

Automatic Washing Machine Control System

Using Verilog HDL

TEAM MATRIX

Team members:-

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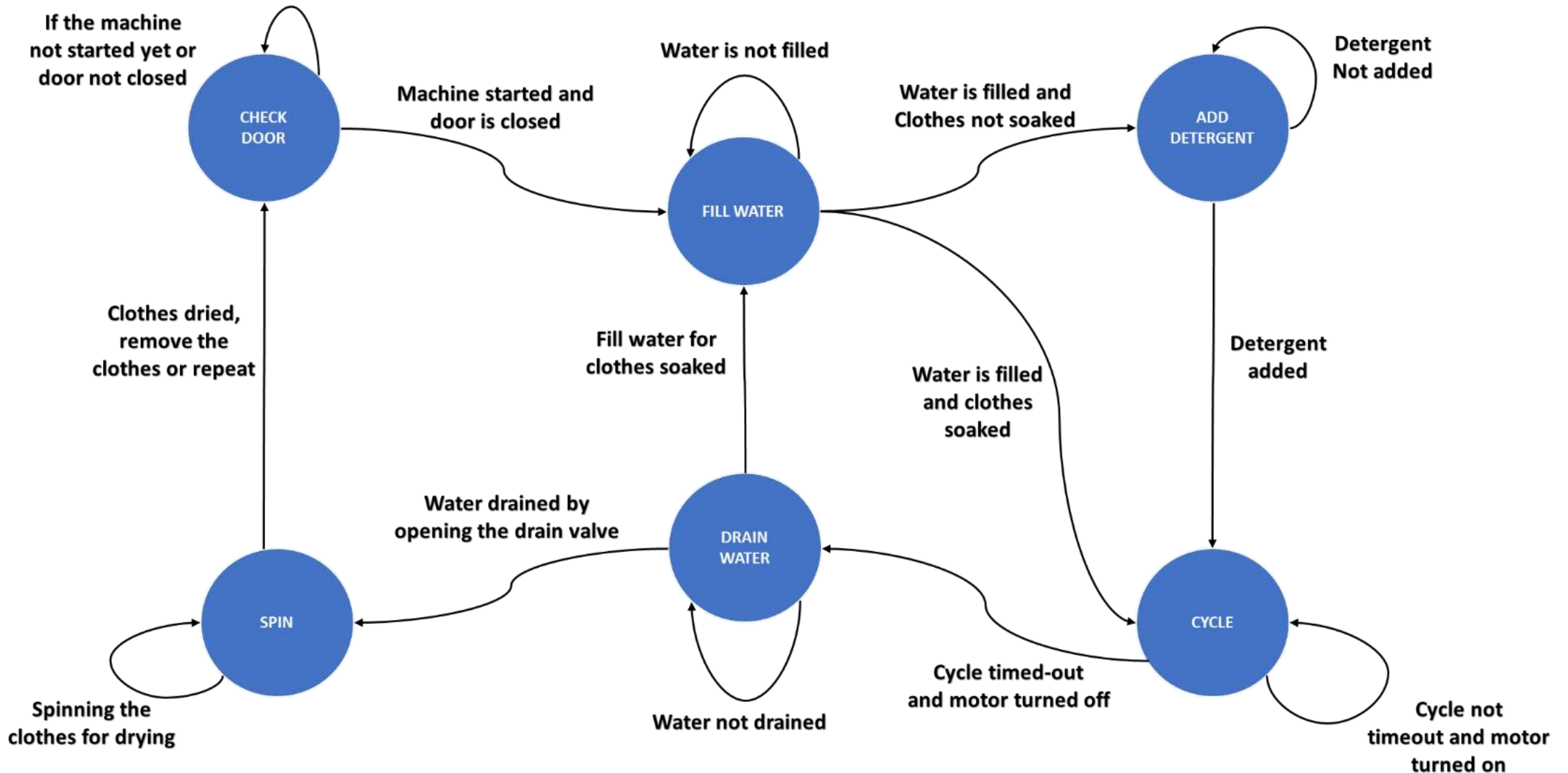
Mansi Verma

