

Cloud-Player Radio

Alexander Zarges and Nicolas Drebenstedt



Cloud-Player

- Multi-provider music streaming platform
- Search for and play tracks in one player
- Manage playlists and favourite tracks
- Supports SoundCloud and YouTube
- Built with Angular and Tornado

Cloud-Player Radio

- Vision to democratize radio broadcasting
- Offer alternative to AI music recommendations
- Interactive listening and non-linear stations
- Merging convenience of streaming with charm of radio

Project

- Portable radio prototype
- Raspberry Pi 3
- Hifiberry Amplifier
- Adafruit OLED screen
- Rotary encoders
- Custom radio player software

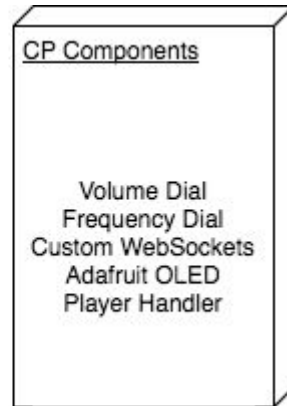
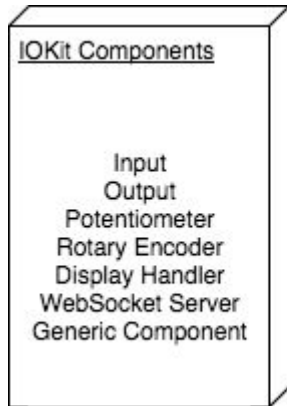


Setup

- Radio-Engine for HW and SW control
- Web-Radio-Player running on headless Chromium
- Cloud-Player Web-App and API updates

Radio-Engine

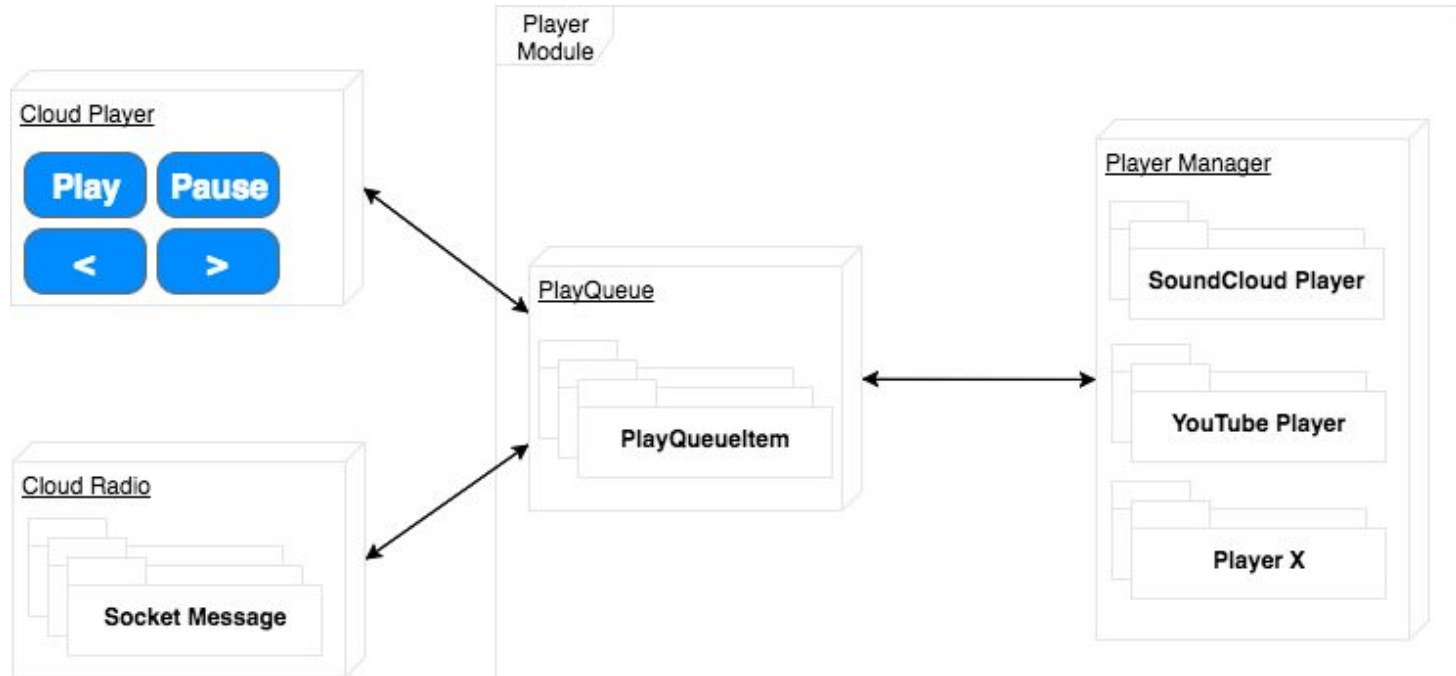
- Event-Loop to interact with GPIO, Backend and Player
- Generic IOKit library with extendable components



