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題名	The system to prevent falling products in stores linked with earthquake early warning
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概要	<p>Japan is a major earthquake nation that has experienced severely damage by large-scale earthquakes. such as the Great Hanshin-Awaji Earthquake, the Great East Japan Earthquake, and the Kumamoto Earthquake.</p> <p>In this study, in order to prevent store products from falling and damaged during an earthquake, the system to protect the products by automatically lowering the fall prevention bar installed at the top of the shelf when receiving the Earthquake Early Warning is being developed. So as to make a prosperous society come true, it is necessary to develop the abilities of students to appropriately evaluate and utilize technology through experiential learning activities such as manufacturing. The main conclusions are as follows.</p> <p>1) To obtain the Earthquake Early Warning directly from the Japan Meteorological Agency, the forecast business license is required, and user must be a corporation. Therefore, the EEWEWS-2B is used to receive the earthquake early Warning speed broadcast on television or radio.</p> <p>2) The EEWEWS-2B has successfully received the Earthquake Early Warnings distributed by the Japan Meteorological Agency and can protect store products such as sake bottles before the main shock arrives.</p> <p>3) An Arduino is being used to operate the solenoid and lower the fall prevention bar by releasing the stopper of the fall prevention bar. The operation of the fall prevention bar is notified in advance by using an LED and a speaker.</p> <p>4) This program of system minimizes the use of Arduino functions to get running faster by directly operating the registers of the microcomputer (ATmega328P) mounted on the Arduino.</p>
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