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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 continuous stream of 50 millisecond pulses separated by 50 milliseconds
   using an infrared LED.
6
7    @author David Cutting
8    @version 1.1 1/26/2018
9  */
10
11 // Definitions for microcontroller pin numbers
12 const int IN_PIN = 3;
13 const int LED_PIN = 1;
14
15 // Variables for states of the pins
16 bool inState = LOW;
17 bool outState = LOW;
18
19 // Variables and constants for the debounce code
20 unsigned int counter = 0;
21 const int DEBOUNCE_COUNT = 50;
22 long time = 0;
23
24 void setup() {
25   // Set the microcontroller pins as either inputs or outputs
26   pinMode(IN_PIN, INPUT);
27   pinMode(LED_PIN, OUTPUT);
28   digitalWrite(LED_PIN, LOW);
29 }
30
31 void loop() {
32
33   if(millis() != time && outState == LOW) { // If more than one millisecond has elapsed
   since the last loop...
34     inState = digitalRead(IN_PIN); // Read the current state of the probe and store it
35
36     if(inState == HIGH) { // If the state of the probe is low (quarter is present)...
37       counter++; // Increment the counter
38     }
39     else { // Otherwise...
40        counter = 0; // Reset the counter
41     }
42     if(counter >= DEBOUNCE_COUNT) { //  If the counter is greater than the debounce
   threshold...
43       counter = 0; // Reset the counter
44       outState = HIGH; // Set the trigger state to high
45       for(int i=0; i<10; i++){
46         digitalWrite(LED_PIN, HIGH);
47         delay(50);
48         digitalWrite(LED_PIN, LOW);
49         delay(50);
50       }
51     }
```

```
52      time = millis(); // Record the current time in milliseconds
53    }
54
55  }
56
```