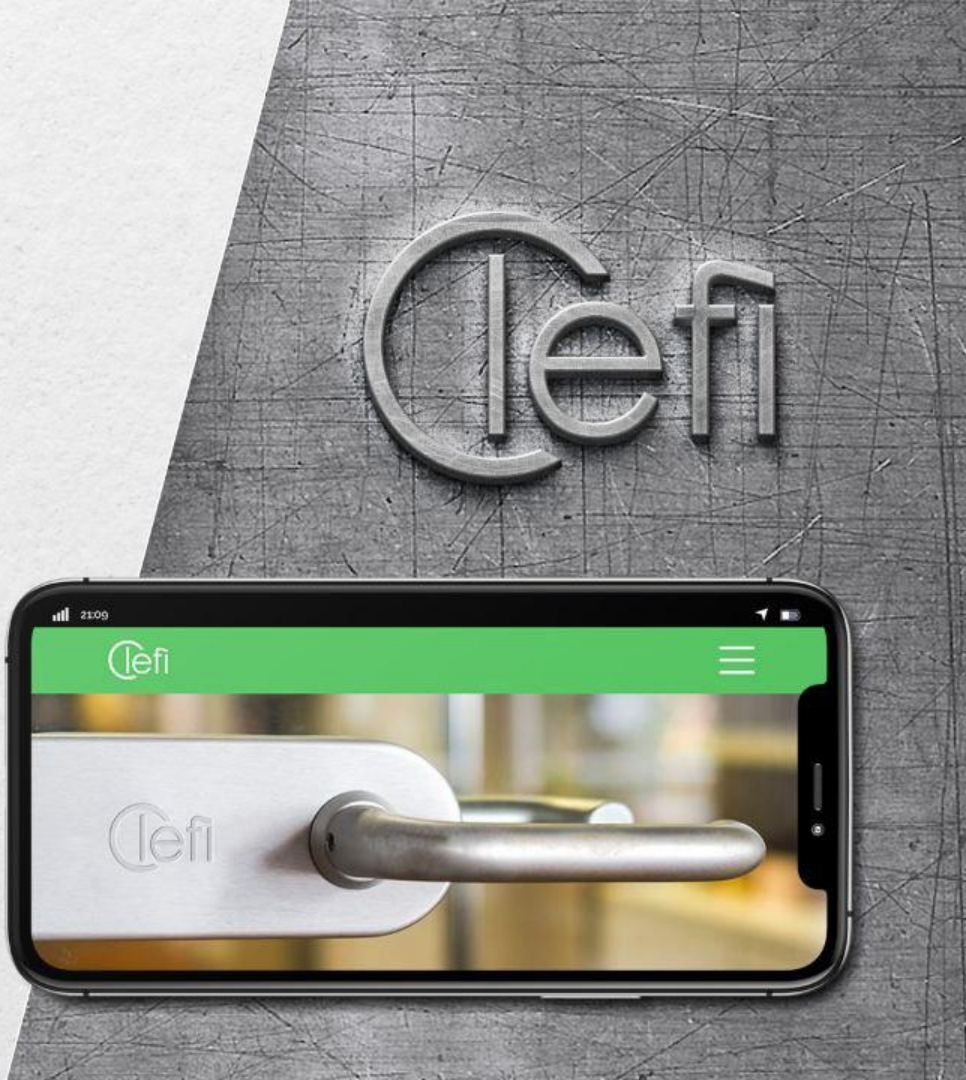
21:09
efi
efi
efi

How many people have touched this doorknob before you?

Analysis of the problem

Component 1

Door handles in catering establishments, cinemas, shopping centers, fast food, hundreds of people touch them and then consume food.

Component 2

Hospitals, pharmacies and other medical institutions are visited by both sick and healthy people, as well as staff. Everyone touches doorknobs, especially those at the entrance.

Component 3

Kindergartens, schools, and universities are visited by hundreds of children who do not like to wash their hands very much.

