timeEvent.c | main.c | Available Resources | Pin Module | DMA Manager | Interrupt Module | System Module

ource | History

```
12  int readKeypad();
    int musical_note(i);
14  float T, f;
15  unsigned int n = 0, m = 0;
16  /*
17                          Main application
18   */
19
20
21  void main(void)
22  {
23      // Initialize the device
24      SYSTEM_Initialize();
25      clearPuTTY();
26      //unsigned int n = 0, m = 0;
27      //float T, f;
28      //unsigned int has_switch1_changed=0,has_switch2_changed=0,has_switch3_changed=0,has_switch4_changed=0;
29      int k;
30      //col_RC2_SetHigh();
31      printf("Press buttons\n\r");
32      char password[5];
33
34
35      printf("\n\rEasy Setup value of PWM5DC is %u \n\r", PWM5_INITIALIZE_DUTY_VALUE);
36      printf("%DC = %.1f \n\n\r", (float)PWM5_INITIALIZE_DUTY_VALUE*100.0/(PR2+1)/4.0);
37
38
39      while (1)
40      {
41          // Add your application code
42          //readKeypad();
43          k=readKeypad();
44          //printf("\n\rk = %u",k);
45          musical_note(k);
46
```

Source History

```
54
55  int readKeypad()
56  {
57      int i=0;
58
59          col_RC1_SetHigh();
60          col_RC2_SetLow();
61          col_RC3_SetLow();
62          //printf("\n\rcol 1 powered\n\r");
63          if(row_RC4_GetValue()==1)
64          {
65              printf("\n\rbutton 1");
66              i=1;
67              //printf("i = %u",i);
68          }
69
70
71
72          if(row_RC5_GetValue()==1)
73          {
74              printf("\n\rbutton 4");
75              i=2;
76          }
77
78
79          if(row_RC6_GetValue()==1)
80          {
81              //printf("\n\rbutton 7");
82              i=3;
83          }
84
85          if(row_RC7_GetValue()==1)
86          {
87              //printf("\n\rbutton *");
88              i=4;
89          }
```

```
90
91
92          DELAY_milliseconds(1);
93
94          col_RC2_SetHigh();
95          col_RC1_SetLow();
96          col_RC3_SetLow();
97          //printf("\n\rcol 2 powered\n\r");
98
99          if(row_RC4_GetValue()==1)
100         {
101             //printf("\n\rbutton 2");
102             i=5;
103         }
104
105
106         if(row_RC5_GetValue()==1)
107         {
108             //printf("\n\rbutton 5");
109             i=6;
110         }
111
112
113         if(row_RC6_GetValue()==1)
114         {
115             //printf("\n\rbutton 8");
116             i=7;
117         }
118
119         if(row_RC7_GetValue()==1)
120         {
121             //printf("\n\rbutton 0");
122             i=8;
123         }
124
125
```

Source History

```
126             DELAY_milliseconds(1);
127
128             col_RC2_SetLow();
129             col_RC1_SetLow();
130             col_RC3_SetHigh();
131             //printf("\n\rcol 3 powered");
132
133             if(row_RC4_GetValue()==1)
134             {
135                 //printf("\n\rbutton 3");
136                 i=9;
137             }
138
139
140             if(row_RC5_GetValue()==1)
141             {
142                 //printf("\n\rbutton 6");
143                 i=10;
144             }
145
146
147             if(row_RC6_GetValue()==1)
148             {
149                 //printf("\n\rbutton 9");
150                 i=11;
151             }
152
153             if(row_RC7_GetValue()==1)
154             {
155                 //printf("\n\rbutton #");
156                 i=12;
157             }
158
159             return i;
160     }
161
```

```
int musical_note(i)
{
    switch(i)
        {
        case 0: PWM5_LoadDutyValue(0);
                break;
        case 1: PR2=117;
                PWM5_LoadDutyValue(236);
                break;
        case 2: PR2=112;

                PWM5_LoadDutyValue(2226);
                break;
        case 3: PR2=105;

                PWM5_LoadDutyValue(212);
                break;
        case 4: PR2=98;

                PWM5_LoadDutyValue(198);
                break;
        case 5: PR2=93;

                PWM5_LoadDutyValue(188);
                break;
        case 6: PR2=88;

                PWM5_LoadDutyValue(178);
                break;
        case 7: PR2=83;

                PWM5_LoadDutyValue(168);
                break;
        case 8: PR2=78;
```

timeEvent.c | main.c | Available Resources | Pin Module | DMA Manager | Interrupt Module | System Module

Source | History

```
189                     PWM5_LoadDutyValue(178);
190                     break;
191             case 7: PR2=83;
192
193                     PWM5_LoadDutyValue(168);
194                     break;
195             case 8: PR2=78;
196
197                     PWM5_LoadDutyValue(158);
198                     break;
199             case 9: PR2=73;
200
201                     PWM5_LoadDutyValue(148);
202                     break;
203             case 10: PR2=69;
204
205                     PWM5_LoadDutyValue(140);
206                     break;
207             case 11: PR2=66;
208
209                     PWM5_LoadDutyValue(134);
210                     break;
211             case 12: PR2=62;
212
213                     PWM5_LoadDutyValue(126);
214                     break;
215             default:
216                     break;
217             }
218
219             n = T2CONbits.CKPS;     // prescaler setting
220             T = ((float)PR2 + 1.0)*pow(2.0,n)*4.0/_XTAL_FREQ;
221             f = 1/T;
222             //printf("TMR2 settings: %u = 0x%x, N = %.0f, T = %f s, f = %f Hz \n\r",PR2, PR2,pow(2,n), T, f);
223
224
```