



GMIT

INSTITIÚID TEICNEOLAÍOCHTA NA GAILLIMHE-MAIGH EO
GALWAY - MAYO INSTITUTE OF TECHNOLOGY

TACKLEBAC+

" A Proximity and Cleanse Detection System "

WHY

The world, as we know, has changed! Rapidly since the end of 2019 Covid-19 has engulfed the world throughout. Health regulations have resulted in many premises to close with much uncertainty of when a return to normal will arrive.

TackleBac® is designed to help combat the closures of schools, businesses, public and private spaces due to virus outbreaks such as Covid-19. It has the ability to monitor locations that require cleansing, while also detecting people in the proximity, and keeping the cleansing employees safe!

FEATURES

- Realtime Monitoring
- Serverless Implementation
- Minimal Operation Costs
- Low Profile, Cost and Powered Device
- Amazon Web Services / Cloud Infrastructure
- Expandable Software
- Open source Libraries
- Light & Versatile Embedded Graphics Library

DESIGN

TackleBac® is a new and a low-cost Internet of Things (IoT) Package, in combination with Amazon Web Services (AWS).

TackleBac® will provide real time cleaning and rule breach data to the client. ie: Education Sector, Work Environments and Industrial and Commercial Clients.

This enables safe areas to be used, while also providing a method of relaying information of places requiring further sanitisation.

Hardware:
ESP32-CAM
AI-Thinker ESP32
OV2640 Camera Module
Lithium Battery Charger
3.7v Rechargeable Lithium Battery
Lilygo T-Watch-2020

Languages:
C, Embedded C, LVGL, Python

Software:
Arduino IDE
AWS Services:
IoT Core, AppSync, DynamoDB
S3 Storage, Amplify, Analytics
API Gateway, Cognito, Rekognition,
Lambda
MQTT Protocol

TB+
TACKLEBAC CLEANER
ROOM : 207
REQUIRES CLEANSING

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