

DXCluster V1.2 Installation Guide

Cheap Yellow Display ESP32 (3.5 " Screen)

Overview

This guide explains how to install and configure the DXCluster V1.2 program on a Cheap Yellow Display (CYD) ESP32 with a 3.5" screen.

This will then connect to MB6WV DXCluster and display DX Spots live on the display. It will also let you send a DX Spot via telnet to MB6WV and out to the DXCluster network.

1. Download and Extract the Files

1. Save the ZIP file **WVARS_CYD3.5_INCH.zip** to a folder on your PC, such as your **Documents** folder.
2. Right-click the ZIP file and select **Extract All**.
3. A new folder called **WVARS_CYD3.5_INCH** will be created in your Documents folder.
4. Keep the original ZIP file as a backup in case you need the original code again.

NB: Rename folder to match the "ino" filename.

2. Open the Project in Arduino IDE

1. Open the **Arduino IDE**.
 2. Open the file `dxcluster_v1.2.ino`.
 3. You should see the main sketch and three additional tabs:
 - o **dxcluster_v1.2.ino** - Main program
 - o **cluster.h** - Callsign and DXCluster configuration
 - o **friends.h** - Callsigns to highlight in red when spotted
 - o **secrets.h** - Your Wi-Fi SSID and password
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3. Edit the Configuration Files

Before uploading the program to the ESP32, you must edit two files and these are in the new folder, where you extracted the ZIP file to. (this can be done from within the Arduino IDE).

a) cluster.h

1. Open the file cluster.h.
2. Replace "YOUR CALLSIGN" with your own callsign (for example, "G1ABC").
3. **Do not change anything else** in this file.
4. Make sure the quotation marks remain in place.
5. Save and close the file.

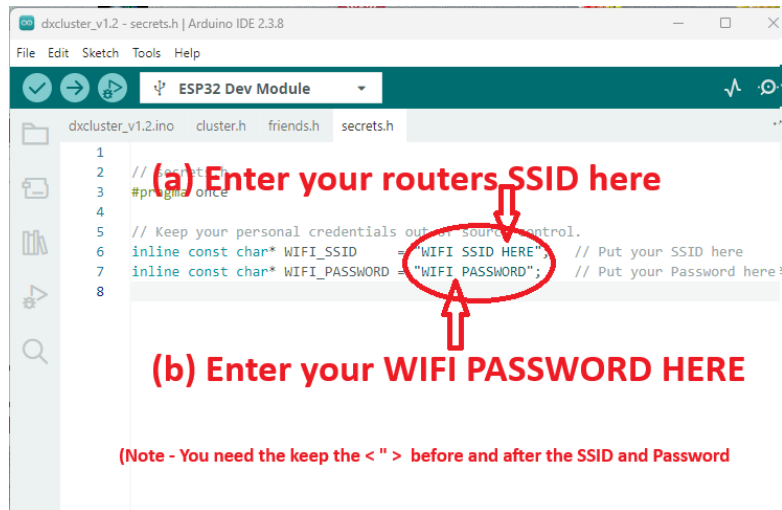


```
1
2 #ifndef CLUSTER_H
3 #define CLUSTER_H
4
5 // DXCluster connection settings
6 #define CLUSTER_HOST "mb6wv.ddns.net" //default is mb6wv.ddns.net
7 #define CLUSTER_PORT 7373 //default is 7373 for MB6WV
8 #define CLUSTER_USER "YOUR CALLSIGN" // Enter your callsign here
9 // // Use an SSID -1 or -2 etc
10 // // if Callsign used on other
11 // // DXCluster eg. HRD etc.
12 // Added Send Spot button - config message to start with "DX"
13 #define SPOT_CMD_PREFIX "DX "
14 // Many clusters accept: "DX <req> <dx> <comment>"
15 // If yours differs, change this prefix ("DX") or the formatting in sendSpot
16
17 #endif
```

eg "G1IVG"

b) secrets.h

1. Open the file secrets.h.
2. Replace "WIFI SSID HERE" with your Wi-Fi network name (SSID).
3. Replace "WIFI PASSWORD" with your Wi-Fi password.
4. Keep the quotation marks around both entries.
5. Save and close the file.



4. Configure the Arduino IDE

1. Connect the ESP32 to your PC using a USB data cable.
2. In the Arduino IDE, go to **Tools** → **Board** and select **ESP32 Dev Module**.
3. If this option is not available:
 - o Open **Tools** → **Boards Manager**
 - o Search for **ESP32 by Espressif Systems**
 - o Install version **2.0.18** or newer
4. Select the correct **COM Port** under **Tools** → **Port**.

5. Install Required Libraries

You must install the following Arduino libraries:

- **LovyanGFX**
- **LittleFS (ESP32 implementation)**

To install them:

1. Go to **Tools** → **Manage Libraries**.
2. Search for each library by name and install it.
3. You may also need other Libraries and will be prompted if you do.

6. Upload the Program

1. Double-check that:
 - o First, check that **ESP32 Dev Module** is selected
 - o The correct **COM Port** is selected
 2. Click **Upload** to write the sketch to the ESP32.
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Support

If you have any problems or questions, please let me know and I'll try to help you get up and running.

Colin, G1IVG