

Modeling a Turing Machine on a Spreadsheet: A Learning Tool

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Abstract

In designing a Turing machine to evaluate a particular function, the most difficult task is to check whether or not this newly designed machine would give the desired result. A spreadsheet based modeling technique is proposed to imitate the behavior of a Turing machine. This model can be used to visualize the operation of a Turing machine. Therefore, using spreadsheet package as a tool for learning the Turing machine concepts recommended.

Keywords: Turing machine, Spreadsheet.