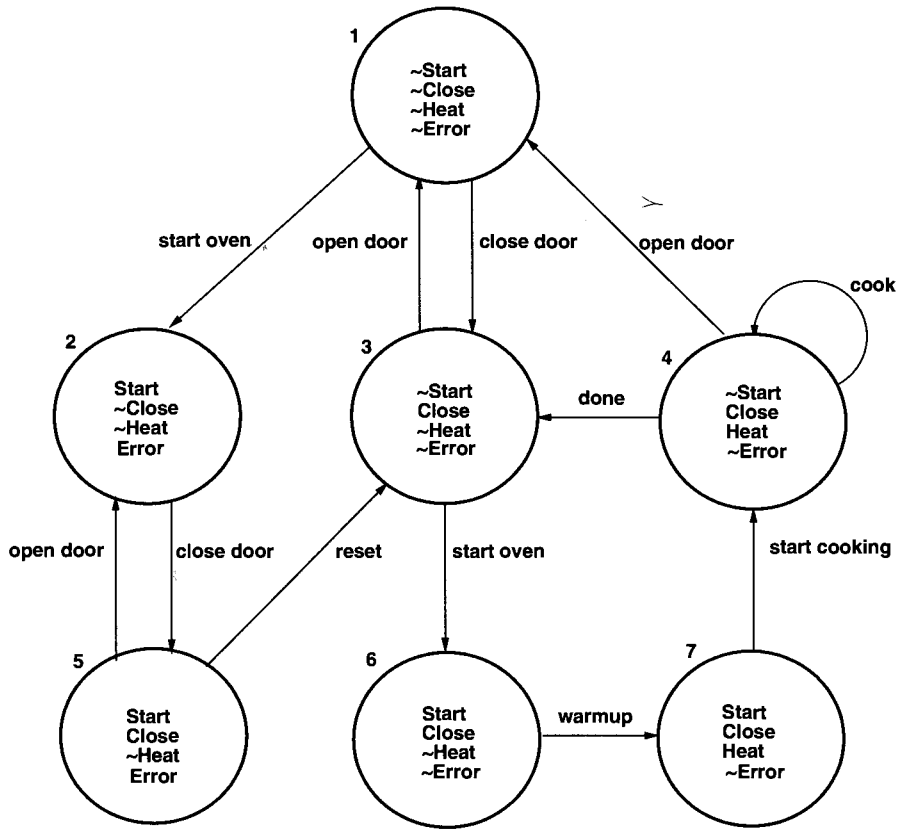

Figure 4.3
Microwave oven example.

$\mathbf{EG}\ \neg Heat$). Next, we use the converse of the transition relation to label all states in which the formula holds. We get:

$S(\mathbf{EF}(Start \wedge \mathbf{EG}\ \neg Heat)) = \{1, 2, 3, 4, 5, 6, 7\}$.

Finally, we compute that

$S(\neg\, \mathbf{EF}(Start \wedge \mathbf{EG}\ \neg Heat)) = \emptyset$.

Since the initial state 1 is not contained in this set, we conclude that the system described by the Kripke structure does not satisfy the given specification.