



# World Robot Olympiad

BY KENNETH PHAM  
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# History

- ▶ **1999:** Mr. TaeSoo Park, the president of the Korean company "Learning Tool, Inc.", contacted Mr. Lars Vahl, Director of LEGO Education Asia Pacific, suggesting they should set up a robotics competition involving students from Asian countries.
- ▶ **2004:** First WRO hosted by Singapore with 12 countries participated.
- ▶ **2014:** Computer Science Professor Dr. Chan-Jin Chung from Lawrence Tech University (Michigan) introduced WRO to US and our US teams competed International Final in Sochi, Russia  
Open Elementary – Bronze  
Open Senior - 5th Place & Technical Award  
Regular College - 5th place
- ▶ **2015:** We grew from 9 teams of 2014 to 129 teams in US. 471 teams of around 2000 people from 48 countries travelled to Qatar for International Final.



# WRO Categories

- ▶ Regular Elementary: up to 12 years old
- ▶ Regular Junior High: 13 – 15 years old
- ▶ Regular High School: 16 – 19 years old
- ▶ Regular University: 17 – 25 years old
- ▶ Gen II Football: 10 – 19 years old
- ▶ Open Category: anybody???
- ▶ Team: 1 coach and 2 or 3 team members
- ▶ Registration started in May, State Qualifier in Aug, National Final in Sep, International in Nov



# Registration

- ▶ Started in May 2016
- ▶ Southern CA:  
Mrs. Patricia Tsoiasue (just called her Trish)  
phone: 562-225-9589  
email: [handmadepenguin@yahoo.com](mailto:handmadepenguin@yahoo.com)  
from Makersville/Club Ten in Long Beach
- ▶ One time team registration fee: \$70 (2015)
- ▶ Competition check-in fee: \$30 (2015)
- ▶ Playfield kit : \$125 + shipping (2015)
- ▶ Construct your own table: \$50



# WRO 2016

- ▶ Southern CA Qualifier  
Aug 13, 2016  
Long Beach Sea Base
- ▶ US Final  
Sep 2016  
Lawrence Tech University, Michigan
- ▶ International Final  
Nov 25 – 27, 2016  
New Delhi, India

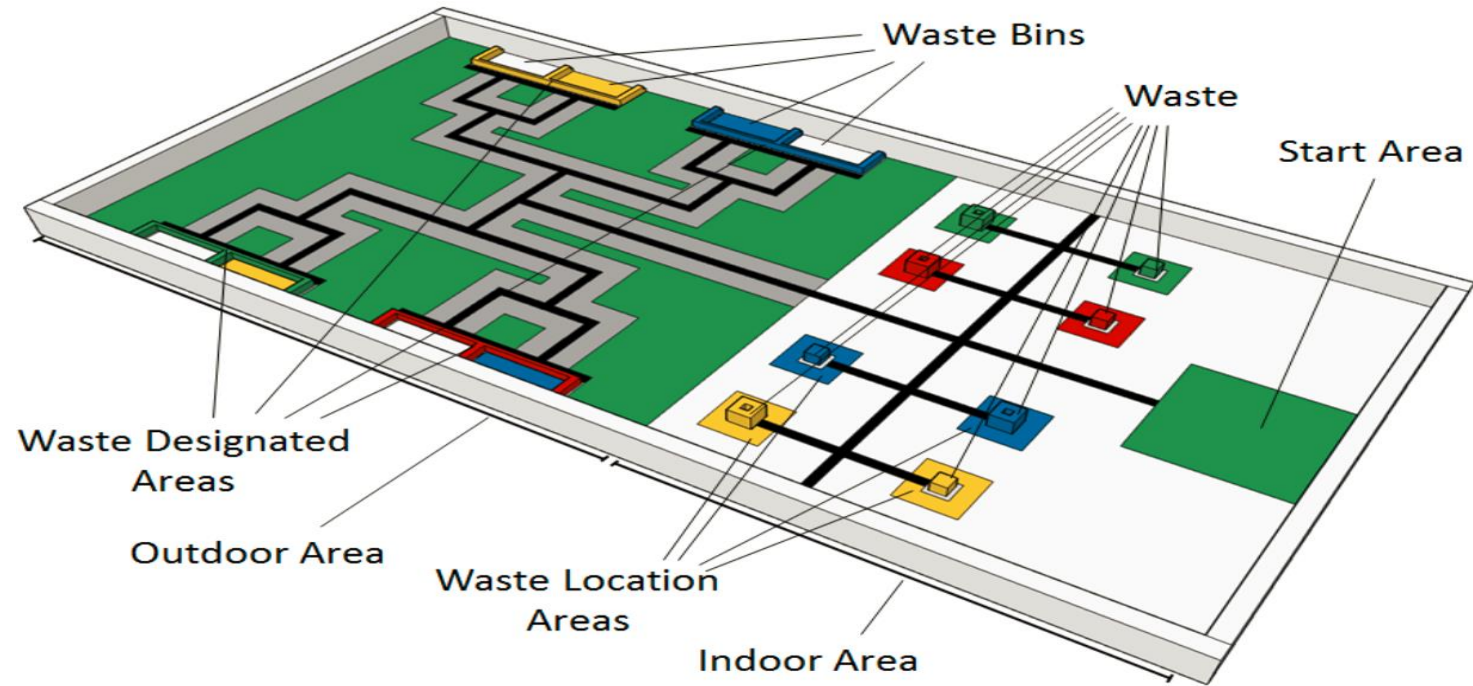


# Rap The Scrap!

- ▶ **Regular Element:** Make a robot help a child clean on the child's journey to school starting with making the bed and goes all the way to cleaning the school's playground.
- ▶ **Regular Junior**
- ▶ **Regular High:** Make a robot that brings sorted waste stored in recycling containers to the corresponding recycling tank at a waste recycling plant.
- ▶ **Advanced Robot Challenge:** An engineering challenge for university students to build robots that can pick up a bowling ball from the ball rack, "see" where the target is and precisely aim to score points by knocking down as many bowling pins as possible.
- ▶ **Football:** An exciting Robot soccer match that requires students to design and program two robots to compete against an opposing pair of robots by kicking an infra-red ball into opposing team's goal.
- ▶ **Open Category:** Come up with innovative solutions using robotics technology to Rap the Scrap i.e. to reduce, manage and recycle waste!

# Regular Junior Challenge

Make a robot that collect certain kinds of recyclable waste from a home into recycling waste bins to be picked up by Municipal Service



# Information

- ▶ Websites:  
WRO: [wroboto.org](http://wroboto.org)  
WRO US: [wroboto.us](http://wroboto.us)  
WRO 2016 India: [wro2016india.org](http://wro2016india.org)
- ▶ Legion of Bricks Team:  
Kenneth, Elbert, Norah Pham  
and Dylan Bradshaw  
[kenneth.pham@gmail.com](mailto:kenneth.pham@gmail.com)  
<https://youtu.be/qGS3DN-2TVM>
- ▶ Thank You!!!

