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Wiki

[Resources and Tools \(/resources\)](/resources)[Education Content \(/university/courses/tutorials/index\)](/university/courses/tutorials/index)[Wiki Help \(/wiki/help\)](/wiki/help)[Wiki Tools](#)[search wiki](#)

Analog Devices Wiki

This version (08 Jul 2022 15:38) was **approved** by Doug Mercer [https://ez.analog.com/members/d Mercer].
 The [Previously approved version \(/university/tools/adalp2000/parts-index?rev=1617615788\)](https://university/tools/adalp2000/parts-index?rev=1617615788) (05 Apr 2021 11:43) is available.

ADALP2000 Product Description

[\(/_detail/university/tools/adalp2000/kit_contents.jpg?\)](https://university/tools/adalp2000/kit_contents.jpg?)[id=university%3Atools%3Aadalp2000%3Aparts-index\)](https://university%3Atools%3Aadalp2000%3Aparts-index)

The [ADALP2000 \[https://www.analog.com/ADALP2000\]](https://www.analog.com/ADALP2000) Parts Kit contains a large selection of components perfect for creating a wide variety of useful circuits and devices. Featuring a variety of components from Analog Devices, the kit includes transistors, resistors, capacitors, diodes, sensors, and variety of useful ICs including op-amps, converters, and regulators.

We are on Rev B of the ADALP2000 parts kit, and its BIGGER and more COMPREHENSIVE than ever. Below is a complete rundown of the components that can be found within the kit.

A [complete list \[https://www.analog.com/media/en/evaluation-boards-kits/evaluation-board/ADALP2000-product-highlights.pdf\]](https://www.analog.com/media/en/evaluation-boards-kits/evaluation-board/ADALP2000-product-highlights.pdf) and description of components is listed below.

[\(/_detail/university/tools/adalp2000/inductor_damage.png?id=university%3Atools%3Aadalp2000%3Aparts-index\)](https://university/tools/adalp2000/inductor_damage.png?id=university%3Atools%3Aadalp2000%3Aparts-index) It is possible that some inductors included in the ADALP2000 parts kit may have sustained some cosmetic impairments during shipping and handling. These inductors are 100% functional, and while the cosmetic issues does not *look* nice, it does not affect the electrical performance, and all devices meet their datasheet specifications.





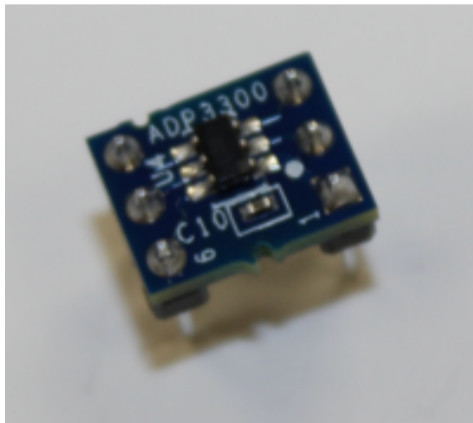

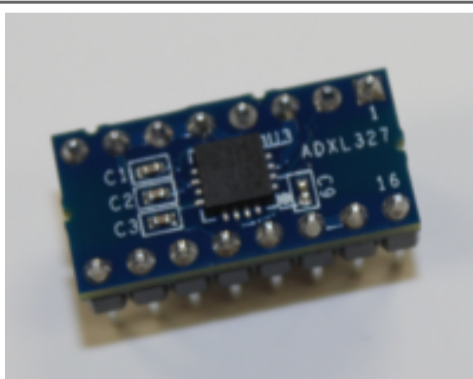
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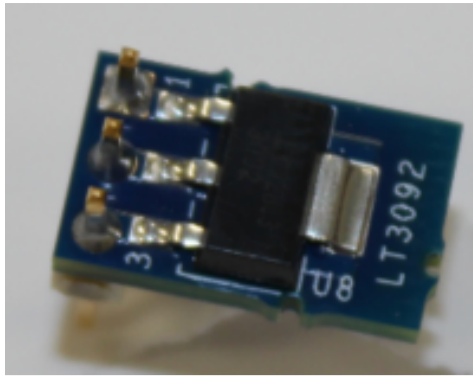
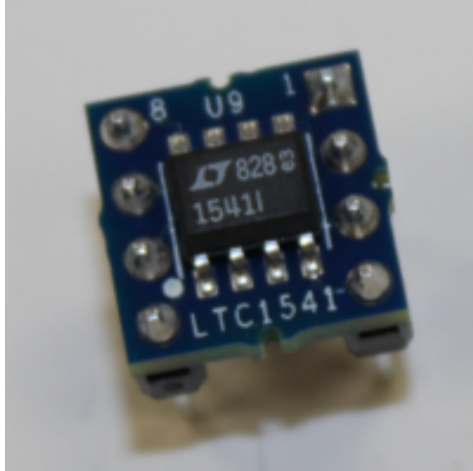

