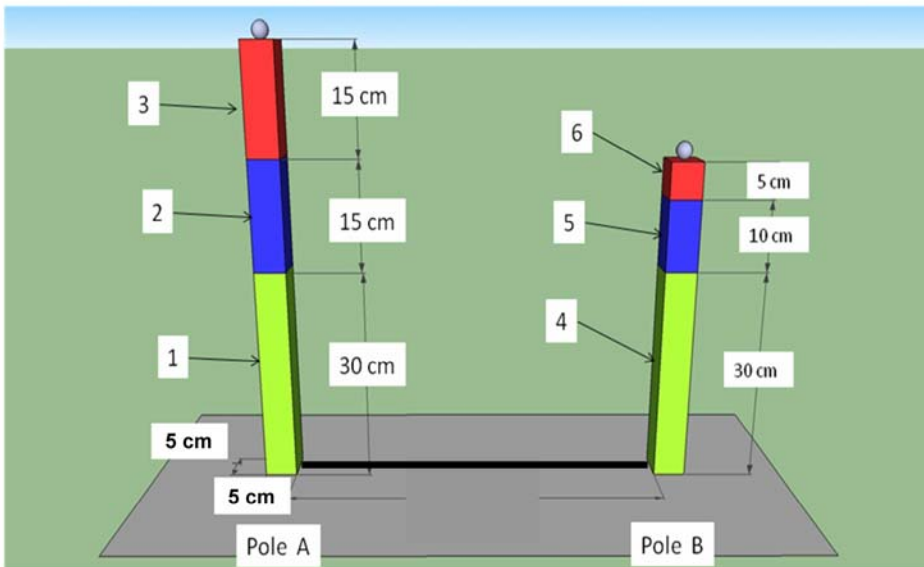
PALOSEBO (ROBOT CLIMBING) - HIGH SCHOOL

Robot is required to climb the two poles, get the ball on top of the poles and climb down the poles with the ball.

1. Court

A surprise rule will be announced on the competition day.

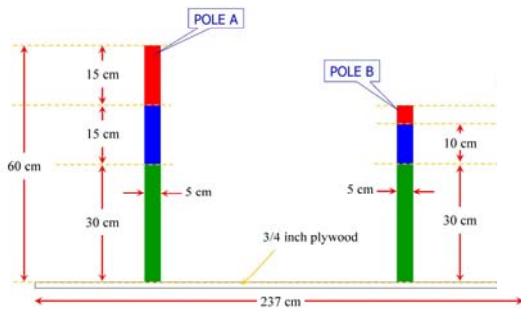
PALO SEBO "ROBOT CLIMBING" (HIGH SCHOOL)



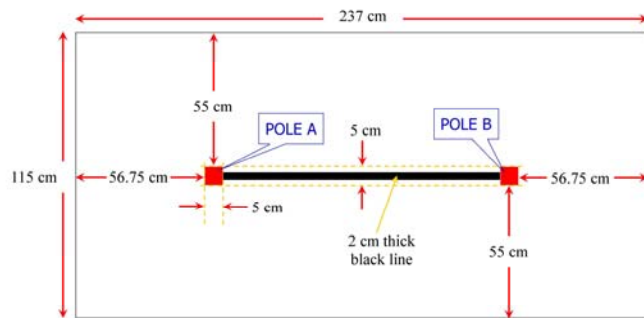
3D VIEW of the playing field. The playing field is a plywood painted WHITE, with two erected poles on it. A hollow area on top of each pole may be designated for the placement of the ping-pong balls. Distance between two poles is adjusted to be equal to each end of the field.

PALO SEBO "ROBOT CLIMBING" (HIGH SCHOOL)

PALO SEBO "ROBOT CLIMBING" (HIGH SCHOOL)



SIDE VIEW of the playing field. The playing field is a plywood painted white, with two erected poles on it. A hollow area on top of each pole may be designated for the placement of the ping-pong balls.



TOP VIEW of the playing field. The playing field is a plywood painted white, with two erected poles on it. A hollow area on top of each pole may be designated for the placement of the ping-pong balls.

