

Temperatursensor mit FlashForth auslesen

Auslesen der Temperaturwerte aus dem Temperatursensor DS1621 mit FlashForth über einen PIC-Microcontroller

Breadboard

ds1621.png

Programm

Benötigt i2c_base im Speicher.

```
-tempsensor  
marker -tempsensor
```

```
$ff3a constant anselc  
%1001000 constant addr-ds1621 \ default 7-bit address for DS1621  
  
: add-read-bit ( 7-bit-c -- 8-bit-c )  
  1 lshift 1 or  
:  
  
: add-write-bit ( 7-bit-c -- 8-bit-c )  
  1 lshift 1 invert and  
;  
  
: sign-extend ( c -- n )  
  dup $7f > if $ff80 or then  
;  
  
: init-ds1621 ( -- )  
  addr-ds1621 add-write-bit i2cws $ee i2c! spen  
  addr-ds1621 add-write-bit i2cws $aa i2c! spen  
;  
  
: degrees@ ( -- n )  
  addr-ds1621 add-read-bit i2cws i2c@ak i2c@nak drop sign-extend  
;  
  
: main ( -- )  
  %11000 anselc mclr  
  i2cinit  
  init-ds1621  
  begin  
    degrees@ .  
    #1000 ms  
  key? until  
;
```