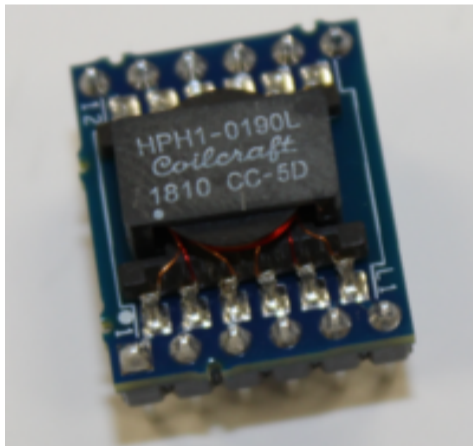

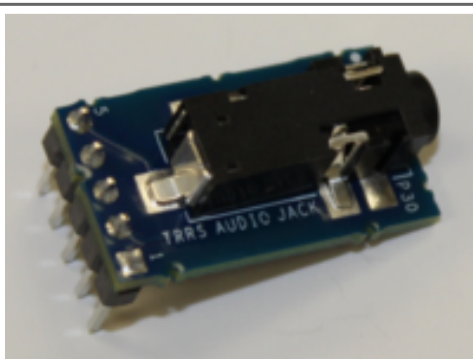
id=university%3Atools%3Aadalp2000%3Aparts-index) Note that the pinout of some of the breakout boards is mirrored. This was done to maintain a 300-mil row spacing, maximizing available breadboard connection points. Double-check all pinouts before building your circuit.



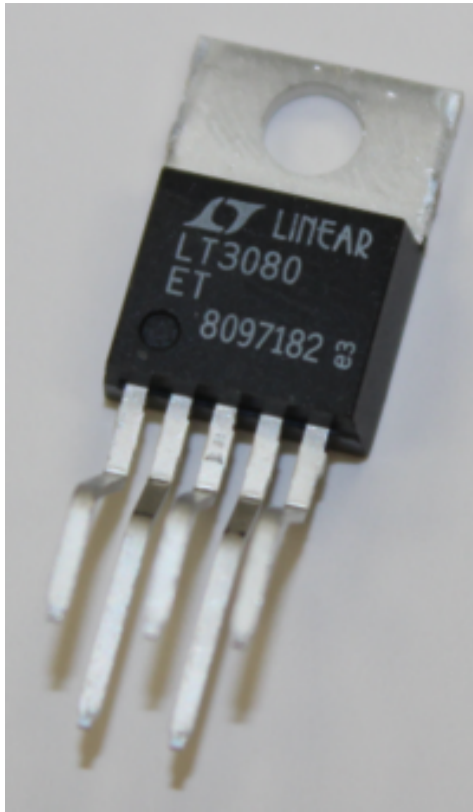
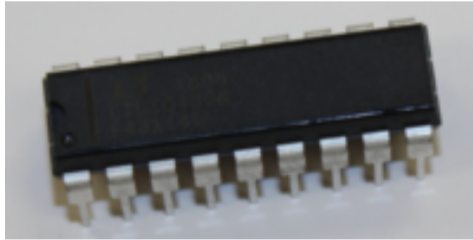

