

Teensy microcontroller

Raspberry pi zero w

Atmega2560

Blower min requirements

Min pressure 40 to 50 cm of H₂O

Min flow generation 80 L/Min

[ATmega8A datasheet](#)

<https://www.arduino.cc/en/software>

<https://sourceforge.net/projects/winavr/>

https://mag.ebmpapst.com/en/industries/medical/quiet-breathing-aid-for-medical-use_13133/

<https://www.eeweb.com/cpap-machine-reference-design/>

<https://github.com/jcl5m1/ventilator>

https://robu.in/product/hx710b-air-pressure-0-40kpa-sensor-module/?gclid=Cj0KCQjw16KFBhCgARIsALB0g8ILqu_-l6iXwviBqKeelIVNVyP0YgGn9BBdrz6T82Mf0thldh4vliYaAq4gEALw_wcB

<https://youtu.be/h11bRE-4GV4>

https://www.verical.com/pd/honeywell-flow-sensor-awm720p1-228901?offerID=35634579&gclid=CjwKCAjwqliFBhAHEiwANg9szqTO5r_Ns6h3lViMhKuj6xJfm13xoaDFVPrsL4rpKW2zTw1Rv5jVaRoCd9QQA_vD_BwE

https://www.lefoo.com/products/t2000-pressure-transmitter?gclid=CjwKCAjwqliFBhAHEiwANg9szsfKJ5kzddQfnjdRZZ9ElsWqhaxv8TcrRLA8SXXKd3qjDCYMGsSzKqMxoCJqwQAvD_BwE

<https://www.mouser.in/new/delta-electronics/delta-high-pressure-blower-fans/>

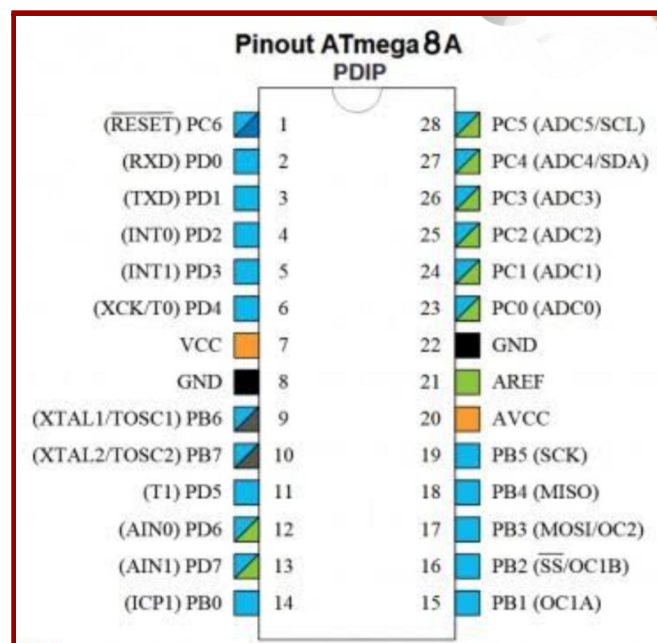
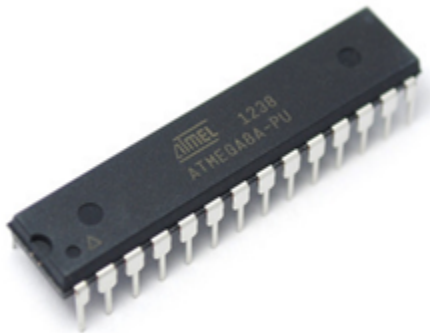
<http://Wonsmart.com>

<http://Globalsources.com>

http://www.wonsmart.com.cn/ws7040al-24-v200-15655817190455959.html?gclid=Cj0KCQjw--GFBhDeARIsACH_kdbQIJz5rvUXKu_h1iYWjCO2k1xlpBY_cRX9y800qvZR-vziZCZgLjsaAlazEALw_wcB

<https://www.digikey.com/en/products/detail/delta-electronics/BFN0724SS-01/10244643>

<https://www.mouser.in/ProductDetail/Delta-Electronics/BFN0724SS-01?qs=PzGy0jfpSMt1eECFvv3USw%3D%3D>



