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# Group 41

## TSIU03 - Final Presentation

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# Introduction

Audio signal processing

Technical specification

Demo

## Volume

Eleven different stages, exclusive mute.

## Balance

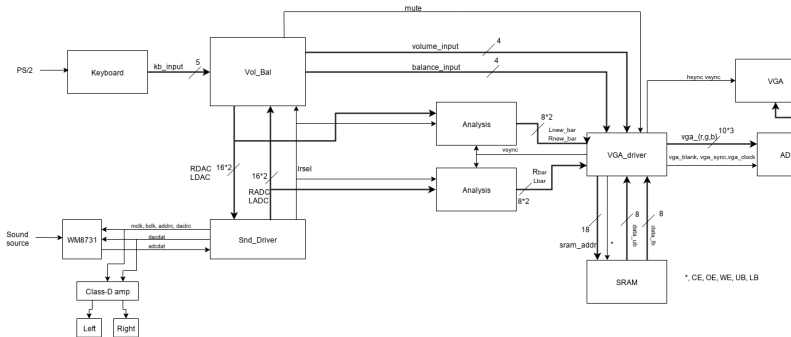
Eighteen different stages.

## Mute

## Peak level indicator



# Overview



Keyboard

Vol\_Bal

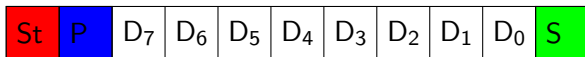
Snd\_Driver

Analysis

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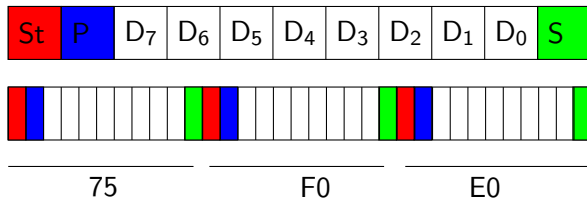
# Keyboard Decoding

## Scan Code Detection



# Keyboard Decoding

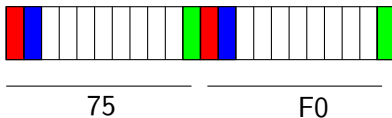
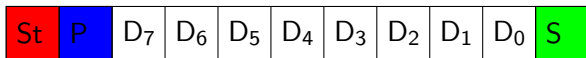
## Scan Code Detection



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# Keyboard Decoding

## Scan Code Detection





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Erik Peyronson

# Analysis

Go0D PrOjEkT xD.

123.

# VGA\_driver

## Overview

Based on Laboration 2.

# VGA\_driver

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Based on Laboration 2.

Two new submodules.

# VGA\_driver

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Two new submodules.

bar\_tender.

# VGA\_driver

## Overview

Based on Laboration 2.

Two new submodules.

`bar_tender.`

`bar_mixer.`

# VGA\_driver

## Overview

Based on Laboration 2.

Two new submodules.

bar\_tender.

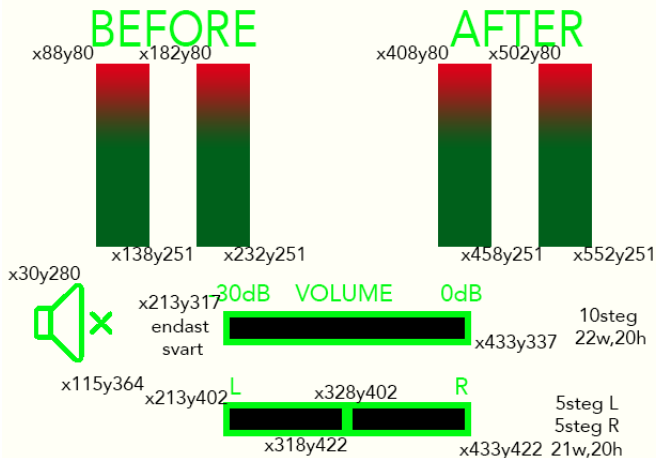
bar\_mixer.

Nånting bra testtest.

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# VGA\_driver

## System overview



# VGA\_driver

## System overview

```
1 architecture rtl of bar_mixer is
2 begin
3   process(renderBars, renderPeak)
4   begin
5     if(renderBars = '1') then
6       vga_r_new <= (others => '0');
7       vga_b_new <= (others => '0');
8       vga_g_new <= (others => '0');
9     elsif (renderPeak = '1') then
10      vga_r_new <= (others => '1');
11      vga_g_new <= (others => '1');
12      vga_b_new <= (others => '1');
13    else
14      vga_r_new <= vga_r;
15      vga_g_new <= vga_g;
16      vga_b_new <= vga_b;
17    end if;
18  end process;
```