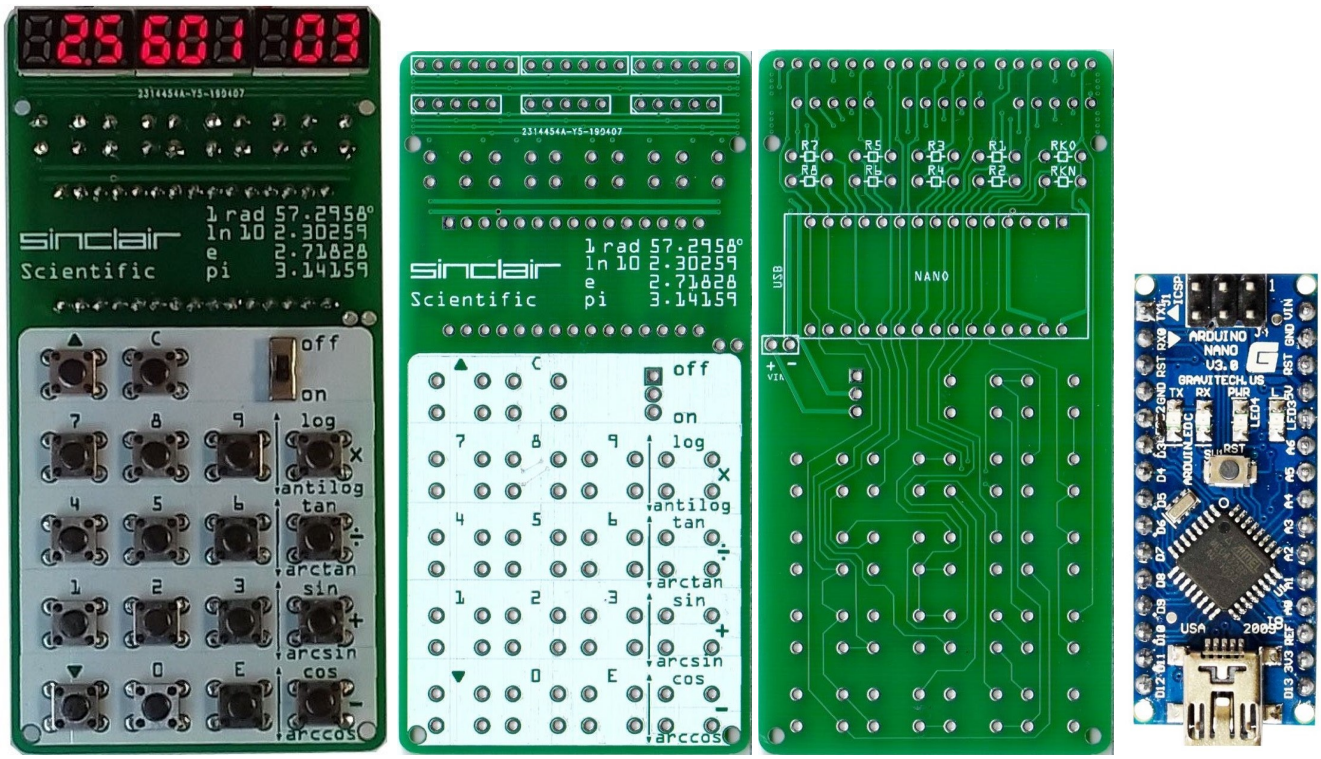
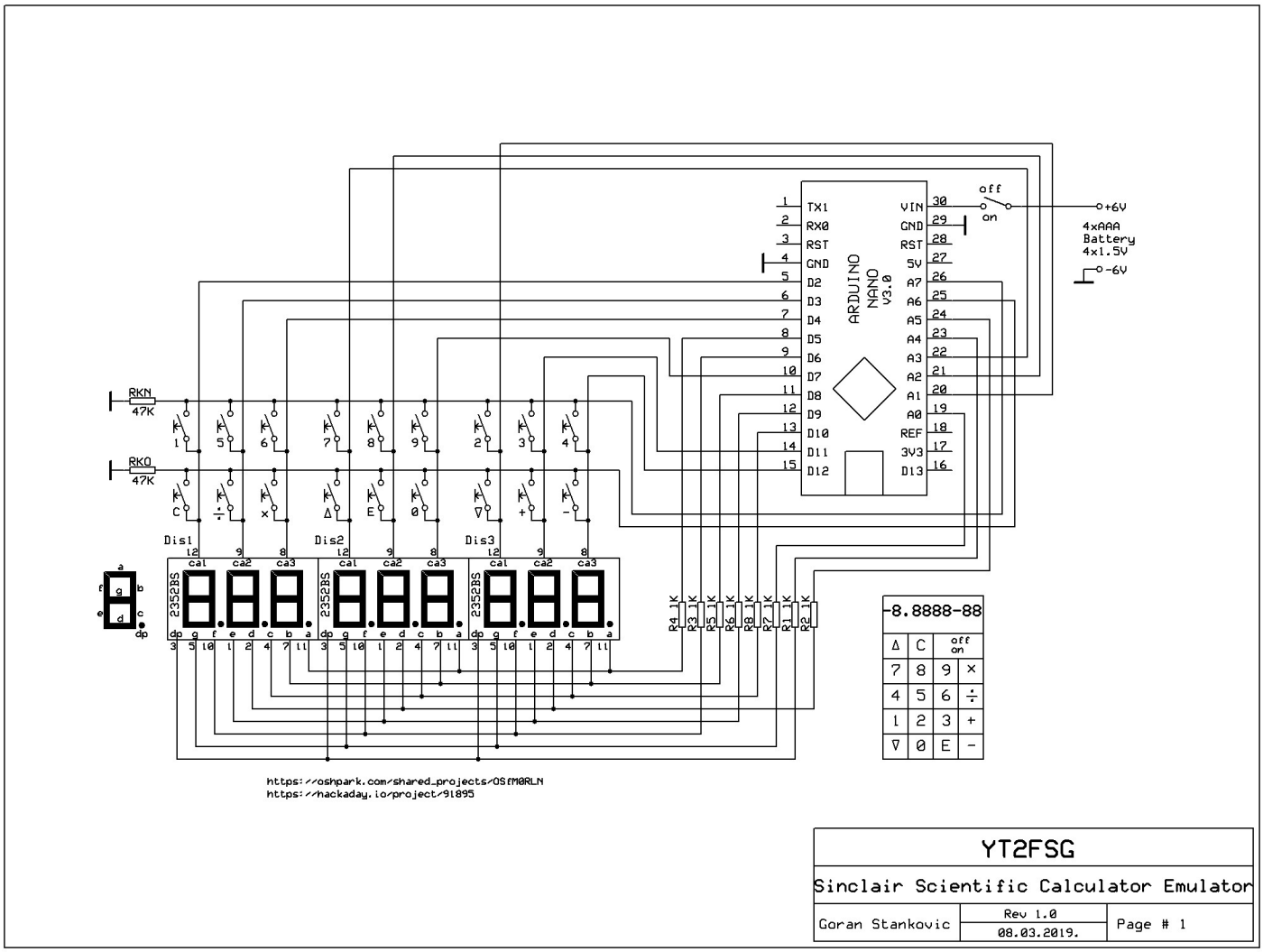
Sinclair Scientific Calculator Emulator

