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import sys
sys.path.append("/home/bofeng/Desktop/chem_experiment") # this path is where you put the longer.py in
import Longer
```

How to import this package?

- Speed
 - rpm - round per minute
- CW
 - CW = True -> Direction = CW
 - CW = False -> Direction = CCW
- ON
 - ON = True -> start running
 - ON = False -> stop running
- Flow
 - ml/min from 1 to 499.99
- Volum
 - int
- Tube
 - YZII25_36
 - YZII25_35
 - YZII25_24
 - YZII25_15

How many parameters?

<https://www.longerpump.com.cn/index.php/PeristalticPumpTechnique/show/22.html>

I want to change pump head / tube and reset the flow / volum where do i find the datasheet

LONGER

Longer.OpenPort_S()

- with adapter? sudo chmod 666 /dev/ttyUSB0
- generate a list which contains all ports can be found -> Ports_list_opened

return a list -> Ports_list_opened
serial_01 = Ports_list_opened[0]

PUMP_01.Get('Address')

- default address is 1
- what can happen is after assigning the pump. Ser_operation wont work. and then you need this command to find the correct pump address

This function helps you find the right pump address through the current serial port.

ONLY when right address is assigned, then the operation (speed / flow / volume) can work

PUMP_01 = Longer.PUMP(serial = serial_01, Addr = 1, Speed = 100, CW = True, ON = False)

- Address(Addr) must be correct. Otherwise PUMP wont give a respond.
- generate an object PUMP. here Speed/ CW/ON setting will do nothing.

return an object PUMP_01

PUMP_01.Set_speed(Speed = 50, ON = True, CW = True, Duration = 10)

- Parameter Duration can be?
 - int, for example: 10 -> 10seconds
 - if ON = True wait 10s then stop
 - if ON = False wait 10s then start
 - str 'Keep' -> will keep pump running / speed setting / direction forever
 - 'KEEP' or 'Keep' or 'keep' wont work
- Speed setting is from 0.1rpm to 99.9 rpm

do operation

PUMP_01.Change_Addr(new_addr = 2)

only work when the PUMP_01 is assigned with right address, otherwise will do nothing

PUMP_01.Set_flow(Tube = YZII25_36, Flow = 123.4, ON = True, CW = True, Duration = 10)

- Duration same as Set_speed
 - Duration = 'Keep' will keep pump running / speed setting / direction forever
 - Duration = 10
 - if ON = True wait 10s then stop
 - if ON = False wait 10s then start
- Pump head YZII25 is used
- Tube = YZII25_36, i am using tube YZII25_36. its max.flow is 6000ml/min
- PUMP should be set as 123.4 ml/min Speed setting is from 1ml/min to 499.9 ml/min

do operation

PUMP_01. Set_volum(Tube = YZII25_36, Volum = 45.6, CW = True, Duration = 10)

- default set to start running
- Tube = YZII25_36, i am using tube YZII25_36. its max.flow is 6000ml/min
- Volum = 45.6 , Duration = 10 i want to drain 45.6 ml in 10s
 - for example if you want to get 300ml in 1s. then will generate error. The duration must also be set appropriately.

do operation

PUMP_01.Stop()

stop the operation