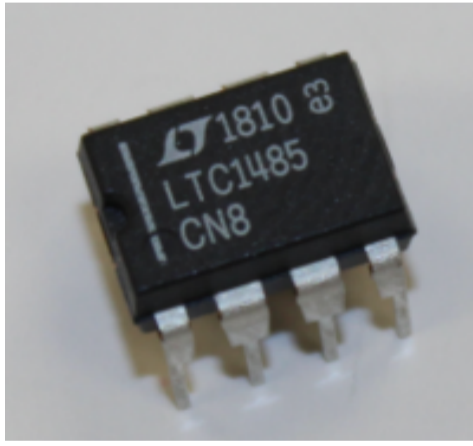
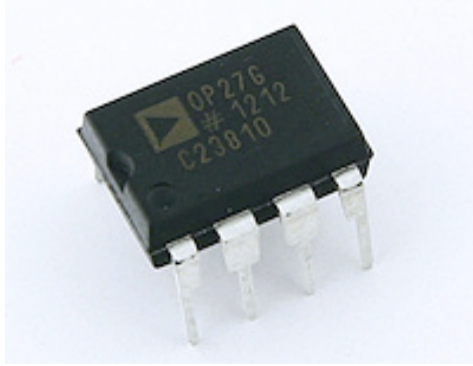
Kit Contents

Picture	Part Number	Description	Link
 <p>(/_detail/university/tools/adalp2000/bob_ad22151.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	AD22151	Magnetic Field Sensor	ad22151 [https://www.analog.com/ad22151]
 <p>(/_detail/university/tools/adalp2000/bob_ad5626.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	AD5626	12-Bit Digital to Analog Converter	AD5626 [https://www.analog.com/AD5626]
 <p>(/_detail/university/tools/adalp2000/bob_ad7920.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	AD7920	12-Bit Analog to Digital Converter	AD7920 [https://www.analog.com/AD7920]
 <p>(/_detail/university/tools/adalp2000/bob_ad8210.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	AD8210	Current Shunt Monitor	AD8210 [https://www.analog.com/AD8210]

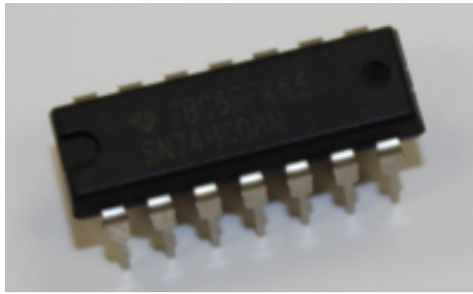

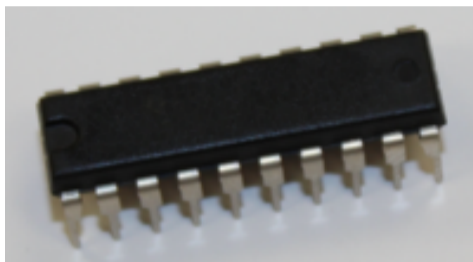
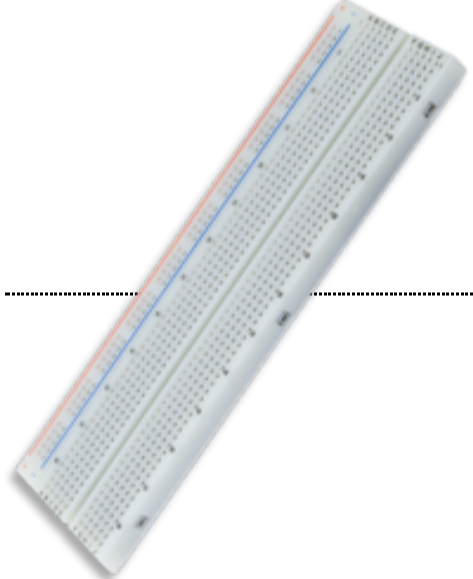


