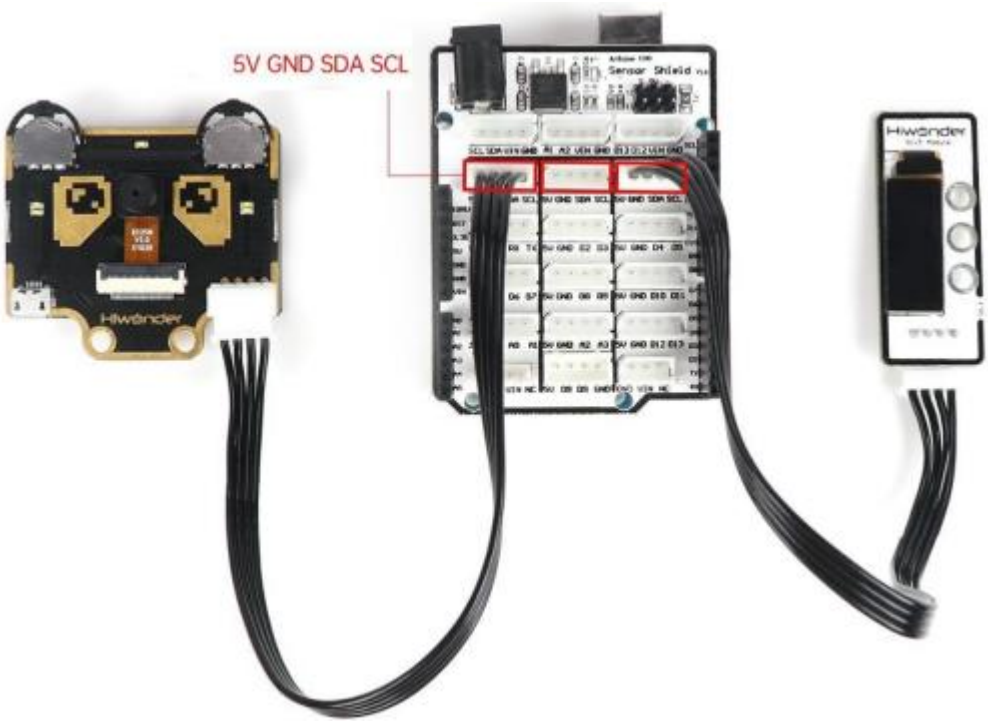
Lesson 6 Landmark Recognition Integration with Arduino

1. Preparation

Connect WonderCam and OLED Display Module to Arduino Expansion Board using 4-Pin cable.

WonderCam and OLED Display Module can be connected to any IIC port （5V GND SDA SCL）.



2. Learning Objectives

① To know the connectivity of WonderCam and OLED Display Module on Arduino Expansion Board

② To understand the program logic.

3. Programming Plan

In this lesson,we are using the Landmark Recognition function to integrate with Arduino to conduct Line Recognition. The program will initialize the Vision module follow by detecting landmark. When mark is detected, it will proceed to identify the trust value and display the corresponding name on the OLED screen.

