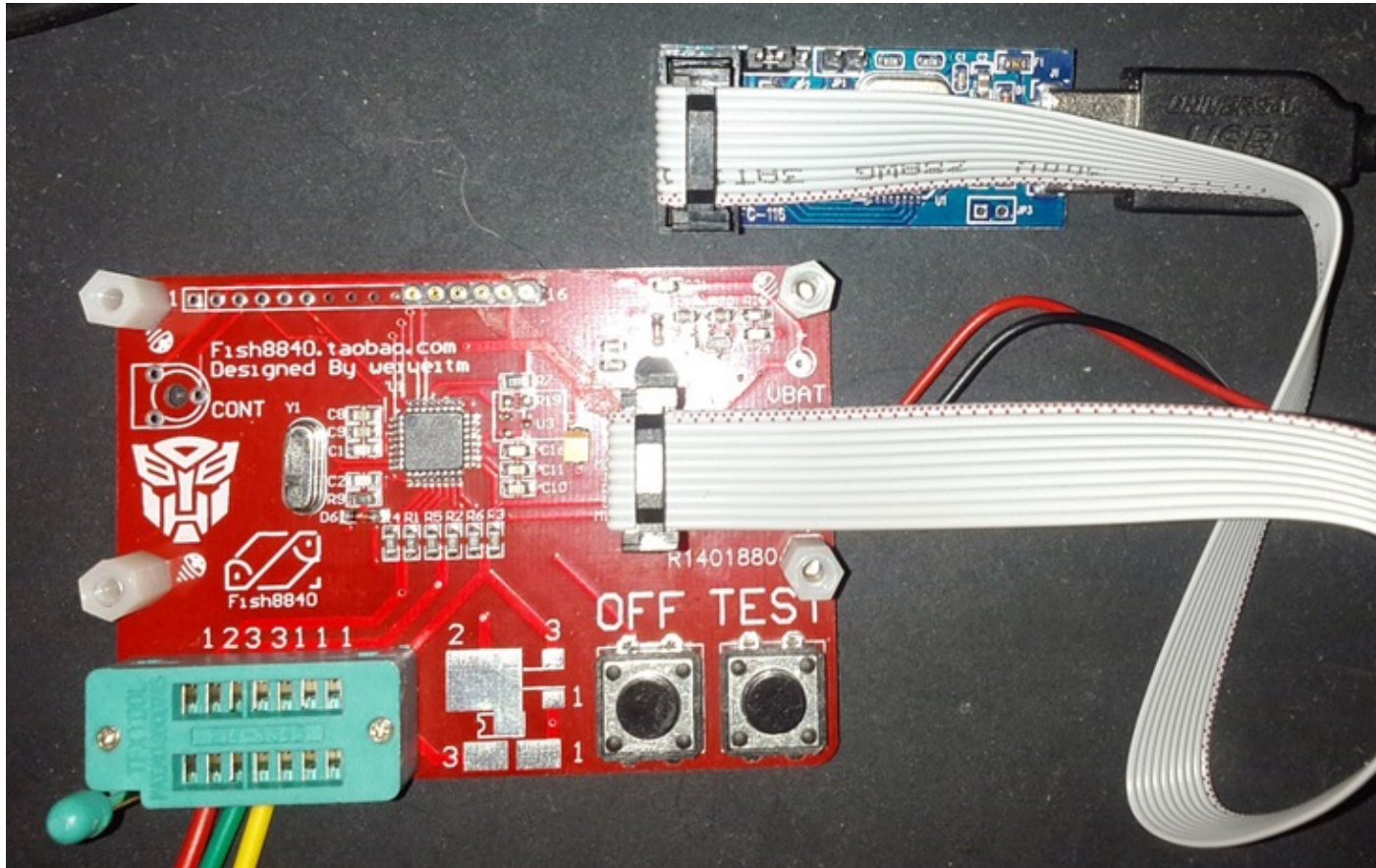


- Original project page in german - http://www.mikrocontroller.net/articles/AVR_Transistortester
- Thread with details and developer - [http://www.eevblog.com/forum/testgear/\\$20-lcr-esr-transistor-checker-project/](http://www.eevblog.com/forum/testgear/$20-lcr-esr-transistor-checker-project/)
- pre-compiled software <http://www.avrtester.tode.cz/index.php?p=firmware>
- Great open hardware implementation <https://github.com/maugsburger/avr-component-tester>

fish8840



big board picture [fish8840-usbasp.jpg](#)

russian video with firmware upgrade: <https://www.youtube.com/watch?v=zsLDeSEyyzY>

fix power drain when off: <https://www.youtube.com/watch?v=gx55Gza0zGE>

```
dpavlin@x200:/rest/cvs/transistortester$ git svn info
Path: .
URL: svn://mikrocontroller.net/transistortester
Repository Root: svn://mikrocontroller.net/transistortester
Repository UUID: 6ebdd44f-5a7e-449c-b779-36259138d2c7
Revision: 460
Node Kind: directory
Schedule: normal
```

