```
1  /**
2    Infrared Action (Transmitter) - Mission Possible MK2
3    Ward Melville HS Science Olympiad - Team A - 2017-2018
4    infraredTinyOne.ino
5    Purpose: Sends a message comprosed of three 100 millisecond pulses separated by 100
   milliseconds using an infrared LED.
6
7    @author David Cutting
8    @version 2.0 3/3/2018
9  */
10
11 #define F_CPU 8000000
12 #define __AVR_ATtiny25__
13 #include <avr/interrupt.h>
14
15 // Definitions for microcontroller pin numbers
16 const int IN_PIN = 3;
17 const int LED_PIN = 1;
18
19 // Variables for states of the pins
20 bool inState = LOW;
21 bool outState = LOW;
22
23 // Variables and constants for the debounce code
24 unsigned int counter = 0;
25 const int DEBOUNCE_COUNT = 50;
26 long time = 0;
27
28 void setup() {
29   // Set the microcontroller pins as either inputs or outputs
30   //wdt_disable();
31   sei();
32   pinMode(IN_PIN, INPUT);
33
34   //PLLCSR = (1<<PCKE) | (1<<PLLE); // Enable 64 MHz PLL and use as source for Timer1
35   pinMode(LED_PIN, OUTPUT);
36   OCR1C = 199;  // Frequency
37   OCR1A = 0;  // Duty cycle
38   TCCR1 = (1<<CS12) | (1<<COM1A1) | (1<<COM1A0) | (1<<PWM1A); // Set PWM
   with a prescaler of 2
39   GTCCR = (1<<PWM1B) | (1<<COM1B1) | (1<<COM1B0); // clear on match, enable PWM
40 }
41
42 void loop() {
43   if(digitalRead(IN_PIN)) {
44     GTCCR &= (0<<PWM1B);
45     OCR1A = 128;  // Duty cycle
46     GTCCR |= (1<<PWM1B);
47     delay(5);
48     GTCCR &= (0<<PWM1B);
49     OCR1A = 0;  // Duty cycle
50     GTCCR |= (1<<PWM1B);
51     delay(5);
52   }
```

```
53
54 }
55
```