< the error tolerance of court: $\pm 50\text{mm}$ >

2. Rules:

1. The game area dimension is 1150mm x 2370mm. The pingpong ball on top of the pole is held by a Lego stud. The poles are made out of wood with colored sticker covering the surface.
1. The robot may start at the bottom of the pole. Thirty (30) seconds will be given to each team to set up their robot before the start of the run. The team may choose which pole their robot would climb first.
2. The robot must climb pole A (or pole B) up to the top, and then get the ball. **(The robot's body must leave the floor when climbing)**
3. The ball must be carried down to the starting area of pole A (or pole B).
4. After climbing the first pole, the robot must move from the first pole (Pole A) to the next pole (pole B) autonomously (without player's intervention).
5. The robot must climb pole B (or pole A) up to the top, and then get the ball.
6. The ball must be carried down to the starting area of pole B (or pole A).

Note : The robot's starting dimension should be within the 25 cm x 25cm x 25cm.

3. Scoring:

1) Mission Points

- Robot in Area 2 = 25 points
- Robot in Area 3 = 40 points
- Robot Gets ball from taller pole (pole A) = 40 points
- Robot Brings/Carries the ball down from pole A = 50 points
- Robot in Area 5 = 25 points
- Robot in Area 6 = 30 points
- Robot Gets ball from taller pole = 30 points
- Robot Brings/Carries the ball down from pole B = 40 points

Definitions :

Robot in Area X – the bottom of the robot's main body (where the RCX/NXT is located) should be inside Area X

Robot Gets ball – the ball must not fall down the floor to get the point

2) Total score

- 40 points (Touching Area 3) + 25 points (Touching Area 2) + 40 points (Robot Gets Ball from taller pole A) + 50 points (Robot brings the ball down from pole A) + 25 points (Touching Area 5) + 30 points (Touching Area 5) + 30 points (Robot Gets ball from taller pole) + 40 points (Robot Brings the ball down form) = 280 points
- If the competing teams acquire the same points, the ranking is decided by the record of time.

OPEN RULES

THEME: “Robot Promote Tourism”

“Dynamic Robots Promote a National or Cultural Heritage of your Country”

Rules

1. A team may only participate in Regular or Open Category. Not both!
2. The competition will take place within three age groups: Elementary, Junior High, High school category.
3. There is no restriction on the balance between LEGO elements and other materials.
4. All robots must be operated by RCX or NXT controller and any software.
5. Robots may be preassembled and software program may be pre-made!
6. The size of booth will be 2m x2m x 2m.
7. The size of table will be 120cm x 60cm.
8. Open Category teams must go through this process:
 - Final assembly and test of robot
 - Decorate the booth with posters.
 - Demonstration to the judges and Q & A from judges.
9. Teams must submit a report summarizing what the robot can do, and in which way the robot is unique. The report must be handed out to the judges in paper form.
10. Visual description materials must be submitted by pictures/photos/video from different angle of the robot creation and example of the program.
11. Teams must submit a video according to instruction upon registration. (maximum of 2 minutes)
12. Teams must decorate the booth with one or more posters with the dimension of minimum 120 cm x 90 cm. The poster(s) should introduce the robot project to the visitors.

Presentation

1. The judging will be executed in three age groups: Elementary school, Junior High school, High school.
2. Teams will have around 10 minutes for judgment: 5 minutes to explain and demonstrate the robot, remaining 2-5 minutes for Q & A from the judges.

Judging Criteria per Category

1. Video Judge. Total points: 30
 - Design is based upon the theme given
 - Creative design and structure of robot
 - Presentation Quality

2. Most Creative Design. Total points: 40
 - Creative appearance
 - Unique, complex, interactive behaviour

3. Best Technical Design. Total points: 20
 - Good Engineering
 - Stable Structure

4. Best Presentation. Total points: 40
 - Successful and stable demonstration
 - High team spirit and energy
 - Clear concept in presentation, poster and report

5. Minus Points. Total points: 30
 - NO RCX or NXT
 - No Poster
 - No Report
 - Exceeds the maximum display area provided

If clearly not within the theme, we give 0 points as a final score!