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Automata and Computation Theory
Writing 2

Quesiton: What are some examples of finite automata in your everyday life? What do you think are some limitations of finite automata, compared to general computers

Answer:
A good example of one is the panel that accepts passwords for home security, or really any password accepting device. That device only does one run through the inputted string and doesn't need to remember anything but whether the inputted password has matched the set password so far, much like seeing if a string follows a certain condition. Another good example of finite automata are dishwashers since they don't need to remember anything but the setting inputted on it. Going off of that both washing machines and dryers also work. There are some limitations put on finite automata though. Since it has limited memory, unless tons and tons of states are added to the automata, it can only remember a very limited number of things. In addition since it can only read the input once, any machine that requires checking the input twice cannot be done without adding even more states. The more states are added to the automata the more inefficent it becomes.