

Bridging Robotics Education between High School and University: An Outreach Development in Southeast Asia

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MOTIVATION – There is a big gap of missing advanced skill sets between high school and university level of robotics education due to the differences in bottom-up and top-down learning approaches.

SOLUTION – We aim to initiate a bridging education layer that abstracts advanced university level robotics development into a learning platform suitable for high school students. The students learn by building practical robots and competing their robots with peers.

PROJECT – We are developing a set of hardware and software solutions as the learning platform (Fig. 1), and organizing a series of educational activities in the form of workshop and competition (Fig. 2). The objective of this work is to outreach and evaluate this effort in developing countries in Southeast Asia.



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Regional Collaborators

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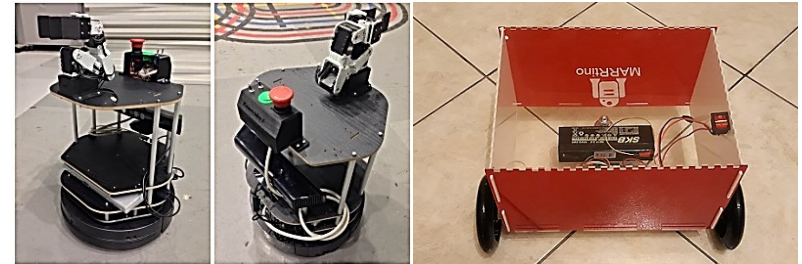


Fig. 1 Affordable robot platforms TurtleBot2 and MARRtino



Fig. 2 Outreach programs including workshop and competition activities in China, Japan, USA and Italy (clockwise from top left)