The “Distancer”

A HAND-HELD DOOR OPENER AND ID CARD HOLDER
TO REDUCE YOUR RISK OF CONTAMINATION
WHEN MOVING THROUGH BUILDINGS

HTTPS://WWW.3DLIFEPRINTS.COM/PRODUCTS-SERVICES/THE-DISTANCER/
“For every Distancer purchased by Industry, 3D LifePrints and Alder Hey NHS will donate one device to any person working in the UK’s National Health Service”
• SARS-CoV-2/Covid-19 is a novel RNA virus

• There is an unprecedented global crisis

• Covid-19 is highly infective: 2.5 people infected by each carrier

• The virus is known to survive on hard surfaces such as door handles for up to 72 hours

• Frontline hospital staff face the greatest exposure to Covid-19 and are potential transmitters to non-infected staff and patients

• This includes via door handles and door release buttons, which healthcare workers and patients and their families touch multiple times per day (can be up to 150)

• There will also be longer term needs in a post-pandemic world for pre-emptive protection against Covid-19 mutations, other viruses and bacteria

“Doors are like lava”

Iain Hennessey,
Director of Innovation & Consultant Paediatric Surgeon,
Alder Hey Children’s Hospital
Doors are like lava

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Director of Innovation & Consultant Paediatric Surgeon,
Alder Hey Children's Hospital

COVID-19
An unprecedented global crisis

2.5 PEOPLE
Infected by every carrier

Introducing THE DISTANCER
A simple LOW COST 3D printed hand-held device
That helps REDUCE THE RISK of contamination when moving through buildings
For greater PEACE OF MIND when going about daily activities

Survives on hard surfaces for up to 72HRS'
Including Plastic & Stainless Steel Doors

For EVERY UNIT PURCHASED 3D LifePrints will DONATE A DISTANCER to the NHS

In association with
Alder Hey Children’s NHS Foundation Trust

3D LIFE PRINTS
The Distancer, designed by 3D LifePrints in conjunction with Alder Hey Children's NHS Foundation Trust, is a hand-held door opener and ID card holder.

It aims to reduce the spread of viruses by limiting interactions with fomites at access points such as doors, lift buttons, keypads and ID card swipe points.

It is an adjunct to, rather than a replacement for, good hand hygiene.

- Designed to hang off a retractable keychain
- Slide insert to fit standard sized ID cards and is visible for staff identification
- Handle to distance the user from their ID card
- A hook end for opening doors
- A flat end for pushing doors
- Manufactured using low cost injection moulding with high volume output
- Made in a durable and resistant polypropylene material which can be effectively sanitised with common surfactants/detergents
DESIGN

• The device was originally designed and prototyped using 3D printing
• Now in its 7th iteration & optimised for injection moulding
• Minimises contact areas for potential bacterial build-up & transfer
• Version 2 design is underway incorporate additional features such as a stylus point for ease of pushing keypad buttons

TESTING

Has been tested in clinical settings with positive feedback on:

• Durability & robustness
• Strength to open/push stiffer doors
• Comfortableness / sizing in users’ hands
• Ease of use
• Secure ID card fitting

From Left (first design) to Right (current design): A 6 week rapid journey to productionisation
APPLICABILITY & USE CASES

Applicability examples

- Medical institutions, care homes, mental health facilities
- Conference centres
- Essential utility premises e.g. electricity, gas, power, police stations
- Offices, laboratory spaces
- Warehouse, factories and distribution centres

Use cases

- There are currently 4,000 in use at Alder Hey NHS
- Currently being tested in 7 other NHS UK Trusts
- Being used by a variety of corporates organisations
- Has seen interest from both medical and corporate organisations in North America, Europe and the Middle East
# PRODUCT DETAILS

<table>
<thead>
<tr>
<th><strong>Material</strong></th>
<th>Polypropylene</th>
</tr>
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<tbody>
<tr>
<td><strong>Manufacturing</strong></td>
<td>Injection moulding</td>
</tr>
<tr>
<td><strong>Normal Colour</strong></td>
<td>Blue</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>107 x 123 x 43mm</td>
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<tr>
<td><strong>ID Card</strong></td>
<td>Fits standard ID cards</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>35 grams</td>
</tr>
<tr>
<td><strong>Loading capabilities</strong></td>
<td>Tested up to 25kg</td>
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<tr>
<td><strong>Recommend Usage</strong></td>
<td>Hang using retractable keyring holder [Example] with ID card facing outwards</td>
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<tr>
<td><strong>Disinfecting</strong></td>
<td><a href="#">US Environmental Protection Agency Guidance list on Disinfectants for use against Covid-19</a></td>
</tr>
<tr>
<td><strong>Recyclable</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>£4 / $5.50 flat rate per unit (excluding applicable taxes and shipping)</td>
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GETTING INVOLVED

- Either visit the online shop or email paul@3dlifeprints.com to purchase Distancers in order to safeguard your staff
- For every device Industry buys, we will donate a device to a healthcare worker
- Ask about corporate branding opportunities for the device
- Provide them as gifts at conferences
3D LifePrints is a medical 3D printing and technology organisation that uses 3D technologies to provide innovative solutions across the globe to the medical sector.

Our primary focus is to supply a wide range of 3D printed medical devices, products and services to medical organisations including the UK’s NHS, private hospitals, research institutions & universities, medical device manufacturers and medical training centres.

We operate a unique operating model where we provide Point of Care services and embed bio-medical engineers and advanced 3D technologies in Hubs within medical institutions that allows us to provide agile delivery to the host institution and other nearby medical entities.

Our products and services include:

- 3D printed patient specific anatomical models for pre/intra/post surgical planning
- 3D printed Surgical guides and cranio-maxillofacial implants
- Surgical simulation solutions mimicking human tissue / orthopaedic
- 3D design, image segmentation and virtual 3D planning
- Medical device design & prototyping
ABOUT ALDER HEY INNOVATION

• Based at Alder Hey Children’s Hospital in Liverpool, UK

• A world leading hub, accelerating the impact of game changing innovation for the next generation

• Our vision is to build a healthier future for children and young people using Digital & MedTech Innovation as a key enabler. Based in our 1000 sqm dedicated Innovation Hub, at the heart of the Alder Hey campus, we aspire to be a centre of excellence, solving real world healthcare challenges with cutting edge technology

• The innovation team have a wealth of experience in developing innovative technologies and are pioneering the way in the NHS, by embedding innovation culture throughout the day to day activities of all staff at Alder Hey

• This success has been driven by their distinctive approach of embedding innovation culture from ‘Board to Ward’, through a bespoke programme of activities which engages patients and staff at all levels.