



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

TACKLEBAC CLEANER
ROOM : 207
REQUIRES CLEANSING

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