# The Enigma Machine

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1 INTRODUCTION 3

#### 1 Introduction

This is a test [hold].

#### 2 History

The Enigma Machine was the Germans way of keeping their communications secure during the early 1930s and beginning of World War 2. The Germans believe that this machine's encryption could not be cracked because of the theoretical number of ciphering possibilities (approximately  $3 \times 10^{114}$ ). The machine used a number of rotor wheels and a plugboard to obtain this insane number of possibilities. Around 1928, the Polish noticed that the Germans changed their communication encrypt and their normal ciphering techniques became useless. All their attempts at cracking the code were useless until they hired three mathematicians in 1932. These mathematicians eventually designed an equation that could determine the the wiring connections on the current encryption settings. Also involved in the uproar was Britain, whom started hiring mathematicians to try and crack the Enigma's code. One of those mathematicians was Alan Turing. Turing was the man who is responsible for the demise of the Enigma. He design a machine (called the Bombe) that could decrypt the Enigma's current code, giving all the German's secret messages to the British. Because of this machine, the outcome of World War 2 was greatly altered and history was made. Turing has been called "the founder of computer science", according to Andrew Hodges' website about Turing, because of his development of the Bombe and of other computer related subjects. [wilcox2006solving]

#### 3 Operation

#### 4 Something Else

## A Appendix: PSpice Waveforms