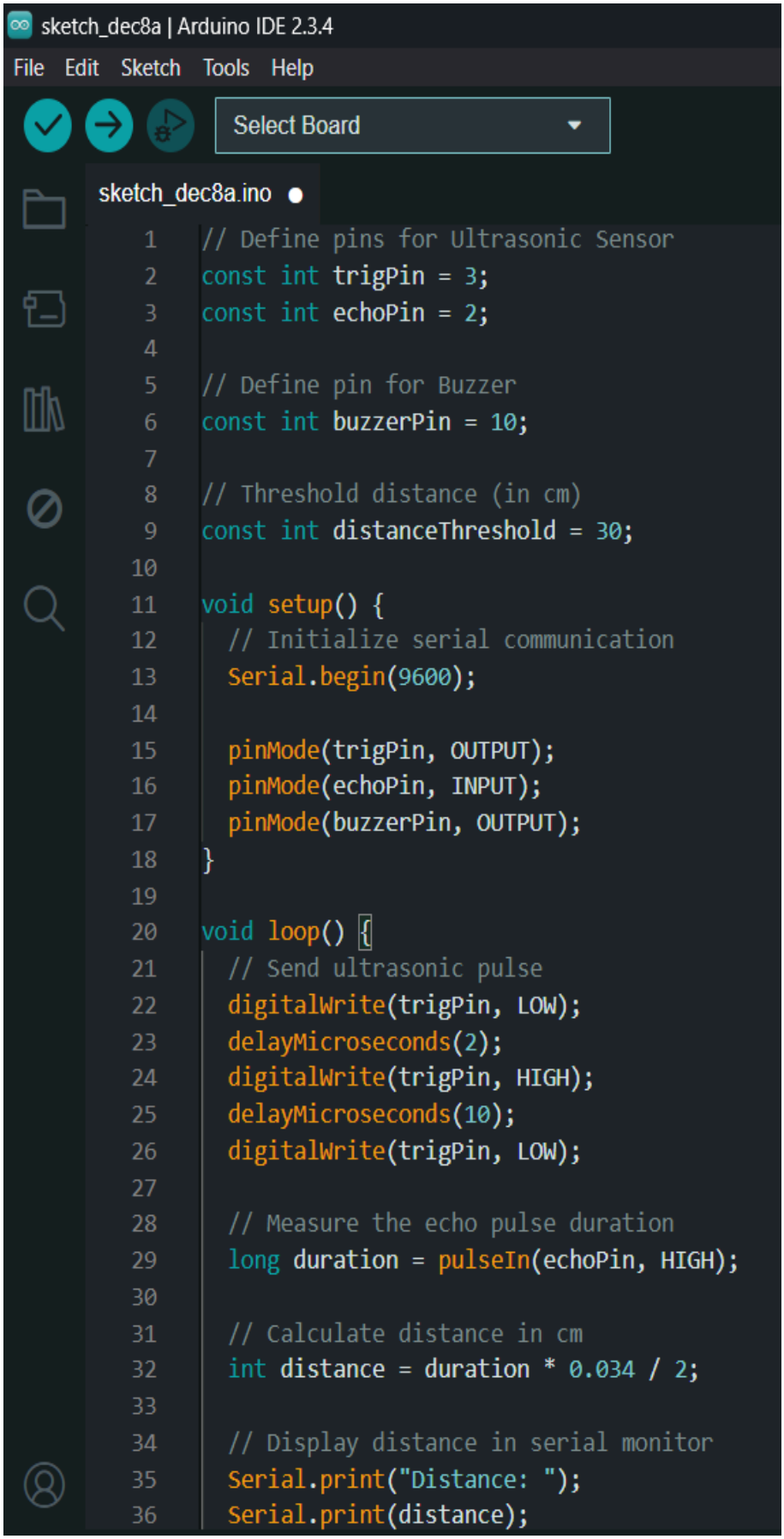
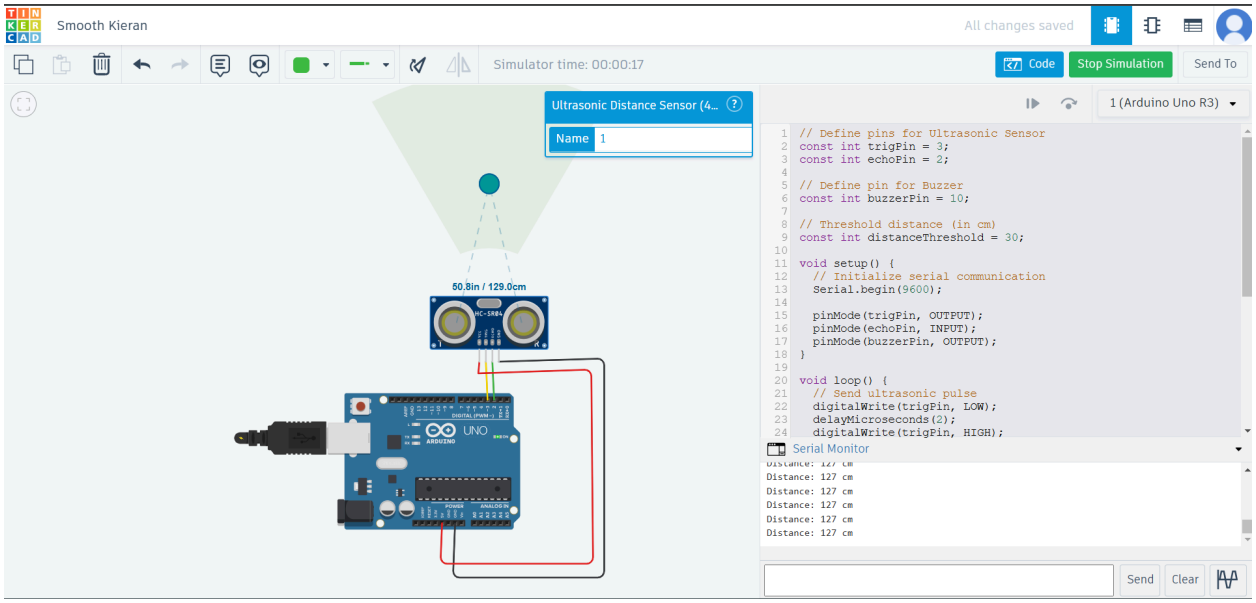
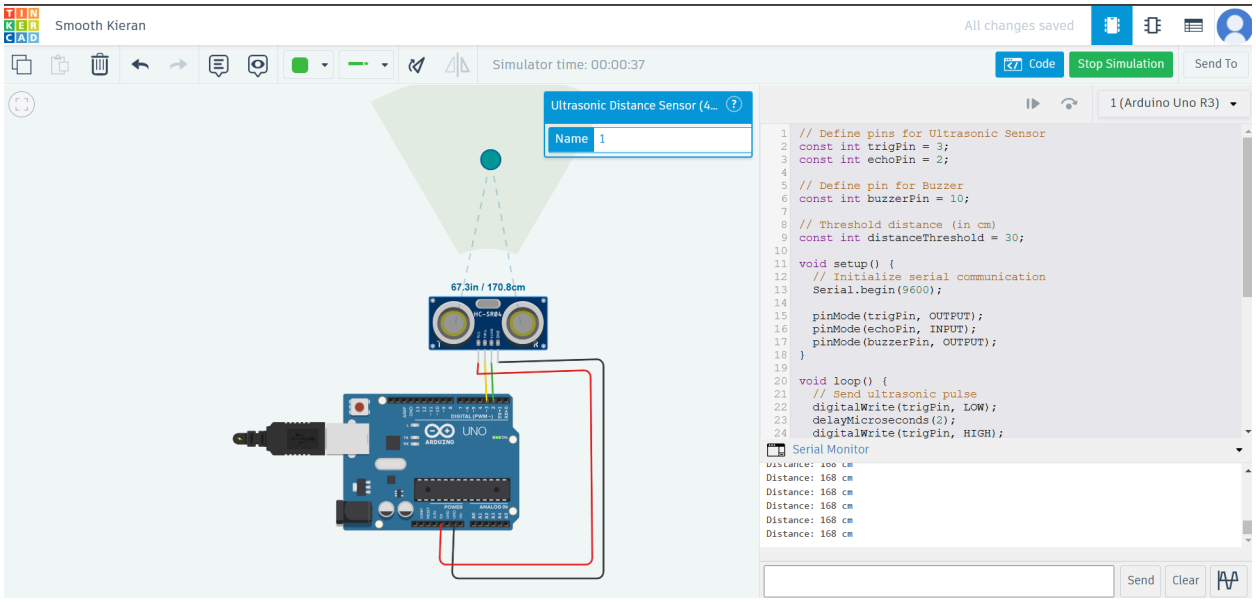
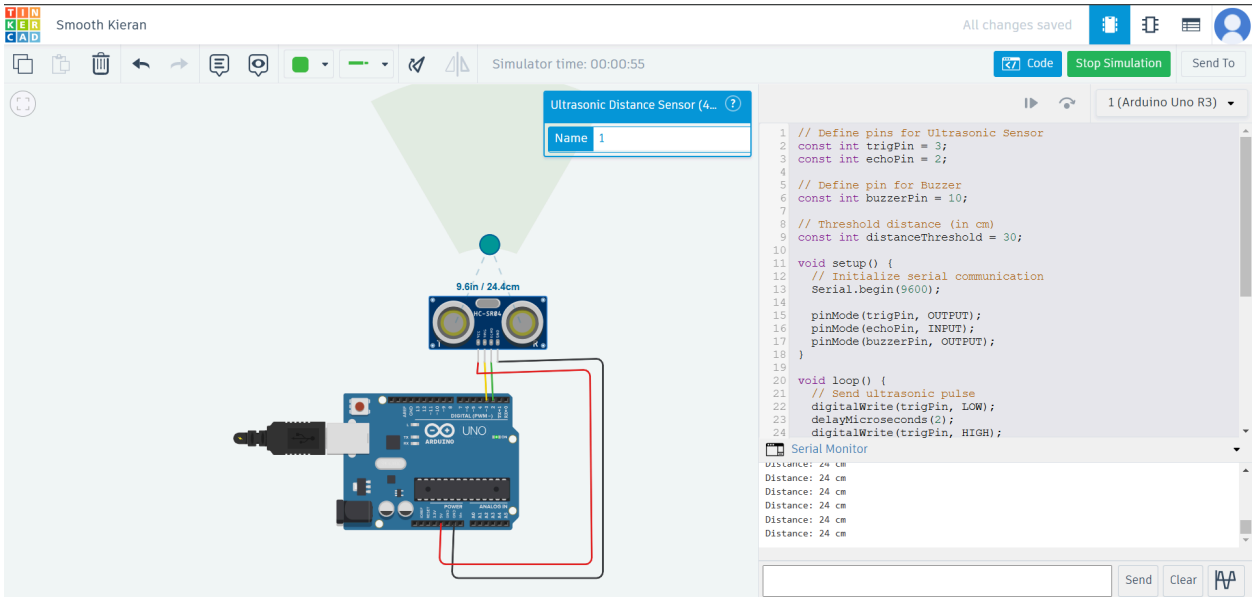

sketch_dec8a | Arduino IDE 2.3.4
File Edit Sketch Tools Help
Select Board
sketch_dec8a.ino
// Define pins for Ultrasonic Sensor
const int trigPin = 3;
const int echoPin = 2;
// Define pin for Buzzer
const int buzzerPin = 10;
// Threshold distance (in cm)
const int distanceThreshold = 30;
void setup() {
// Initialize serial communication
Serial.begin(9600);
pinMode(trigPin, OUTPUT);
pinMode(echoPin, INPUT);
pinMode(buzzerPin, OUTPUT);
}
void loop() {
// Send ultrasonic pulse
digitalWrite(trigPin, LOW);
delayMicroseconds(2);
digitalWrite(trigPin, HIGH);
delayMicroseconds(10);
digitalWrite(trigPin, LOW);
// Measure the echo pulse duration
long duration = pulseIn(echoPin, HIGH);
// Calculate distance in cm
int distance = duration * 0.034 / 2;
// Display distance in serial monitor
