

School of Robotics

Engineering Technical Challenge (ETC) Mar 2024

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170 Upper Bukit Timah Road,
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Singapore 588179



ETC – Junior Level

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	Primary 1 to 3 (as of year 2024)															
Registration Fee	A nominal fee of \$10 is applicable, with free registration for all FLL participants.															
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	14 March 2024, Thursday															
Venue	SOR @ Ang Mo Kio Djitsun Mall [5 Ang Mo Kio Central 2 #02-01/02]															
Duration	The competition will run from 1030hrs to 1530hrs, with a 45-minute lunch break.															
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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 can be a mix of autonomous and/or remote-controlled actions. • Each run has a time limit of 2 minutes. 															
Scoring Sample (subjected to change)	<table border="1"> <tr> <td>Build a car without instructions</td> <td>10 points</td> </tr> <tr> <td>Build a car with instructions</td> <td>0 points</td> </tr> <tr> <td>Items collection</td> <td>90 points (max)</td> </tr> </table>		Build a car without instructions	10 points	Build a car with instructions	0 points	Items collection	90 points (max)								
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Awards	Gold: 80 to 100 points Silver: 60 to 79 points Bronze: 40 to 59 points Participation: 0 to 39 points															

