PROGRAM FOR ADC

#include "LPC214x.h"

int main(void)

{

int a;

unsigned char Channel = 2;

PINSEL1 = 0x04000000; // Select ADC to pin P0.29

InitializeLCD(); // Initialize LCD

DisplayLCD(0," ADC DEMO "); // Display message

DisplayLCD(1,"Channel 2: "); // Display message

while(1)

{

a=ReadADC(Channel); // Read ADC channel 2

DisplayLCD2Digit(1,10, (a >> 8)); // Display it on 2nd line of LCD

DisplayLCD2Digit(1,12, (a & 0xff));

LCDDelay1600();

}

}

//Read ADC data from given channel number

int ReadADC(char ChannelNumber)

{

int val,ch;

ch = 1<<ChannelNumber;

AD0CR = 0x00210400 | ch; // Setup A/D: 10-bit AIN @ 3MHz

AD0CR |= 0x01000000; // Start A/D Conversion

do

{ val = AD0DR2; // Read A/D Data Register

while ((val & 0x80000000) == 0); // Wait for the conversion to complete

val = ((val >> 6) & 0x03FF); // Extract the A/D result

AD0CR &= ~0x01000000; // Stop A/D Conversion return(val); // Return the Data Read

}

PROGRAM FOR LCD:

#include "LPC214x.h" /\* LPC21xx definitions \*/

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