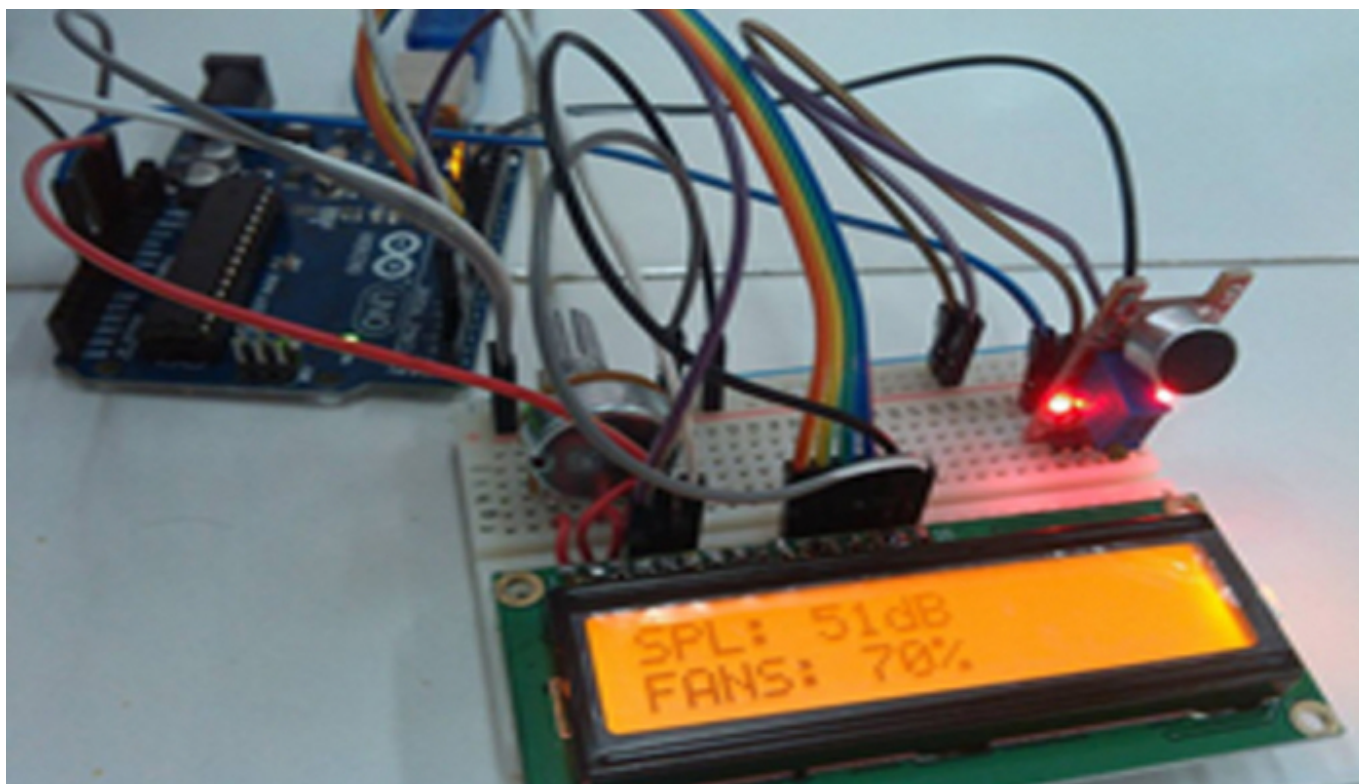


## UGM Students Develop AC Based on Sound Intensity

Friday, 05 June 2015 WIB, By: Marwati



Each year the number of buildings in Yogyakarta increases. Hotels and malls also increase in number. This affects the amount of energy consumption, which also increases. The biggest use of energy is in ACs (Air Conditioner) that absorbs up to 50 percent of total energy consumption.

Five students of Physics Engineering UGM made an innovation in AC use; they named it TC-BASS (Thermal Controller Based on Acoustic Sensor). The students (Kristina Widowati, Naim Aryudya, Herdian, Nur Cholida, and Wayan Eka), develop the prototype that represents the AC system based on sound intensity. Room temperature is controlled based on the level of pressures in a room.


Kristina, team chairman, said on Friday (29/5) at UGM that the TC-BASS is equipped with microphone omnidirectional sensor that catches noises in a building. It also uses arduino mega as micro-processor that manages data and LCD to display the data that has been processed.

The idea for the tool emerged when they joined the Acoustics Research Center belonging to the UGM Physics Engineering and Student Creativity Centre 2015 held by the Higher Learning Directorate General. "In the future, we plan to develop this tool further so it can be used to change the room temperature," Naim said.

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