A typical **IR Receiver module (like TSOP1738 or VS1838B)** has **3 pins**:

| **Pin Name** | **Function** |
| --- | --- |
| **VCC** | Power (5V) |
| **GND** | Ground |
| **OUT (Signal)** | Sends the decoded signal to Arduino |

**How to Identify IR Receiver Pins**

1️⃣ **Flat Side vs. Rounded Side**

* If your IR receiver has **one flat side and one rounded side**, the pins are usually:
  + **Left Pin → Signal (OUT)**
  + **Middle Pin → GND**
  + **Right Pin → VCC (5V)**

2️⃣ **Look at the Legs of the Component**

* **The middle pin is almost always GND.**
* The **longest pin is usually VCC** (Power, 5V).

3️⃣ **Check with a Multimeter**

* If you have a **multimeter**, you can test continuity to confirm GND.

📌 **Common IR Receiver Pin Configurations**:

| **Flat Side Facing You** | **Pin 1 (Left)** | **Pin 2 (Middle)** | **Pin 3 (Right)** |
| --- | --- | --- | --- |
| **VS1838B, TSOP1738** | Signal (OUT) | GND | VCC (5V) |

**🔌 Wiring: Connect IR Receiver to Arduino**

Now that we've identified the pins, **connect the IR Receiver to the Arduino Uno**:

| **IR Receiver Pin** | **Connect to Arduino** |
| --- | --- |
| **VCC (Right Pin)** | **5V** |
| **GND (Middle Pin)** | **GND** |
| **OUT (Left Pin)** | **D2** |

**🛠 Connection Steps:**

1️⃣ Place the **IR Receiver** on your breadboard.  
2️⃣ Use **jumper wires** to make the following connections:

* **Right Pin (VCC) → Arduino 5V**
* **Middle Pin (GND) → Arduino GND**
* **Left Pin (OUT) → Arduino D2**

🔧 **Double-check the wiring before proceeding!**

**📥 Install the IRremote Library**

Before we run the code, **install the "IRremote" library** in the **Arduino IDE**:

1️⃣ Open **Arduino IDE**.  
2️⃣ Go to **Sketch** → **Include Library** → **Manage Libraries...**  
3️⃣ Search for **"IRremote"**.  
4️⃣ Find **"IRremote by shirriff"** and click **Install**.

**💻 Code: Detect Button Presses from IR Remote**

#include <IRremote.h>  // Include the IRremote library

#define IR\_PIN 8  // Define the pin connected to the IR receiver

void setup() {

    Serial.begin(9600);  // Start Serial Monitor

    IrReceiver.begin(IR\_PIN, ENABLE\_LED\_FEEDBACK);  // Start the IR receiver

    Serial.println("IR Receiver ready. Press buttons on your remote...");

}

void loop() {

    if (IrReceiver.decode()) {  // If an IR signal is received

        Serial.print("Received IR Code: 0x");

        Serial.println(IrReceiver.decodedIRData.command, HEX);  // Print button HEX code

        IrReceiver.resume();  // Prepare for the next signal

    }

}