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A vending machine is an automated machine that dispenses items such as snacks, beverages, cigarettes, and many more others to consumers after cash, a credit card, or other forms of payment are inserted into the machine or otherwise made. These machines have been around for over a century and have been popular due to their efficiency and convenience. The former is due to operator obviation, and the latter results from unlimited time of operation and versatile modes of payment. In very recent years, the emergence of the Covid pandemic and the resulting practice of physical distancing and hygiene concerns have revitalized the vending machine industry. While vending machines have experienced many evolutions in product diversification and modes of payment, they need real improvements in electrical and mechanical performance and, more importantly, alignment with the concept of the digital economy.

Traditionally, regarding the dispensing technique, vending machines have long used servo motors and coils for irregular-packaged items and grabbing robotic arms for bottle-type items. These techniques are inherently maintenance-

electrical dispensing

web-based programs.

Further evolution of the