A robot moves in a plane starting from the original point (0,0). The robot can move toward LEFT and RIGHT with one step, Record robot movement in a file and calculate the total distance.

```cpp
#include <iostream>
#include<fstream>
#include<windows.h>
using namespace std;
ofstream fout;
ifstream fin;
int main()
{
    system("Color F4");
    char ch,ch1;
    int pos;
    int m=0;
    do{
    cout<<"\nSelect Robot movement"<<endl;
    cout<<"'L' for left\n'R' for right\n'C' Check Movement\n'N' for Stop"<<endl;
    cin>>ch;

    switch(ch)
    {
    case 'L':
        m+=1;
        fout.open("d:/cpp/move.txt",ios::app);
        fout<<"LEFT"<<endl;
        fout.close();
        cout<<"Move 1eft"<<endl;
        break;
    case 'R':
        m+=1;
        fout.open("d:/cpp/move.txt",ios::app);
        fout<<"RIGHT"<<endl;
        fout.close();
        cout<<"Move right"<<endl;
        break;
    case 'C':
        cout<<"Enter Position'0' for start '1' for Left '2' For Right"<<endl;
        cin>>pos;
        if(pos==0)
        {
            fin.open("d:/cpp/move.txt");
            fin.seekg(0,ios::beg);
            fin.tellg();
            while(!fin.eof())
```

```cpp
                {
                ch1=fin.get();
                cout<<ch1;
                }
                fin.clear();
                fin.close();
            }
            if(pos==1)
            {
                fin.open("d:/cpp/move.txt");
                fin.seekg(5,ios::beg);
                fin.tellg();
                while(!fin.eof())
                {
                ch1=fin.get();
                cout<<ch1;
                }
                fin.clear();
                fin.close();
            }
            if(pos==2)
            {
                string line;
                fin.open("d:/cpp/move.txt");
                fin.seekg(0,ios::beg);
                fin.tellg();
                while (getline(fin, line ))
                {
                    if (line == "RIGHT")
                    {
                        while(!fin.eof())
                        {
                        ch1=fin.get();
                        cout<<ch1;
                        }
                    }
                }
                fin.clear();
                fin.close();
            }

        break;
    case 'N':
        cout<<"Total Movement:"<<m<<endl;
        break;
    }
    }while(ch!='N');
    fout.open("d:/cpp/move.txt",ios::app);
```

```
    fout<<"Total Movement:"<<m<<endl;
    fout.close();
    return 0;
}
```

Output Screen:

```
Select Robot movement
'L' for left
'R' for right
'C' Check Movement
'N' for Stop
L
Move 1eft

Select Robot movement
'L' for left
'R' for right
'C' Check Movement
'N' for Stop
R
Move right

Select Robot movement
'L' for left
'R' for right
'C' Check Movement
'N' for Stop
N
Total Movement:2

Process returned 0 (0x0)   execution time : 7.232 s
Press any key to continue.
```