SECURE ON-SITE TECHNOLOGIES

TEST PLAN
SECURE ON-SITE BOX

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System Test Plan

The following test plan will outline a sequence of steps to demonstrate the specifications outlined in the Functional and Design specification documents. The test plan will go through 2 stages to verify the pattern recognition and network video streaming capabilities.

STAGE 1 – Pattern Recognition

1.1 The courier activates SOSbox by pressing the `Start` button

1. SOSbox activates pattern recognition software
    a. Time out set for 60s
    b. If scan invalid/timeout => activate `Declined` LED
    c. If scan valid => activate `Verified` LED
        i. SOSbox sends requests to owner to open door
            a) If user accepts   => Door opens and activate `Place Parcel` LED
                a. 10 s window to place parcel after which door closes automatically
                b. Activate `Secure` LED
            b) If user declines   => activate `Declined` LED

STAGE 2 – Network video streaming

1.2 User accessing SOSbox video stream

1. SOSbox initiates video stream over web server
2. Access SOSbox video stream through android app

Typical Use Scenario (Stage 1)

Test Participant	Verification Process	SOSbox Panel Response	Pass/Fail	Comment
Courier input	Tester activates SOSbox - Press Blue LED lit button labeled `START`	activate `Scan Barcode` LED		
	Tester scans parcel for delivery by placing parcel flush against panel camera window	activate `Verified/Declined` LED		
SOSbox owner input	Android app receives request message			
	SOSbox owner grants permission for parcel deliver			
SOSbox response	SOSbox automatically opens door	activate `Place Parcel` LED		
	SOSbox atomatically closes door after 10 seconds	activate `Secure` LED		

Video Streaming (Stage 2)

Test Participant	Verification Process	Pass/Fail	Comment
SOSbox owner requests video feed	Smartphone app displays video stream from SOSbox		

Manual Motor Control

Test Participant	Verification Process	Pass/Fail	Comment
SOSbox manual control (using Switch)	Press `Manual Override` switch (forward/backward) on the side of the SOSbox		
SOSbox manual control (using app)	Manual control using smartphone app		

Safety

Test	Verification Process	Pass/Fail	Comment
Emergency Switch	Press `Motor Switch` to stop all motor activity		
Limit Switch	Use `Manual Override` switch to verify function		