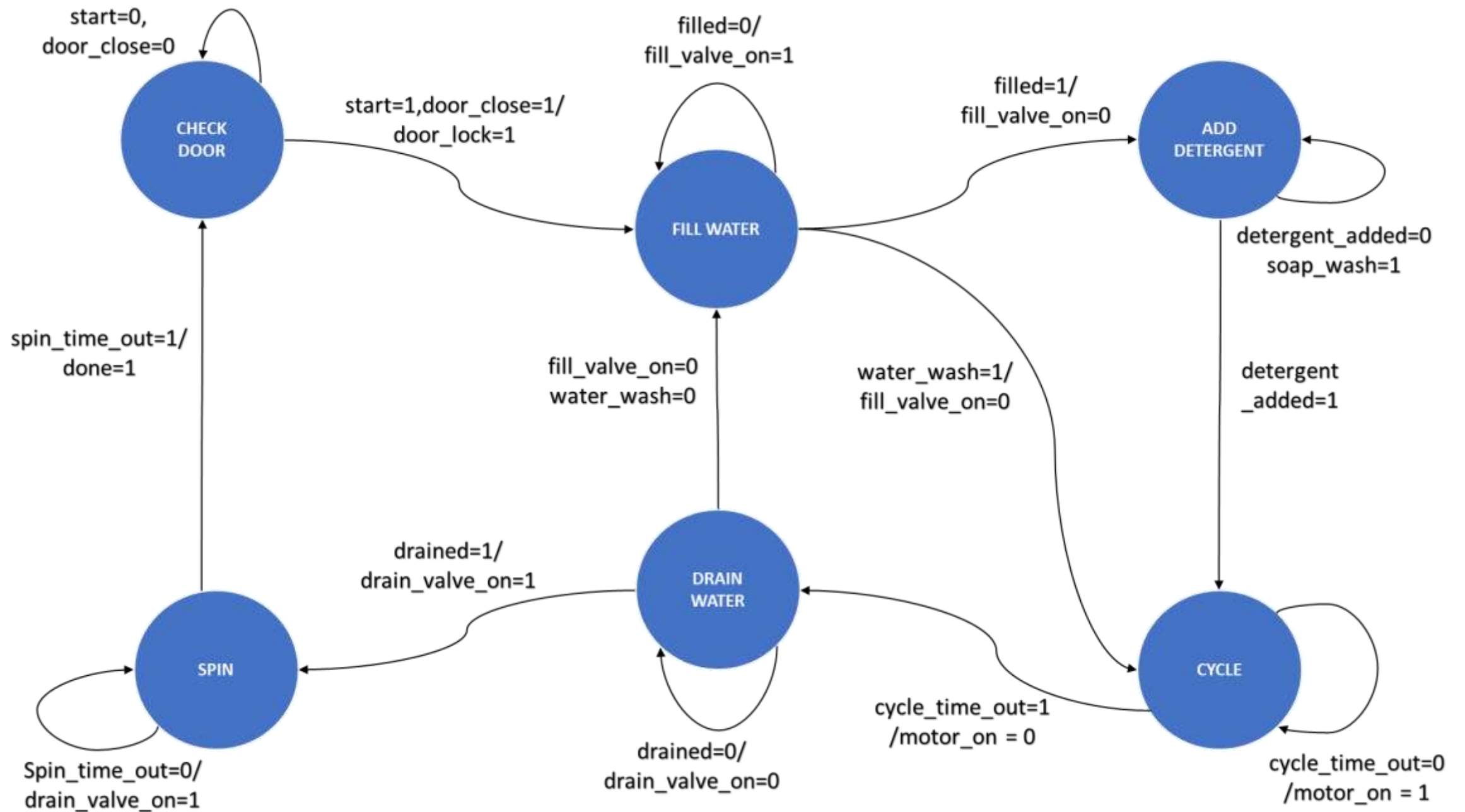


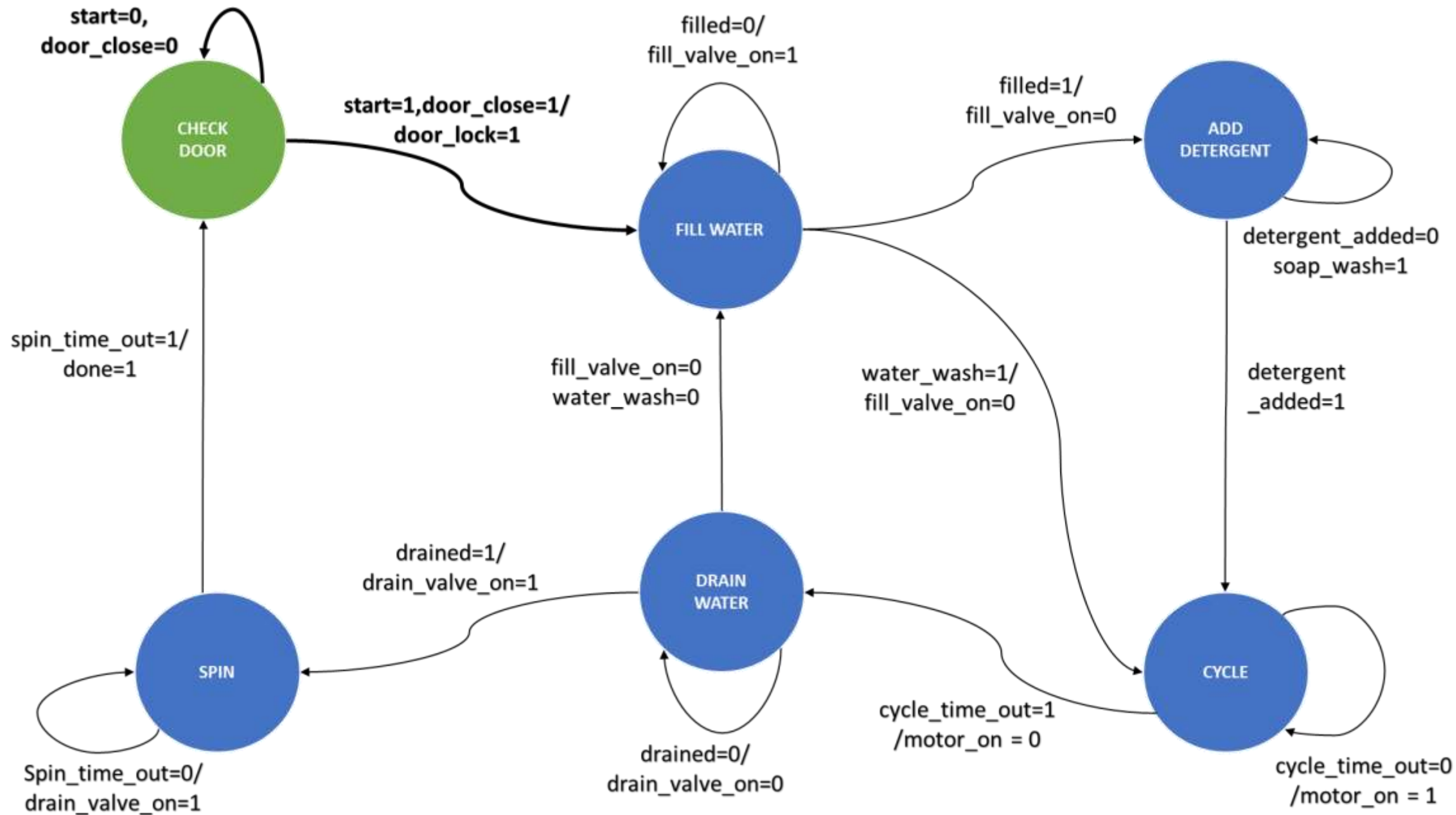
Introduction

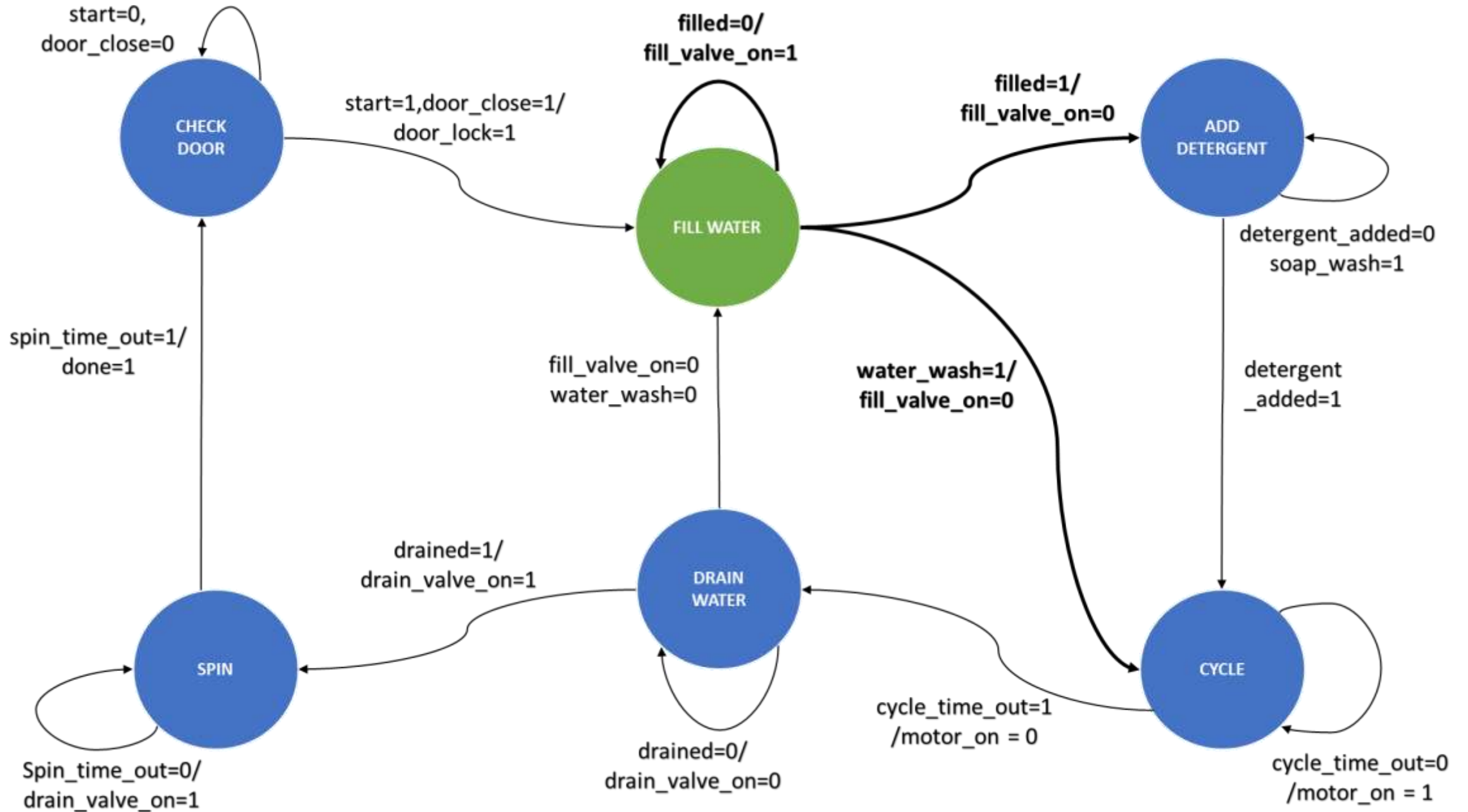
- Various real life scenarios can be represented by Finite State Machines like control system of an automatic washing machine.
- Assigning the main stages of the process like Close door, fill water, add detergent, cycle, drain and spin various states that can be implemented as a State Machine.
- Writing a test bench to observe the working of the machine.
- Using Xilinx ISE 14.7 to implement the control system.

