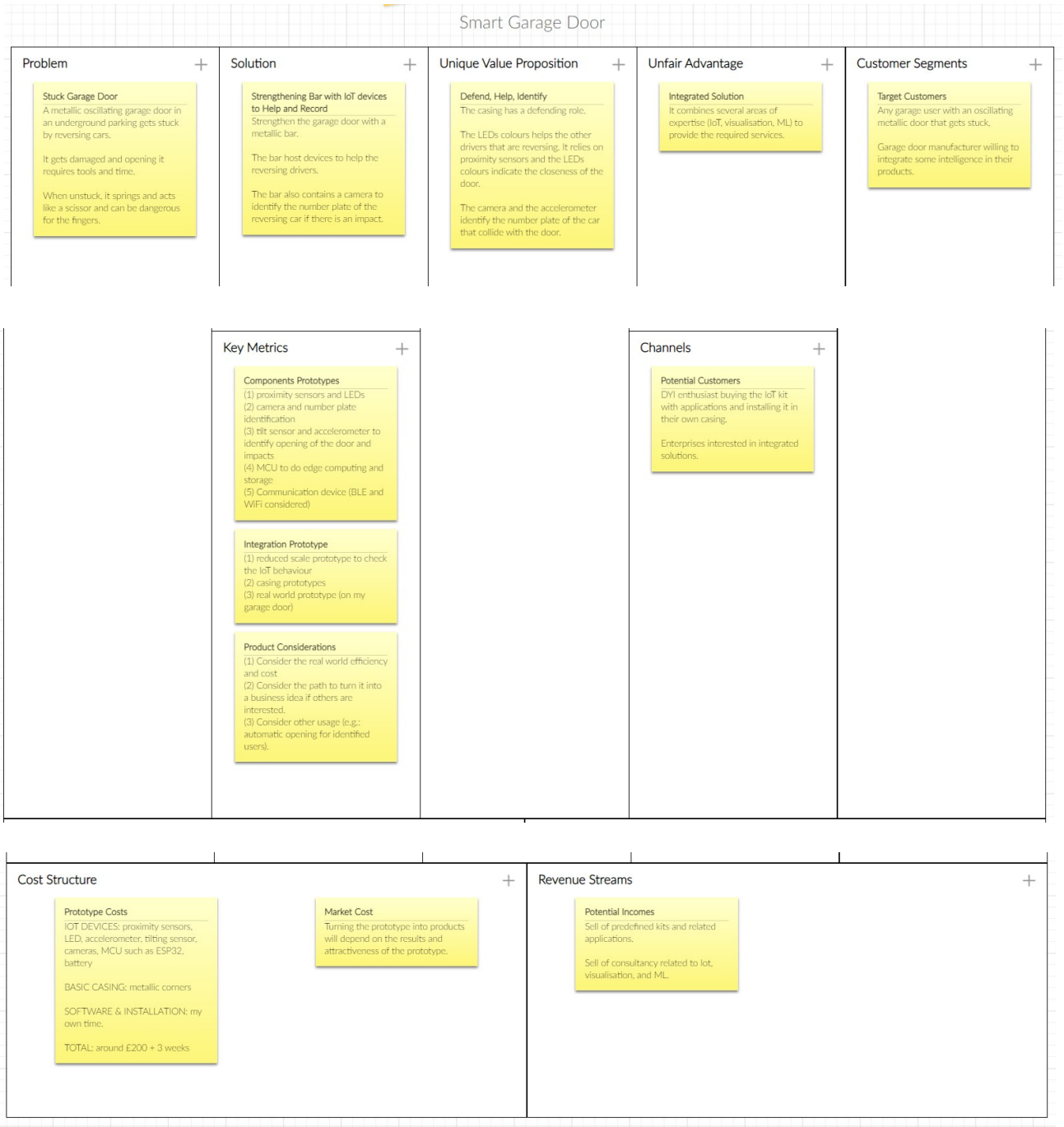
https://next.canvanizer.com/canvas/iRVayDoaWNcTV



Problem

Stuck Garage Door

A metallic oscillating garage door in an underground parking gets stuck by reversing cars.
It gets damaged and opening it requires tools and time.
When unstuck, it springs and acts like a scissor and can be dangerous for the fingers.

Solution

Strengthtening Bar with IoT Devices to Help and Record

Strengthen the garage door with a metallic bar.
The bar host devices to help the reversing drivers.

The bar also contains a camera to identify the number plate of the reversing car if there is an impact.

Unique Value Proposal

Defend, Help, Identify

The casing has a defending role.
The LEDs colours helps the other drivers that are reversing. It relies on proximity sensors and the LEDs colours indicate the closeness of the door.
The camera and the accelerometer identify the number plate of the car that collide with the door.

Unfair Advantage

Integrated Solution

It combines several areas of expertise (IoT, visualisation, ML) to provide the required services.

Customer Segments

Target Customer

Any garage user with an oscillating metallic door that gets stuck,
Garage door manufacturer willing to integrate some intelligence in their products.

Key Metrics

Component Prototypes

proximity sensors and LEDs
camera and number plate identification
tilt sensor and accelerometer to identify opening of the door and impact
MCU to do edge computing and storage
Communication device (BLE and/or WiFi considered)

Integration Prototype

reduced scale prototype to check the IoT behaviour
casing prototypes
real world prototype (on my garage door)

Product Considerations

Consider the real world efficiency and cost
Consider the path to turn it into a business idea if others are interested.
Consider other usage (e.g.: automatic opening for identified users).

Channels

Potential Customers

DYI enthusiast buying the IoT kit with applications and installing it in their own casing.
Enterprises interested in integrated solutions.

Cost Structure

Prototype Costs

IOT DEVICES: proximity sensors, LED, accelerometer, tilting sensor, cameras, MCU such as ESP32, battery
BASIC CASING: metallic corners
SOFTWARE & INSTALLATION: my own time.
TOTAL: around £200 + 3 weeks

Market Cost

Turning the prototype into products will depend on the results and attractiveness of the prototype.

Revenue Streams

Potential Incomes

Sell of predefined kits and related applications.
Sell of consultancy related to Iot, visualisation, and ML.