Solution is to sterilize doorknobs in frequently visited places

Clefi -door handle with automatic sterilization by ultraviolet!

We help reduce the transmission of pathogenic microorganisms!

Analysis of competitors and alternatives

Name	link	decision	+	-
Clefi	https://www.kickstarter.com/projects/clefi/your-always-sterile-door-knob/comments	door handle with automatic sterilization by ultraviolet	100% destruction of microbes, viruses and spores	replacement of the UV lamp once a year
HAERA	https://www.haering.de/antimikrobielle-beschichtung/	Antimicrobial coating based on varnishes	any surface can be coated	valid for 4 years
Hygiene Handle	https://hygienehandles.com/	is a foot operated door opener	prevents hands from touching the door	unusual way of opening doors
Valli&Valli	https://www.vallievalli.com/us/en/what-is-new/news/nycxdesign-2022	is made of pure copper	natural antibacterial properties, design, convenience	not 100% protection against resistant microbes,copper nanoparticles

Target audience

- B2B market: catering establishments, hotels, medical facilities, pharmacies, educational institutions
- As Kickstarter has shown, it is interesting even for the B2C market

Market trends

Trend 1

After the COVID-19 pandemic, which is still making itself felt, this solution is able to create a new type of product

Client Features:

- shows you care about your customers/visitors
- create an atmosphere of comfort

Trend 2

Most people carefully monitor hygiene, wash their hands often and are afraid of getting sick, especially worried about their children

Client Features:

- changing door knobs in your home/entryway
- office, school

УКРАЇНА

ПАТЕНТ

НА ВИНАХІД

№ 122384

БЛОК НАТИСКНОЇ ДВЕРНОЇ РУЧКИ З АВТОМАТИЧНОЮ СТЕРИЛІЗАЦІЄЮ

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А.В. Кудін

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НАЦІОНАЛЬНИЙ ОРГАН ІНТЕЛЕКТУАЛЬНОЇ ВЛАСНОСТІ
Державне підприємство
«Український інститут інтелектуальної власності»
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3. Вказати ідентифікатор електронного примірника цього документу та натиснути «Завантажити».

Уповноважена особа Укрпатенту

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(54) **Title:** SELF-STERILISING DOOR LEVER HANDLE ASSEMBLY

(57) **Abstract:** The present invention relates to structures of door locking devices that have a special additional function, and more particularly, to structures of an electromechanical self-sterilising door handle assembly intended for mounting on latches or mortise locks with a bevelled latch bolt and a door handle spindle. The object of the present invention is to create a new structure of a self-sterilising door handle assembly, that uses ultraviolet radiation for sterilisation, and that ensures minimal device dimensions, appropriate protection of consumers against ultraviolet radiation, and protection of mechanisms against damage consequent to the application of external forces onto its open movable parts. The above object of the invention is achieved as follows. The self-sterilising door lever handle assembly, comprising a protective housing with a side aperture, a mechanism disposed inside said housing, for advancing and retracting a handle lever through said aperture, an ultraviolet sterilisation unit disposed inside said housing, and an electronic control unit also disposed inside said housing, in accordance with the present invention, particularly, said self-sterilising door lever handle assembly has a unit for rotating the handle levers as the mechanism for advancing and retracting the handle lever through said aperture, and further includes a lock blocking unit disposed in said housing. The unit for rotating the handle levers comprises a supporting rotatable sleeve, that serves as the basis of a mechanism for rotating the handle frontal lever and a mechanism for rotating the handle back lever. The elements of those mechanisms (said elements rotating around the supporting rotatable sleeve) are symmetrically arranged in parallel planes, said planes being perpendicular to the symmetry axis of the supporting rotatable sleeve.