Na web stranici Sinclair Scientific Calculator Emulator V5 - r6 - RC1 ili na Hackaday: Sinclair Scientific Calculator Emulator opisana je izrada sa dokumentacijom ovog kalkulator emulatora sa ARDUINO NANO V3.0 modulom.
Za napajanje koristi se napon 6V (4 x AAA baterija 1.5V).



Izradu PCB štampane ploče možete uraditi preko on-line kompanija: EasyEDA - JLCPCB ili Seeed

Električna šema, Sinclair Scientific Calculator Emulator:

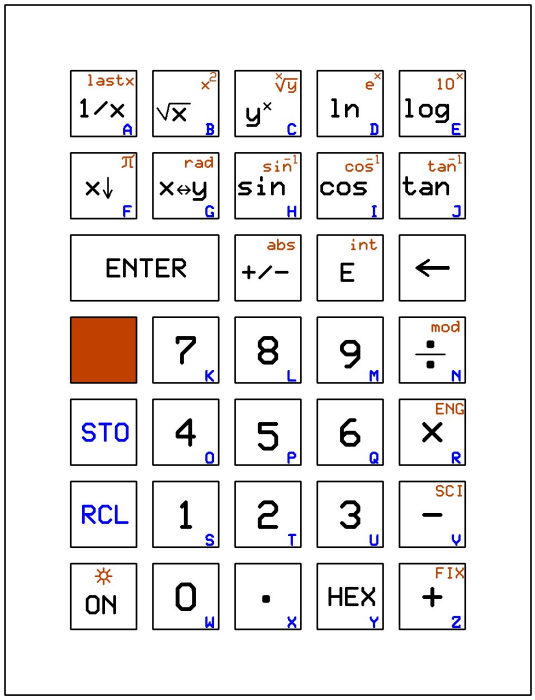


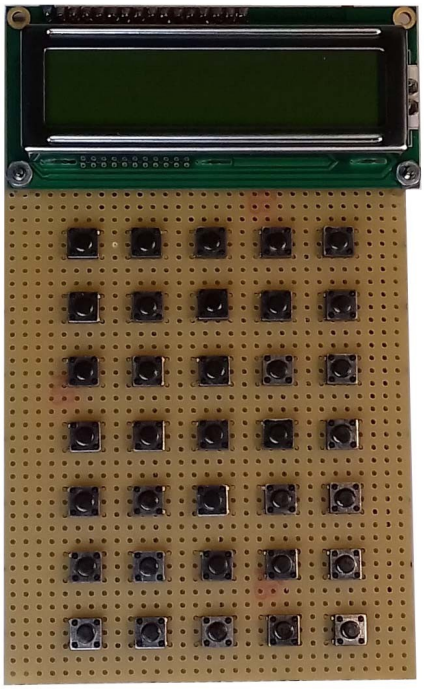
Download File: Lista materijala za Sinclair Scientific Calculator Emulator

