

RoboRAVE

RALLY Northern New Mexico

May 7 - July 31, 2021

FREE REGISTRATION

100% Virtual

Open to ALL

The Challenges offered - online digital learning platform **RoboSensei** (*RR Online Partner*)

- **a-MAZE-ing** (Elementary School, Middle School)
- **Fastbot** (Elementary School, Middle School, High School)
- **Line Following** (Elementary School, Middle School, High School)
- **ARROWS** (new, 1st-3rd grade ONLY)

Student teams: Individual players USE the RoboSensei platform to code and learn
Easy to use; Intuitive; ES, MS, HS, and UP divisions on digital RR challenge tracks :)

RoboRAVE RALLY Details & Special Program Details

RALLY - REGISTRATION OPENS: 8 April 2021

CLOSES: 15 July, 2021 Midnight, MDT

Opening Ceremony: 8:30a MDT, 7 May

Tracks Open: 9:00a, MDT, 7 May

Tracks Close: 6:00p, MDT, 31 July

COST: FREE REGISTRATION

Team size: One PLAYER (1) per team; COACH is optional

3 divisions: Elementary School (1st-5th grade); Middle School (6th-8th grade); High School (9th - 12th grade)

What's RoboSensei? see slides 4-8; quick look..
[a-MAZE-ing sample](#) [MS, HS track sample](#)

RoboRAVE RALLY Details & Special Program Details

Special Program Offering:

For teachers and students in these counties: *Rio Arriba, Taos, Mora, Sandoval, Santa Fe, San Miguel, Los Alamos*

SPACE LIMITED: OPEN for the 1st TEN (10) who register; 10 NM teachers, up to 100 students - If you are working within *these NM county SCHOOLS*, you are eligible to receive the following package: Application **COST: \$25/TEACHER** (scholarships available)



PREP

Teacher: 3 online **Mi Robotica** courses (English or Spanish) for “What and How to use RoboSensei” (\$90 value)



PRACTICE

Students: 10 students/teacher, 1 year subscription to **RoboSensei** to learn & practice (\$10/student value)



PLAY

Students: 2 individual registrations for **RoboRAVE International** robot challenges (virtual) (\$10/student value)

This **special program** is made possible from



SPECIAL PROGRAM SIGN UP

Your link to Sign Up (Google Form)

bit.ly/3rQCEXK

RoboRALLY Virtual vs. Physical events...; **Come Play!**

RoboRALLY Physical Events

- **In the past**, come, learn, practice, and experiment with different designs, code, and challenges
- People **on site** to help answer questions
- **Opening Ceremony** with Community Leaders; watching your play

RoboRALLY Virtual Event

- **1st time 100% virtual** to come, learn, practice, and experiment with different designs, code, and challenges BUT all digital
- People **on zoom** to help answer questions
- **Opening Ceremony**; 9:00a MDT, 7 May

NEW, ENGAGING, ROBOTIC SIMULATOR in the cloud, designed for RRI

RoboSensei digital learning platform: activities, missions, live data, multiple levels

- even as young as 1st graders with our new **ARROW CODING** on K3 activities

RoboSensei - Sample ES ARROWS track, sample code

ARROWS coding only
For grades 1-3 ONLY

Arrows **NOTE:** For players in grades 1 - 3 (typically 5 - 7 years old)



Goal: Pick up all items BEFORE going to bed. Each item has equal points but if you get to bed BEFORE time expires, then each whole second remaining will be added to the final score.

Coding: ONLY directional ARROWS are permitted but the order is up to you to find the best path to bed.

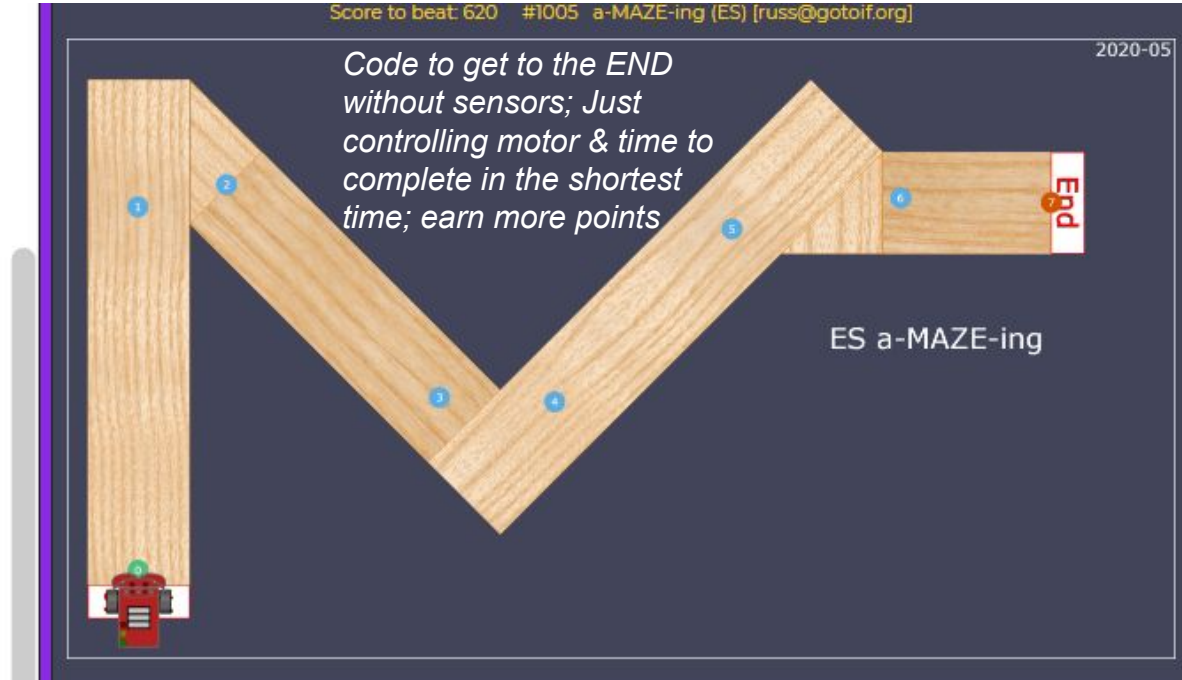
ARROWS: Each direction | can be set for 1-5 moves.



