

Safe2Drive

Biometric
Scanning Car Door
Handle

Annie Dudrear, Jack Kelly, Jenny Smith



Overview

- Safe2Drive is a device that measures BAC and other biometrics
- It will ensure that a driver is legally allowed to drive
- Help reduce the risk of drunk driving along with other risks



Purpose

- The main goal of our project is to help end drunk driving
- The fingerprint scanner will also help prevent stolen cars
- According to the NHTSA "Every day, about 28 people in the United States die in drunk-driving crashes"
- In the US, about $\frac{1}{3}$ of all car crash deaths involve a drunk driver



Adults drive after drinking too much an estimated **121 million times** per year or **300,000 times every day**.



20.7% of all drunk driving is committed by adults between the ages of 26 - 29.



The average drunk driver has **driven drunk 80 times** before being arrested.



Only **1% of drunk drivers** were **arrested** out of the **111 million** self-reported episodes of driving under the influence in 2016.

**Drunk Drivers
Make Our
Roads Unsafe**



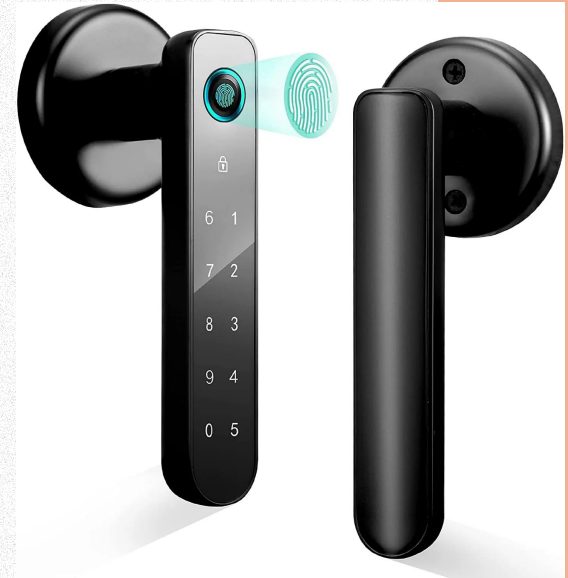
Technology

- Biometric fingerprint scanner with the ability to measure BAC
- Incorporated within a car door handle
- Completely weatherproof
- Up to 10 fingerprints allowed for each vehicle
- Driver is identified via fingerprint and then BAC is taken



Logistics

- Driver is first identified through fingerprint
 - Fingerprint must match one of the 10 stored fingerprints
- Then once driver is identified, then infrared is used to measure the BAC
- After this is measured then the car is open and free to start

