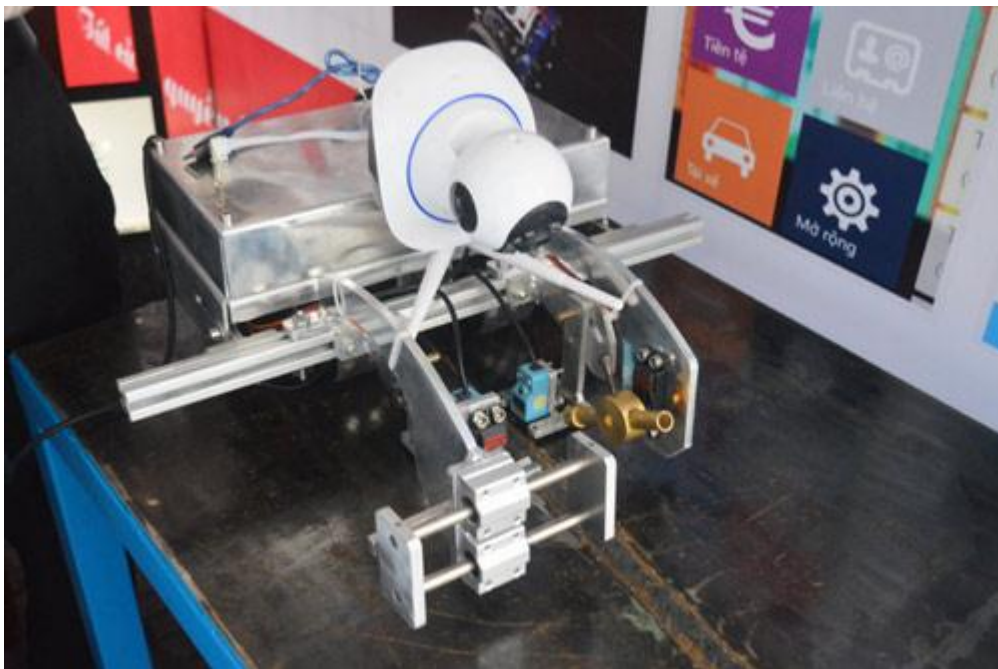
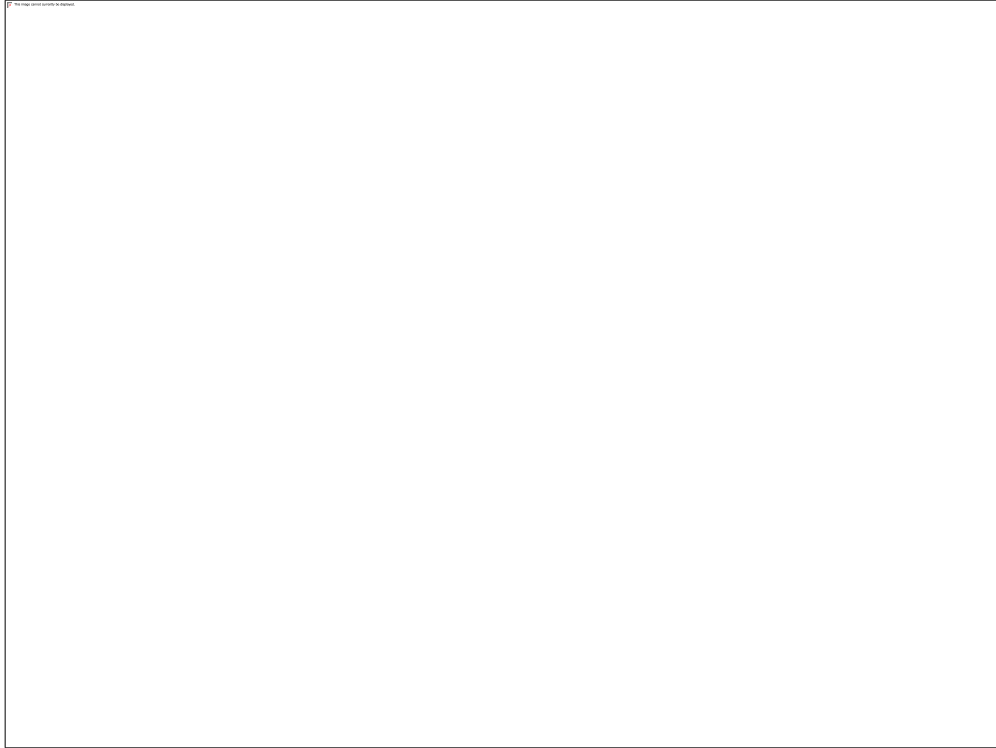


