```
#include <SPI.h>
#include <Wire.h>
#include  <Adafruit_GFX.h>
#include  <Adafruit_SSD1306.h>

#define SCREEN_WIDTH 128 // OLED display width, in pixels
#define SCREEN_HEIGHT 64 // OLED display height, in pixels

// Declaration for SSD1306 display connected using software
SPI (default case):
#define OLED_MOSI   9
#define OLED_CLK   10
#define OLED_DC    11
#define OLED_CS    12
#define OLED_RESET 13
Adafruit_SSD1306 display(SCREEN_WIDTH, SCREEN_HEIGHT,
                         OLED_MOSI, OLED_CLK, OLED_DC,
OLED_RESET, OLED_CS);

// defines pins numbers
const int trigPin = 5;
const int echoPin = 6;
// defines variables
long duration;
int distance;

void setup() {
  Serial.begin(9600);

  // SSD1306_SWITCHCAPVCC = generate display voltage from 3.
3V internally
  if (!display.begin(SSD1306_SWITCHCAPVCC)) {
    Serial.println(F("SSD1306 allocation failed"));
    for (;;); // Don't proceed, loop forever
  }
  // Show initial display buffer contents on the screen --
  // the library initializes this with an Adafruit splash
screen.
```

```
   display.display();
  pinMode(trigPin, OUTPUT); // Sets the trigPin as an Output
  pinMode(echoPin, INPUT); // Sets the echoPin as an Input
  // Clear the buffer
   display.clearDisplay();
}

void loop()
{
  display.setTextSize(2); // Draw 2X-scale text
   display.setTextColor(WHITE);
  display.setCursor(0, 5);

  digitalWrite(trigPin, LOW);
   delayMicroseconds(2);
  // Sets the trigPin on HIGH state for 10 micro seconds
  digitalWrite(trigPin, HIGH);
   delayMicroseconds(10);
  digitalWrite(trigPin, LOW);
  // Reads the echoPin, returns the sound wave travel time i
microseconds
  duration = pulseIn(echoPin, HIGH);
  // Calculating the distance
  distance = duration * 0.034 / 2;
  // Prints the distance on the Serial Monitor

   display.clearDisplay();
  display.println("Distance: ");
   display.print(distance);
  display.print(" cm");

  display.display();
  delay(1000);
}
```