



Team MIPSter

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A finite state machine representing one of several possible solutions to problem 1.

#### **Read State:**

The read state is the initial state. The read state's algorithms retrieve and organize the input.

#### **Verify State :**

The verify state mainly sets flags. Its algorithms parse the input data and determine which flags should be set. These flags are as follows:

0 - point (used by read state)

1 - sign

2 - zero

3 - NAN

4 - overflow\*

5 - underflow\*

Note that if the fourth bit is set, then then verify will transition to the error state.

#### **Format State:**

The format state is entered upon a successful completion of the verification state. Based on the data acquired through the previous two states, the algorithms in the format state generate the IEEE 754 standard single precision floating point number.

#### **Store State:**

In the store state, the number is stored. This state will have more complex algorithms by the end of the semester. These algorithms will be setting up the processor's memory and registers for various floating-point operations. Stay tuned.