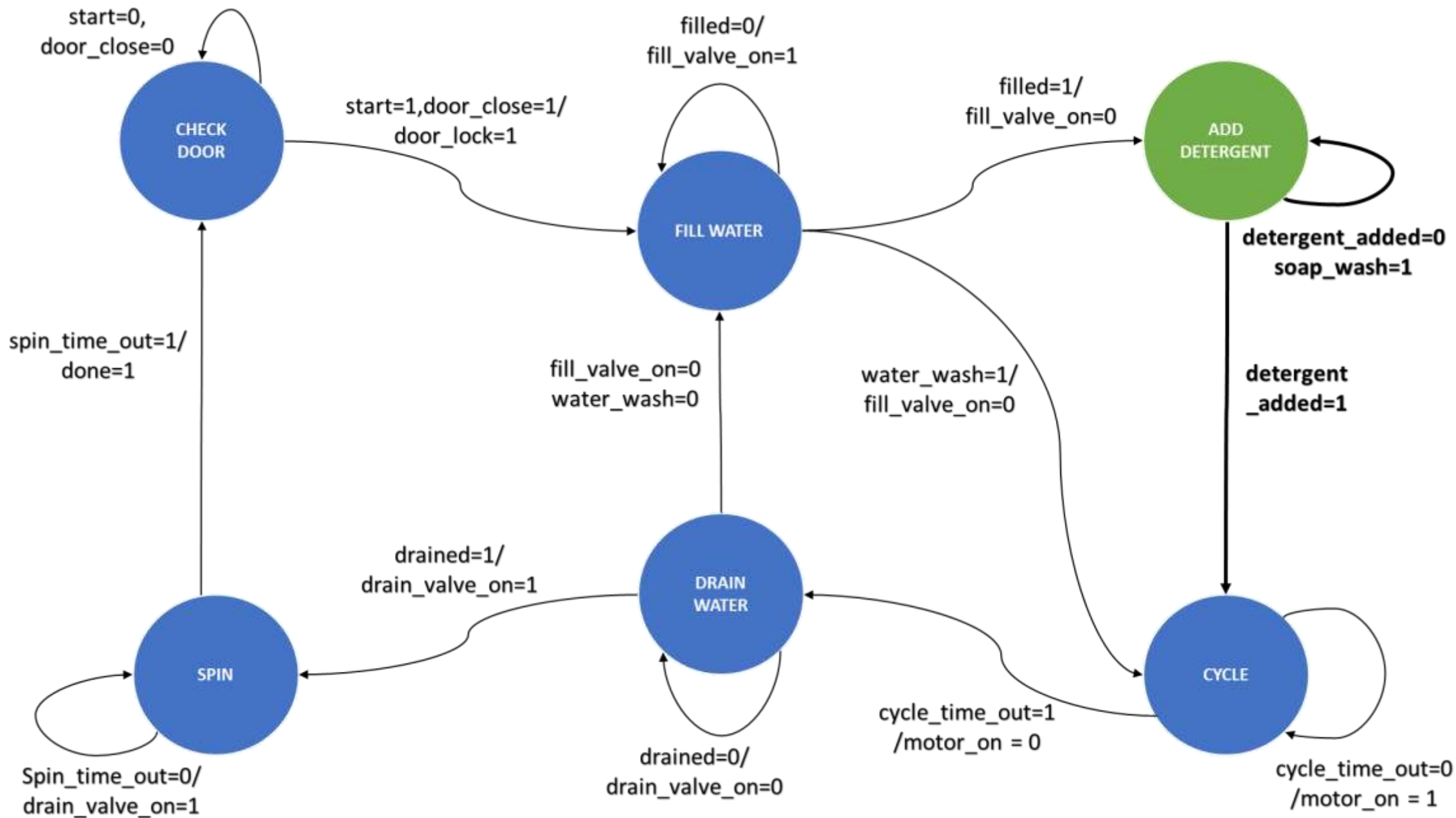
STATE DIAGRAM

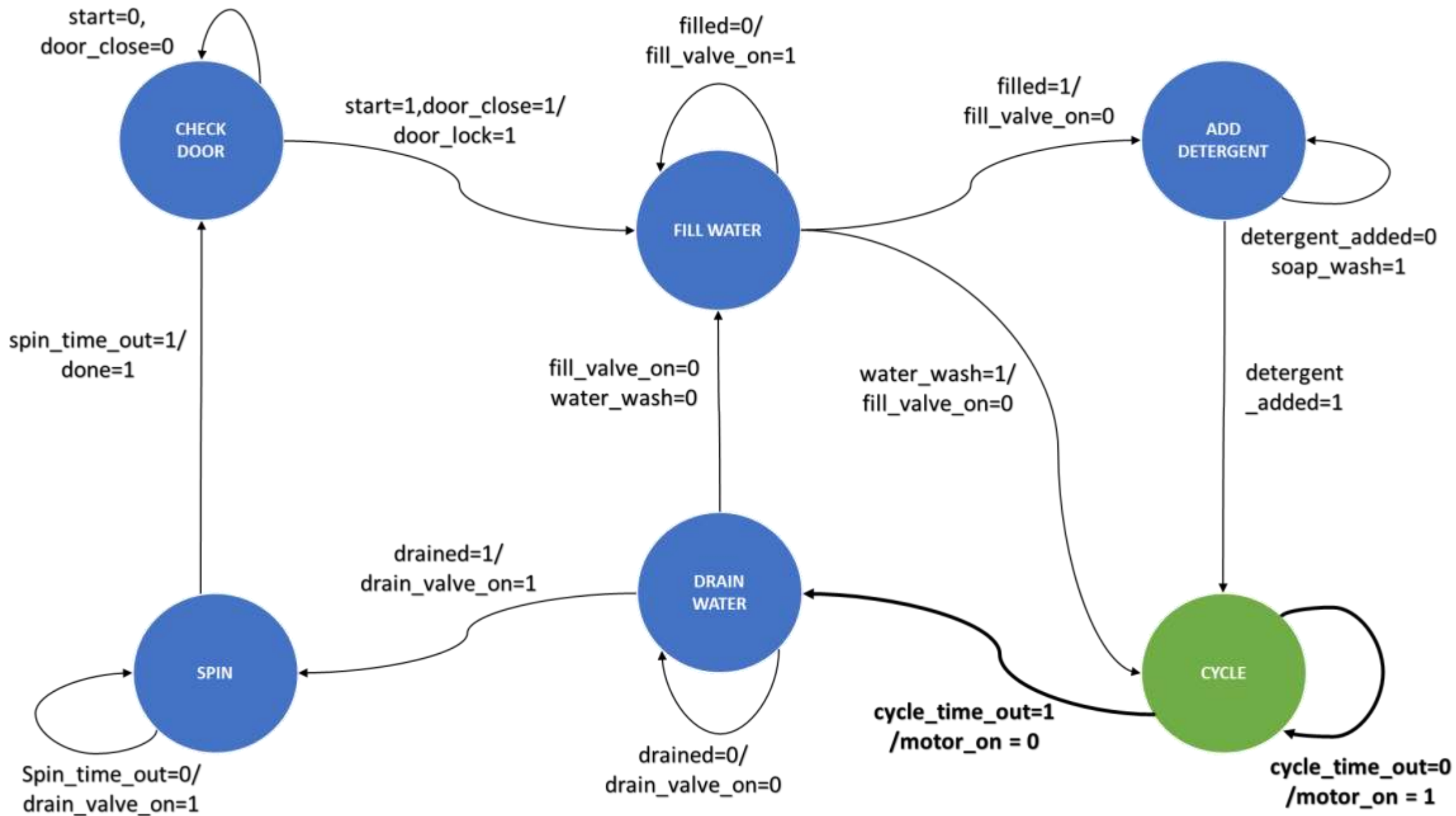


