sbit cs = P1^6;

sbit mosi = P1^4;

sbit miso = P1^5;

sbit clk = P1^3;

float spi\_adc\_read(bit d1,bit d0)

{

unsigned int adc\_val=0;char j;

cs = 0; //chip select communication start

clk=0;mosi=1;clk=1; //when cs=0 and mosi=1 it constitute a start bit

clk=0;mosi=1;clk=1; //single ended mode

clk=0;clk=1; //d2 is dont care in MCP3204

clk=0;mosi=d1;clk=1;

clk=0;mosi=d0;clk=1;

clk=0;clk=1; //sampling

clk=0;clk=1; //null bit

/\*\* read 12bit digital code\*\*/

for(j=11;j>=0;j--)

{

clk=0;

if(miso)

adc\_val|=(1<<j);

clk=1;

}

cs =1;//communication stop

return ((adc\_val\*5.0\*100)/4096);

}