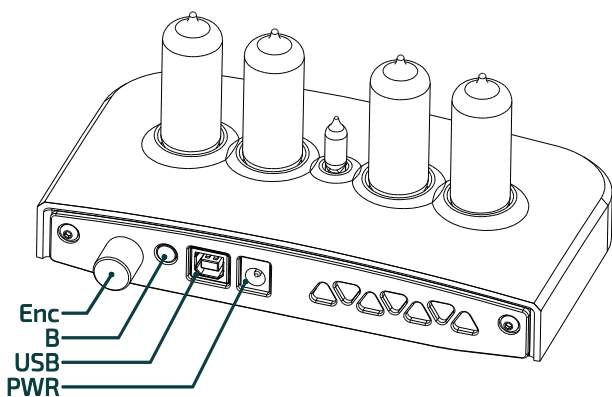


# Nixieduino

Nixieduino is a nixie clock, based on Arduino mega board. Original schematic was modified, but it still possible to program device as original mega board through USB with Arduino IDE. Arduino shields also supported! There are room in clock case for shields – you can extend capabilities of your device without affecting clock appearance.

## Features

- 4 IH-14 (IN-14) or IH-8-2 (IN-8-2) nixie tubes with neon tube IN-3 (IH-3) as separator dot
- Cnc-machined wooden case with aluminum back plate
- Program time correction
- Easily reprogrammable Arduino-based board
- Standard Arduino shield connectors inside case
- Simple control with rotary encoder
- Supercapacitor for backup power supply



## Warning

Do not try take out or bend or twist tubes. Tube's glass is fragile. Do not attempt to open case, unless you understand what you doing. This product generates high voltages (180V~200V) and can be dangerous if handled improperly.

## Power supply

The clock uses 12V DC (1A minimum) power supply with 5.5mm x 2.1mm power socket (the same, as in Arduino mega boards). The adapter included.

## Usage

During normal operation time displayed as hh:mm, in 24 format. Press button **B** to view date in dd:MM format.

## Time setting mode

Press **Enc** button and hold for about 3 second, indication becomes 1\_XX. This means you have entered in adjusting mode.

In adjusting mode Press **Enc** button for switching between adjusting seconds, minutes, hours, day, month, year and correction value. First digit is the number of adjusting mode (except year), last 2 digits is the variable value (see table). To increase value use rotate **Enc** CW, to rotate CCW.

Pay attention:

when adjust seconds both direction of rotation **Enc** set seconds to zero.

in 6th mode year is indicated on all 4 tubes.

To exit from adjusting mode press and hold **Enc** button again.

| Adjusting        | Display | Values   |
|------------------|---------|--|
| Seconds          | 1_ss    | 00 ... 59  |
| Minutes          | 2_mm    | 00 ... 59  |
| Hours            | 3_hh    | 0 ... 23   |
| Day              | 4_dd    | 1 ... 31   |
| Month            | 5_MM    | 1 ... 12   |
| Year             | YYYY    | 2001 ... 2100  |
| Correction value | 7_cc    | -99 ... 99 (middle point off – positive value, middle point on – negative value) |

## Correction value

To set right correction value set it in zero and set clock synchronously to standard clock, after a 24 hour, compare the clock with standard. If the clock is slow, set positive difference in second, if clock is fast – negative.