2.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S1 | S2 | S3 | switch1 | switch2 | switch3 | IC5A\_OUT | IC3A\_OUT | IC1A\_OUT | IC6\_OUT | OUTPUT |
| ON | ON | ON | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| ON | ON | OFF | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| ON | OFF | ON | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| ON | OFF | OFF | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| OFF | ON | ON | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 |
| OFF | ON | OFF | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| OFF | OFF | ON | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| OFF | OFF | OFF | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |

3

A:

ls-lht

B:

cd dir

pwd

C:

mv hw3data.dat /home/root/hw3

cd /home/root/hw3

mv hw3data.dat hw3trial1.dat

D

cat command can see the content in one file

besides that, less command can work more flexible, including the function of page up, page down, search items…

E:

ifconfig: we use this command to show and setup the network connect. It is used when we put the robot on the floor and update codes by Wi-Fi

ping: check the connection between the robot and the computer, we need that to guarantee uploading the program successfully

F:

date --set="5 March 2012 14:30:00"

6

switch(statevar)

{

case 1:

if (no\_pink\_is\_seen)

{

move\_towards\_x,y;

if(front\_distance < set\_value)

{

statevar = 2;

}

}

else

{

statevar = 3;

}

break;

case 2:

if (no\_pink\_is\_seen)

{

right\_wall\_follows;

if(front\_distance > set\_value)

{

statevar = 1;

}

}

else

{

statevar = 3;

}

break;

case 3:

move\_towards\_pink;

if (can't\_see\_pink)

{

statevar = 1;

}

break;

}