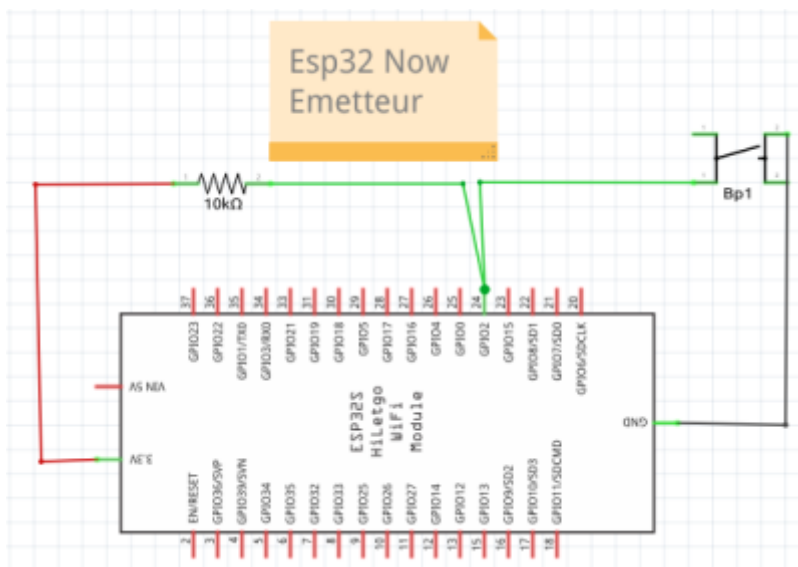


Travaux pratique Esp32 Now

Emetteur avec Bouton poussoir

Schema de raccordement



emetteurBP.ino

```

/*
  Raccorder un Bouton poussoir sur la broche 34 ( pour essai)
  Et remplacer l'adresse MAC par @Mac de votre autre ESP32
  il faut appuyer environ 1 s sur le Bp1
*/
#include <esp_now.h>
#include <WiFi.h>

const int Bp1 = 34;
int MemLed1 = 0;
int MemBp1 = 0;
int tempo = 50;
String result = " ";

// Indiquer l'MAC Address de l 'ESP32 distant
uint8_t broadcastAddress[] = {0x58, 0xbf, 0x25, 0x14, 0x24, 0x34};

// Structure d'envoi du message
typedef struct struct_message {
  char a[32];
  int b;
}

```

```
float c;
bool d;
} struct_message;

// Creation d une structure de message appelée myData
struct_message myData;

esp_now_peer_info_t peerInfo;

// Retour de message de status l'autre esp
void OnDataSent(const uint8_t *mac_addr, esp_now_send_status_t status)
{
    Serial.print("\r\nLast Packet Send Status:\t");
    Serial.println(status == ESP_NOW_SEND_SUCCESS ? "Bouton OK" : "Erreur
Bouton");
}

void setup() {

    Serial.begin(115200);

    pinMode(Bp1, INPUT);

    WiFi.mode(WIFI_STA);

    // Initiation ESP-NOW
    if (esp_now_init() != ESP_OK) {
        Serial.println("Error initializing ESP-NOW");
        return;
    }

    //Recupere le status du paquet envoyer
    esp_now_register_send_cb(OnDataSent);

    // test l'adress Mac , Envoi sur canal 0, et ne pas crypter le paquer
    envoyer
    memcpy(peerInfo.peer_addr, broadcastAddress, 6);
    peerInfo.channel = 0;
    peerInfo.encrypt = false;

    if (esp_now_add_peer(&peerInfo) != ESP_OK){
        Serial.println("Failed to add peer");
        return;
    }
}
```

```
    }  
  
}  
  
void loop() {  
    int valeurBp1 = digitalRead(Bp1); // On lit la valeur de Bp1 au début  
    de la boucle  
    delay(tempo);  
  
    strcpy(myData.a, " data1");  
    myData.b = 0;  
    myData.c = 0.5;  
  
    //Temps 1  
    if (valeurBp1 == 1 && MemBp1 == 0 && MemLed1 == 0) {  
        myData.d = 1;; MemBp1 = 1; MemLed1 = 1;  
        esp_err_t result = esp_now_send(broadcastAddress, (uint8_t *)  
&myData, sizeof(myData));  
    }  
    //Temps 2  
    if (valeurBp1 == 0 && MemBp1 == 1 && MemLed1 == 1) {  
        myData.d = 1;; MemBp1 = 0; MemLed1 = 1;  
    }  
    //Temps 3  
    if (valeurBp1 == 1 && MemBp1 == 0 && MemLed1 == 1) {  
        myData.d = 0;; MemBp1 = 1; MemLed1 = 0;  
    }  
    //Temps 4  
    if (valeurBp1 == 0 && MemBp1 == 1 && MemLed1 == 0) {  
        myData.d = 0;; MemBp1 = 0; MemLed1 = 0;  
        esp_err_t result = esp_now_send(broadcastAddress, (uint8_t *)  
&myData, sizeof(myData));  
    }  
  
    Serial.println(myData.d); // affiche la valeur envoyée mydata.d ==>  
    boolean  
  
    if (result == ESP_OK) {  
        Serial.println("Sent with success");  
    }  
    if (result == " "){  
        Serial.println("Attente d'appui !!!");  
    }  
    else {  
        Serial.println("Error sending the data");  
    }  
    delay(1000);  
}
```

Recepteur avec Led

[recepteur001.ino](#)

```
/*  
  Raccorder la led sur la sortie 2  
*/  
  
#include <esp_now.h>  
#include <WiFi.h>  
  
int led1 = 2;  
int tempo = 50;  
  
// Structure example to receive data  
// Must match the sender structure  
typedef struct struct_message {  
  char a[32];  
  int b;  
  float c;  
  bool d;  
} struct_message;  
  
// Create a struct_message called myData  
struct_message myData;  
  
// callback function that will be executed when data is received  
void OnDataRecv(const uint8_t * mac, const uint8_t *incomingData, int len) {  
  memcpy(&myData, incomingData, sizeof(myData));  
  Serial.print("Bytes received: ");  
  Serial.println(len);  
  Serial.print("Char: ");  
  Serial.println(myData.a);  
  Serial.print("Int: ");  
  Serial.println(myData.b);  
  Serial.print("Float: ");  
  Serial.println(myData.c);  
  Serial.print("Bool: ");  
  Serial.println(myData.d);  
  Serial.println();  
}  
  
void setup() {  
  // Initialize Serial Monitor  
  Serial.begin(115200);  
  pinMode(led1, OUTPUT);  
  
  // Set device as a Wi-Fi Station
```

```
WiFi.mode(WIFI_STA);

// Init ESP-NOW
if (esp_now_init() != ESP_OK) {
  Serial.println("Error initializing ESP-NOW");
  return;
}

void loop() {
  esp_now_register_recv_cb(esp_now_recv_cb_t(OnDataRecv));
  delay(1000);

  if (myData.d == true) {
    digitalWrite(led1, HIGH);
  }
  if (myData.d == false) {
    digitalWrite(led1, LOW);
  }
}
```

From:

<https://chanterie37.fr/fablab37110/> - Castel'Lab le Fablab MJC de Château-Renault

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