Last Changed Author: kubi48
Last Changed Rev: 460
Last Changed Date: 2015-04-18 22:14:53 +0200 (Sat, 18 Apr 2015)

```
diff --git a/Software/trunk/mega328_fish8840/Makefile b/Software/trunk/mega328_fish8840/Makefile
index 9c106d0..6d3ee34 100644
--- a/Software/trunk/mega328_fish8840/Makefile
+++ b/Software/trunk/mega328_fish8840/Makefile
@@ -111,10 +111,10 @@ CFLAGS += -DLCD_ST7565_H_FLIP=1
 # OFFSET values can vary for the connected display type to 0, 2 or 4.
 CFLAGS += -DLCD_ST7565_H_OFFSET=0
 # If LCD_ST7565 option is set to 1: Flip the display's vertical direction
-#CFLAGS += -DLCD_ST7565_V_FLIP=1
+CFLAGS += -DLCD_ST7565_V_FLIP=1
 # The contrast value can be predefined with the constant VOLUME_VALUE
 # for ST7565 controller the value can be between 0 and 63, for the SSD1306 0 to 255 can be selected
-#CFLAGS += -DVOLUME_VALUE=25
+CFLAGS += -DVOLUME_VALUE=50

 # If option WITH_LCD_ST7565 is present one of the following fonts should be
 # chosen. With a font width below 8 more than 16 characters can be shown in one display line.
@@ -308,13 +308,13 @@ INHIBIT_SLEEP_MODE = 0

 # Select your programmer type, speed and port, if you wish to use avrdude.
 # setting for DIAMEX ALL_AVR, Atmel AVRISP-mkII
-PROGRAMMER=avrispmkII
-BitClock=1.0
-PORT=usb
-# setting for USBasp
-#PROGRAMMER=usbasp
-#BitClock=20
+#PROGRAMMER=avrispmkII
+#BitClock=1.0
 #PORT=usb
+# setting for USBasp
+PROGRAMMER=usbasp
+BitClock=20
+PORT=usb
 # setting for ARDUINO MEGA, requires bootloader
 #PROGRAMMER=wiring
 #PORT = /dev/ttyACM0
```

```
dpavlin@x200:/rest/cvs/transistortester$ cd Software/trunk/mega328_fish8840/
```

```
dpavlin@x200:/rest/cvs/transistortester/Software/trunk$ vi default/ReadMe.txt
```

```
dpavlin@x200:/rest/cvs/transistortester/Software/trunk$ cd mega328_fish8840/
```

```
dpavlin@x200:/rest/cvs/transistortester/Software/trunk/mega328_fish8840$ make upload
make
```

```
make[1]: Entering directory '/rest/cvs/transistortester/Software/trunk/mega328_fish8840'
```

```
8 MHz operation configured.
```

```
AVR Memory Usage
```

```
-----
```

```
Device: atmega328p
```

```
Program: 29994 bytes (91.5% Full)
(.text + .data + .bootloader)
```

```
Data: 193 bytes (9.4% Full)
(.data + .bss + .noinit)
```

```
EEPROM: 15 bytes (1.5% Full)
```

(.eeprom)

```
make[1]: Leaving directory '/rest/cvs/transistortester/Software/trunk/mega328_fish8840'  
avrdude -c usbasp -B 20 -p m328p -P usb -U flash:w:./TransistorTester.hex:a \  
-U eeprom:w:./TransistorTester.eep:a
```

```
avrdude: set SCK frequency to 32000 Hz  
avrdude: warning: cannot set sck period. please check for usbasp firmware update.  
avrdude: AVR device initialized and ready to accept instructions
```

```
Reading | ##### | 100% 0.01s
```

```
avrdude: Device signature = 0x1e950f  
avrdude: NOTE: "flash" memory has been specified, an erase cycle will be performed  
To disable this feature, specify the -D option.  
avrdude: erasing chip  
avrdude: set SCK frequency to 32000 Hz  
avrdude: warning: cannot set sck period. please check for usbasp firmware update.  
avrdude: reading input file "./TransistorTester.hex"  
avrdude: input file ./TransistorTester.hex auto detected as Intel Hex  
avrdude: writing flash (29994 bytes):
```

```
Writing | ##### | 100% 17.86s
```

```
avrdude: 29994 bytes of flash written  
avrdude: verifying flash memory against ./TransistorTester.hex:  
avrdude: load data flash data from input file ./TransistorTester.hex:  
avrdude: input file ./TransistorTester.hex auto detected as Intel Hex  
avrdude: input file ./TransistorTester.hex contains 29994 bytes  
avrdude: reading on-chip flash data:
```

```
Reading | ##### | 100% 16.67s
```

```
avrdude: verifying ...  
avrdude: 29994 bytes of flash verified  
avrdude: reading input file "./TransistorTester.eep"  
avrdude: input file ./TransistorTester.eep auto detected as Intel Hex  
avrdude: writing eeprom (15 bytes):
```

```
Writing | ##### | 100% 0.19s
```

```
avrdude: 15 bytes of eeprom written  
avrdude: verifying eeprom memory against ./TransistorTester.eep:  
avrdude: load data eeprom data from input file ./TransistorTester.eep:  
avrdude: input file ./TransistorTester.eep auto detected as Intel Hex  
avrdude: input file ./TransistorTester.eep contains 15 bytes  
avrdude: reading on-chip eeprom data:
```

```
Reading | ##### | 100% 0.04s
```

```
avrdude: verifying ...  
avrdude: 15 bytes of eeprom verified  
  
avrdude: safemode: Fuses OK (E:05, H:D9, L:F7)
```

avrdude done. Thank you.

```
dpavlin@x200:/rest/cvs/transistortester/Software/trunk/mega328_fish8840$ make fuses-crystal  
avrdude -c usbasp -B 20 -p m328p -P usb -U lfuse:w:0xf7:m -U hfuse:w:0xd9:m -U efuse:w:0x04:m
```

```
avrdude: safemode: Fuses OK (E:04, H:D9, L:F7)
```

