

```
#include "Proj_1G_header_file.h"
```

```
char Dimmer_control;
```

```
int main (void){
```

```
unsigned int PORT_1;
```

```
setup_HW;
```

```
UCSR0B |= (1 << RXCIE0);
```

```
sei();
```

```
Dimmer_control = 1;
```

```
while(1){
```

```
PORT_1=1;
```

```
for(int m = 1; m < 17; m++){
```

```
cli();I2C_Tx_2_integers(PORT_1, PORT_1);sei();
```

```
Timer_T0_10mS_delay_x_m(6);
```

```
PORT_1 = PORT_1 << 1;}}}
```

```
ISR(USART_RX_vect){
```

```
receiveChar();
```

```
I2C_Tx(1, 'Q', &Dimmer_control);}
```

```
/*Local version of subroutine "I2C_Tx()"
```

```
void I2C_Tx_local(char num_bytes, char mode, char* s){
```

```
waiting_for_I2C_master;
```

```
send_byte_with_Ack(num_bytes);
```

```
send_byte_with_Ack(mode);
```

```
for (int m = 0; m < num_bytes; m++){
```

```
if (m==num_bytes-1){send_byte_with_Nack(s[m]);}
```

```
else {send_byte_with_Ack(s[m]);}}
```

```
TWCR = (1 << TWINT);}*/
```

```
//Turn on I2C slave and await call from master  
//send data byte, request acknowledgement
```

```
//Last byte, no acknowledgement needed
```

```
//Clear interrupt and close I2C slave
```