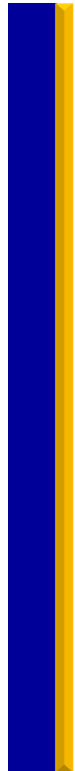


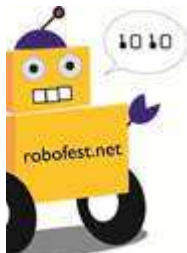
# ROBOFEST UMC

Unknown Mission Challenge

Inaugural Event  
December 7, 2013



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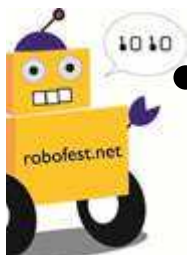


(\*) Embracing Arts

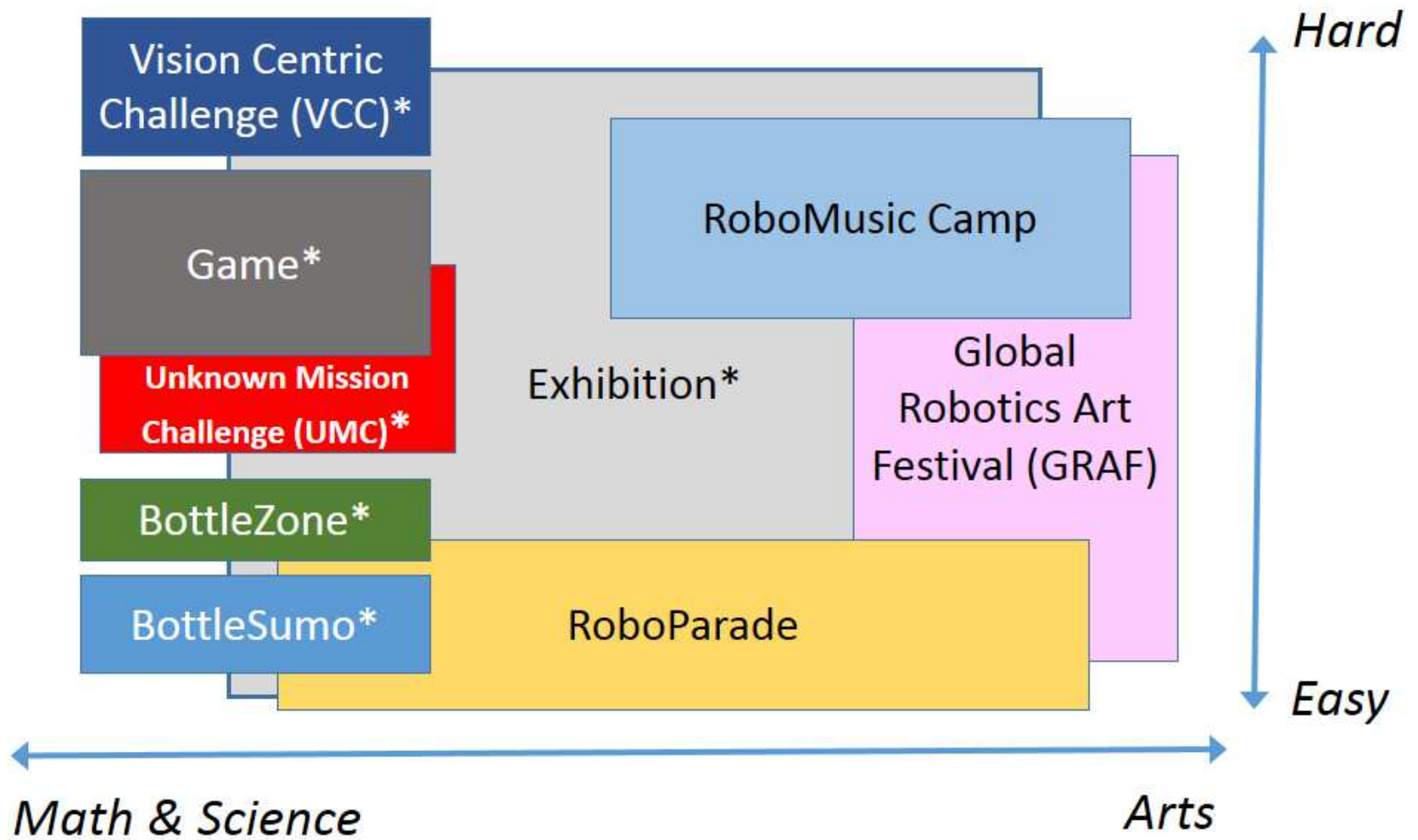
# Robofest Overview

- **Games:** annual robotic missions with math problems
- **Exhibition\*:** Science fair with robotics projects
- **VCC** (Vision Centric Challenge) – obstacle course
- **UMC** (*Completely* Unknown Mission Challenge)
- **BottleSumo:** push a bottle or the opponent off the table