Download Software za ARDUINO: Download the Arduino IDE

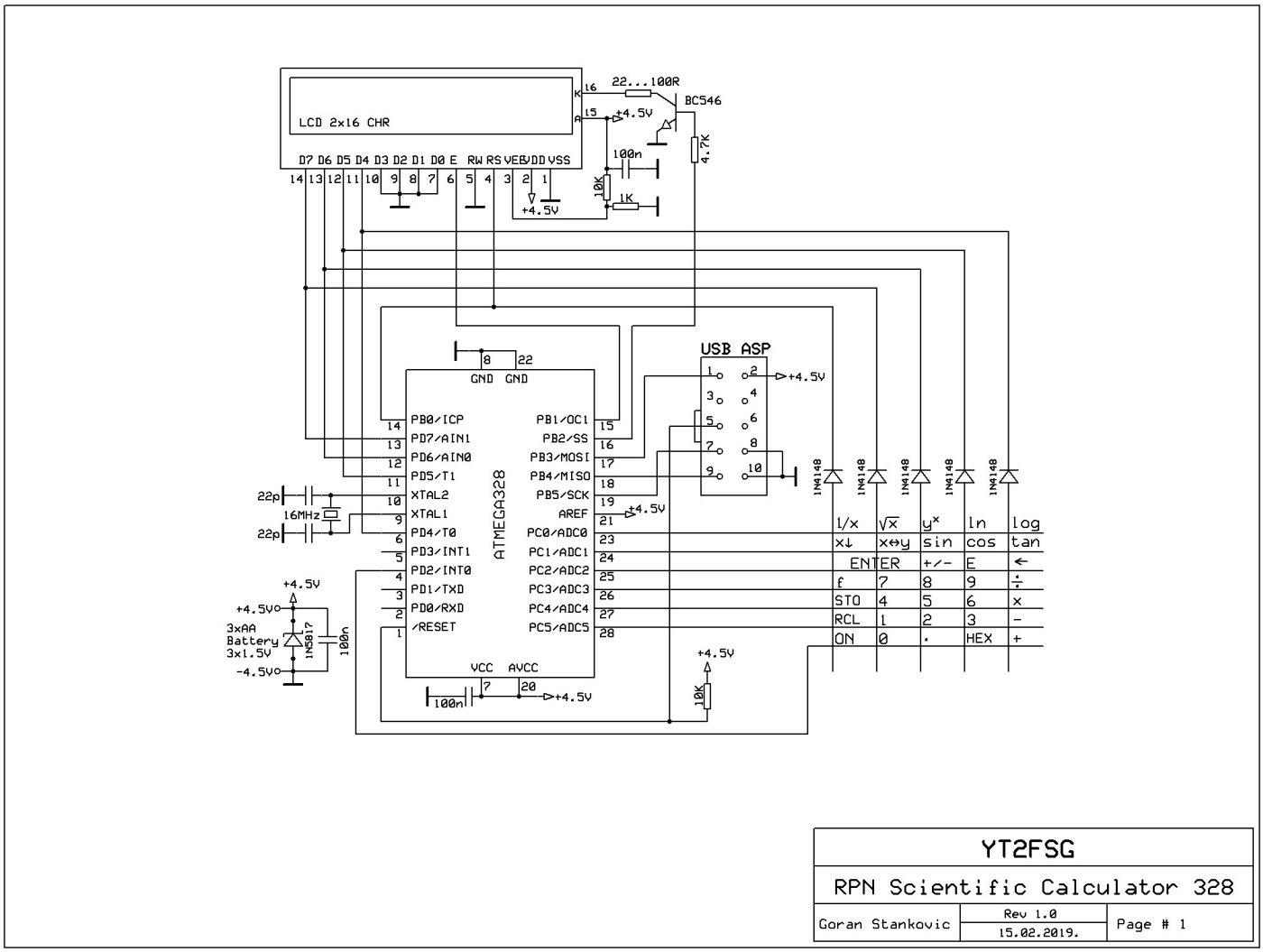
RPN Scientific Calculator 328

Na web stranici Easy Calc 64-bit floating point RPN calculator for arduino dat je software bez električna šeme ovog kalkulator emulatora sa mikrokontrolerom ATmega328P.
Za napajanje koristi se napon 4.5V (3 x AA baterija 1.5V).