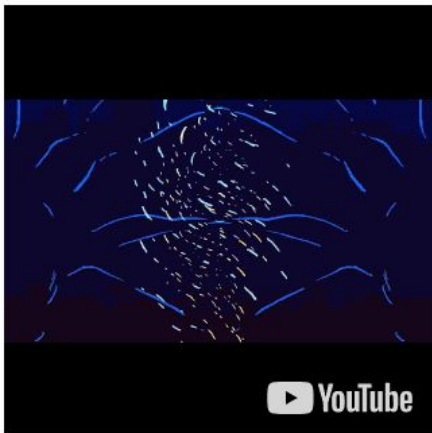
Web-Radio-Player

- Controlled by Radio-Engine via WebSocket
- Allows usage of iframe player widgets
- <https://radio.cloud-player.io>

Player Module



Socket Url ws://localhost:8050/websocket SOCKET_TRY_OPEN



Show Player

Playqueue

- 154258944 - Jingle - Business VI - soundcloud
- 6469900 - IsaiArangam Outro Jingle - soundcloud
- ► kKqw8nY6-Eg - Max Cooper - Organa (official video by Sabine Volkert) - youtube
- lAwYodrBr2Q - youtube
- 162998530 - soundcloud
- gra4ugWizLE - youtube
- 4323319 - soundcloud

```
[{"track_id": 154258944, "track_provider_id": "soundcloud"}, {"track_id": 6469900, "track_provider_id": "soundcloud"}, {"track_id": "kKqw8nY6-Eg", "track_provider_id": "youtube"}, {"track_id": "lAwYodrBr2Q", "track_provider_id": "youtube"}, {"track_id": 162998530, "track_provider_id": "soundcloud"}, {"track_id": "gra4ugWizLE", "track_provider_id": "youtube"}, {"track_id": 4323319, "track_provider_id": "soundcloud"}]
```

Set Queue

Pause Next Previous

Volume:

Noise:

- -->IN WINDOW_MESSAGE Tue Jan 30 2018 00:14:46 GMT+0100 (CET)

```
{
  "channel": "queue",
  "method": "PUT",
  "body": [
    {
      "track_id": 154258944,
      "track_provider_id": "soundcloud"
    },
    {
      "track_id": 6469900,
      "track_provider_id": "soundcloud"
    },
    {
      "track_id": "kKqw8nY6-Eg",
      "track_provider_id": "youtube"
    },
    {
      "track_id": "lAwYodrBr2Q",
      "track_provider_id": "youtube"
    },
    {
      "track_id": 162998530,
      "track_provider_id": "soundcloud"
    },
    {
      "track_id": "gra4ugWizLE",
      "track_provider_id": "youtube"
    },
    {
      "track_id": 4323319,
      "track_provider_id": "soundcloud"
    }
  ]
}
```

Cloud-Player

- Web-App allows anyone to publish playlists
- API feeds data to Radio-Engine
- Token-based authentication for radio
- <https://cloud-player.io/beta>

Questions?

Get involved: github.com/Cloud-Player

Listen up: cloud-player.io

Follow us: twitter.com/cldplayer