- **BottleZone:** find the bottle and occupy the zone
- **RoboParade\*:** parade of autonomous robot floats
- **GRAF\*** (**Global Robotics Art Festival**)
- Summer **RoboMusic Camp\***

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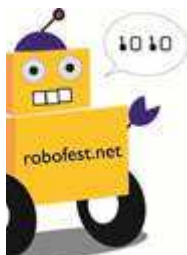


# Robofest is for everyone!



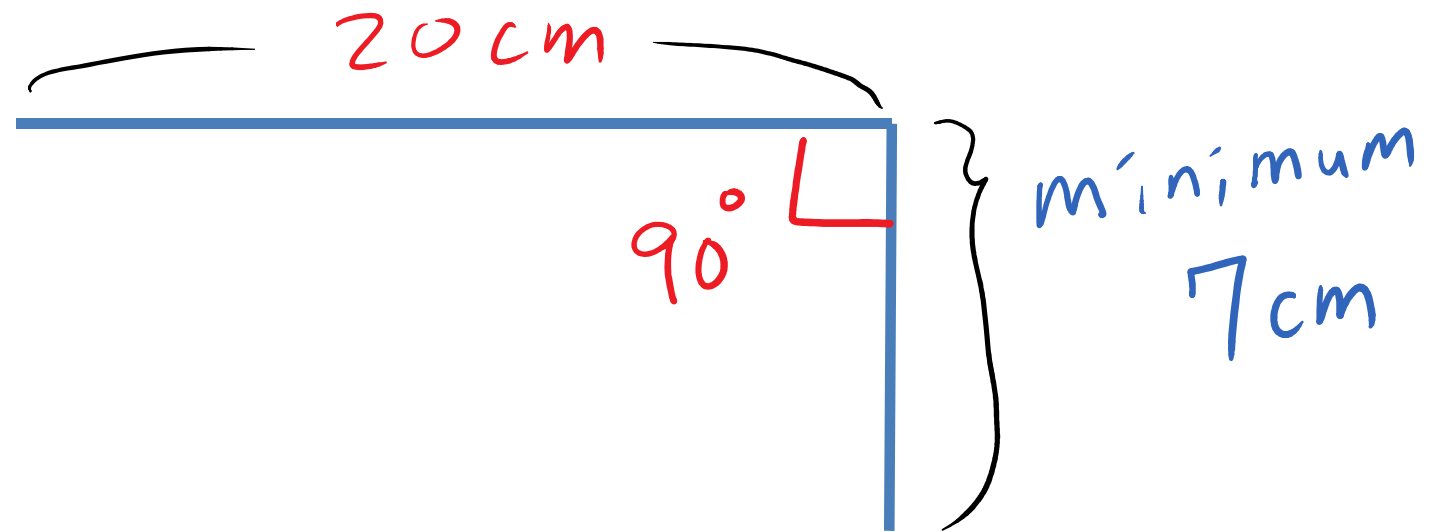
(\*) Offered in spring 2014

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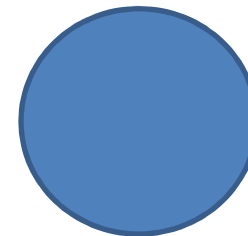


# UMC Today – Draw a Right Angle

Design a robot to hold a pen to draw a straight line (20cm), turn (spin) 90 degrees, and draw a straight line (and stop) till the bumper is hit.