## **“A Robot that Automatically Looks for Weld Defects in Ship Hulls”– A Student Startup Project**

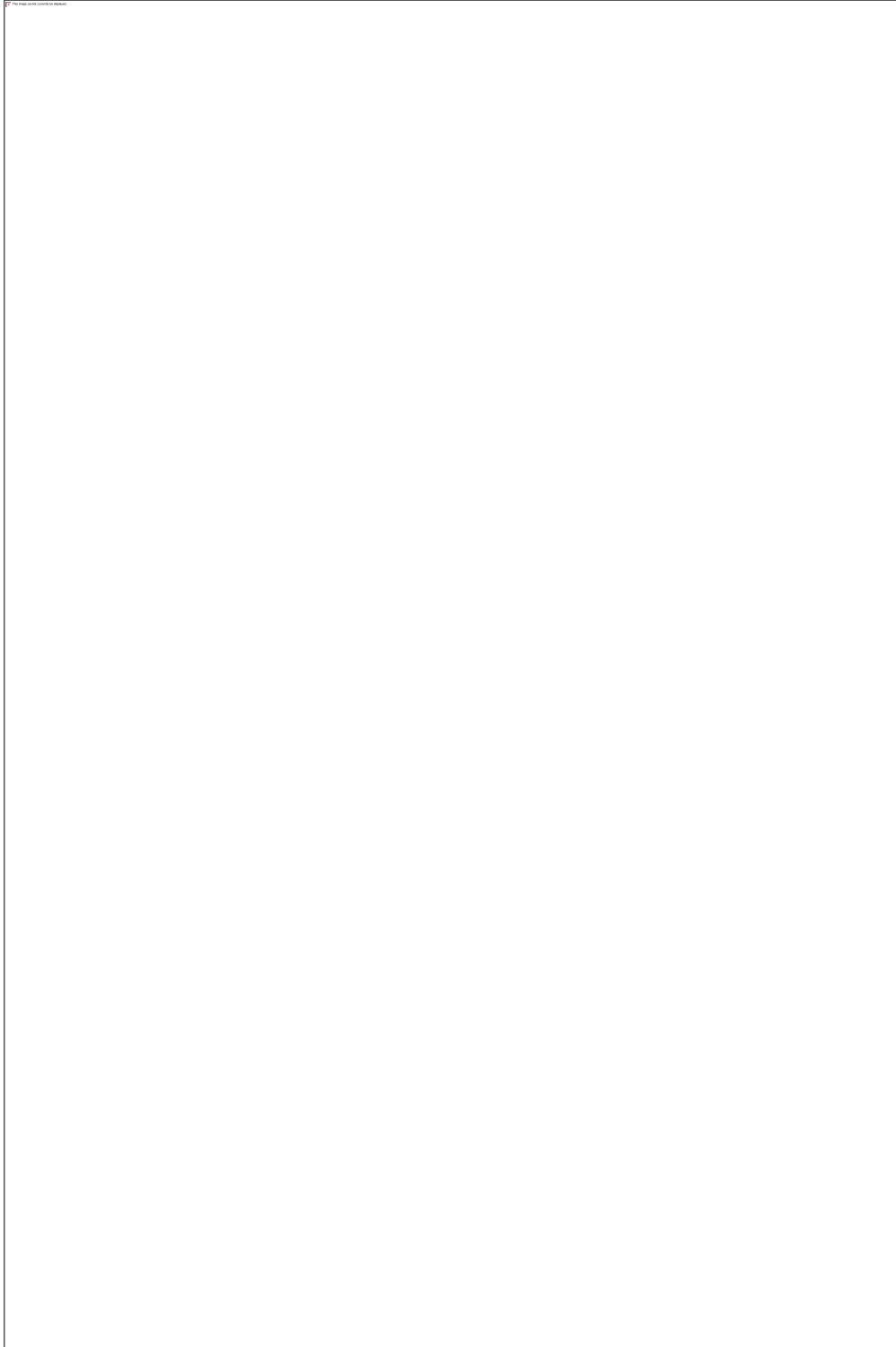
In this age of automation technology, the idea of robots replacing humans for heavy work is normal. However the implementation is never that simple for students. After one year of research, Dinh Huu Quang, Nguyen Manh Tien, Vo Hoang Anh, Luu Quang Thanh and Hang Thai Hoa, all from the DTU Faculty of Electrical Engineering, ventured into their successful first startup project by inventing a robot that automatically looks for weld defects in ship hulls, improving product quality and increasing worker safety at the docks.