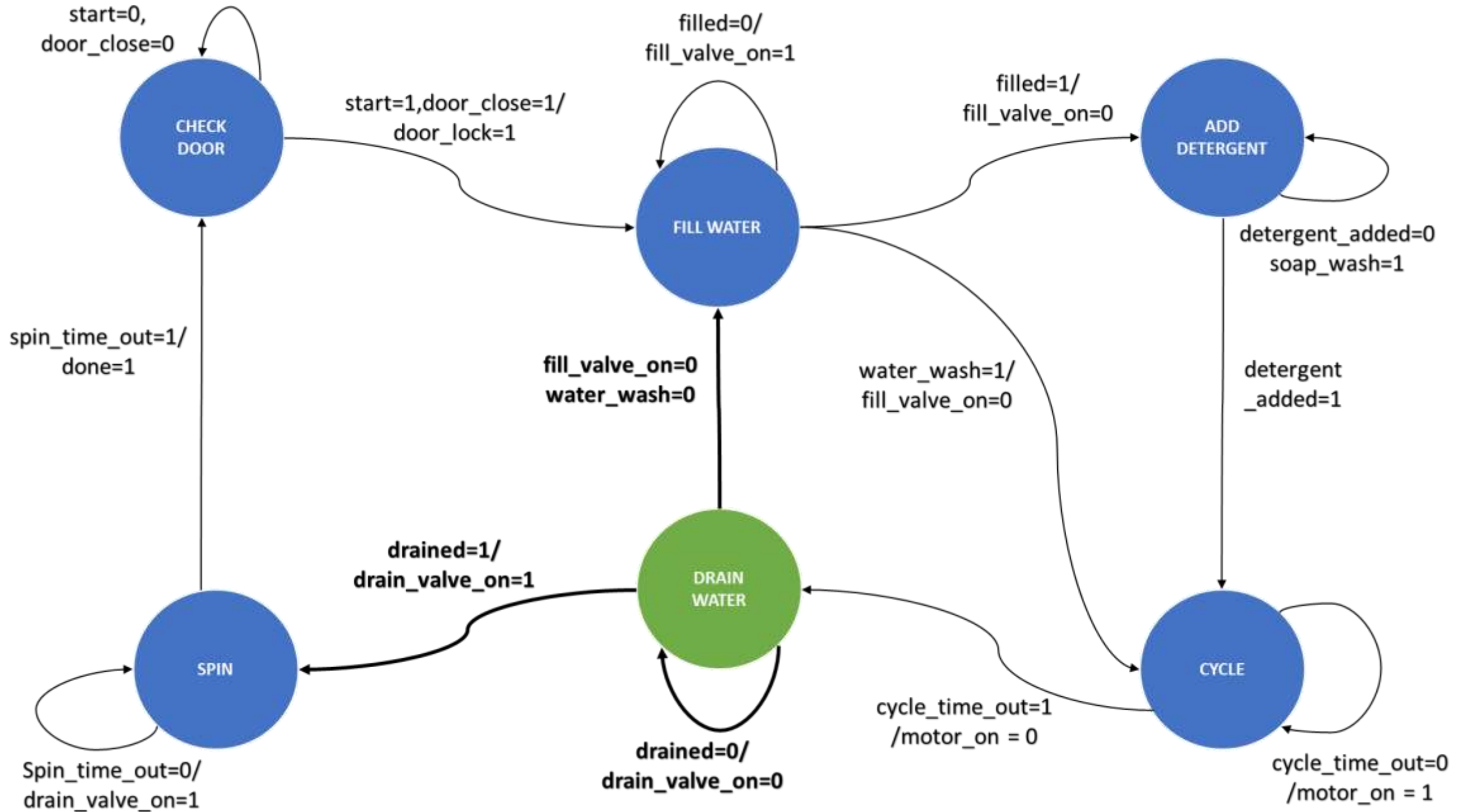


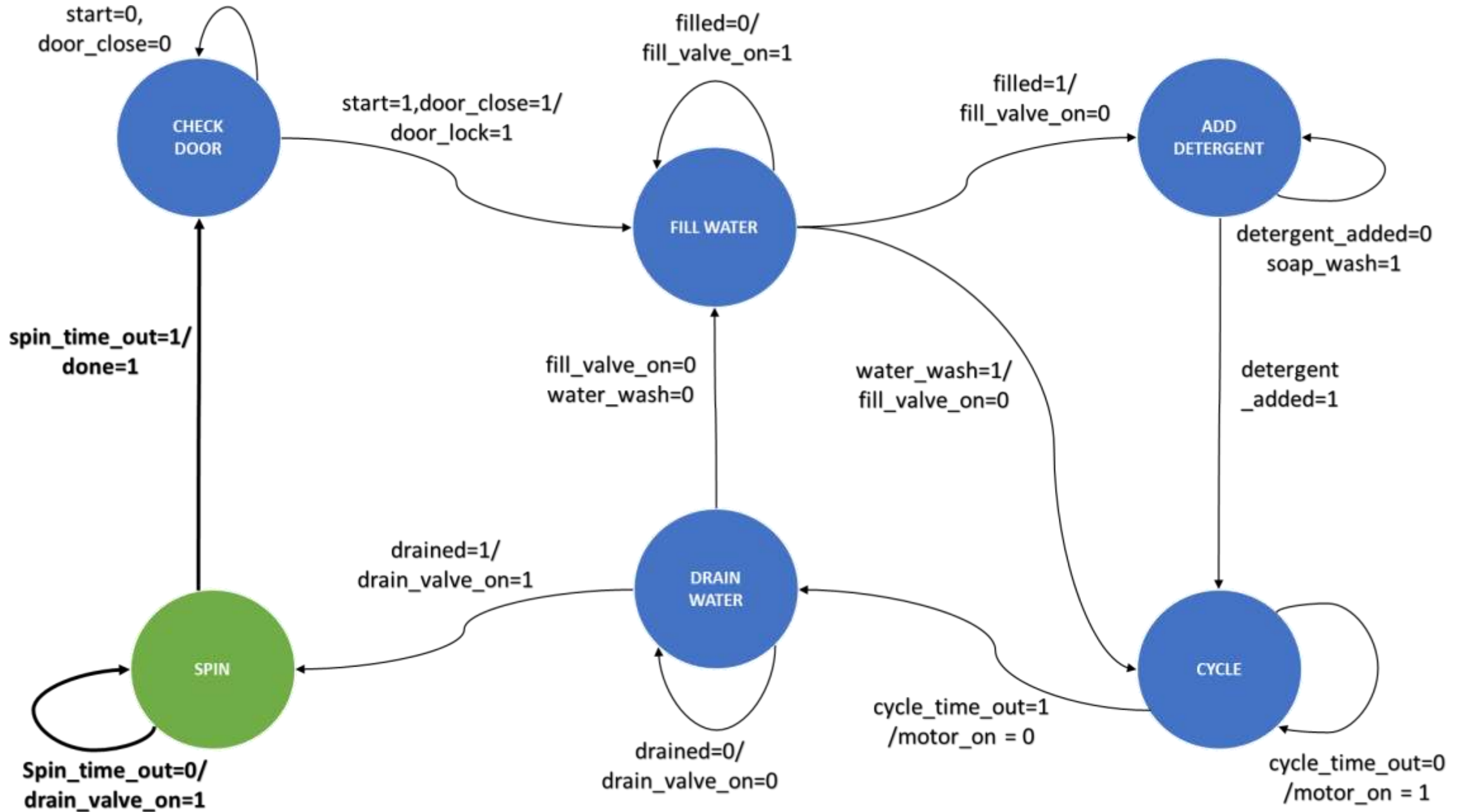












FUTURE SCOPE AND APPLICATIONS

1

The automatic washing machine has been implemented on Verilog HDL using Xilinx ISE.

2

The current project can be implemented on FPGA to demonstrate the code.

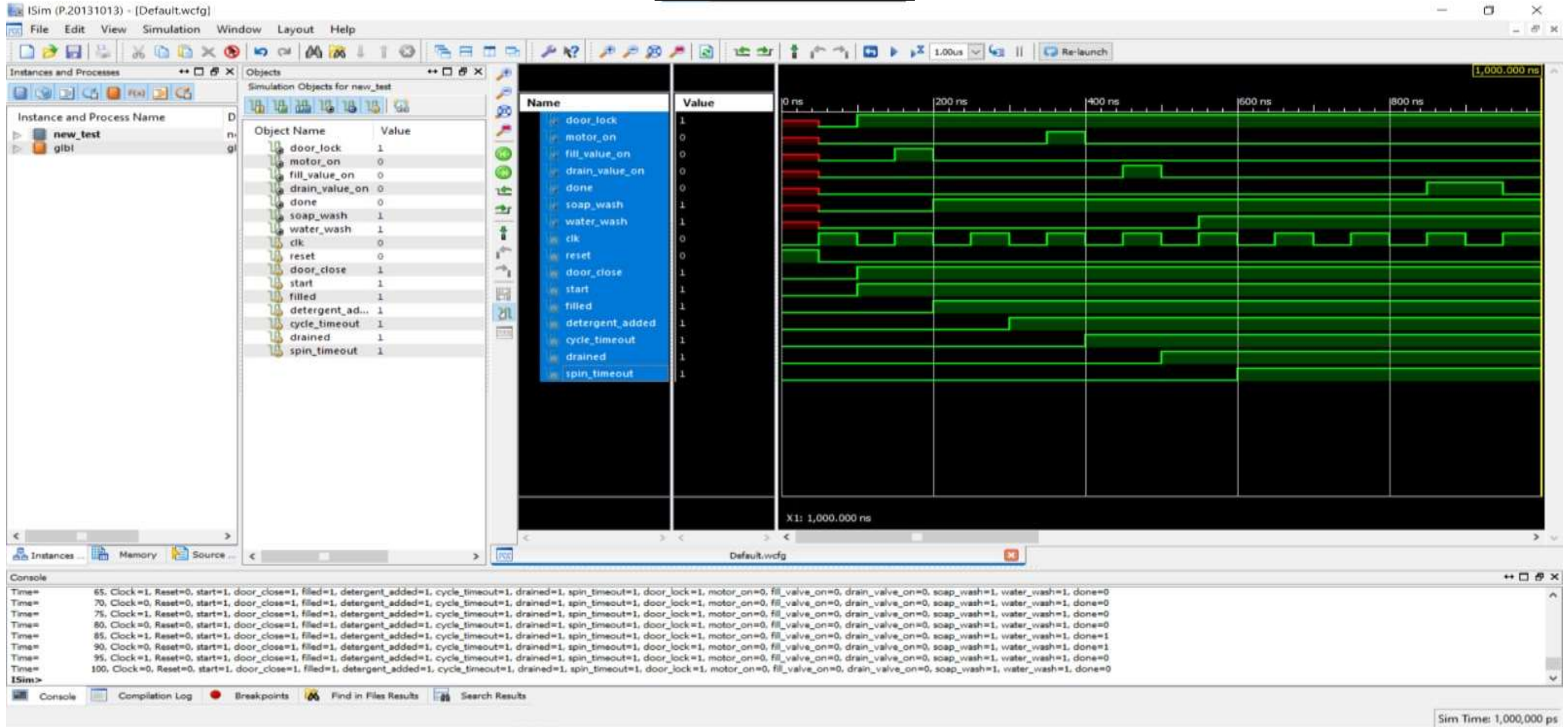
3

The project is based on Finite State Machine (FSM). Various other projects based on FSM can be implemented using the current project code as the basis.

4

More functionality may be included like different modes to wash the clothes based on the clothing material, temperature etc.

Result



Thank you