Add Partition in Arduino IDE:

Assuming you have installed ESP32 board and ESP32 File system is installed in Arduino IDE.

If not, you can follow these tutorials.

For ESP32 boards installation.

<https://randomnerdtutorials.com/installing-the-esp32-board-in-arduino-ide-windows-instructions/#:~:text=Installing%20ESP32%20Add%2Don%20in%20Arduino%20IDE&text=Open%20the%20Boards%20Manager.,installed%20after%20a%20few%20seconds>.

For file system uploader.

<https://randomnerdtutorials.com/install-esp32-filesystem-uploader-arduino-ide/>

Close Arduino IDE.

Go to the boards.txt directory.

Mine look like this.

C:\Users\PC\AppData\Local\Arduino15\packages\esp32\hardware\esp32\1.0.4

In above directory **PC** is the name of your PC, **AppData** by default is a hidden folder and **1.0.4** is the ESP board version.

After open boards.txt file in any editor.

Search for ESP32 Wrover Module and add these three lines as shown in image

esp32wrover.menu.PartitionScheme.large\_spiffs=Large SPIFFS (4.5MB APP/OTA/6.93MB SPIFFS)

esp32wrover.menu.PartitionScheme.large\_spiffs.build.partitions=large\_spiffs\_16MB

esp32wrover.menu.PartitionScheme.large\_spiffs.upload.maximum\_size=4718592

save and open Arduino IDE.

Text, table

Description automatically generated

Make following connections:

|  |  |
| --- | --- |
| **Smart Pillow PCB** | **TTL** |
| RX | TX |
| TX | RX |
| 3.3v | 3.3v |
| GND | GND |
| IO0 | GND |

Connect USB to TTL converter to PC and select following settings.

Now select following configuration

Graphical user interface, text, application

Description automatically generated

Select PORT.

Open **main.ino** file in Arduino IDE.

Press **Push** **Button** on Smart Pillow Device.

Upload font files in SPIFFS.

In this version webpages are embedded in Arduino code which makes reduces their loading time.

Graphical user interface, application

Description automatically generated

Now upload code in ESP32.

Press again **Push** **Button** on Smart Pillow Device.

And click on upload button.

Graphical user interface, website

Description automatically generated

After uploading remove IO0 and GND connection and press Push button on Smart Pillow Device to restart ESP32.