Sensor board for Light Following is also the same above just remove the 120 ohms resistors and LEDs since you will provide your own light source.

Code

```
1       <em>void main() {
2        portb = 0x00;
3        trisa = 0x0f;
4        trisb = 0x00;
5        while(1){
6        if (porta.f0 == 0){
7        if (porta.f1 == 0){ //00
8        if (porta.f2 == 0){
9        if (porta.f3 == 0){ //0000
10       portb = 0x00;
11       }
12       else if (porta.f3 == 1){ //0001
13       portb = 0x60; //move left
14       }
15       }
16       else if (porta.f2 == 1){
17       if (porta.f3 == 0){ //0010
18       portb = 0x90; //move right
19       }
20       else if (porta.f3 == 1){ //0011
21       portb = 0x50; //move forward
22       }
23       }
24       }
25       else if (porta.f1 == 1){ //01
26       portb = 0x50; //move forward
27       }
28       }</em>
```

```
29
30      else if (porta.f0 == 1){
31       if (porta.f1 == 0){ //10
32       portb = 0xa0; //move backward
33       }
34       else if (porta.f1 == 1){ //11
35       if (porta.f2 == 0){
36       if (porta.f3 == 0){ //1100
37       portb = 0x00;
38       }
39       else if (porta.f3 == 1){ //1101
40       portb = 0x60; //move left
41       }
42       }
43       else if (porta.f2 == 1){
44       if (porta.f3 == 0){ //1110
45       portb = 0x90; //move right
46
47      }
48       else if (porta.f3 == 1){ //1111
49       portb = 0x00; //move forward
50       }
51       }
52       }
53       }
54       }
55       }
```