Mercury Detector by UGM Students Win Competition in Canada

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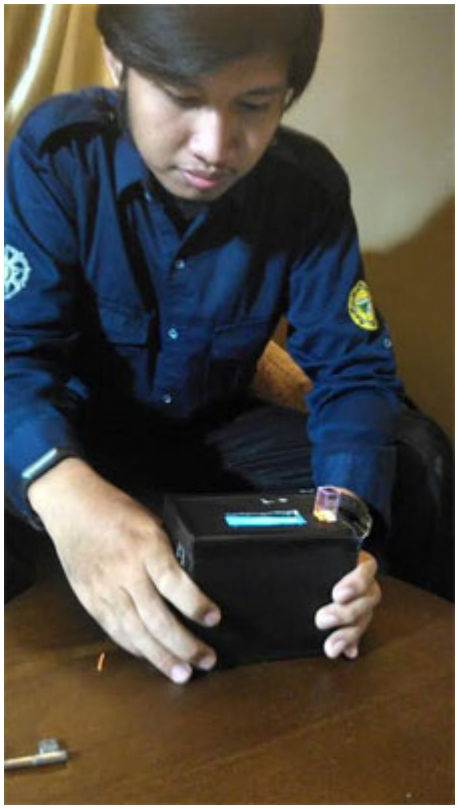

Student-made mercury detection devices by the students of Universitas Gadjah Mada (UGM) have won a gold medal at the International Invention Innovation Competition Canada (ICAN) in 2016 which took place in Toronto, Canada, on August 27, 2016. The device that was named Mercury Auto Detection System (MADS) has secured the gold medal after setting aside more than 150 other teams from 30 countries in the world.

MADS was developed by five students of the Faculty of Engineering, namely Andy Aulia Prahardika, Al Birru Kausal, Luthfia Adila, I Made Wiryawan, and Tirta Inovan. This device was made due to their concern about the rampant sale of various food products, drugs, and cosmetics with mercury.

"Actually, there are already tools to detect mercury in the food and medicine, such as Atomic Absorption Spectrophotometer (AAS), but it is large so it could not be used for field testing," said Andy Aulia, Tuesday (25/10), at the Faculty of Engineering.
Additionally, existing tools are expensive. It costs around 15,000 or USD 200 million. Seeing these conditions, Andy and his friends tried to develop smaller mercury detection tool. By doing so, it can be used in the field testing. Not only that, MADS' price is far cheaper, which is around Rp1 million.

The working principle of this device is similar to the spectrophotometer. The object was fired by monochromatic light to be absorbed by the color detector. Furthermore, the color obtained will be detected by the criteria of existing substances.

"Later MADS is not only able to detect mercury, but also other substances," he explained.

MADS was the result of Student Creativity Program in 2015. It received a research grant from the Directorate General of Higher Education in 2016. To date, MADS has undergone two development and is now undergoing its third developing process. (UGM /adelily)

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