

This infographic presents the first iteration of the Project Clean Access toolkit which seeks to contribute to a safe transition out of lockdown and adaptation to life with coronavirus. Work-streams are either DMF Lab-led or Teaching-led. Teaching-led activities are supported by the DMF lab PCA team. All outputs are categorised below according to the five pillars of Project Clean Access.

Text in black indicates DMF-led activities  
Text in blue indicates teaching led activities

# 1 Reducing Contact Points

**CLEAN LIGHT**

The Clean Light is a device composed of a folding mechanism, whose function is to clean the objects that are carried around when leaving home. This device has a UV light system which is responsible for disinfecting such items such as mobile keys, cell phones, wallets, face masks, etc.

**USER**

**CONTEXT**

5 ELEMENTOS por 1h 20min

Luz UV 4W

**CLEAN KIT**

WALLET ALCOHOL DISPENSER UV BOX

WALLET DETAILS BRACELET DETAILS UV BOX DETAILS

**1.1 La Tadeo - Challenge 1** Moving safely to and from home

**1.3 DMF Lab** design and release various 3D printed products to reduce contact with surfaces and prevent transmission.



**1.2 La Tadeo - Challenge 3** Contact free cash

Project Clean Access

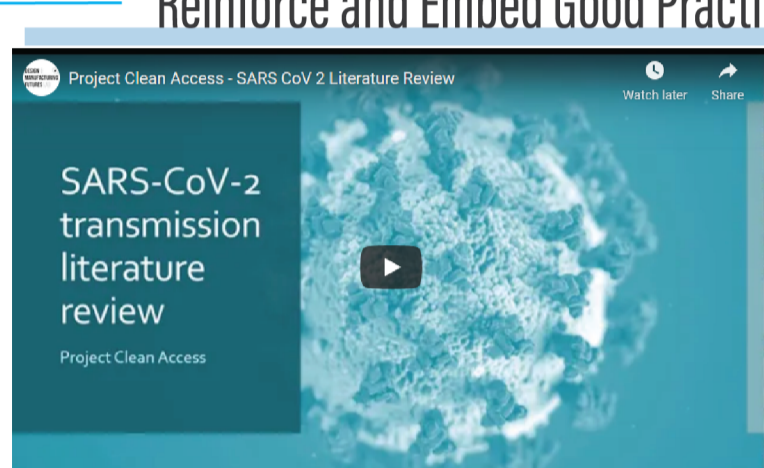
3D Print in **10 minutes**

Contain contact point within cap  
Ergonomic opening angle  
Tool-less and screw fit models  
Low Profile

\*3D Renderings of model

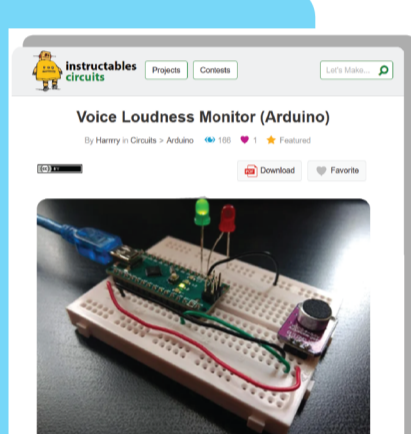
# 2 Reinforce and Embed Good Practice

**2.1 DMF Lab Sprint:** A review of current literature on different modes of transmission and the success of various interventions summarised into this 3 minute clip!



Sars-Cov-2 Literature review

# 3 Mitigate Airborne Spread



**3.1 DMF Lab** release 'small talk' android app to monitor voice volumes in social settings.

**3.2 DMF Lab** develop and publish an open source loudness monitor to use in commercial and education settings.

**3.3** Whilst students at **Uniandes** University develop new mask designs for rapid manufacture.

# 4 Encourage Physical Distancing

**4.1 DMF Lab Sprint: Distancing Glasses**

Brainchild of professor Ben Hicks these low cost stickers offer a simple solution to social distancing.



# 5 Make an Enjoyable Experience for all

**RESCUE 1219**

Role-playing game in which you must discover statements about the current pandemic and reveal which of those are true or false. It is done through the characters. There will have a character in the game and they be able to defeat the rest of the world. It is an educational game for students.

**NEEDS** Progress, motivation, help, your own ideas, they are not afraid to try.

**CHALLENGES** Adapt to the new reality, learn to work together, they are not afraid to try.

**CONTRIBUTIONS** Students get to learn, they are not afraid to try, they are not afraid to try.

**PROBLEMS** They are able to be a team, they are not afraid to try.

**PLANNING** They are able to be a team, they are not afraid to try.

Download and print all elements of the game following the steps:

1. Elementos para imprimir
2. Descargar y imprimir los elementos del juego
3. Escanear el código QR
4. Descargar el PDF con los elementos del juego
5. Imprimir los elementos del juego
6. Cortar y ensamblar los elementos del juego

**5.1 La Tadeo - Challenge 2** La Tadeo design undergraduates develop games to encourage good practice and mitigate misinformation spread.

# 6 Occupancy Counters

**DMF Lab: Occupancy Counters** Two low-cost, open-source solutions were generated to automatically measure occupancy in shops and businesses.

**Mechanical Occupancy Counter**

**Ultrasonic Occupancy Counter**

One mechanical (6.1), and another electronic measuring with ultrasound (6.2).

# 7 Vaccination Distribution

Students at **Uniandes** are developing low-cost vaccine distribution solutions for rural, hard to access areas of Colombia.

**Phase I: Conceptualization**

**Phase II: Selection**

**Phase III: Embodiment**

**Physical model**

**SolVaCov**

Left: Development of a prototype thermoelectric Peltier cooling container by group SolVaCov.

**MediMec Timeline**

**Phase I: Conceptualization**

**Phase II: Selection**

**Phase III: Embodiment**

**Final selection for vaccine storage**

Right: Group MediMec explore solar powered refrigeration and vaccine storage.

Project Clean Access (PCA) is an initiative from the Design and Manufacturing Futures lab at the University of Bristol, funded by the Royal Academy of Engineering. In addition to the creation of the toolkit, PCA seeks to build community both nationally and around the world. Partners involved in the first iteration included La Universidad de Los Andes and La Universidad de Bogota Jorge Tadeo Lozano both in Colombia. For more information or to get involved with PCA please contact [project-clean-access@bristol.ac.uk](mailto:project-clean-access@bristol.ac.uk) or one of the team directly.