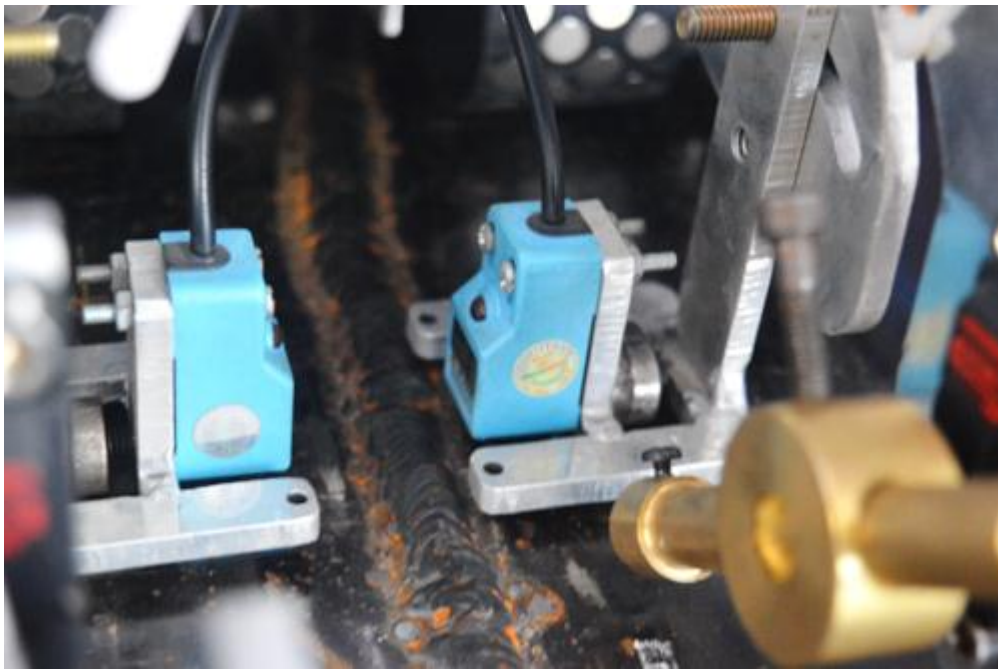
*A robot that automatically looks for weld defects in ship hulls*

When operating, the robot automatically follows the welds with an ultrasonic probe that detects, records, and marks any welding defects and notifies the operator of their location. The robot legs are magnetic, so that it can move around on metal surfaces stably and operate in any position, horizontally, on inclines or on vertical surfaces.



*Team members present the StartUp Unitour 2 robot*

*“We made this product to check the quality of ship welds more accurately and efficiently, to save time and money and create a safer and more professional work environment. The cost of inspecting a large ship of 2,000 metric tons for errors can run into billions of VND, with much time also spent by workers climbing up and down the ship. Only a few robots are needed to do this more simply”, said Mr. Thanh.*



*The robot has magnetic legs*

DTU and the research team are now collaborating with the Song Thu Shipyard to test the robot there prior to production. The product was showcased at StartUp Unitour 2 in Danang.

The research team has also developed several other robots, including one that automatically looks for defects in petrol tanks and a robot that smooths the weld surfaces. With backing from DTU, the team will continue to achieve great success from a variety of other student- made robots.

*(Media Center)*