```
//  This is a program for moving a robot and tracking its position.
//  Insert missing code and correct errors where INSERT and CORRECT are
noted.

#include <iostream>

using namespace std;



class Robot
{
public:
//  Here are the function prototypes for class Robot.
//  INSERT missing line of code here.

  void setXPosition(int);
  void setYPosition(int);
  int getXPosition();
  int getYPosition();
  void moveForward(int);
//  INSERT three missing lines of code here.



  void inputMove();
  void displayPosition();

private:
//  Here are the private data members of Robot.
//  INSERT missing line of code here.

  int yPosition;
//  CORRECT the syntax error on the next line.
}   //  end class Robot


//  Implementations of the member functions of Robot start here.

//  INSERT constructor implementation here.




//  Member function to set xPosition
void Robot::setXPosition(int x)
{
//  INSERT missing line of code here

}
```

```
//  Member function to set yPosition
void Robot::setYPosition(int y)
{
   yPosition = y;
}

//  Member function to get xPosition
int Robot::getXPosition()
{
   return xPosition;
}

//  Member function to get yPosition
//  INSERT implementation of getYPosition() here


//  Member function to move forward
void Robot::moveForward(int distance)
{
  cout << "Robot is moving forward " << distance << " units" << endl;
  setYPosition(getYPosition() + distance);
}

//  INSERT implementations of moveBackward, moveLeft, and moveRight here


//  Member function to input robot's next move and implement the move
void Robot::inputMove()
{
   char direction;
   int distance;

   cout << "Please enter the direction the robot should move (F, B, L, or
R), \nfollowed by the integer distance: ";

//  INSERT a line of code to stream cin into the direction and distance
variables

//  INSERT eight lines of code to call the correct move function
depending on the direction




}


//  Member function to display the robot's current position
void Robot::displayPosition()
{
//  CORRECT the syntax errors on the next line
   cout << "Robot is located at x = " , getXPosition() ,  ", y = " ,
getYPosition() , endl , endl;
}
```

```
//  main function
int main()
{
//  Instantiation of object myRobot of class Robot
   Robot myRobot;

//  Display initial position of robot
//  CORRECT the syntax error on the next line
   myRobot.displayPosition()

//   Infinite loop
   while (1)
   {
//   INSERT code (function call) to input and implement the robot's next
move

//   INSERT code (function call) to display the current position of the
robot

   }

   return 0;
} // End program
```