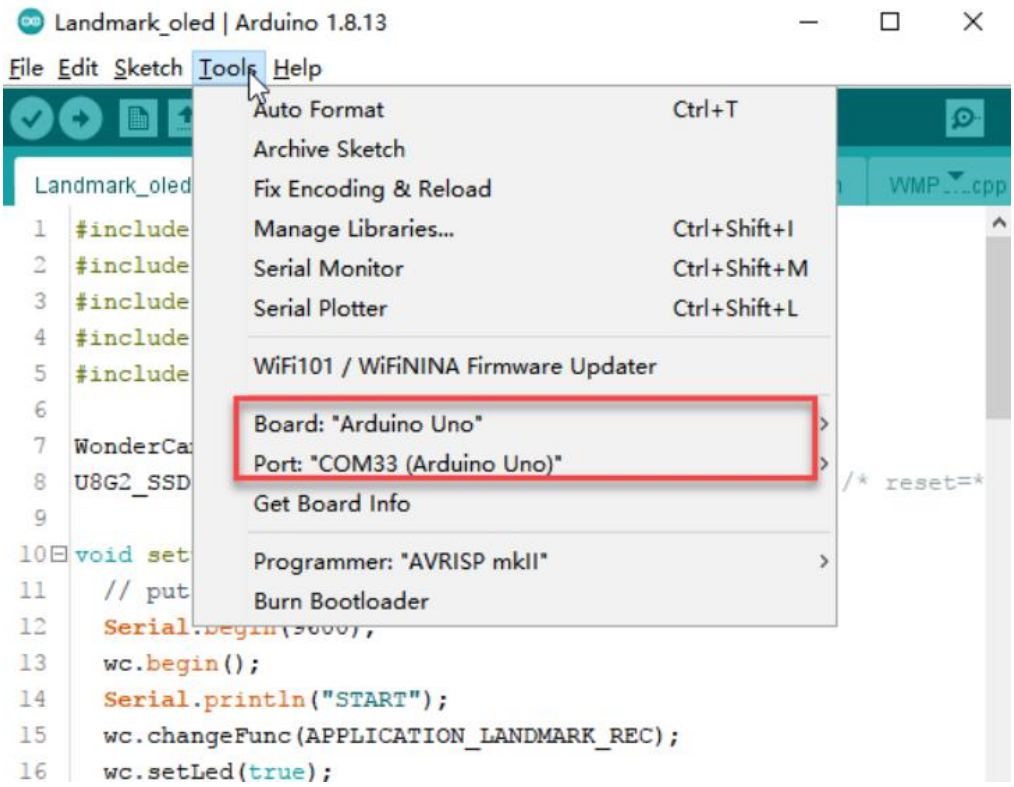
4. Compiling Program and Upload

This full program code can be found in folder “Landmark Recognition Program” in “12_Landmark_oled”.

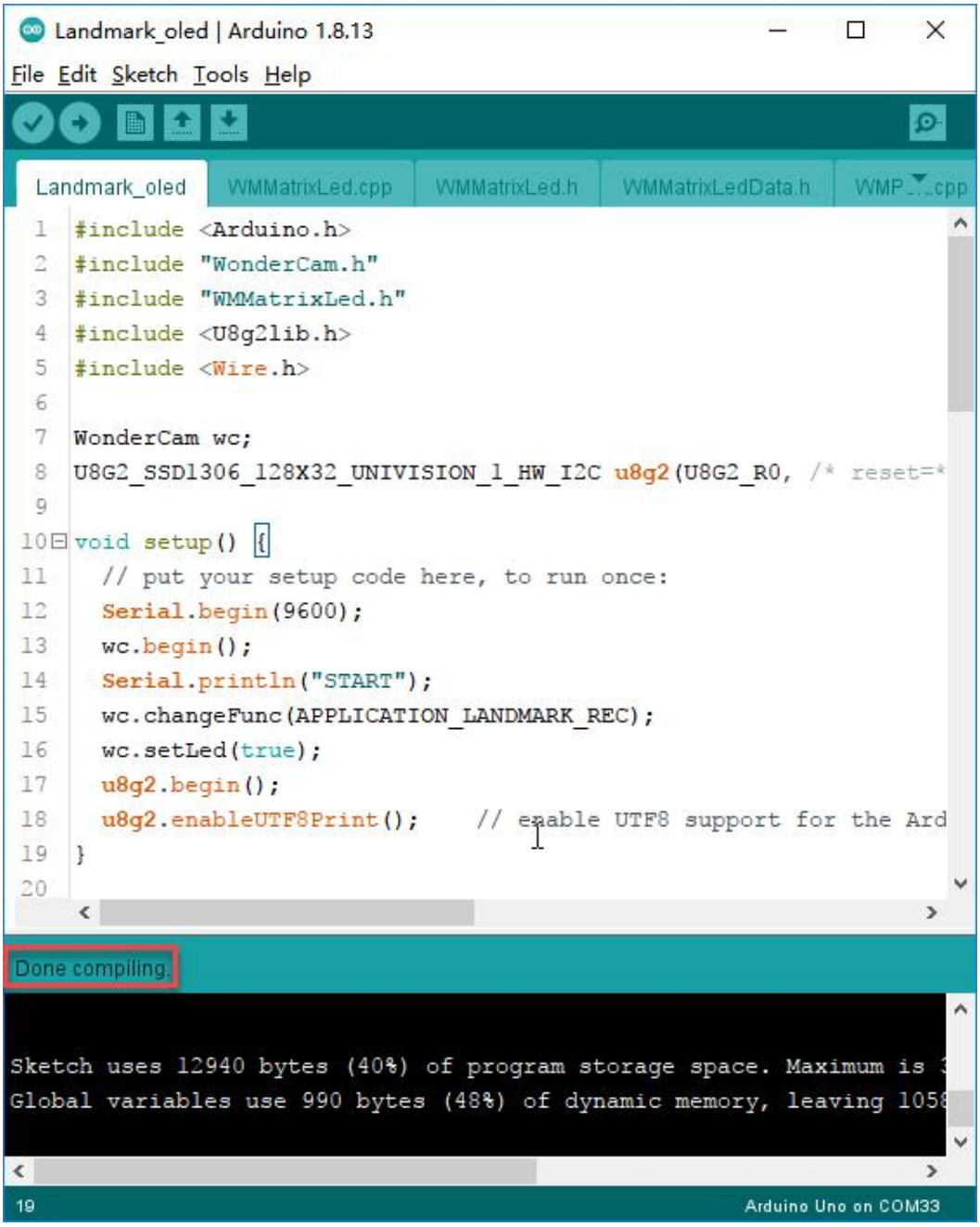
1) Connect Arduino UNO board to computer.

