

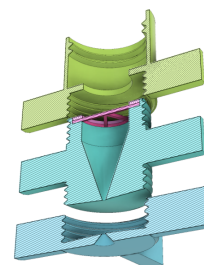
Sep 11, 2020

Version 2

covid 19 indirect detection thru rise of 100nm filter fluid resistance V.2

DOI

<https://dx.doi.org/10.17504/protocols.io.bmajk2cn>



Ladislav Nevery

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Protocol status: In development

We are still developing and optimizing this protocol

Created: September 11, 2020

Last Modified: September 11, 2020

Protocol Integer ID: 42027

Keywords: slower than clean filter, clogged filter, passing saliva sample, sized covid 19 virus particle, saliva of infected person, saliva sample, clean filter, high virus density, filter air, virus particle, fluid resistance, raising filter air, saliva, particles larger than avg, infected person, resulting fluid, virus

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Abstract

By passing saliva sample thru 150nm filter to remove particles larger than avg 125nm sized covid 19 virus particles and concentrating resulting fluid to very small 1 mm² area of 110nm filter. Pores in this small area should be clogged up fast raising filter air/fluid resistance. Due to high virus density 5.2 log₁₀ ml saliva of infected person should clog filter much faster than healthy person. Test is setup in such way that we let gravity pass 2l of fluid thru clogged filter and record rate of drops from its bottom as audio on mobile phone placed bellow glass cup. rate of drops thru clogged filter should be measurably slower than clean filter.

Attachments



[DropRate.zip](#)

4.4MB

Materials

MATERIALS

 pragopor 9

 pragopor 10

 120nm nanoparticles

STEP MATERIALS

 3d print filament 8m

 pragopor 10 **pragochema**

 pragopor 9

 2l soda bottle

 glass cup

 mobile phone

 120nm nanoparticles

Protocol materials

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 3d print filament 8m

 2l soda bottle

 glass cup

 mobile phone

 pragopor 10

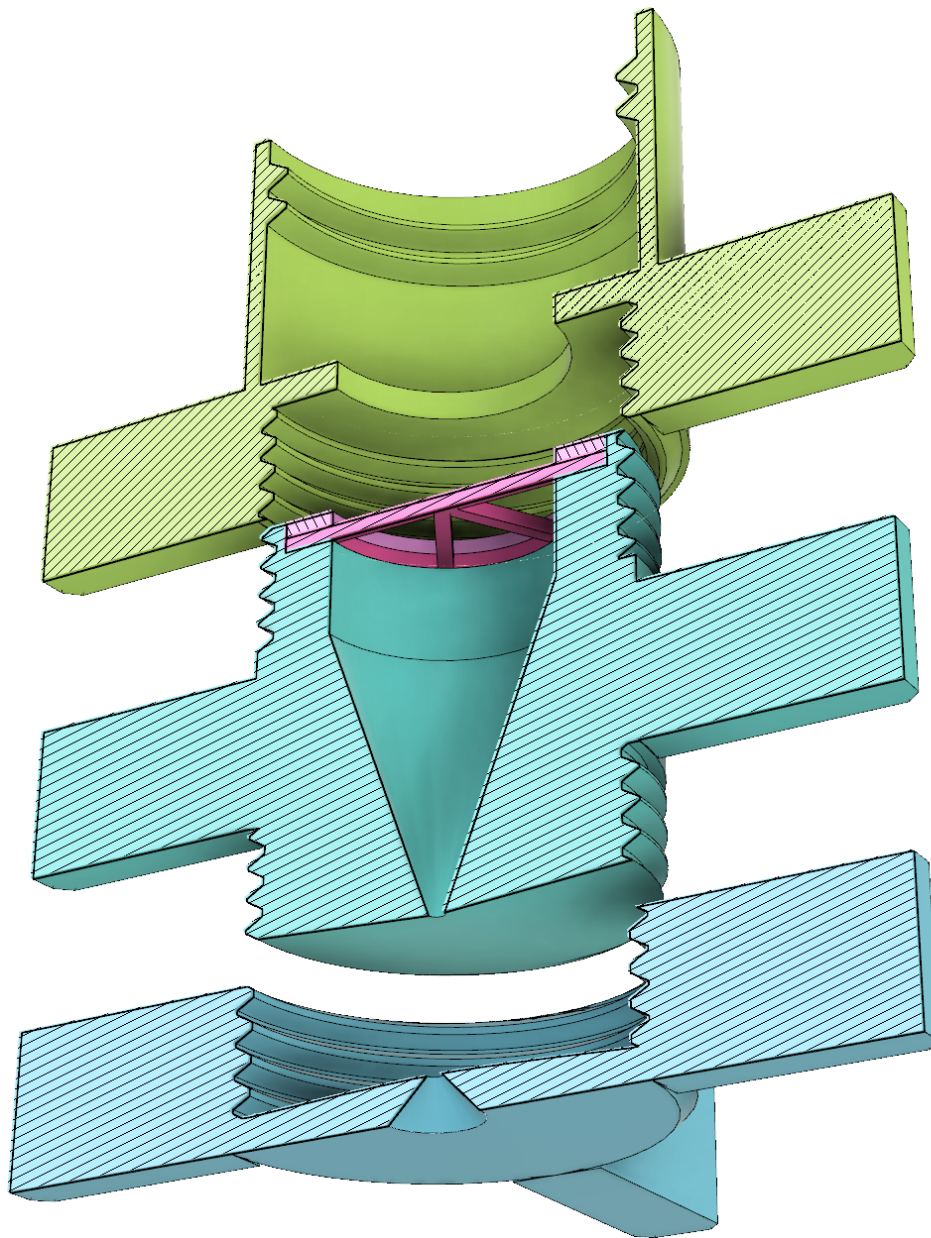
 120nm nanoparticles

 pragopor 10 **pragochema**

 pragopor 9

 120nm nanoparticles

1 3d print all required parts



3d print filament 8m

2 place 24mm ideally 110nm pc or nylon membrane filter between blue parts. I used what I had

pragopor 10 pragochema



 0.24eur piece

3 place 34mm ideally 150nm membrane filter between red parts. I used what I had

 pragopor 9

 0.24eur piece

4 install green saliva holder

5 .attach

 2l soda bottle

and squeeze until all fluid passes thru both filters

6 remove 2l bottle remove red parts including filter.clean

7 fill 2l with clean fluid and reinstal it.

8 place whole assembly over glass cup

 glass cup

with bottle on top. place mobile phone bellow glass cup and start audio recording to count and record sounds of drops.

 mobile phone

9 fill sample holder in step 4 with fluid with

 120nm nanoparticles

in concentration resembling covid19 as

5.2log10ml and repeat whole process once more [⇒ go to step #2](#)

10 compare three recordings.



Expected result

drop frequency with 120nm nanoparticle clogged filter should be measurably different