Gyroscope Display Project

# 🧠 Features

- Reads real-time data from a gyroscope (e.g., MPU6050)  
- Displays values such as pitch, roll, and yaw on a connected display  
- Simple and clean hardware + code structure  
- Ideal for learning embedded systems and motion sensing

# 🛠️ Hardware Used

- Microcontroller: [e.g., ESP32 / Arduino Uno]  
- Gyro Sensor: [e.g., MPU6050]  
- Display: [e.g., OLED 128x64 I2C / LCD 16x2]

# 💾 Libraries Required

Install the following libraries via the Arduino Library Manager:  
  
- Wire  
- Adafruit\_GFX  
- Adafruit\_SSD1306 (if using OLED)  
- MPU6050 or I2Cdevlib

# 🔌 Wiring

Typical connections:

|  |  |
| --- | --- |
| Sensor Pin | Microcontroller |
| VCC | 3.3V or 5V |
| GND | GND |
| SDA | D21 (ESP32) or A4 (Arduino) |
| SCL | D22 (ESP32) or A5 (Arduino) |

# 🚀 Getting Started

1. Clone the repo   
 git clone https://github.com/Vipin9599/gyro-display-project.git  
  
2. Open the .ino file in Arduino IDE.  
  
3. Select the correct board and port.  
  
4. Upload and see the gyro data on the display.