SoLA ROBOTICS

Summer
Robotics
Invitational
www.SouthLARobotics.com

July - Aug 2021

C-TECH
Los Angeles School of Creativity & Technology

USC Viterbi
School of Engineering

CONTEST GUIDELINES

Spring 2021
Elementary Winner

Welcome to the SUMMER Robotics Invitational!

Who can enter?

This contest is for use with "mBot" and "Ranger" robots. Students who completed
SoLAR "Build & CODE" classes and camps are eligible to enter.

What is the challenge?

Students may complete 1, 2 or ALL 3 challenges using the mBot or Ranger robot.
See a sample of each challenge here: **https://youtu.be/DHfzLGdeJ2E**

What is the Super Quiz?

Students will also take a Super Quiz. Quiz points are added to the challenge points.
Kahoot quiz links will be emailed to all contestants by 8/8/2021.

How do I earn points?

There are 3 ways to earn points: Robot Challenges, Superquiz, Robotics Portfolio
Robot Challenge and Superquiz scores will be combined to generate an overall score for the participant.
Robotics Portfolio is optional and scored separately. See attached rubrics.

If my challenges were completed at SoLAR Studio, do I still need to turn them in?

If any student challenges were _completed_, _recorded and documented_ at a SoLA Robotics workshop this summer,
those entries have already been counted. Partially completed challenges do not count.
Not sure? Please email INFO@SouthLARobotics.ORG to check.

Are there any special awards?

Students may submit an optional Robotics Portfolio to be considered for a special award.

Will I compete against students my age?

Our participants are grouped by Elementary Division and Middle/High School Division.
Each division will have a 1st place winner plus a Portfolio Award.

How do I submit my videos?

There are 2 options for submitting videos and code:
Email video and code submissions directly to info@southlarobotics.org.
Upload video and code submissions to Youtube and email the link to info@southlarobotics.org
You'll receive a confirmation email to verify that your entries have been received.

When is everything DUE?

All video and photo (code) submissions and Robotics Portfolio submission are DUE
Saturday, August 14th by 6pm PST.

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Winners

Winners will be determined by total points earned. Challenge points and Superquiz points will be combined as a total score for each contestant.

Prizes

Contest organizer will verify the email and mailing address of prize winners. Prizes will be delivered digitally (gift cards) and via US Mail (trophies).

Coding Software

mBot LINK: https://ide.mblock.cc/index.html#/

Questions

Please contact us at info@southlarobotics.org.

Virtual Event

Join us on Sunday, August 15th for the winner announcements!
Time will be announced. Replay will be available.
Access the Zoom channel here:
https://us02web.zoom.us/j/2647719340

SAVE THE DATE!

CHALLENGE POINTS

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Find the example challenge video on YouTube at this link: https://youtu.be/IadLCKppArI
Students may submit all video entries and coding (photos) to: info@southlarobotics.org.
Robot Software (mBot) Web LINK: https://ide.mblock.cc/index.html#/

Review this guide to understand how your entry will be scored.

SoLA Robotics Summer Invitational

Contestant Name:

Age:

Grade:

	Package Delivery Challenge (10 points max)	Possible Points	Earned Points	Total Score
Engineering Challenge Points	Robot pushes 3 packages into 3 separate delivery areas. (Minimum run length is 1 foot)	0-8		
	Robot returns to starting point after third successful delivery	0-1		
	Code is documented/submitted (in the video or a separate photo)	0-1		
	The Figure 8 Challenge (10 points max)	**Possible Points**	**Earned Points**	**Total Score**
Engineering Challenge Points	Robot completes 1 complete figure 8 pattern around 2 objects	0-8		
	Robot does not collide with the object at any point	0-1		
	Code is documented/submitted (in the video or a separate photo)	0-1		
	The Bridge Challenge (14 points max)	**Possible Points**	**Earned Points**	**Total Score**
Engineering Challenge Points	Robot successfully travels across the bridge and exits completely on the other side	0-8		
	Robot has a starting point "off" the bridge	0-1		
	Robot travels under the bridge moving through to the opposite side (During the same run)	0-2		
	Code is documented/submitted (in the video or a separate photo)	0-1		
	Engineering originality and innovation	0-2		
All Challenge points are awarded according to accuracy in completing each task.				
	SuperQuiz Score	**Possible Points**	**Earned Points**	**Total Score**
QUIZ	SuperQuiz Score (Participants receive Kahoot Link)	60		
	Total Score			

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ROBOTICS PORTFOLIO RUBRIC

The Robotics Portfolio an optional category. Students may submit a portfolio to be considered for a special award.
Portfolio pages are provided in this packet. Students may use their own pages if desired.
Students may submit portfolio entries to: info@southlarobotics.org.

*Review this guide to understand how your entry will be scored.*

Summer 2021 SoLA Robotics PORTFOLIO Entry (Optional)

Contestant Name:
Age:
Grade:

Part 1	Describe/draw/sketch your experience with building a bridge for the robot	Possible Points	Earned Points	Total Score
Includes drawing or sketch with labels and throroughly answers the prompt		0-5		

Part 2	Coding	Possible Points	Earned Points	Total Score
Thoroughness (Answers the questions throroughly and completely)		0-2		
Description of strategies and advice are clear		0-2		

Part 3	Robotics	Possible Points	Earned Points	Total Score
Thoroughness (Answers the question throroughly and completely)		0-2		
Gives specific, detailed examples		0-2		

Part 4	Innovation in Technology	Possible Points	Earned Points	Total Score
Thoroughness (Answers the question throroughly and completely)		0-2		
Innovative idea described for the purpose of improving lives or the environment		0-2		

	Possible Points	Earned Points	Total Score
Overall Presentation (Portfolio is neat, well put together, with attention to detail)	0-3		

	Possible Points	Total Points
Total Score	20	

** Portfolios entries are optional. Students may submit portfolio
entries to: info@southlarobotics.org.

ROBOTICS PORTFOLIO

PART 1

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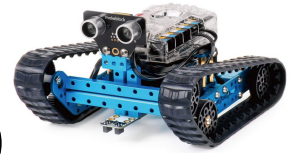
Describe/draw/sketch your experience with building the bridge for your robot. What challenges did you encounter? What successes did you have? What new knowledge did you gain about building structures?

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** Portfolios entries are optional. Students may submit portfolio entries to: info@southlarobotics.org.

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ROBOTICS PORTFOLIO
PART 2

- Describe a time when you had to retest your coding sequence to complete a task.

- Describe the task. What new strategies did you learn about coding?
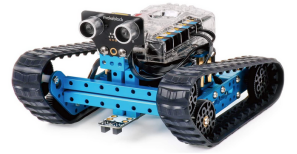
- What advice would you give another student?

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ROBOTICS PORTFOLIO
PART 3

- Why are robots useful? Give 2 or more specific examples.

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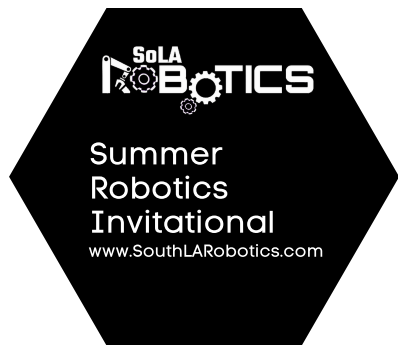
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ROBOTICS PORTFOLIO
PART 4

Technology is involved in almost every part of our lives. It helps with safety, health, convenience, efficiency and more. Have you ever thought about how technology and robotics can be used to improve life even further?

- Describe an invention where technology could be used to help people or the environment. Present an idea that involves technology, robotics, or both!

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