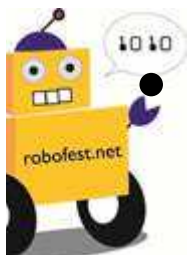


Setup  
by team  $\Rightarrow$



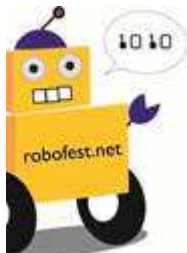
# How to grade

- 20 cm line
  - Length: 40%
  - Straightness (0~3): 3%
- Angle
  - Accuracy of the degree: 45%
  - Angle quality (0~3): 3%
- Line 2 minimum 7cm? 3%
- Overall line quality (0~3): 3%
- Bumper (whether it stopped or not): 3%

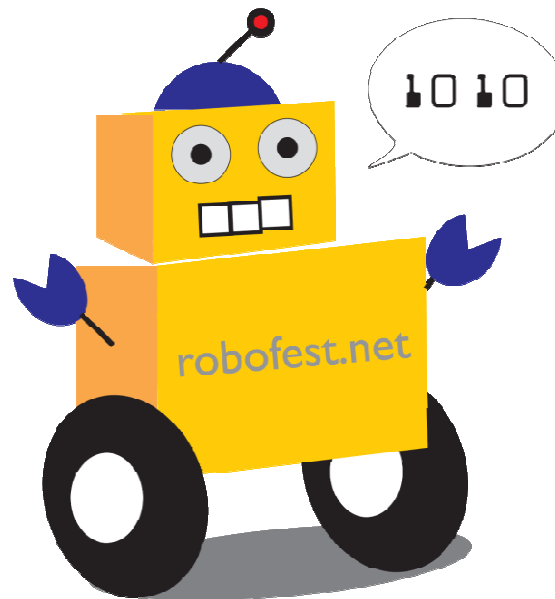


# How to decide winners

- Teams will have 2 “official” runs that will be judged **BEFORE 11:30 AM**
- **The first run must be done by 11:00 AM**
- Winners will be decided by **best score** of the 2 official runs.
- Tie breaker will be the time of the best run



# Questions?



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[www.facebook.com/robofest](http://www.facebook.com/robofest)

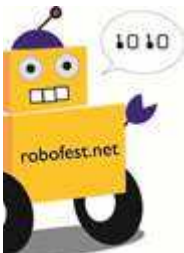


robofest@LTU.edu

# What's Next

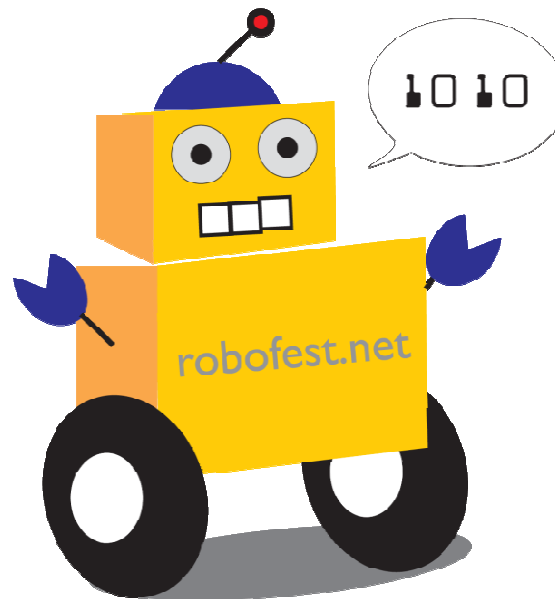
- IRO (International Robot Olympiad)
- NAC
- WC

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# Thank you!



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