**1. Data Flow Graph/ Diagram (DFG) Model:**

x = a + b and y = x – c

**2. Control Data Flow Graph/ Diagram (CDFG) Model:**

If flag = 1, x = a + b; else y = a – b;

**3. State Machine Model:**

**A *Finite State Machine (FSM) model***

consider the design of an embedded system for driver/ passenger '*Seat Belt Warning*' in an automotive using the FSM model.

The wait state is implemented using a timer. The timer also has certain set of states and events for state transitions. Using the FSM model, the timer can be modeled as shown in the following Figure.

**Design an automatic tea/ coffee vending machine based on FSM model for the following requirement.**

Design a coin operated public telephone unit based on FSM model for the following requirements.