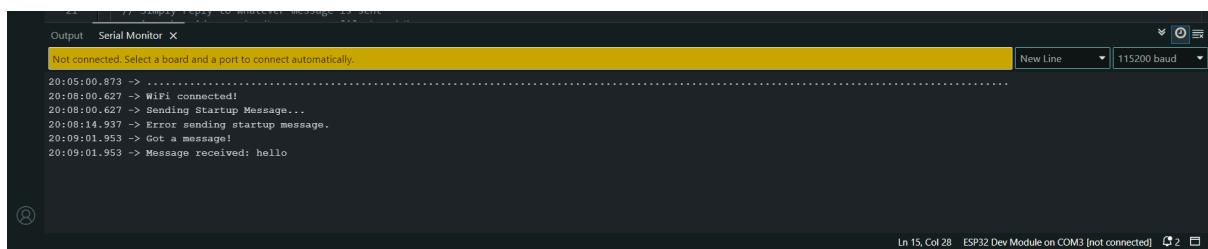
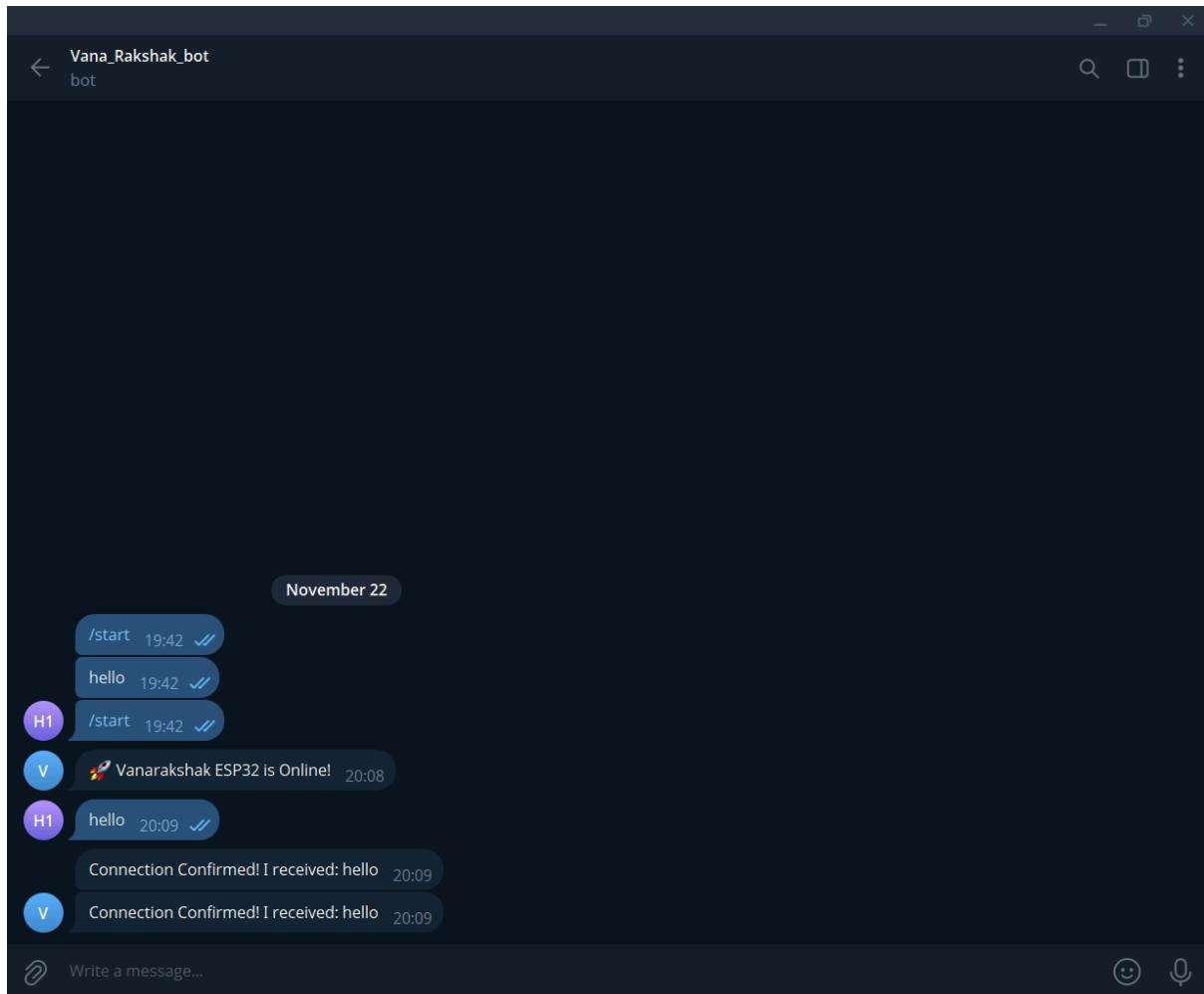
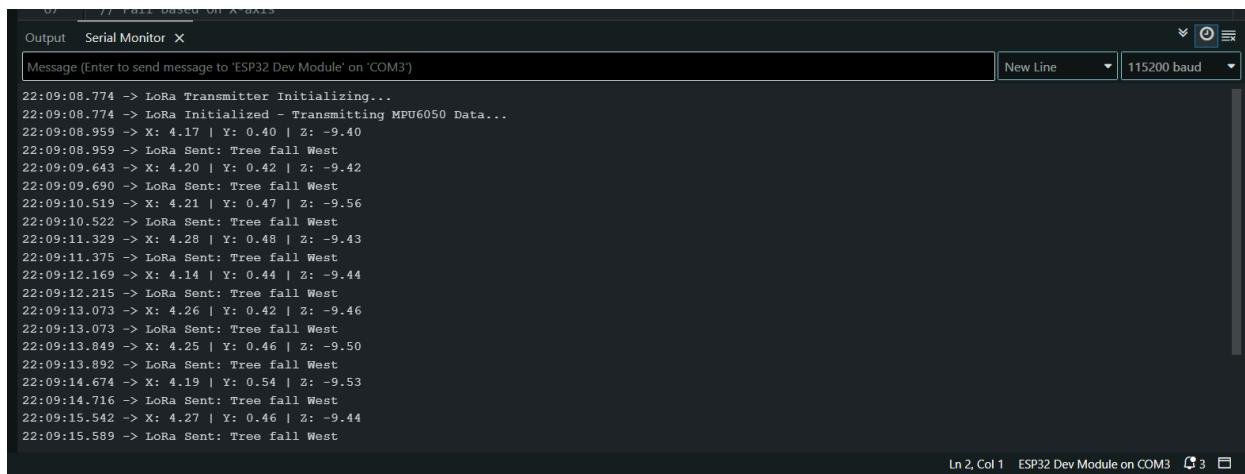


