

Hey Team!

Here's how you can integrate the mobile app with the Raspberry Pi to start workouts on the Kickr device. I've put together a simple guide on how the mobile app can send workout commands to the Raspberry Pi via MQTT.

1. What's the Goal?

We need to set up the mobile app so that when you press a button to start a workout (like "FTP" or "Ramped"), it sends a message to the Raspberry Pi. The Raspberry Pi will then start the correct workout on the Kickr device.

2. The Code

Step 1: You'll be using the `mosquitto_pub` command-line tool to send MQTT messages. Here's how you do it:

- **Publish a Message:** Use this command to send a workout command to the MQTT broker:

```
bash
Copy code
mosquitto_pub -h <broker_host> -t bike/000001/workout -m "FTP"
```

Replace `<broker_host>` with the address of the MQTT broker. For example, if the broker is running locally on the Raspberry Pi, you might use `localhost`.

Here's what the options mean:

- o `-h <broker_host>`: The hostname or IP address of the MQTT broker.
- o `-t bike/000001/workout`: The topic where you send the command.
- o `-m "FTP"`: The message to send. Replace "FTP" with "Ramped" or any other workout command as needed.

Step 2: Integrate this into your mobile app. When a button is pressed in the app, trigger a function to send the MQTT message. This will look something like:

```
python
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import paho.mqtt.client as mqtt

# Function to connect to MQTT and publish a message
def publish_workout_command(command):
    client = mqtt.Client()
    client.connect("broker_host", 1883, 60)
    client.publish("bike/000001/workout", command)
    client.disconnect()

# Example usage
publish_workout_command("FTP") # Replace "FTP" with "Ramped" as needed
```

3. How to Test

1. Set up the MQTT broker and ensure it's running.
2. Make sure your mobile app is correctly sending messages to the broker.
3. Check if the Raspberry Pi receives the messages and starts the correct workout.

4. What's Next?

- Ensure that the MQTT broker details (host, port) are correctly configured in both your app and the Raspberry Pi.
- Test the entire workflow to confirm that pressing buttons in the app correctly triggers workouts on the Kickr device.

If you need any help with the integration or have questions about the MQTT setup, just let me know!