

```
#include <Wire.h>
```

```
#include <LiquidCrystal_I2C.h>
```

```
LiquidCrystal_I2C lcd(0x27, 16, 2);
```

```
const int trigPin = 9;
```

```
const int echoPin = 10;
```

```
bool running=true;
```

```
float duration, distance;
```

```
void setup() {
```

```
    pinMode(trigPin, OUTPUT);
```

```
    pinMode(echoPin, INPUT);
```

```
    lcd.init();
```

```
    lcd.backlight();
```

```
    lcd.setCursor(1, 0);
```

```
    lcd.print("Hello!");
```

```
    delay(1500);
```

```
    lcd.setCursor(1, 1);
```

```
    lcd.print("Goodbye");
```

```
    delay(1500);
```

```
    lcd.clear();
```

```
    Serial.begin(9600);
```

```
}
```

```
void loop() {
```

```
    while (running==true)
```

```
    {
```

```
digitalWrite(trigPin, LOW);  
delayMicroseconds(2);  
digitalWrite(trigPin, HIGH);  
delayMicroseconds(10);  
digitalWrite(trigPin, LOW);  
  
duration = pulseIn(echoPin, HIGH);  
distance = (duration*.0343)/2;  
  
delay(100);  
if (distance>40){  
    lcd.print("More!");  
    delay(300);  
    lcd.clear();  
    Serial.print("Distance: ");  
    Serial.println(distance);  
}  
if (distance<40){  
    lcd.print("Stop!");  
    delay(300);  
    Serial.print("Distance: ");  
    Serial.println(distance);  
    running=false;  
}  
}  
}
```