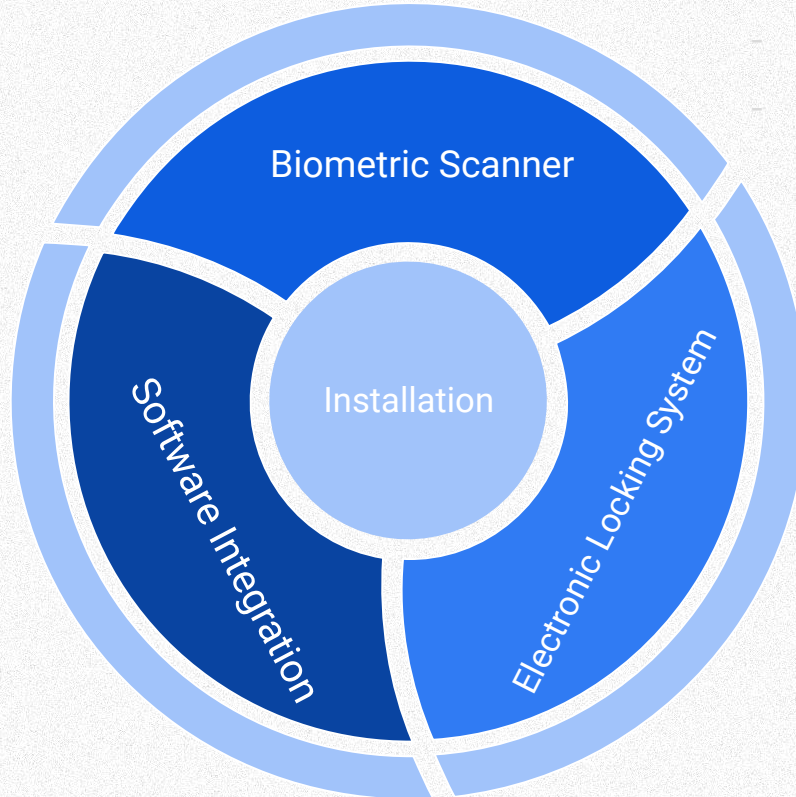


Funding

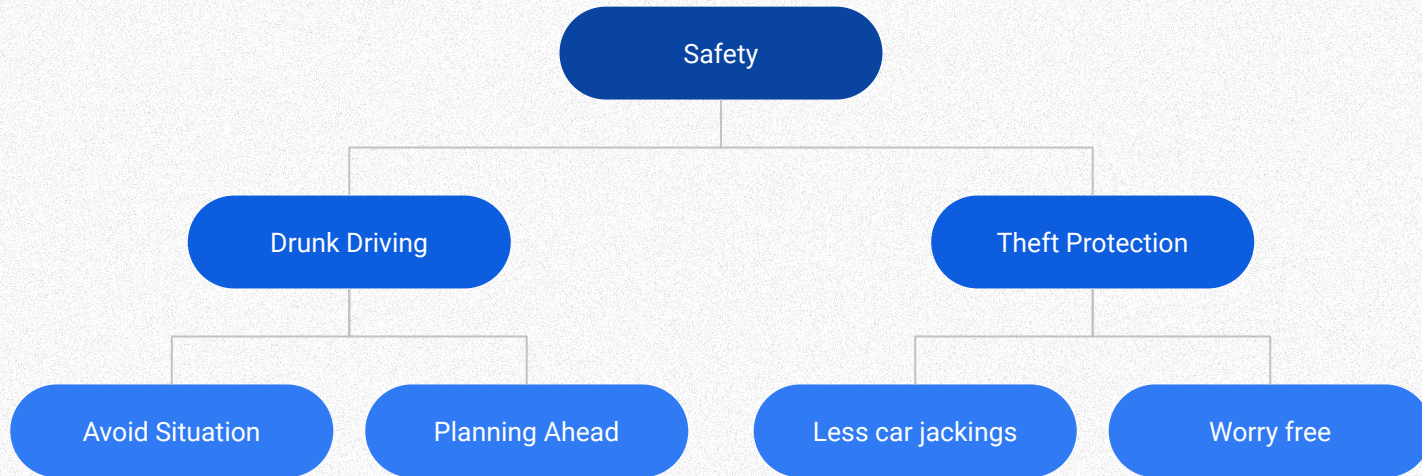


Parts

- Each unit
 - 1 Door Handle (Driver's)
 - 4 components
 - 1500-3000 dollars each



Why invest in us?



Future of Our Invention

- Implementation of a double verification
- Secondary options if illegal BAC is measured
- Implementation into already purchased cars
- In the far future, self driving cars if illegal BAC



Questions?

Sources

- <https://phys.org/news/2011-09-dui-car-drivers-finger.html>

- <https://www.forbes.com/sites/jeanbaptiste/2018/12/27/hyundai-motor-lets-drivers-use-fingerprints-to-unlock-and-start-new-car/?sh=47e579e30507>

- <https://www.nhtsa.gov/risky-driving/drunk-driving#:~:text=Every%20day%2C%20about%208%20people,These%20deaths%20were%20all%20preventable.>

- <https://vizpin.com/blog/access-control-pricing/>

- <https://www.bestonlinetrafficschool.co/drunk-driving-statistics/#drunk-driving-statistics-2022-infographic>