Serial.print("Distance: ");
Serial.print(distance);

```
37  Serial.println(" cm");
38  Close
39  // Trigger buzzer if distance is below the threshold
40    if (distance > 0 && distance < distanceThreshold) {
41    digitalWrite(buzzerPin, HIGH); // Turn on buzzer
42  } else {
43    digitalWrite(buzzerPin, LOW); // Turn off buzzer
44  }
45
46  // Add a small delay
47  delay(100);
48  }
49
```




Smooth Kieran
All changes saved
Simulator time: 00:00:37
Code
Stop Simulation
Send To
Ultrasonic Distance Sensor (4...
Name 1
67.3in / 170.8cm
1 (Arduino Uno R3)
// Define pins for Ultrasonic Sensor
const int trigPin = 3;
const int echoPin = 2;
// Define pin for Buzzer
const int buzzerPin = 10;
// Threshold distance (in cm)
const int distanceThreshold = 30;
void setup() {
// Initialize serial communication
Serial.begin(9600);
pinMode(trigPin, OUTPUT);
pinMode(echoPin, INPUT);
pinMode(buzzerPin, OUTPUT);
}
void loop() {
// Send ultrasonic pulse
digitalWrite(trigPin, LOW);
delayMicroseconds(2);
digitalWrite(trigPin, HIGH);
Serial Monitor
Distance: 168 cm
Distance: 168 cm
Distance: 168 cm
Distance: 168 cm
Distance: 168 cm
Distance: 168 cm
Send
Clear


Smooth Kieran
All changes saved
Simulator time: 00:00:55
Code
Stop Simulation
Send To
Ultrasonic Distance Sensor (4...
Name 1
9.6in / 24.4cm
1 (Arduino Uno R3)
// Define pins for Ultrasonic Sensor
const int trigPin = 3;
const int echoPin = 2;
// Define pin for Buzzer
const int buzzerPin = 10;
// Threshold distance (in cm)
const int distanceThreshold = 30;
void setup() {
// Initialize serial communication
Serial.begin(9600);
pinMode(trigPin, OUTPUT);
pinMode(echoPin, INPUT);
pinMode(buzzerPin, OUTPUT);
}
void loop() {
// Send ultrasonic pulse
digitalWrite(trigPin, LOW);
delayMicroseconds(2);
digitalWrite(trigPin, HIGH);
Serial Monitor
Distance: 24 cm
Distance: 24 cm
Distance: 24 cm
Distance: 24 cm
Distance: 24 cm
Distance: 24 cm
Send
Clear