Build a simulator for a deterministic finite state machine.

The DFA has a tape with symbols from a fixed finite alphabet occupying a finite left justified sequence of cells of the tape.

The machine starts in the unique start state reading cell 0.
The machine reads the current cell, advances the read head to the left and determines its current state. It then consults its program (see below) and moves to a new state.

If the machine moves to a final state after reading the last occupied cell on the tape it halts and accepts its input. If it has no program statement corresponding to its current read symbol and state it halts and rejects its input. If it moves to a non-final state after reading its last input symbol it rejects the input.

The tape can be arbitrarily long.