

Windigipet 2025 – MP3 Player controlled by MQTT

24-7-2025 – Jens Krogsgaard, Copenhagen - Denmark

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1. Summary

I think various electronic gadgets bring life to the model railway – for example, sound effects in a building. I had previously installed a small speaker in the workshop for the electric locomotives. It could play various workshop sounds – but also music for working – *"Working 9 to 5"* by Dolly Parton.

With the new version of Windigipet 2025, it is now possible to control, for example, an ESP32 directly from Windigipet. I have therefore built a small MP3 player based on an ESP32 and now control it from Windigipet 2025.

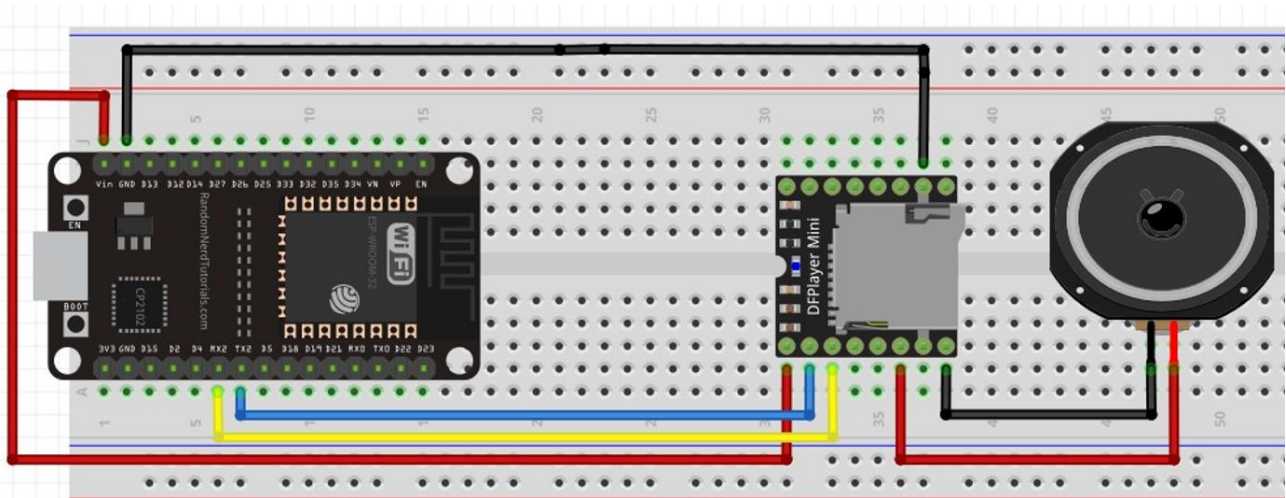
This document details how it was made.



Read more here:

Document link	About	date
Windigipet 2025 Philips HUE Integration	How to setup Windigipet 2025 connection to HUE and make a day-night cycle	30-6-2025
Windigipet 2025 - MQTT Integration	How to setup Windigipet 2025 connection to MQTT – and show temperature and humidity	7-7-2025
Windigipet 2025 - Arrival board - MQTT	Create a Arrival-board with data in Real-time using MQTT	10-7-2025

2. ESP32 MP3 project



I have used these parts:

- ESP32-Wroom-32
- DFPlayerMini
- Old speaker from a locomotive

Connect the components as shown – the MP3 player must be supplied with 5 volts. Connect the ESP32 to the MP3 player as shown, i.e., RX on the MP3 player to TX2 on the ESP32 and vice versa.

3. Code

You can download the code from here – of course, it's at your own risk :):

[Download code](#)

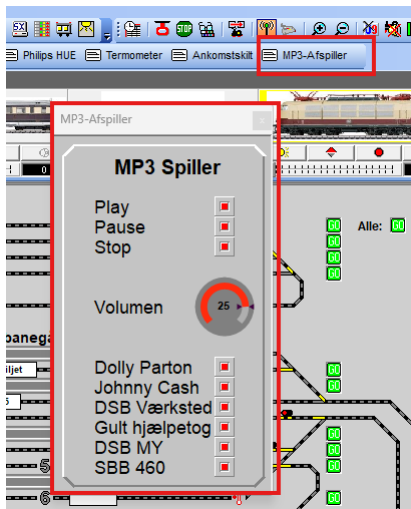
The player is controlled by these MQTT Topics:

- WDP/MP3Player/Play - 1 = Play
- WDP/MP3Player/Stop - 1 = Stop
- WDP/MP3Player/Pause - 1 = Pause
- WDP/MP3Player/Volumen - 1 to 30
- WDP/MP3Player/SangNr - play songnumber on SD Card