RoboSensei - Sample ES a-MAZE-ing track, sample code

Blockly Code

```
COMMENT: ACTIVITY: a-MAZE-ing (ES)
COMMENT: Goal: Robot touches points #1...#7, under 2 mins
COMMENT: FORWARD to #1; Start our code; then IMPROVE
L: 50 %, R: 50 % 9 SEC
COMMENT: TURN RIGHT
L: 100 %, R: -100 % 0.5 SEC
COMMENT: FORWARD to #2, #3
L: 0 %, R: 0 % 0 SEC
```



RoboSensei - coding

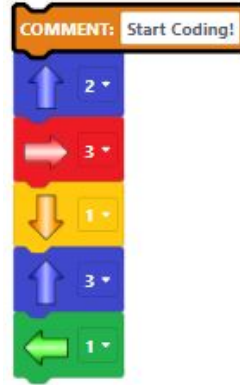
3 Coding selections;

Arrows (1st-3rd grade) with special activities to play;

Blockly &

JavaScript 3rd grade +

ARROW
Coding



Blockly

|

JavaScript

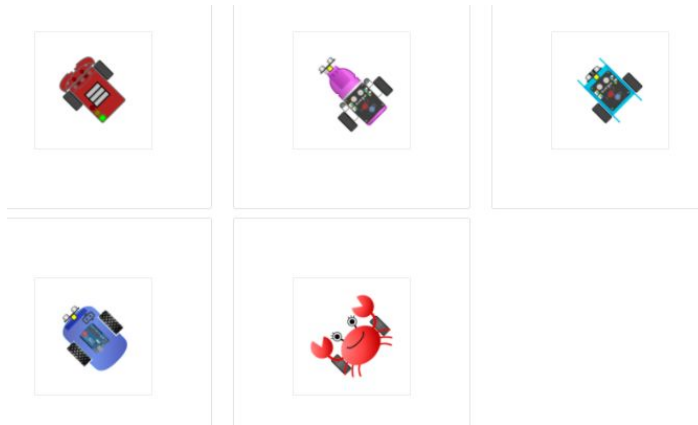
Right Turn	
Blocks	JavaScript
	<pre>//Set motor power move(50, -50); //continue for 3 seconds await gofor(3); // Reset power to zero stop();</pre>
Differential (left - right) power is positive	

RoboSensei - robot & control options

Under Options icon:



5 robot platforms + control on motors, wheels, sensors, and even color for you to select



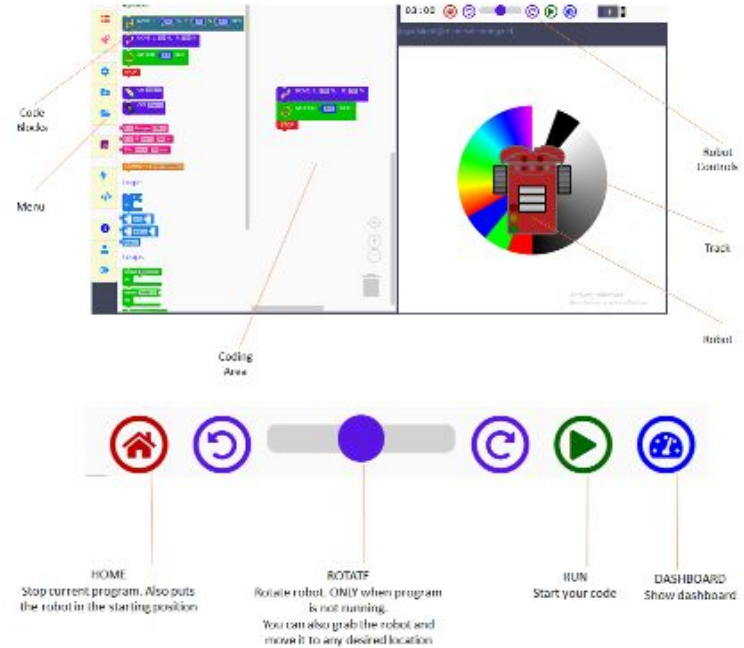
RPM (Max.)	90
Wheels	Sensei (d = 68mm)
Distance Sensor	Attached
IR Sensor	Dual (Left & Right)
Bump Sensor	Detached
Color	Navy Blue

RoboSensei - Help section

Under HELP icon (i)

Descriptions with sample code
in Blockly / JavaScript to learn
and use either format

RoboSensei User Interface



Sample Code

Points of Contact

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PREP



PRACTICE



PLAY