Picture	Part Number	Description	Link
 <p>/_detail/university/tools/adalp2000/bob_ad8226.png?id=university%3Atools%3Aadalp2000%3Aparts-index</p>	AD8226	Instrumentation Amplifier	AD8226 [https://www.analog.com/AD8226]
 <p>/_detail/university/tools/adalp2000/bob_ad8542.png?id=university%3Atools%3Aadalp2000%3Aparts-index</p>	AD8542	CMOS Rail to Rail Op Amp	AD8542 [https://www.analog.com/AD8542]
 <p>/_detail/university/tools/adalp2000/bob_adp3300.png?id=university%3Atools%3Aadalp2000%3Aparts-index</p>	ADP3300	3.3V, 50mA Linear Regulator(LDO)	ADP3300 [https://www.analog.com/ADP3300]
 <p>/_detail/university/tools/adalp2000/bob_adtl082.png?id=university%3Atools%3Aadalp2000%3Aparts-index</p>	ADTL082	JFET Op-Amp	ADTL082 [https://www.analog.com/ADTL082]
 <p>/_detail/university/tools/adalp2000/bob_adx1327.png?id=university%3Atools%3Aadalp2000%3Aparts-index</p>	ADX1327	3-Axis Low-G Accelerometer	ADX1327 [https://www.analog.com/ADX1327]

Picture	Part Number	Description	Link
 <p>(/_detail/university/tools/adalp2000/bob_lt3092.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	LT3092	Programmable Current Source	LT3092 [https://www.analog.com/LT3092]
 <p>(/_detail/university/tools/adalp2000/bob_ltc1541.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	LTC1541	Micropower Amp, Comparator, & Reference	LTC1541 [https://www.analog.com/LTC1541]
 <p>(/_detail/university/tools/adalp2000/bob_ltm8067.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	LTM8067	Isolated DC-DC Converter	LTM8067 [https://www.analog.com/LTM8067]
 <p>(/_detail/university/tools/adalp2000/bob_hph1-0190.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	HPH1-0190	Hexa-Path Transformer	Datasheet [http://www.coilcraft.com/pdfs/hexa-path.pdf]
 <p>(/_detail/university/tools/adalp2000/bob_hph1-1400.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	HPH1-1400	Hexa-Path Transformer	Datasheet [http://www.coilcraft.com/pdfs/hexa-path.pdf]
 <p>(/_detail/university/tools/adalp2000/bob_audio.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	SJ-43515TS-SMT-TR	TRRS Microphone In	Datasheet [https://www.cuidevices.com/product/resource/sj-4351x-smt.pdf]

Picture	Part Number	Description	Link
 <p>(/_detail/university/tools/adalp2000/bob_usb.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	ZX62D-B-5PA8(30)	Micro USB (Universal Serial Bus) Connector	
 <p>(/_detail/university/tools/adalp2000/ad584.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	AD584	Programmable Voltage Reference	AD584 [https://www.analog.com/AD584]
 <p>(/_detail/university/tools/adalp2000/ad592.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	AD592	Current Temperature Sensor	AD592 [https://www.analog.com/AD592]
 <p>(/_detail/university/tools/adalp2000/ad654.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	AD654	Voltage to Frequency Converter	AD654 [https://www.analog.com/AD654]
 <p>(/_detail/university/tools/adalp2000/ad2210.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	AD22100	Voltage Temperature Sensor	AD22100 [https://www.analog.com/AD22100]
 <p>(/_detail/university/tools/adalp2000/ad8561.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	AD8561	Comparator	AD8561 [https://www.analog.com/AD8561]





