# **Digital Splitflap Number Screen**

This project is meant to give a base for further development of a simple screen that just shows a number. This can be used to show customers which one is next. It does not rely on any other third-party services.

#### Idea

A screen hangs somewhere prominent in a room. It has some sort of small computer attached running software to drive the display. A worker has a small controller that connects to the display (or rather the computer). With the controller, he can control the number displayed.

## **Solution**



The GIF shows not the latest version. The clock is disabled by default and I removed all the letters so the split-flap is only going through all the numbers.

#### Screen

I choose a 27-inch 1080p monitor that was under 200€. The only things really of interest were the size and good viewing angles.

## Computer

As a computer, I choose the (now new) Raspberry Pi Zero 2. It definitely has enough horsepower to run a little application to display numbers. It also runs the RaspAP software. Which makes the Raspberry Pi a small router. It is a bit overkill but works flawlessly. It just creates a WiFi Hotspot for the controller to connect to. So it is independent of other hardware.

#### **Number display software**

I choose to write my own little software for that. More information can be found here: Link to the Readme The software is autostarted by the Raspberry. This article by Lucas Vogel helped with some best practices: https://lucas-vogel.de/blog/perfect-electron/

#### **Controller**

The controller consists of an ESP8266 with a battery, a rotary encoder, and a small display. All together in a 3d-printed housing. More information can be found here: Link to the Readme

### **Github**

The whole documentation can be found in this GitHub Repository: https://github.com/SirSundays/Simple-Digital-Number-Screen

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