



Call For Participation

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## FIRA Frontier Camp (FFC) 2017

19<sup>th</sup> -22<sup>nd</sup> August, 2017

National Kaohsiung First University of Science and Technology

No. 1, University Road, YanChao District, Kaohsiung City 824, Taiwan (R. O. C.)



## Important Dates

31 <sup>st</sup> May 2017	Deadline for submission of qualification material
15 <sup>th</sup> June, 2017	Notification to qualified participants
30 <sup>th</sup> June, 2017	Deadline for early-bird registration
19th August 2017	Enrollment at 8:30am



# Introduction

This year, we are pleased to announce the opening of the first FIRA Frontier Camp. The concept of the camp was developed based on feedback from former participants and teachers. It is similar to the International Humanoid Soccer Robot Summer School - a similar event for researchers and graduate students interested in humanoid robotics - that was organized by Prof. Jacky Baltes and Prof. Kuo-Yang Tu.

The motivation of the camp is to provide a unique opportunity to learn the fundamentals of robotics. The focus is on basic problem solving strategies, system development, testing, and debugging.

It must be stressed that the goal of the school is **not to directly improve the chances of winning** the following FIRA competitions. In fact, the lecturers and coaches will not be directly involved in the following FIRA competition as much as possible and will be told **not to provide tricks and hints** for the coming competition.

The school will also try and be as agnostic to the choice of development environments. That is, students should be able to participate using the Lego Mindstorms environment, the Taibotics software, or their own custom environment. Therefore, students must bring their own laptops and robots and must be well versed in the use of their development environment.

The instruction language in the Frontier Camp is English, so students must be able to understand simple English instructions.

To allow students a better chance to make friends and share their experiences, they will be teamed up with other children - ideally from a different country.

Each team will be supervised by a coach.

# Curriculum

The Frontier Camp focuses on project based learning. There will be short lectures (about 1 hr in duration) that introduces the theory and fundamentals of robotics.

Following students will be asked to use their own development environment and robot to solve a part of this system.

In the first year, the curriculum will focus on physics of motion, mechanics, algorithm design, software development, and debugging techniques.



## Social Program

We have also planned a social program on the NKFUST campus. The teams will participate in a scavenger hunt and similar games to foster collaboration and friendship.

A small closing ceremony will be held at the end of day 4.

## Schedule

	Day 1	Day 2	Day 3	Day 4
9:00 – 12:00	Robotics and Physics	Software Development	Software Design	Algorithm Design
12:00-13:00	Lunch	Lunch	Lunch	Lunch
13:00-16:00	Physical activity	Project activity	Project Activity	Social Gathering
18:00 - 19:00	Dinner	Dinner	Dinner	Dinner
19:00 - 21:00	Free Time	Free Time	Free Time	Free Time

## Qualification

Each participant must submit their own qualification material in English. Please provide a 1 - 2 page description of your previous experience, your current robot system and development environment, and your interest in robotics. In addition, participant personal data, such as name, school, address, phone, email, etc, is also included.

Submit your material as a pdf file to the Camp Director, Prof. Kuo-Yang Tu ([tuky@nkfust.edu.tw](mailto:tuky@nkfust.edu.tw)).

## Registration Fees

The following fees include registration fee, tuition costs, teaching materials, accommodation at the NKFUST dormitory, and cafeteria food (breakfast, lunch, and dinner). Note that the NKFUST dormitory will be available from 18 August.

**Early bird (14<sup>th</sup> July):**



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\$455 USD per person

**Regular (21<sup>st</sup> July):**

\$550 USD per person

**General Chair:** Prof. Kuo-Yang Tu [tuky@nkfust.edu.tw](mailto:tuky@nkfust.edu.tw)

**Contact Persons:** Christine Kim [christine@fira.net](mailto:christine@fira.net)