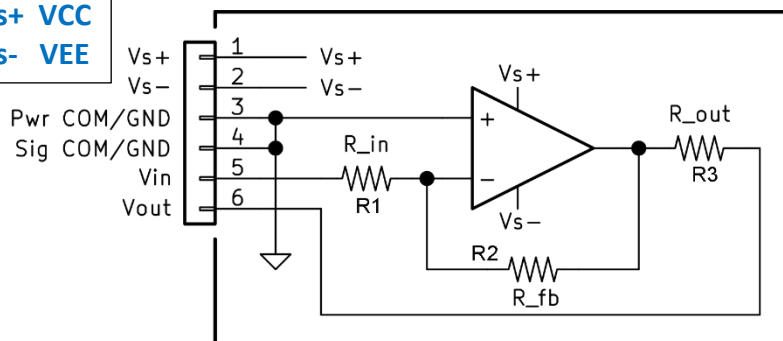


## ENSC 220 Lab Test #1

Black Box Code #

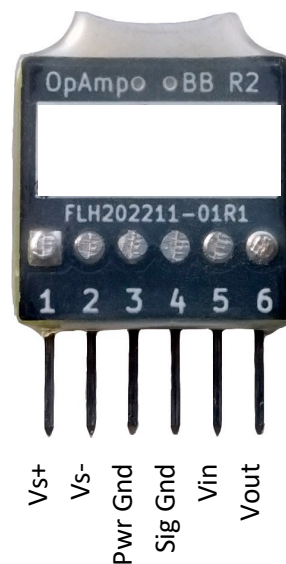
Bench #

$V_{s+}$  VCC  
 $V_{s-}$  VEE



Insert and remove the module from the breadboard straight down and up.

\*\*\* Don't wiggle sideways \*\*\*



Steps:

- (1) Record the black box code.
- (2) Set the power supply to  $\pm 12$  V, 30 mA current limit.
- (3) Wire-up a voltage divider for an input signal.
- (4) Connect the appropriate power and input voltage.
- (5) Measure input voltage, open-circuit output voltage, input current and short-circuit output current.
- (6) Compute  $R_1$ ,  $R_2$  and  $R_3$ .

Supply Voltages when the black box is powered

$V_{CC}$	$V_{EE}$

Measurements

V(input)	I(input)	Open Circuit Output Voltage	Short Circuit Output Current
V	mA	V	mA

Computed values

$R_1$	$R_2$	$R_3$

If your computed resistor value is greater than  $1000\Omega$ , present that value in  $k\Omega$ . If not present it in  $\Omega$ .

$R_1$	$R_2$	$R_3$
$\Omega$	$\Omega$	$\Omega$

**For this Lab Test: Do not reset or power-OFF the Power Supply**

Use the back of this page to show your calculations

For TA/Instructor use only		
I-L (L)	I-L (R)	DMM Probes