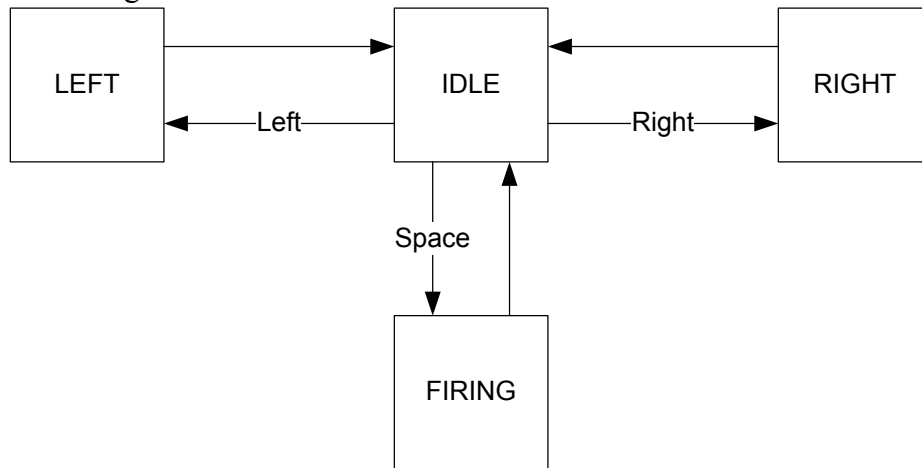**Example**

Draw a state diagram or write pseudo-code to demonstrate a simple ship controlled by the player that moves left while the left key is pressed, moves right while the right key is pressed and fires when the spacebar is pressed.

Assumptions
IDLE, LEFT, RIGHT and FIRING are all predefined values of State.
There are MoveLeft, MoveRight, and Fire functions already defined.

State Diagram:

Pseudo-Code:
```
switch(State)
{
    case IDLE:
       if(keyLeft)  State = LEFT
       if(keyRight) State = RIGHT
       if(keySpace) State = FIRING
    case LEFT:
       MoveLeft()
       State = IDLE
    case RIGHT:
       MoveRight()
       State = IDLE
    case FIRING:
       Fire()
       State = IDLE
}
```

Problem

Draw a state diagram or write pseudo-code to demonstrate a simple enemy AI that moves left until it hits a wall, then moves right until it hits a wall, and then repeats. If it gets hit by a bullet it dies.

Assumptions
LEFT, RIGHT and DEAD are all predefined values of State.
There are MoveLeft, MoveRight, CollideWithBullet, and Die functions already defined.

Survey

The Computer Science department at Cal Poly is contemplating a 100 level games design class. We are trying to gauge whether the students would be more comfortable with the class starting out with state diagrams or pseudo-code. These questions will help give us some indication of your skill level at each of these areas.

Please answer the following questions by circling the answer that best describes your answer.

The answers range from 1 – Easy, 3 – Average, 5 – Hard
1. How easy would it be to make state diagrams for a simple game?

      1   2   3   4   5

2. How easy would it be to write pseudo-code for a simple game?

      1   2   3   4   5

The answers range from 1 – None, 3 – Average, 5 – Expert
3. How much experience do you have with state machines?

      1   2   3   4   5

4. How much experience do you have coding?

      1   2   3   4   5

The answer ranges from 1 – None, 3 – Average, 5 – I want it now
5. How much interest would you have in a 100 level game design course?

      1   2   3   4   5