Arduino as avr programmer

Arduino	Pin	ATmega8	ATmega32
10	RESET	1 PC6	9
11	MOSI	17 PB3	6 PB5
12	MISO	18 PB4	7 PB6
13	SCK	19 PB5	8 PB7
5v	VCC	7	10
GND	GND	8	11

10 micro farad capacitor +ve to Arduino RESET

10 micro farad capacitor -ve to GND of Arduino

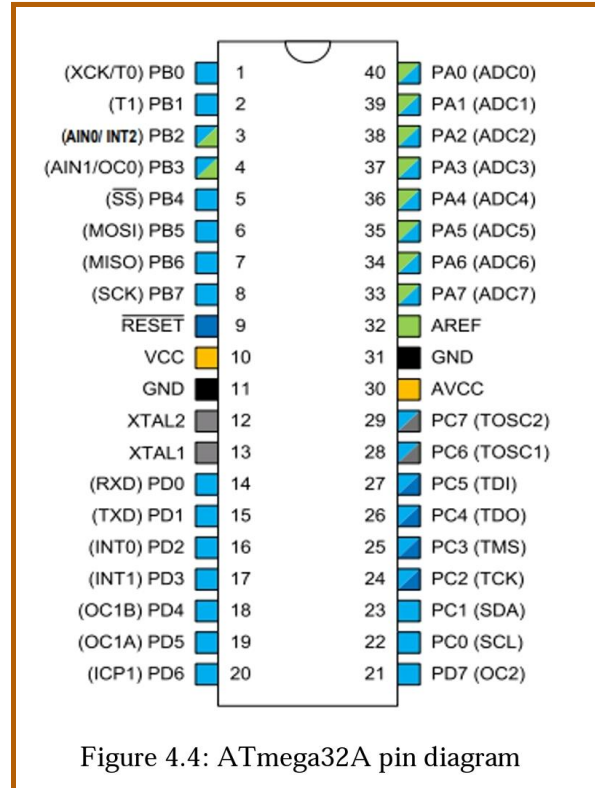


Figure 4.4: ATmega32A pin diagram

ADC hardware

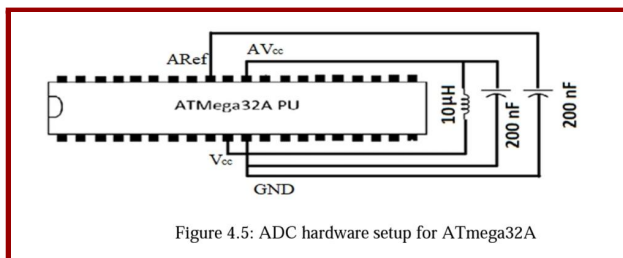
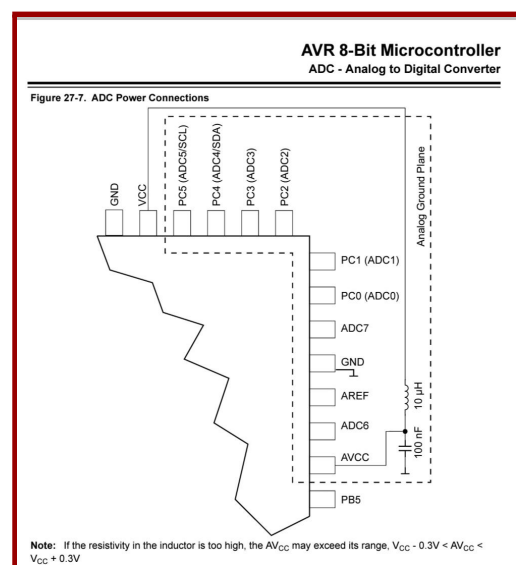
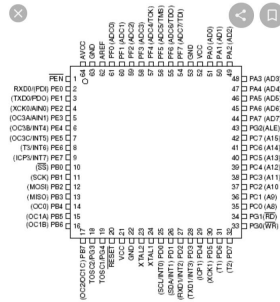


Figure 4.5: ADC hardware setup for ATmega32A





Arduino	Pin	ATmega128
10	RESET	20
11	MOSI	12 PB2
12	MISO	13 PB3
13	SCK	11 PB1
5v	VCC	21 52
GND	GND	22 53 63