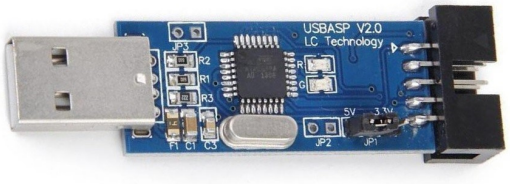


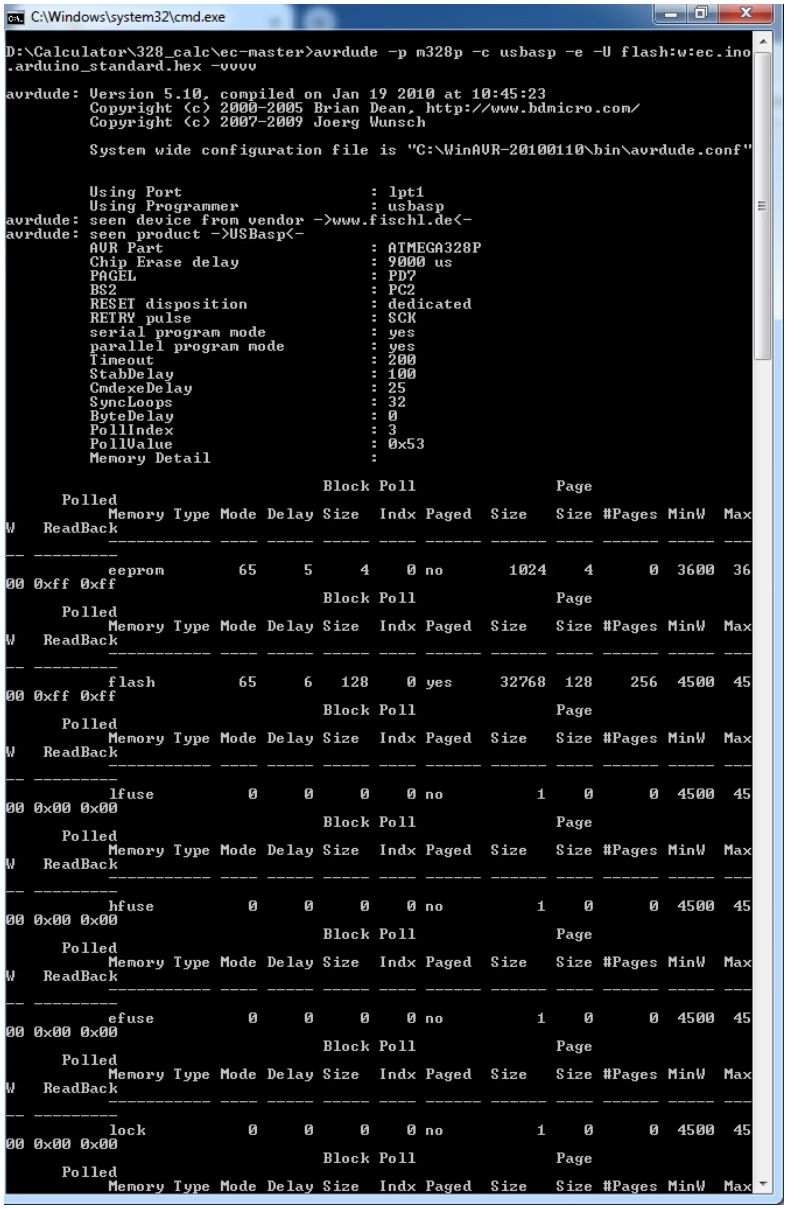
Električna šema, RPN Scientific Calculator 328:



