

# Automata that move both ways

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## **1 Abstract**

Usual finite automata move their head in one direction and thus examine the input word only once. How much power would they gain if the input head could move both ways? Surprisingly, these two-way machines can still only recognize regular languages, the same as DFA. During this project I will research various types of two-way automata and design and develop software to simulate and work with them.

## **2 Problem Specification**