Establishing a WiFi client to a Telegram bot for one-way transmission through an established API key:



Successfully tested LoRa (Long Range) communication stack hardware module transmission and reception through ESP32, indicating the orientation of MPU6050 to accuracy.

## Transmitter



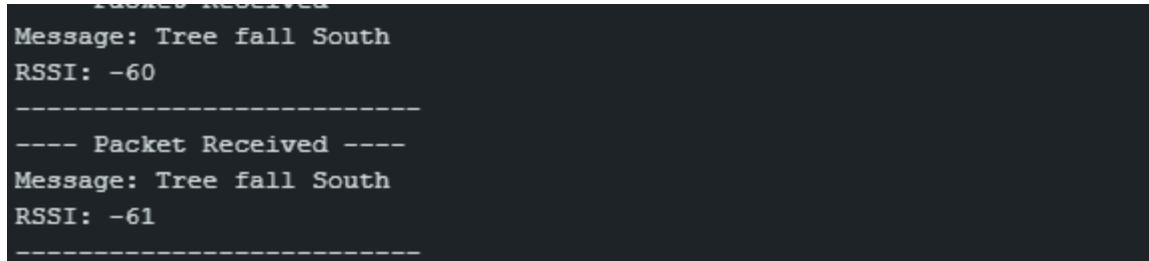
The screenshot shows a Serial Monitor window with the following details:

- Header: "07 // Fall based on X axis"
- Tab: "Output" (selected), "Serial Monitor" (closed)
- Text Input: "Message (Enter to send message to 'ESP32 Dev Module' on 'COM3')"
- Text Output:

```
22:09:08.774 -> LoRa Transmitter Initializing...
22:09:08.774 -> LoRa Initialized - Transmitting MPU6050 Data...
22:09:08.959 -> X: 4.17 | Y: 0.40 | Z: -9.40
22:09:08.959 -> LoRa Sent: Tree fall West
22:09:09.643 -> X: 4.20 | Y: 0.42 | Z: -9.42
22:09:09.690 -> LoRa Sent: Tree fall West
22:09:10.519 -> X: 4.21 | Y: 0.47 | Z: -9.56
22:09:10.522 -> LoRa Sent: Tree fall West
22:09:11.329 -> X: 4.28 | Y: 0.48 | Z: -9.43
22:09:11.375 -> LoRa Sent: Tree fall West
22:09:12.169 -> X: 4.14 | Y: 0.44 | Z: -9.44
22:09:12.215 -> LoRa Sent: Tree fall West
22:09:13.073 -> X: 4.26 | Y: 0.42 | Z: -9.46
22:09:13.073 -> LoRa Sent: Tree fall West
22:09:13.849 -> X: 4.25 | Y: 0.46 | Z: -9.50
22:09:13.892 -> LoRa Sent: Tree fall West
22:09:14.674 -> X: 4.19 | Y: 0.54 | Z: -9.53
22:09:14.716 -> LoRa Sent: Tree fall West
22:09:15.542 -> X: 4.27 | Y: 0.46 | Z: -9.44
22:09:15.589 -> LoRa Sent: Tree fall West
```
- Bottom Status: "Ln 2, Col 1 ESP32 Dev Module on COM3" and icons for New Line, 115200 baud, and a refresh symbol

## Receiver from base position

### i) Indicating tree orientation in the south direction

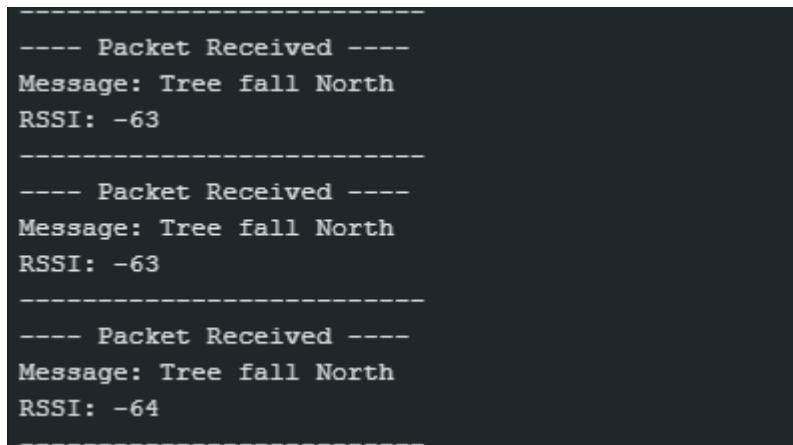


The screenshot shows a Serial Monitor window with the following details:

- Header: "MESSAGES RECEIVED"
- Text Output:

```
Message: Tree fall South
RSSI: -60
-----
---- Packet Received ---
Message: Tree fall South
RSSI: -61
-----
```

### ii) North Direction Orientation



The screenshot shows a Serial Monitor window with the following details:

- Text Output:

```
---- Packet Received ---
Message: Tree fall North
RSSI: -63
-----
---- Packet Received ---
Message: Tree fall North
RSSI: -63
-----
---- Packet Received ---
Message: Tree fall North
RSSI: -64
```

### iii) East Direction Orientation

```
---- Packet Received ----
Message: Tree fall East
RSSI: -65
-----
---- Packet Received ----
Message: Tree fall East
RSSI: -65
-----
---- Packet Received ----
Message: Tree fall East
RSSI: -64
```

### iv) West Direction Orientation

```
---- Packet Received ----
Message: Tree fall West
RSSI: -63
-----
---- Packet Received ----
Message: Tree fall West
RSSI: -63
-----
---- Packet Received ----
Message: Tree fall West
RSSI: -63
```

### v) No Direction= No Event ( Base Orientation)

```
---- Packet Received ----
Message: No Event
RSSI: -66
-----
---- Packet Received ----
Message: No Event
RSSI: -68
```

## Fusion designs

