

```
#include "Local_subroutines.c"
int main (void)           //Example 4
{ unsigned int PORT_1;
  int T1_period = 15;
  setup_HW;
  while(1){
    PORT_1 = 1;
    for (int m = 0; m <= 15; m++)
    { I2C_Tx_2_integers
      (PORT_1 << m, PORT_1 << m);
      Timer_T0_10mS_delay_x_m(T1_period);}
    for (int m = 14; m; m--)
    { I2C_Tx_2_integers
      (PORT_1 << m, PORT_1 << m);
      Timer_T0_10mS_delay_x_m(T1_period); }
    if(switch_1_down)T1_period =
      Adjust_T1_period(T1_period);}}
```

```
    int main (void)       //Example 5
{ unsigned int PORT_1, PORT_2;
  setup_HW;
  while (1)
  { PORT_1 = 0b0000000000000001;
    PORT_2 = 0b1000000000000000;
    for (int m = 0; m <= 15; m++)
    { I2C_Tx_2_integers(PORT_1, PORT_2);
      _delay_ms(60);
      PORT_1 = PORT_1 << 1;
      PORT_2 = PORT_2 >> 1;
    }}return 1; }
```

```
    int main (void)       //Example 6
{ unsigned long PORT_1, PORT_2;
  setup_HW;
  while (1)
  { PORT_1 = 1;
    PORT_2 = 0x80000000;
    for (int m = 0; m <= 31; m++)
    { I2C_Tx_2_integers(PORT_1, PORT_2);
      _delay_ms(60);
      PORT_1 = PORT_1 << 1;
      PORT_2 = PORT_2 >> 1;
    }}return 1;}
```