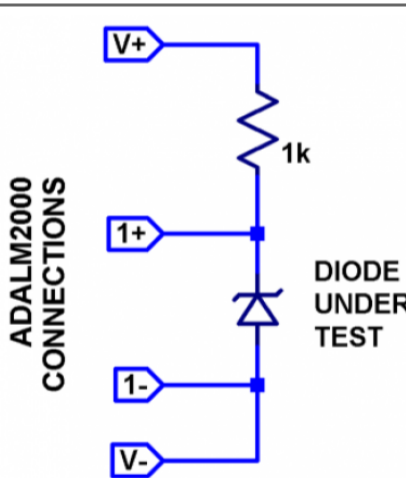


Picture	Part Number	Description	Link
 <p>Linear Technology LT3080 ET 8097182</p> <p>(/_detail/university/tools/adalp2000/dip_lt3080.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	LT3080	Adjustable 1.1A LDO	LT3080 [https://www.analog.com/LT3080]
 <p>(/_detail/university/tools/adalp2000/dip_ltc1043.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	LTC1043	Precision Switch-CAP Block	LTC1043 [https://www.analog.com/LTC1043]
 <p>Linear Technology 1815 LT1054 CN8</p> <p>(/_detail/university/tools/adalp2000/dip_ltc1054.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	LTC1054	Switched-Capacitor Regulator	LTC1054 [https://www.analog.com/LT1054]
 <p>Linear Technology 1810 LTC1485 CN8</p> <p>(/_detail/university/tools/adalp2000/dip_ltc1485.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	LTC1485	Differential Bus Transceiver	LTC1485 [https://www.analog.com/LTC1485]
 <p>OP27G # 1212 C23810</p> <p>(/_detail/university/tools/adalp2000/op27.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	OP27	Low Noise, Precision Op Amp	OP27 [https://www.analog.com/OP27]




Picture	Part Number	Description	Link
 <p>(/_detail/university/tools/adalp2000/op37.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	OP37	Precision Op Amp	OP37 [https://www.analog.com/OP37]
 <p>(/_detail/university/tools/adalp2000/dip_op97.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	OP97	Low Noise, Precision Op Amp	OP97 [https://www.analog.com/OP97]
 <p>(/_detail/university/tools/adalp2000/op482.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	OP482	High Speed JFET Op Amp	OP482 [https://www.analog.com/OP482]
 <p>(/_detail/university/tools/adalp2000/op484.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	OP484	Precision Rail to Rail Op Amp	OP484 [https://www.analog.com/OP484]
 <p>(/_detail/university/tools/adalp2000/tmp01.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	TMP01	Temperature Controller	TMP01 [https://www.analog.com/TMP01]
 <p>(/_detail/university/tools/adalp2000/dip_sn74hc04n.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	SN74HC04N	Hex Inverter	Datasheet [http://www.ti.com/lit/ds/symlink/sn74hc04.pdf]

Picture	Part Number	Description	Link
 <p>(/_detail/university/tools/adalp2000/dip_sn74hc08n.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	SN74HC08N	Quad AND Gate	Datasheet [http://www.ti.com/lit/ds/symlink/sn74hc08.pdf]
 <p>(/_detail/university/tools/adalp2000/dip_sn74hc32n.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	SN74HC32N	Quad OR Gate	Datasheet [http://www.ti.com/lit/ds/symlink/sn54hc32-sp.pdf]
 <p>(/_detail/university/tools/adalp2000/dip_sn74hc273n.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	SN74HC273N	Octal Flip Flop	Datasheet [http://www.ti.com/lit/ds/symlink/sn54hc273-sp.pdf]
 <p>(/_detail/university/tools/adalp2000/breadboard_small.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	Solderless Breadboard	Solderless Breadboard	
 <p>(/_detail/university/tools/adalp2000/jumper_wires.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	Jumper Wires	Male to Male Jumper Wires	
 <p>(/_detail/university/tools/adalp2000/screwdriver.png?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	Screwdriver	Flathead Screwdriver	

