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#include "DSP28x_Project.h"           // Device Headerfile and Examples Include File
#include "f2802x_common/include/adc.h"
#include "f2802x_common/include/clk.h"
#include "f2802x_common/include/comp.h"
#include "f2802x_common/include/flash.h"
#include "f2802x_common/include/gpio.h"
#include "f2802x_common/include/pie.h"
#include "f2802x_common/include/pll.h"
#include "f2802x_common/include/pwm.h"
#include "f2802x_common/include/wdog.h"

void INITADC_COMP(void);
void InitAio(void);

void main()
{
    InitSysCtrl();
    SysCtrlRegs.PCLKCR0.bit.ADCENCLK = 0;
    DINT;

    INITADC_COMP();

    InitAio();
}

void INITADC_COMP(void)
{
#define ADC_usDELAY 2000L
extern void DSP28x_usDelay(Uint32 Count);

EALLOW;

    SysCtrlRegs.PCLKCR0.bit.ADCENCLK = 1;           // Enables the clock
    (*Device_cal)();

    AdcRegs.ADCCTL1.bit.ADCBGPWD = 1;               //1= Power ADC BG
    AdcRegs.ADCCTL1.bit.ADCREFPWD = 1;               //1= Power reference
    AdcRegs.ADCCTL1.bit.ADCPWDN = 1;                 //1= Power ADC
    AdcRegs.ADCCTL1.bit.ADCENABLE = 1;               //1= Enable ADC
    AdcRegs.ADCCTL1.bit.ADCREFSEL = 1;               //0= Select internal BG
    SysCtrlRegs.PCLKCR3.bit.COMP2ENCLK = 1;          //energopoiei to clock ston Comparator 2

    Comp2Regs.COMPCTL.bit.COMPSOURCE=1;              //gia na exw san inverted input to Comparator 2B

    Comp2Regs.COMPCTL.bit.COMPDACEN=1;               //Comparator/DAC logic is powered up
    Comp2Regs.COMPCTL.bit.CMPINV=0;                  //auto shmainei oti ama compA>compB to output tha
    einaí -->1
    Comp2Regs.COMPCTL.bit.SYNCSEL=1;                  //synxronizetai me to clock

    Comp2Regs.DACCTL.bit.DACSOURCE;                   // gia na exw san eisodo tou DAC to DACVAL register
    kai oxi thn ramp.

    //Comp2Regs.DACVAL.bit.DACVAL=200;                //Vinv=DACVAL*(VDDA-VSSA)/1023

    Comp2Regs.COMPCTL.bit.QUALSEL = 0x9;

    DELAY_US(ADC_usDELAY);

    EDIS;
}

```