BRIDGE
DRIVE (+)

R1
Rbr 0.1%

R3
Rbr 0.1%

BRIDGE OUT (-)

BRIDGE OUT (+)

cw

R8
10K 10T

R7
Rbr * 500

GND

R5
Rbr * K

R2
Rbr 0.1%

R4
Rbr 0.1%

R6
Rbr * K

GND

GND

BRIDGE
DRIVE (-)

GND

+5V

U1
LTC8043EN8

8   VCC   VREF   1

R9
20.0K

R14
10.0K

TO MICROCONTROLLER
SPI PORT

6   SRI

7   CLK   RFB   2

5   LD

R13
10.0K

6

7

5   +

TL072
U2B

4   GND   IOUT   3

C1
100PF

2   −

1

GND

GND

3   +

TL072
U2A

GND

GND

NOTES:

1. ALL RESISTORS +/- 1% UNLESS OTHERWISE NOTED

2. POWER CONNECTIONS AND DECOUPLING CAPS FOR U1 and U2 ARE NOT SHOWN

3. FOR R1 thru R7, Rbr = RESISTANCE OF BRIDGE BEING SIMULATED

4. FOR R5 and R6, K = 1667 GIVES +/- 3 mV ADJUSTMENT RANGE w/ 10 V EXCITATION VOLTAGE

5. SETUP: WITH DAC LOADED WITH 0x0400, ADJUST R8 FOR BRIDGE NULL

TITLE: Strain Gauge Simulator 2

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