Picture	Part Number	Description	Link
 (/_detail/university/tools/adalp2000/microphone.png?id=university%3Atools%3Aadalp2000%3Aparts-index)	HCM9765-P11-453	Microphone	Datasheet (/media/university/tools/adalp2000/hcm9765-p11-453.pdf)
 (/_detail/university/tools/adalp2000/speaker_front.png?id=university%3Atools%3Aadalp2000%3Aparts-index)	Speaker	8 Ω Speaker	
 (/_detail/university/tools/adalp2000/thermister.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)	B57164K103J	10 k Ω Thermistor 5mm lead coated disk	Datasheet [https://eu.mouser.com/datasheet/2/400/NTC_Leaded_disks_K164-1317145.pdf]
 (/_detail/university/tools/adalp2000/power-res.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)	SQP10AJB-6R2	6.2 Ω 10W Power Resistor Axial Cement Link	Datasheet [https://www.yageo.com/upload/media/product/productsearch/datasheet/tr/Yageo_LR_SQP_NSP_1.pdf]
 (/_detail/university/tools/adalp2000/pots.png?id=university%3Atools%3Aadalp2000%3Aparts-index)	* 3386C-1-502LF * 3386C-1-103LF * 3386C-1-503LF	* Single Turn 5 k Ω Potentiometer * Single Turn 10 k Ω Potentiometer * Single Turn 50 k Ω Potentiometer	Datasheet [https://www.bourns.com/pdfs/3386.pdf]
 (/_detail/university/tools/adalp2000/transistor.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)	2N3904	NPN General Purpose Transistor TO- 92 Link Marking: 2N3904	Datasheet [https://www.onsemi.com/pub/Collateral/2N3903-D.PDF]
 (/_detail/university/tools/adalp2000/transistor.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)	2N3906	PNP General Purpose Transistor TO- 92 Link Marking: 2N3906	Datasheet [https://www.onsemi.com/pub/Collateral/2N3906-D.PDF]

Picture	Part Number	Description	Link
 <p>(/_detail/university/tools/adalp2000/irf510.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	IRF510	N-Channel MOSFET 100V TO-220 Link Marking: IRF510	Datasheet [http://www.vishay.com/docs/91015/sihf510.pdf]
 <p>(/_detail/university/tools/adalp2000/tip31.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	TIP31CFS	NPN Epitaxial Transistor TO-220 Link Marking: TIP31	Datasheet [http://www.mouser.com/ds/2/149/fairchild%20semiconductor_tip31a-549394.pdf]
 <p>(/_detail/university/tools/adalp2000/tip32.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	TIP32CFS	PNP Epitaxial Transistor TO-220 Link Marking: TIP32	Datasheet [https://www.mouser.com/ds/2/149/TIP32C-890156.pdf]
 <p>(/_detail/university/tools/adalp2000/zvn2110a.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	ZVN2110A	N-Channel Enhancement FET TO-92 Link Marking: ZVN211	Datasheet [https://www.diodes.com/assets/Datasheets/ZVN2110A.pdf]
 <p>(/_detail/university/tools/adalp2000/zvn3310.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	ZVN3310	N-Channel Enhancement Transistor TO-92 Link Marking: ZVN211	Datasheet [https://www.diodes.com/assets/Datasheets/ZVN3310A.pdf]
 <p>(/_detail/university/tools/adalp2000/zvp2110a.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	ZVP2110A	P-Channel Enhancement FET TO-92 Link Marking: ZVP211	Datasheet [https://www.diodes.com/assets/Datasheets/ZVP2110A.pdf]
 <p>(/_detail/university/tools/adalp2000/leds.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	various LEDs (red, yellow, Green)	T-1 3/4 Link	
 <p>(/_detail/university/tools/adalp2000/qed-123.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index)</p>	QED-123	Infrared LED T-1 3/4	Datasheet [https://www.onsemi.com/pub/Collateral/QED123-D.pdf]

