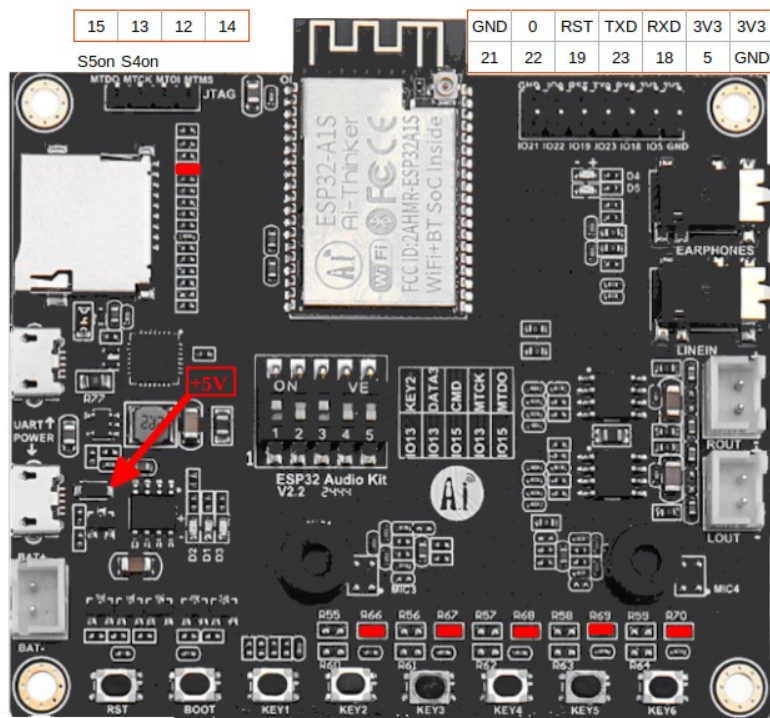
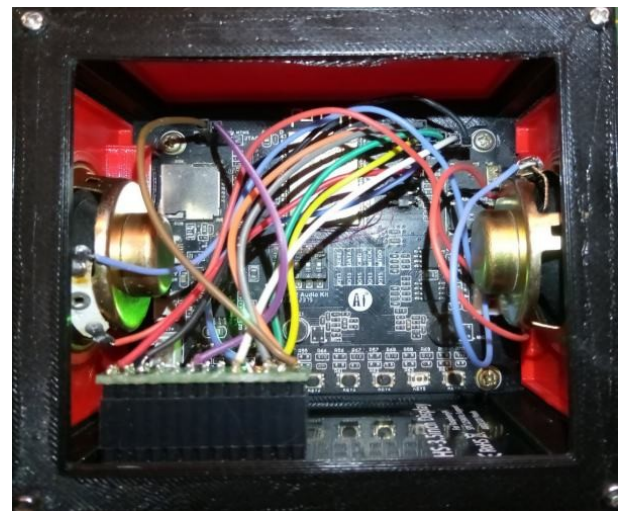


A custom-built Raspberry Pi internet radio device. It features a black wooden box with a red leather-like top. The front face has a blue LCD screen displaying "ON 70s" and the song "Jürgen Drews - Ein Bett Im Kornfeld". Above the screen, a small red LED indicator is visible. The device is placed on a wooden surface next to a keyboard.



| GPIO | | SD_MMC | SD_SPI | | KEYS |
|------|-----------------------|----------------|--------|-------------------------|---------------|
| 0 | | | | At boot high | |
| 1 | TX0 | | | | |
| 2 | | DATA0 | MISO | At boot high | |
| 3 | RX0 | | | | |
| 4 | | DATA1 | | | |
| 5 | | | | | |
| 12 | | DATA2 | | MTDI At boot low | |
| 13 | | DATA3 S2 on | CS | MTCK S4 on | KEY2 S1 on |
| 14 | | CLK | SCK | MTMS LED4 red | |
| 15 | | CMD S3 on | MOSI | MTDO S5 on | |
| 18 | | | | | KEY5 |
| 19 | | | | LED5 red | KEY3 |
| 21 | Amplifier ShutDown | | | | |
| 22 | | | | | |
| 23 | | | | | KEY4 |
| 34 | SD Detect | | | Input only | |
| 36 | | | | SENSOR VP Input only | KEY1 |
| 39 | Headphones Detect | | | SENSOR VN Input only | |

Schematic:

<https://github.com/schreibfaul1/ESP32-audioI2S/blob/master/examples/ESP32-A1S/A1S.pdf>

```
// Digital I/O used
```

```
#define TFT_CS 22
#define TFT_DC 5
#define TFT_BL -1
#define TP_IRQ 12
#define TP_CS 13
#define SD_MMC_D0 2 // cannot be changed
#define SD_MMC_CLK 14 // cannot be changed
#define SD_MMC_CMD 15 // cannot be changed
#define IR_PIN -1
#define SPI_MOSI 23 // TFT and TP (VSPI)
#define SPI_MISO 19 // TFT and TP (VSPI)
#define SPI_SCK 18 // TFT and TP (VSPI)
#if DECODER == 0
#define VS1053_CS -1
#define VS1053_DCS -1
#define VS1053_DREQ -1
#define VS1053_MOSI -1 // VS1053 (HSPI)
#define VS1053_MISO -1 // VS1053 (HSPI)
#define VS1053_SCK -1 // VS1053 (HSPI) (sometimes we need a 1k resistor against ground)
#else
#define I2S_DOUT 25
#define I2S_DIN 35 // pin not used
#define I2S_BCLK 27
#define I2S_LRC 26
#define I2S_MCLK 0
#endif
#define I2C_DATA 33
#define I2C_CLK 32
#define SD_DETECT 34 // some pins on special boards: Lyra, Olimex, A1S ...
#define HP_DETECT 39
#define AMP_ENABLED 21
```