```
#include "Main.h"
void main ( void )
{
    int sensorHit = 1;
    int redBeaconStillOn = 1;
    int Range = 0;
    int currentTries = 3;
    PrintToScreen ( "Test\n" ) ;
    freq=0; // 0=1khz (red), 1=10kHz(green beacon)
    ambient_level = 100; // esed in 'move'
    slow_level = 3000; // used in 'move'
    stop_level = 5000; // used in 'move'
    expose_time = 3; // used in expose_and_read
    steer_sensitivity = 20; // used in 'move'
    forward_speed = 75; // forward speed, used in 'move'
    slow_speed = 35; // slow speed, used in 'move'
    spin_speed = 80; // spin speed (for searching mode), used in 'move'
    SetDigitalOutput ( 10 , freq ) ; // turn to 1kHz (red beacon)
    while ( sensorHit == 1 )
    {
        sensorHit = GetDigitalInput ( 4 ) ;
        Read_PD (   ) ;
        find_max ( ) ;
        move ( ) ;
    }
    SetMotor ( 1 , 0 ) ;
    SetMotor ( 10 , 0 ) ;
    while ( redBeaconStillOn == 1 )
    {
        SetMotor ( 2 , 60 ) ;
        Wait ( 600 ) ;
        SetMotor ( 2 , 0 ) ;
        Wait ( 600 ) ;
        SetMotor ( 2 , -40 ) ;
        Wait ( 800 ) ;
        SetMotor ( 2 , 0 ) ;
        Wait ( 250 ) ;
        Read_PD (   ) ;
        find_max ( ) ;
        if ( PD_sum < ambient_level  )
        {
            redBeaconStillOn = 0;
        }
        else
        {
            currentTries--;
        }
        if ( currentTries <= 0 )
        {
            currentTries = 3;
            SetMotor ( 1 , -85 ) ;
            SetMotor ( 10 , 100 ) ;
            Wait ( 800 ) ;
            sensorHit = 1;
            while ( sensorHit == 1 )
```

```
            {
                sensorHit = GetDigitalInput ( 4 ) ;
                Read_PD (   ) ;
                find_max ( ) ;
                move ( ) ;
            }
            SetMotor ( 1 , 0 ) ;
            SetMotor ( 10 , 0 ) ;
        }
    }
    SetMotor ( 1 , -85 ) ;
    SetMotor ( 10 , 100 ) ;
    Wait ( 1000 ) ;
    sensorHit = 1;
    freq = 1;
    SetDigitalOutput ( 10 , freq ) ; // turn to 1kHz (red beacon)
    while ( sensorHit == 1 )
    {
        sensorHit = GetDigitalInput ( 4 ) ;
        slow_speed = 50;
        Read_PD (   ) ;
        find_max ( ) ;
        move ( ) ;
    }
    SetMotor ( 1 , 0 ) ;
    SetMotor ( 10 , 0 ) ;
    SetMotor ( 2 , 45 ) ;
    Wait ( 700 ) ;
    SetMotor ( 2 , 0 ) ;
    Wait ( 200 ) ;
    StartUltrasonic ( 2 , 1 ) ;
    while ( 1==1 )
    {
        Range = GetUltrasonic ( 2 , 1 ) ;
        if ( Range <= 20 )
        {
            SetMotor ( 1 , 60 ) ;
            SetMotor ( 10 , 60 ) ;
            Wait ( 1250 ) ;
        }
        else
        {
            SetMotor ( 1 , -110 ) ;
            SetMotor ( 10 , 127 ) ;
        }
    }
}
```