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## Assignment 2a

### Problem 2: Microwave Oven

The system uses two main states **Normal** and **Alarm**. In Normal state there are three sub-states: Idling, Cooking and Stop.

**Idling:** The system starts from the Idling state and comes back to it again if door is opened while cooking.

**Cooking:** This state decrements the cooking time and goes to stop state if the stop button is pressed or the cooking time ends.

**Stop:** In this state the system is reset to default values if the cooking time has elapsed, else it stops decrementing time unless Stop event occurs again.

**Alarm:** In this state there are two sub-states: Idling and Sound. When the alarm is asserted, the system goes to Sound state and beeps on and off at the frequency of one second for a total of five seconds

The cooking power can be increased or decreased using a slider with range from 0 – 900.