

DTU Tests a Robot to Guide Pedestrians Across the Street

On March 31st, a robot developed at DTU, which automatically guides pedestrians across the street, was tested at the Le Thanh Nghi - Phan Dang Luu intersection. After it has been tested, the robot will increase traffic safety awareness in Danang and elsewhere.



The robot guides pedestrians across the intersection

Since joining the CDIO in 2012, DTU has applied the CDIO teaching methodology, which has helped students achieve several gold cups in national and international competitions. A group of students from the Electrical Engineering Faculty developed the robot and their work has already attracted much attention. The product uses ultrasonic wave sensors to detect traffic movement by measuring distance, using AVR Microcontrollers.

The robot was developed by Nguyen Cong Tin, Vo Thanh Nghia and Ha Kim Tung. It is 1.9 meters high and wears a green shirt, the uniform of Vietnamese Youth Union, with a helmet and a baton with warning lights to guide pedestrians. When the warning lights go on, the robot says, in English and Vietnamese, "I am a robot that guides pedestrians crossing the street. Please press my start button and I will help you". Then it goes back to its starting point. The robot can identify a passersby at 1 meter and stops when it meets an obstacle or when it has reached the sidewalk opposite. It was conceived to help tourists, the elderly, and children, so it can be stationed at crowded areas, such as with schools, hospitals, supermarkets and so on.



DTU lecturers, students and the robot guiding pedestrians

Nguyen Cong Tin, Pham Huu Cuong and Mai Thi Quynh Hoa, DTU students from the Faculty of Electrical Engineering, also developed a unique product named “A Warning System to Stop Vehicles at Pedestrian Crossings”. They won first prize in the Student Research Project at DTU. Mai Thi Quynh Hoa, the team leader, said: *“There are still a lot of people driving their vehicles through red lights or stopping their vehicles on intersections, so we developed this warning system. We expect that the system will help improve peoples’ traffic safety awareness. We developed the system as a result of our enthusiasm to begin conducting student research projects, led by our lecturers. The modern facilities at DTU have enabled students of the Electrical Engineering Faculty to begin conducting intensive research. We plan to attach a camera to the robot to record the identities of those who do not obey the traffic rules and report them to the local police.”*

Mr. Le Hung, who is 61 and lives on Phan Dang Luu Street, said: *“I have watched the traffic on the big city streets and strongly support the implementation of this robotic system. I hope that DTU will continue to develop more products to contribute to improving the quality of our lives and the city’s general urban environment in the near future.”*

The robot was developed based on an idea that the DTU students had, inspired by the “Year of Cultural and Urban Development”, implemented by the city of Danang.

(Media Center)