Fig. 2

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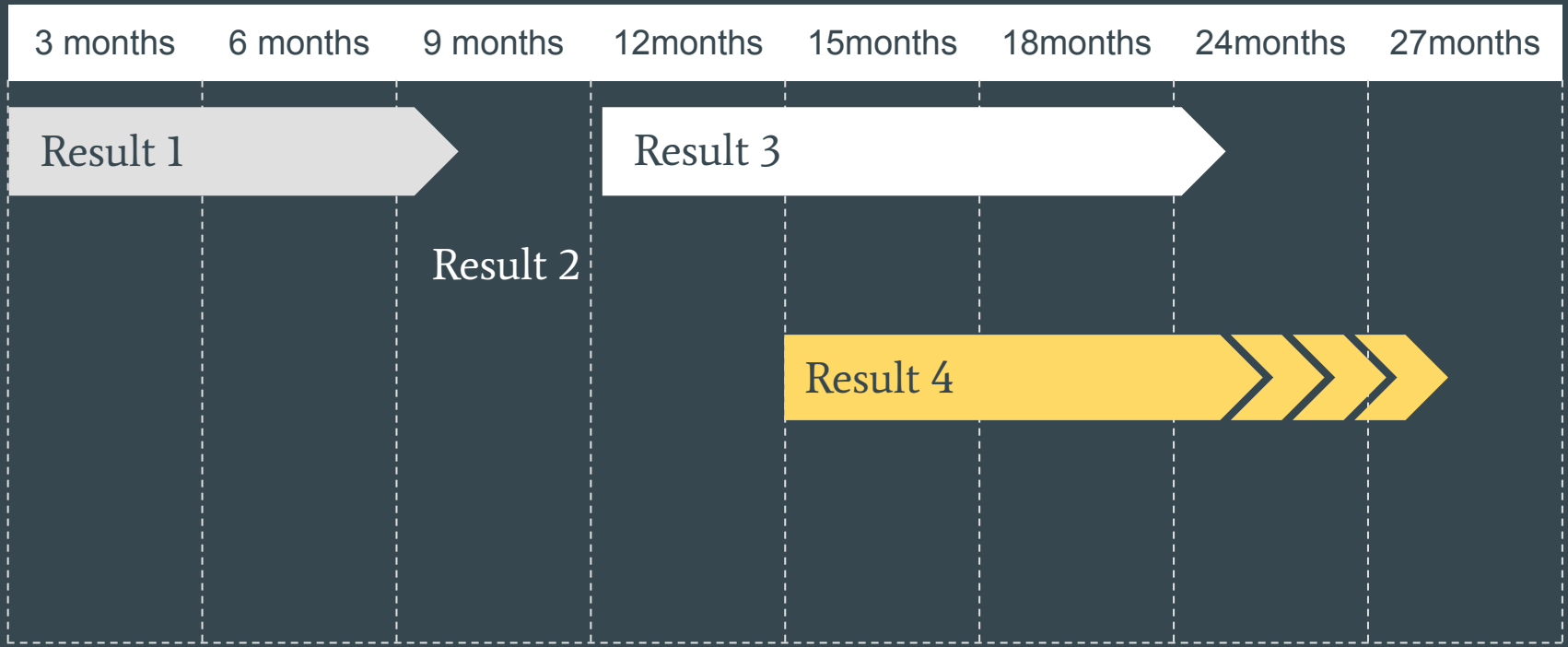
Document 60 pages available at the link: https://drive.google.com/file/d/1SbaKEG0t1lcXOO8ZryGw8S54IXplSybW/view?usp=sharing

Expected results

Result 1	• Obtaining an international patent • Development of a commercial sample
Result 2	• Produce the first batch of products • Certification in the EU, USA, Canada
Result 3	• Building a dealer network in the EU • Building a dealer network in USA, Canada
Result 4	• Launch of the advertising campaign • Acceptance of pre-orders and adjustment of production

Stages


3 months
6 months
9 months
12months
15months
18months
24months
27months
Result 1
Result 2
Result 3
Result 4

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