11/Rawalldatelest
1) Bowd data sheet LEDs Pl.O (100)
Pl.6 (Green)
2) Chip datasheet Pinout Pl.6/TAO.1 Timer #10 Chamel 1
Pinout Pl.6/TAO.1 Timer # 0 Chamel 1
(P1.0 -7 8 no timer
D49 + Direct H. D.
PIDIR = Mails the Pin
PISELI = 1) MOOI E CHANGA
PICE IV = CICAL CONTRACTOR OF THE CONTRACTOR OF
Charle 1 Jacobs 10 C
Timer output
tragle Via interrupt
TAZ
tagoka de la
1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 =
Delay : State Clock, CPU, Save PC, Sk
Timer Output trople Via interrupt Thempt Tolay: 50 Activate Clock, CPU, Save PC, SE find & launch ISE
Signal
69.

01/21 using Channel 1 STATE COLL Timer output 3: Set/reset 7: leset/set 1 201 / 106 - ND (S Channel | rollback +0 (TAR = TACIRI) (UP, Continuous) ALT THE CARE THE PWM to do LED brightness Frequency = 100Hz (0.01 sec) VLO: 12hHz -> 120 cycles Tupmaze Channel | TACCRI = 40,6 -7 reset/set (0-120) more torightness TAR T dity eycle = 40 120

Eg Timer O. A.) UPMode! NLO 112huz | leset/set (A7)

TACCR [O-120] Tage = 20 intirity

Timer 1-A., UPMode (1 sec Interval W/interrupt) (12000 cycles)

=7 Cycle TACCR1 20-40-60-80)

#define LED Pl.6

// Divert Pin to TAO. 1

PIDIR I = LED;

PISELI I = LED;

PISELI X = w(LED);

// Timer #O

TACCR I = 120;

// Output mode #17 on Channel I

TACCR I = 20;

TACCR I = 20;

TACCR I = 20;

Mantput mode #17 on Channel 1

TACCRI = 20;

TACCTLI | DUTMODIL 7; 11. Set | reset)

If Timer #1

TAICCRO = (12000-1);

TAICCTLO I = CCIE;

TAICCTLO & = CCIFG;

TAICTLE = TASSEI_ 1 | ID_O| MC 1 | TACIR;

-low-power-Mode-3();

ISR on Nett Page

Noid TAI-AD-ISR() 2 if (TACCRI >= 80) TACCRI = ZO; else monthing TACCRI += 20; Mhartesare Clears Flag Mont of the Total PITTE LA LALLE MASS. THE PARTY OF THE STATE OF THE S PISELZ RENCLESS BELLEVILLE CONTRACTOR CONTRACTOR SALE OH NOW FA THE CALL PARE BULL TO CHELLE Sterry Wood of the John Charles I also ENTERED TO CONTRACTOR IN SECTION

1 Trace HI

```
Post 1 / mashr BUTI BUTZ active low
     Emash LEDI, LEDZ active high
     MinHinline LED
     DIDIR 1= (LEDI/LEDZ);
     PLOUT X = N(LEDI LEDZ);
    1/ Buttons
     PIDIZ X=N(BUTI | BUTZ);
 PIRENI= (- );
    PITES 1 = (
PITELL = [ ( DIEN );
     PITEG X = n(
     = low - parer_ node _ 40; _enable interrupt ();
   MI (++ = + = + = ) = Menor of for();) { }
    Void Port 1- ISRO &
         1/ Detect button 1:
         if (PIIFG & BUTI) != 0) {
            PLOUT (= LEDI;
               PIIFG X = NBUTI 3
         if (PITEG X BJT 2)! = 0) {
           PLOUT 1 = LEDZ;
           3 PITFG & = WBUTZ;
```

3

Timer Capiture los-poser unde overriding feature - Available in some MSP 430 chips Advanced - prevent unitentional shutoff of clock reeded. - If LPM | Shutsdoon a clock and a modale requests it, this Clock will activate as long as the rodile uses it. 8 (00) (1110) (10) TOUT IS LEDIY I TUST A I TO BUTTY I A HPILEGRENZ)! = O) 2 12/00/11 = 12/02 PILLE & ENGRISH

```
9 13
LCD
       LCDMO-LCDM7: Address array
        11 test
          uint_86 * Ptr = + LCDMB;
          in+11,
           for(1=0, 148', 1++){
           3 P+1E3 = 0x FF;
Display 16 Bit assigned up to 65535 -> 5 digits
     void display - Vint 16 ( Wint 16 - + n) {
           Vint_ Bt *pr = * LCD M&
          20 %
              digit = 1%10;
              P+V[] = Jight
               n= n/10;
              1++;
         3 white (n != 0);
         while ( =7) {
             PTr[:] = 0;
              1++;
```