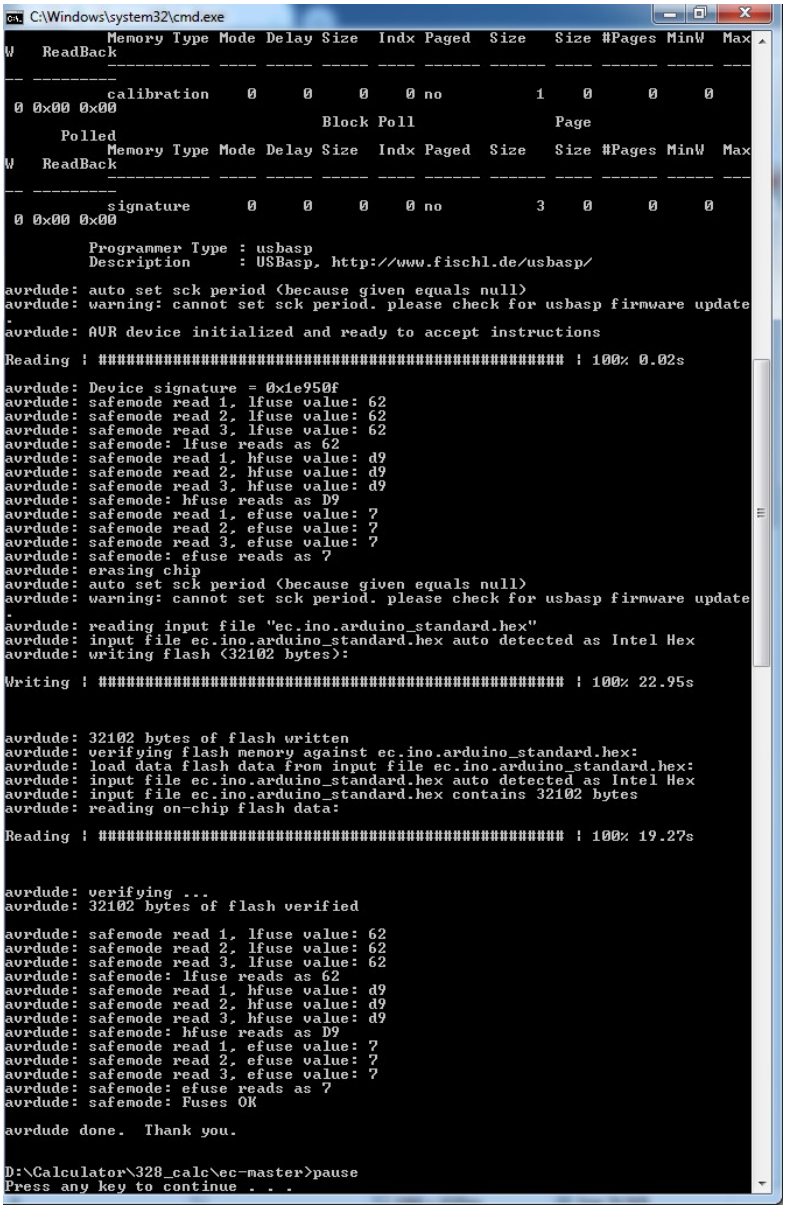
Download File: Lista materijala za RPN Scientific Calculator 328

Software je dužine 32KB, koristi se mikrokontroler ATmega328P bez bootloadera.
Programira se pomoću USB ASP V2.0 (USB ISP) programatora i AVRDUDE - AVR Downloader/UploaDEr



