

School of Robotics

Engineering Technical Challenge (ETC) Mar 2024

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ETC - Preschoolers

Objectives of the competition	The ETC competition's primary objective is to assess the performance of the students in dynamic and competitive environments, offering them invaluable experiential learning opportunities. The competition specifically evaluates participants' abilities to independently devise and construct a robot while coding it on the spot. The focus is on evaluating their aptitude to build and code within predefined time limits and task parameters, fostering essential skills for problem-solving and innovation.	
Age Group	Preschoolers (5 & 6 years old as of year 2024)	
Registration Fee	A nominal fee of \$10 is applicable	
Electronics	Participants will utilize Spike Essential, consisting of 1 Hub & 2 Motors (provided by SOR). Every participant must either bring their own tablet/iPad or opt to borrow one from SOR for a fee of \$10.	
Robot Size	The constructed robot should fit within the dimensions of up to 25cm x 25cm x 25cm.	
Date	13 March 2024, Wednesday	
Venue	SOR @ Ang Mo Kio Djitsun Mall [5 Ang Mo Kio Central 2 #02-01/02]	
Duration	The competition will run from 1030hrs to 1300hrs	
Proposed Schedule	1000hrs to 1030hrs	Reporting time / registration
	1030hrs to 1045hrs	Briefing of the competition rules and scoring system
	1045hrs to 1230hrs	Commencement of competition, involving building and coding
	1230hrs to 1300hrs	Execution of Robot Runs 1 & 2, with each run lasting 2 minutes
Competition Rules	<ul style="list-style-type: none"> • Participants are tasked with building a robot car without any instructions. • The challenge involves programming the robot car to deposit items into specified locations (details to be provided on the actual day). • Programs must be in an autonomous state • Each run has a time limit of 2 minutes. 	
Scoring Sample (subjected to change)	Build a car without instructions	20 points
	Build a car with instructions	0 points
	Items collection	80 points (max)
Awards	Gold: 80 to 100 points Silver: 60 to 79 points Bronze: 40 to 59 points Participation: 0 to 39 points	