Picture	Part Number	Description	Link
 http://detail.university/tools/adalp2000/qs123.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index	QSD123	Infrared Photo Transistor T-1	Datasheet [http://www.farnell.com/datasheets/2287891.pdf?_ga=2.82348242.530811853.1512498769.1244595445.1499795945&_gac=1.48374674.1512498769.EA1aIQobChMzqj98Dz1wIV2bjACh0P8AkVEAYASABEg]
 http://detail.university/tools/adalp2000/1n914.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index	1N3064	Small Signal Diode DO-35 Link	Datasheet [https://www.mouser.com/datasheet/2/149/1n3064-284013.pdf]
 http://detail.university/tools/adalp2000/1n4001.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index	1N4001	50V General Purpose Rectifier DO-204 Link	Datasheet [http://www.vishay.com/docs/88503/1n4001.pdf]
 http://detail.university/tools/adalp2000/1n4735.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index	1N4735 (or 1N4729)	6.2V (or 3.6V) Zener Diode DO-41 Link	Datasheet [http://www.vishay.com/docs/85816/1n4728a.pdf]
Note that the diodes can be difficult to identify. This circuit can be used to identify the Zener diode and determine whether it is the 3.6V or 6.2V model.	 http://detail.university/tools/adalp2000/zener_test.png?id=university%3Atools%3Aadalp2000%3Aparts-index	Set $V_{(volt)} - V_{(volt)}$ to -5V/+5V (or use a benchtop supply set to 10V). The Zener diode will read ~6.2 (or ~3.6V) from 1- to 1+, a silicon or Schottky diode will read 10V.	
 http://detail.university/tools/adalp2000/1n914.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index	1N914	Small Signal Diode DO-35 Link	Datasheet [https://www.vishay.com/docs/85622/1n914.pdf]
 http://detail.university/tools/adalp2000/qs114.jpg?id=university%3Atools%3Aadalp2000%3Aparts-index	OP999	Photodiode T-1	Datasheet [https://datasheet.octopart.com/OP999-T1-datasheet-7274670.pdf]

Picture	Part Number	Description	Link
	* RFB0807-1R0L * RFB0807-100L * RFB0807-101L * RFB0807-102L * RFB0807-103L	* 1uH Inductor 5mm radial Link * 10uH Inductor 5mm radial Link * 100uH Inductor 5mm radial Link * 1mH Inductor 5mm radial Link * 10m Inductor 5mm radial Link	Datasheet [https://www.coilcraft.com/pdfs/rfb.pdf]
		* 1.1 Ω 1/8W axial Resistor * 10 Ω 1/8W axial Resistor * 47 Ω 1/8W axial Resistor * 68 Ω 1/8W axial Resistor * 100 Ω 1/8W axial Resistor * 470 Ω 1/8W axial Resistor * 1 kΩ 1/8W axial Resistor * 1.5 kΩ 1/8W axial Resistor * 2.2 kΩ 1/8W axial Resistor * 4.7 kΩ 1/8W axial Resistor * 6.8 kΩ 1/8W axial Resistor * 10 kΩ 1/8W axial Resistor * 20 kΩ 1/8W axial Resistor * 47 kΩ 1/8W axial Resistor * 68 kΩ 1/8W axial Resistor * 100 kΩ 1/8W axial Resistor * 200 kΩ 1/8W axial Resistor * 470 kΩ 1/8W axial Resistor * 1 MΩ 1/8W axial Resistor * 5 MΩ 1/8W axial Resistor	Resistors Link (/university/courses/electronics/electronics-lab-resistors) (including color code) Axial Carbon
		* 39pF Ceramic Capacitor Disc * 100pF Ceramic Capacitor Disc * 0.001 μF Ceramic Capacitor Disc * 0.0047 μF Ceramic Capacitor Disc * 0.01 μF Ceramic Capacitor Disc * 0.047 μF Ceramic Capacitor Disc * 0.1 μF Ceramic Capacitor Disc * 1 μF Electrolytic Capacitor Can * 4.7 μF Electrolytic Capacitor Can * 10 μF Electrolytic Capacitor Can * 22 μF Electrolytic Capacitor Can * 47 μF Electrolytic Capacitor Can * 220 μF Electrolytic Capacitor Can	* Link Marking: 39 * Link Marking: 101 * Link Marking: 102 * Link Marking: 472 * Link Marking: 103 * Link Marking: 473 * Link Marking: 104 * Link Marking: 1 μF * Link Marking: 4.7 μF * Link Marking: 10 μF * Link Marking: 22 μF * Link Marking: 47 μF * Link Marking: 220 μF

Deprecated items:

- SSM2220 PNP Matched Transistors BOB
- SSM2212 NPN Matched Transistors BOB
- ADMP504 MEMS Ultralow Noise Microphone BOB
- 605-0004 Piezo Vibration Sensor
- GT-0950RP3 Buzzer/Speaker 5mm radial
- CD4007
- PDV-P9203 5-20kΩ Photocell
- QSC114 Infrared Transistor

Images

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