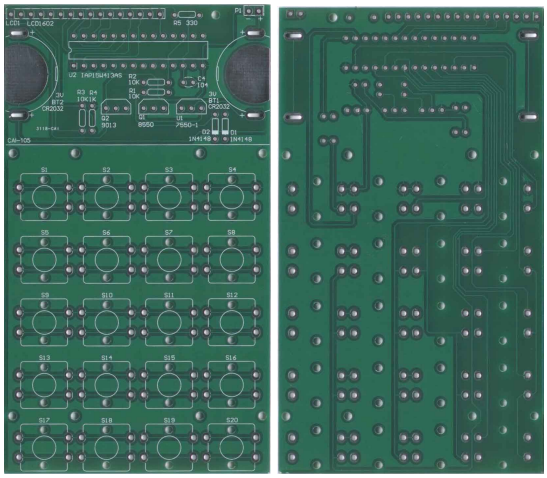


```
C:\Windows\system32\cmd.exe

D:\Calculator\328_calc\ec-master>avrdude -p m328p -c usbasp -e -U flash:w:ec.ino
.arduino_standard.hex -vvvv

avrdude: Version 5.10, compiled on Jan 19 2010 at 10:45:23
         Copyright (c) 2000-2005 Brian Dean, http://www.bdmicro.com/
         Copyright (c) 2007-2009 Joerg Wunsch

         System wide configuration file is "C:\WinAVR-20100110\bin\avrdude.conf"


         Using Port                    : lpt1
         Using Programmer              : usbasp
avrdude: seen device from vendor ->www.fischl.de<-
avrdude: seen product ->USBasp<-
         AVR Part                      : ATMEGA328P
         Chip Erase delay              : 9000 us
         PAGEL                         : PD7
         BS2                           : PC2
         RESET disposition             : dedicated
         RETRY pulse                   : SCK
         serial program mode           : yes
         parallel program mode         : yes
         Timeout                       : 200
         StabDelay                     : 100
         CmdexeDelay                   : 25
         SyncLoops                     : 32
         ByteDelay                     : 0
         PollIndex                     : 3
         PollValue                     : 0x53
         Memory Detail                 :

                                 Block Poll               Page
      Polled
           Memory Type Mode Delay Size  Indx Paged  Size   Size #Pages MinW  Max
W   ReadBack
           ------------ ---- ----- ----- ---- ------ ------ ---- ------ ----- ---
-- ---------
           eeprom        65     5     4    0 no       1024    4      0  3600  36
00 0xff 0xff
                                 Block Poll               Page
      Polled
           Memory Type Mode Delay Size  Indx Paged  Size   Size #Pages MinW  Max
W   ReadBack
           ------------ ---- ----- ----- ---- ------ ------ ---- ------ ----- ---
-- ---------
           flash         65     6   128    0 yes     32768  128    256  4500  45
00 0xff 0xff
                                 Block Poll               Page
      Polled
           Memory Type Mode Delay Size  Indx Paged  Size   Size #Pages MinW  Max
W   ReadBack
           ------------ ---- ----- ----- ---- ------ ------ ---- ------ ----- ---
-- ---------
           lfuse          0     0     0    0 no          1    0      0  4500  45
00 0x00 0x00
                                 Block Poll               Page
      Polled
           Memory Type Mode Delay Size  Indx Paged  Size   Size #Pages MinW  Max
W   ReadBack
           ------------ ---- ----- ----- ---- ------ ------ ---- ------ ----- ---
-- ---------
           hfuse          0     0     0    0 no          1    0      0  4500  45
00 0x00 0x00
                                 Block Poll               Page
      Polled
           Memory Type Mode Delay Size  Indx Paged  Size   Size #Pages MinW  Max
W   ReadBack
           ------------ ---- ----- ----- ---- ------ ------ ---- ------ ----- ---
-- ---------
           efuse          0     0     0    0 no          1    0      0  4500  45
00 0x00 0x00
                                 Block Poll               Page
      Polled
           Memory Type Mode Delay Size  Indx Paged  Size   Size #Pages MinW  Max
W   ReadBack
           ------------ ---- ----- ----- ---- ------ ------ ---- ------ ----- ---
-- ---------
           lock           0     0     0    0 no          1    0      0  4500  45
00 0x00 0x00
                                 Block Poll               Page
      Polled
           Memory Type Mode Delay Size  Indx Paged  Size   Size #Pages MinW  Max
```



DIY Kit Calculator

Na web stranici DIYleyuan: Calculator Installation & Instructions dato je detaljno upustvo za samogradnju ovog kalkulatora za elektroničare entuzijaste.



Plavi LCD displej i PCB ploča smešteni su u akrilno prozirno kućište.
Za napajanje koristi se napon 6V (2 x CR2032 baterija 3V).

Funkcije:
Osnovne računske operacije (+, -, *, /) sa decimalnom tačkom.
Računa vrednost otpornika na osnovu boja sa 4 ili 5 prstena.
Računa vrednost otpornika za ograničenje struje LED diode.
Konverzija broja DEC -> HEX i HEX -> DEC.

Link:

- Sinclair Scientific
- Reversing Sinclair's amazing 1974 calculator hack
- Hackaday: Sinclair Scientific
- Sinclair Scientific Calculator Emulator V5 - r6 - RC1
- Sinclair Scientific Calculator Emulator
- ARDUINO NANO V3.0
- Easy Calc 64-bit floating point RPN calculator for arduino
- AVRDUDE - AVR Downloader/UploaDEr
- USB ASP V2.0 (USB ISP) programatora
- Download the Arduino IDE
- DIYleyuan: Calculator Installation & Instructions

- en.wikipedia.org/wiki/TI-59_/_TI-58
- en.wikipedia.org/wiki/HP-41C
- en.wikipedia.org/wiki/HP_39/40_series
- www.ti59.com/
- www.hpmuseum.org
- www.hpmuseum.org/prog/hp41prog.htm
- www.hpcalc.org
- www.hpcalc.org/hp39/