

MECHATRONICS BOOK SERIES SYSTEM DESIGN AND SIGNAL PROCESSING VOLUME 1

Editors

**Asan G. A. Muthalif
Amir Akramin Shafie
Siti Fauziah Toha
Iskandar Al-Thani Mahmood**



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CHAPTER 13

Design and Implementation of Instant Noodles Vending Machine

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13.1 Introduction:

A vending machine is a machine that provides various snacks, beverages and other products to consumers. The idea is to vend products without a cashier. Items sold via vending machines vary by country and region. As we can see nowadays, Japan is conquering this technology. Many countries are buying these products from Japan. For example, in Malaysia, we can see, reload card and games for cell phone, drinks, and photograph are being vended by the machine which have been imported from Japan. In other modern countries like US and Germany, they are one step further, with cigarettes, snacks, beers, chocolates and newspaper being vended by the machine [1].



Figure 13.1 Examples of Vending Machine

In Japan, with a high population density, limited space, a preference for shopping on foot or by bicycle, low rates of vandalism and petty crime, and a small and decreasing number of working-age people, there seems to be no limit to what is sold by the vending machines. While the majority of machines in Japan are stocked with drinks, snacks, and cigarettes, one occasionally finds vending machines selling items such as bottles of liquor, cans of beer, and fried food [2]. Japan has the highest number of vending machines per capita, with about one machine for every 23 people. In 1999, the estimated 5.6 million coin- and card-operated Japanese vending machines generated \$53.28 billion in sales. Vending machine goods and services can cost as little as 80 and as much as 3,000 yen. Fig.13.1 is one of the environment in Japan which involving so many vending machine selling its products: