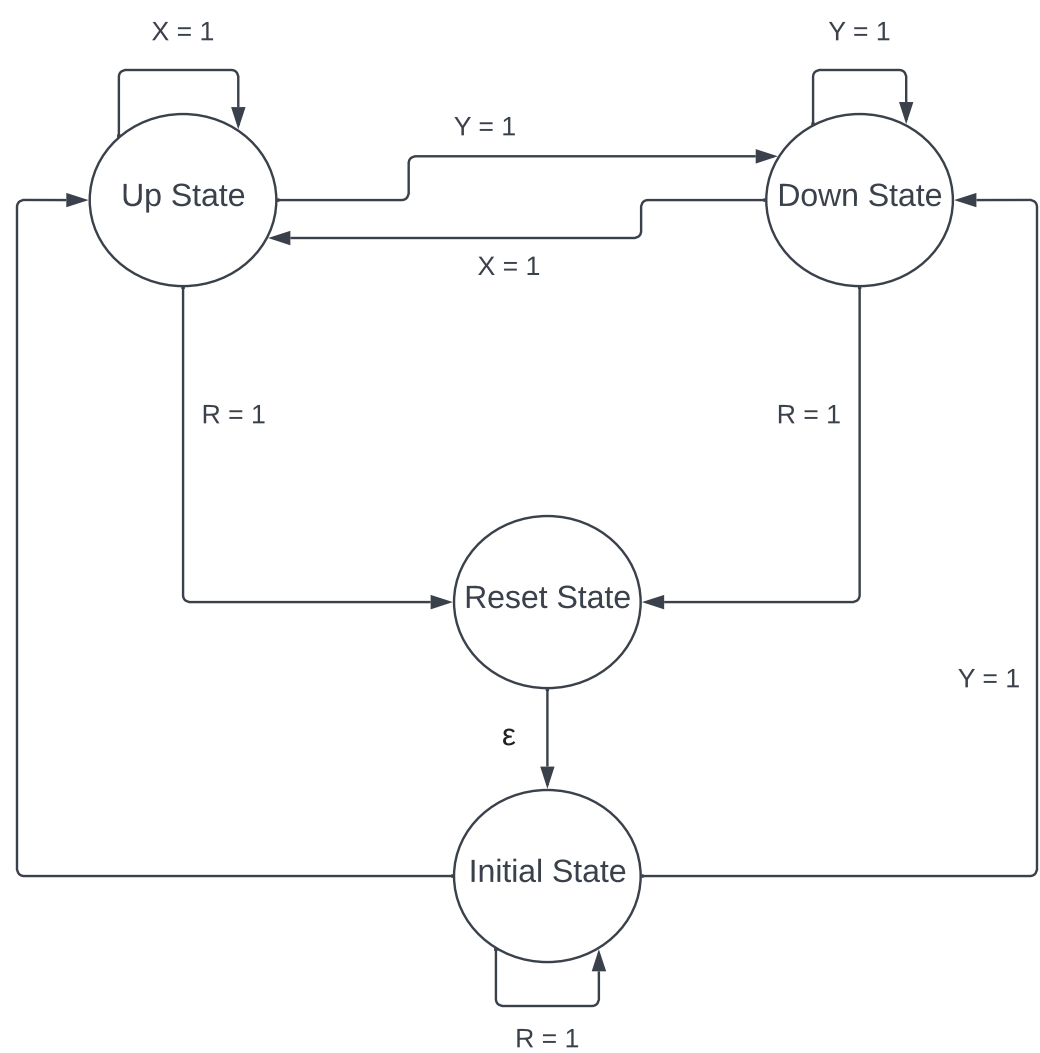


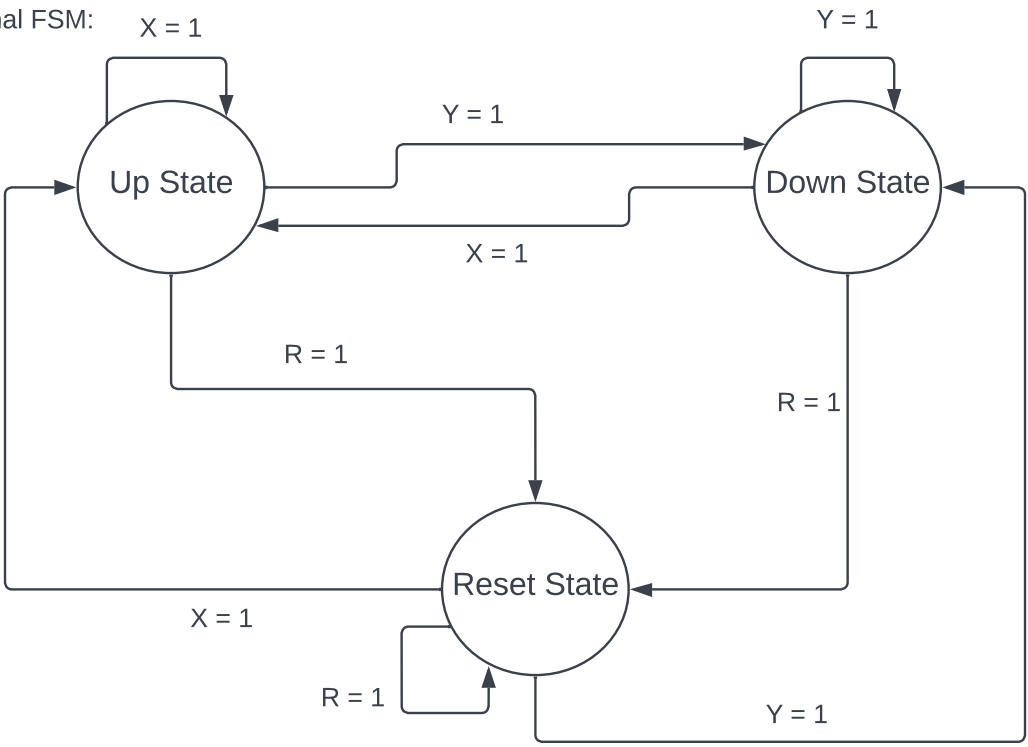
Final FSM Diagram:



Key:

- X = T18 (UP)
- Y = U17 (Down)
- R = U18 (Reset)

Second Final FSM:



Key:

- X = T18 (UP)
- Y = U17 (Down)
- R = U18 (Reset)

Interim FSM:

