**Installing ESP32 Add-on in Arduino IDE**

1. In your Arduino IDE, go to File> Preferences
2. Enter the following into the “Additional Board Manager URLs”..Then, click the “OK” button.
3. Open the Boards Manager. Go to Tools > Board > Boards Manager…
4. Search for ESP32 and press install button for the “ESP32 by Espressif Systems“
5. That’s it. It should be installed after a few seconds

**Testing the Installation**

1. Select your Board in Tools > Board menu (in my case it’s the DOIT ESP32 DEVKIT V1)
2. Select the Port (if you don’t see the COM Port in your Arduino IDE, you need to install the CP210x USB to UART Bridge VCP Drivers)
3. Open the following example under File > Examples > WiFi (ESP32) > WiFiScan
4. A new sketch opens in your Arduino IDE
5. Press the Upload button in the Arduino IDE. Wait a few seconds while the code compiles and uploads to your board.
6. If everything went as expected, you should see a “Done uploading.” message.
7. Open the Arduino IDE Serial Monitor at a baud rate of 115200
8. Press the ESP32 on-board Enable button and you should see the networks available near your ESP32

……………………..

**code for Speech to Text..**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Speech to text using JavaScript</title>

<!--Start of style css -->

<style>

\*{

-webkit-box-sizing: border-box;

-moz-box-sizing: border-box;

-ms-box-sizing: border-box;

box-sizing: border-box;

}

body{

background-color: #996699;

display: flex;

align-items: center;

justify-content: center;

min-height: 100vh;

font-family: Arial, Helvetica, sans-serif;

font-size: 16px;

margin: 0;

}

.container {

text-align: center;

}

h1 {

font-size: 30px;

color: white;

}

textarea {

width: 100%;

height: 150px;

border-radius: 10px;

font-size: 17px;

margin-bottom: 10px;

}

button,select{

padding: 12px 20px ;

background: thistle;

border: 0px;

border-radius: 10px;

cursor: pointer;

color: blueviolet;

}

button:hover,select:hover {

background: rgb(197, 161, 230);

color: white;

}

</style>

<!--end of style css -->

</head>

<body>

<div class="container">

<h1>JavaScript Speech to Text</h1>

<textarea style="text-align: right;"; id="output" name="output" rows="10" cols="30" placeholder=" Click on the below button and speak something "></textarea>

<select name="language\_Rec" id="language\_Rec">

<option value="ar">Arabic</option>

<option value="en">English</option>

</select>

<button id="start" name="start">Start Recording</button>

<button id="stop" name="stop">Stop Recording</button>

</div>

<!--Start of script -->

<script>

var output = document.getElementById("output");

var start = document.getElementById("start");

var stop = document.getElementById("stop");

var language\_Rec = document.getElementById("language\_Rec");

var speechRecognition = speechRecognition || webkitSpeechRecognition;

var recognizer = new speechRecognition();

recognizer.lang = 'ar';

language\_Rec.onchange = function() {

recognizer.lang = language\_Rec.value;

}

//controls

start.onclick = function() {

recognizer.start();

}

stop.onclick = function() {

recognizer.stop();

}

recognizer.onspeechend = function() {

stop.click();

}

// to write:

recognizer.onresult = function(event) {

var Textbox = event.results[0][0].transcript;

output.value = Textbox;

}

</script>

<!-- end of script -->

</body>

</html>

****