2) In “Landmark Recognition Program” in “12_Landmark_oled”, double click ino program.

3) In Arduino IDE program, open Tools in menu and select corresponding Development Board and port. (Port number shown in this lesson may differs in individual computer environment).

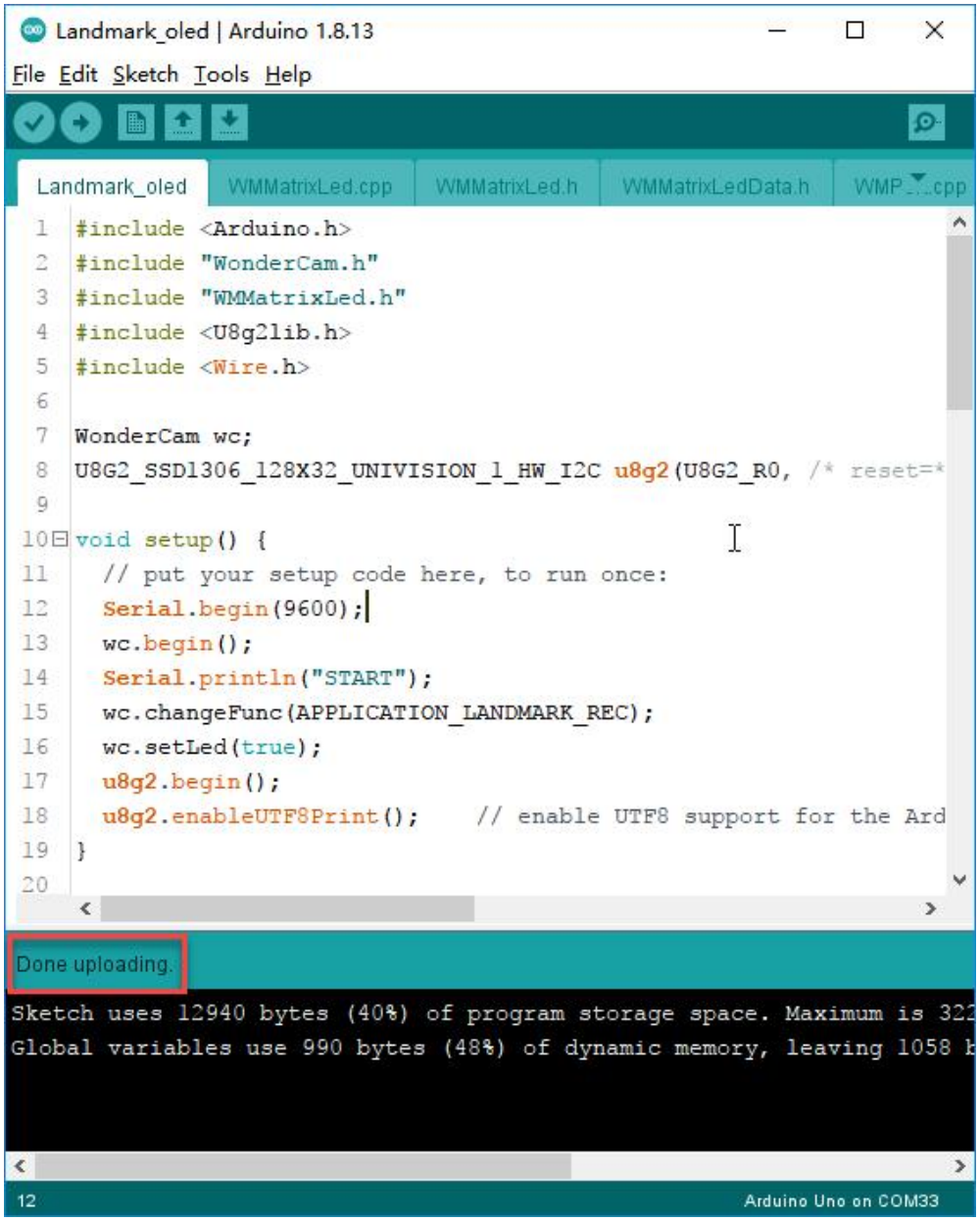


4) In Arduino IDE Program, click button on the menu and wait for compilation process to complete.



5) Click button to upload program to UNO Development Board. Wait for uploading process to complete.

6) During Uploading process, do not unplug or move the USB Cable to prevent transmission failure.



5. Result

Please use the numbers template provided.

Once program had been uploaded, WonderCam will automatically switch to Landmark Recognition interface. When a landmark is recognized, it will present the identified landmark with corresponding name presented on OLED display module.

Landmark	Name	Landmark	Name
	Go		Turn left
	Turn right		Back
	Stop		