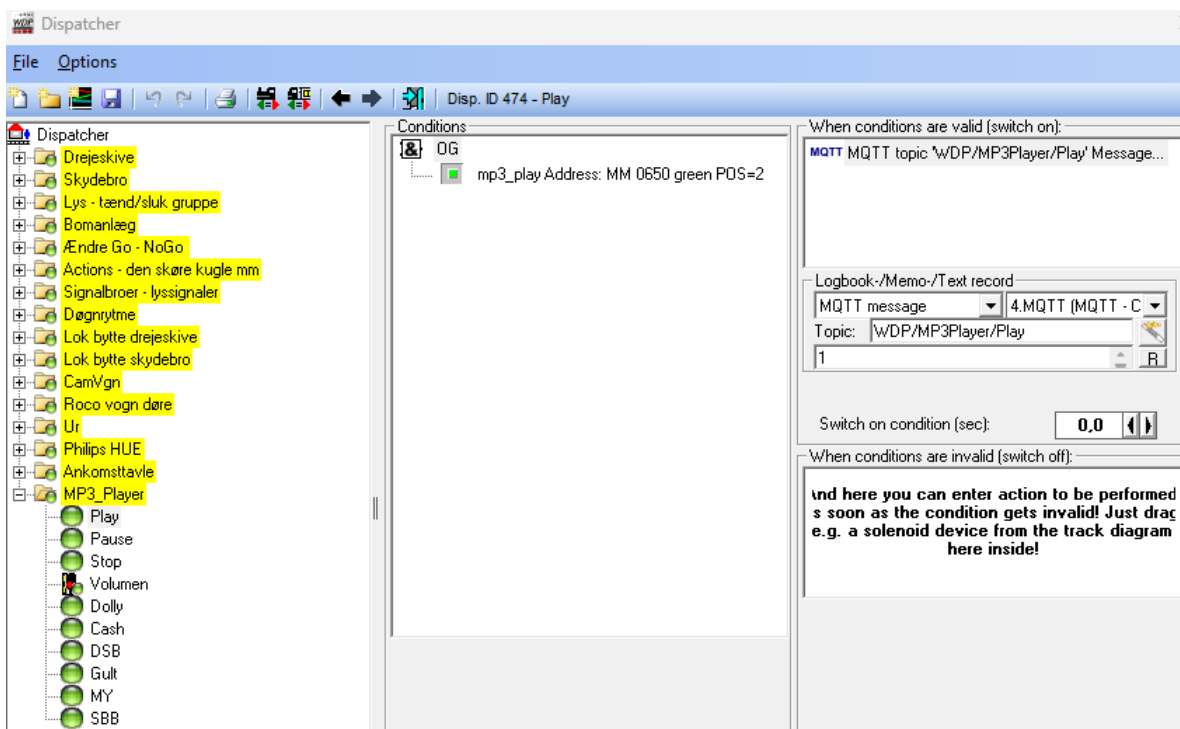
Format SD Card mini to FAT32

MP3 files in Root - name them 0001.mp3 ... 0006.mp3

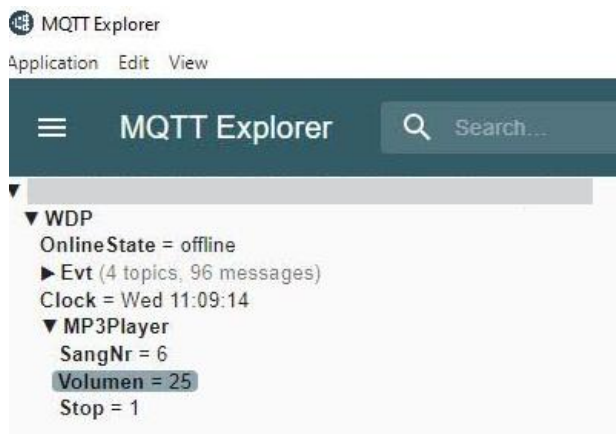
4. Windigipet 2025 implementation



In Windigipet, I've created this small pop-up – a Multiplan – to control the MP3 player. There are 6 MP3 files on the SD card – I can choose to play them by pressing the corresponding button.



The dispatcher ensures that data is sent to MQTT when one of the buttons in the MP3 pop-up is pressed. See MQTT Topics and values in previous chapter.



In MQTT Explorer, you can monitor the data being sent from Windigipet to the MP3 player.