



Mini Project - 2022

# Life Saving Bumper

An innovation from



# Agenda

- History - Motivation
- Problem Statement
- Prototype design
- Architecture of model
- About the processor
- Solution proposed
- Design of device
- Future Vision



Life Saving Bumper

# Motivation behind project

- Cat - Catcher in 1930s
- Significantly reduced death rate
- But one problem



# Car Catcher - OLD

Significantly  
reduced  
death rate

Say no to  
death



# Problem Statement

To develop a car safety device that can save  
life of pedestrian in real-time



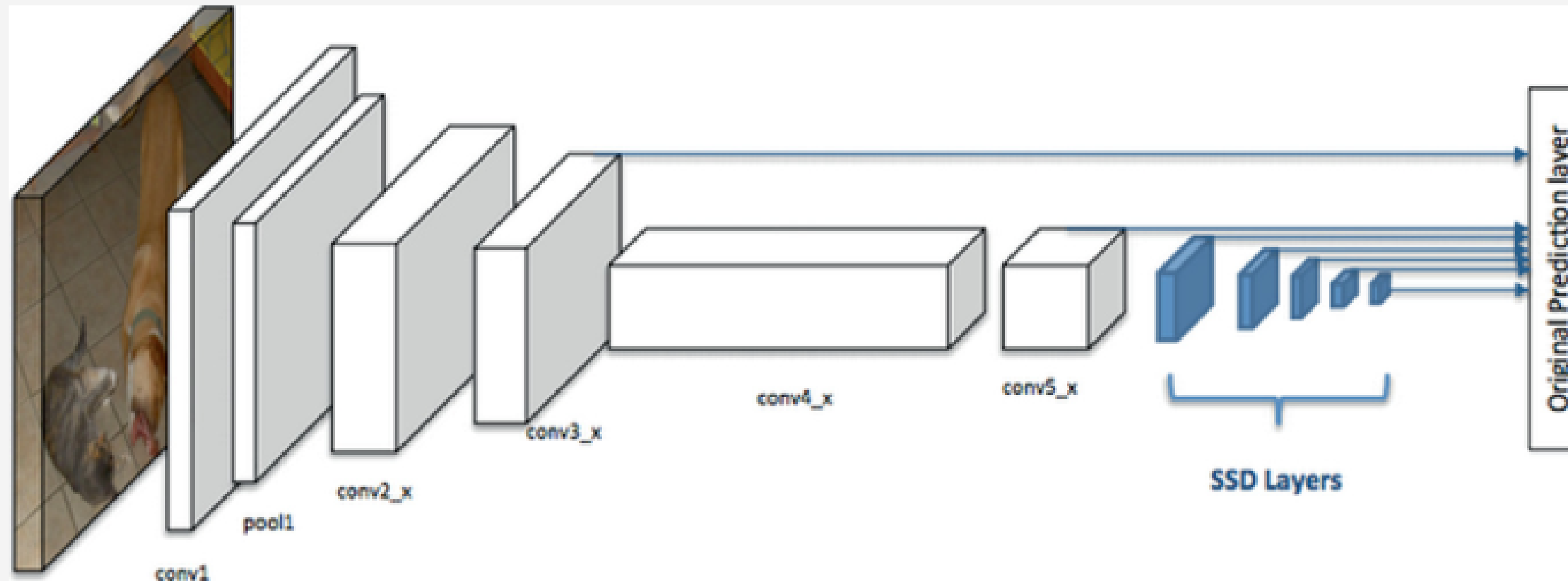


# Prototype Design

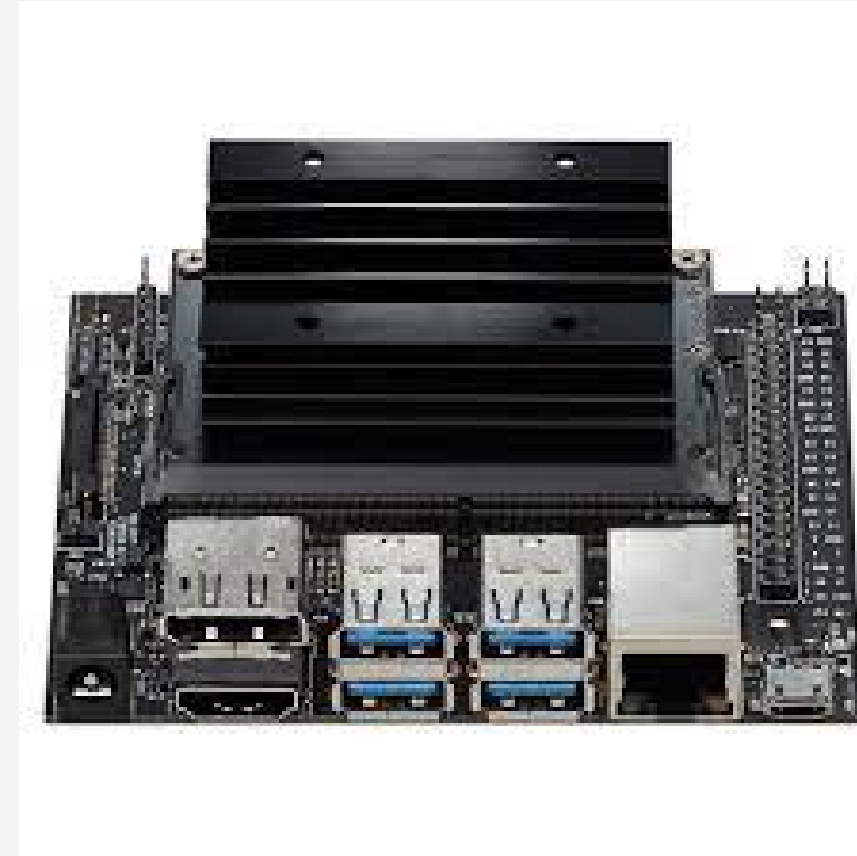
- *Jetson Nano*
- *Web Camera*
- *Motor Driver - L298n*
- *Car Chasis & DC Motors*
- *Buzzer module*



# Architecture of MobileNetSSD



# Micro Processor



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## Why Jetson nano.

- *GPU Computation*
- *General Purpose PINs*
- *3.0 USB*
- *Ethernet access*
- *Linux based ( Open source )*



# How to solve



## Computer Vision

To train and integrate multiple optimal models.

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## Industrial Internet of Things

To incorporate ultra-low latency industrial graded devices.

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## Anti-shock absorbent

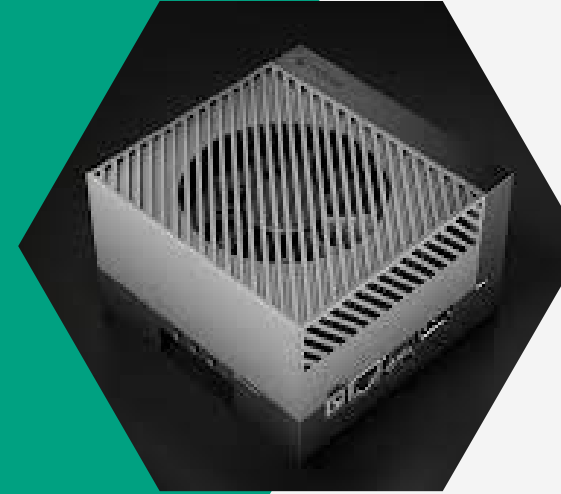
To design a perfect oriented car-safety device.

# Device should possess

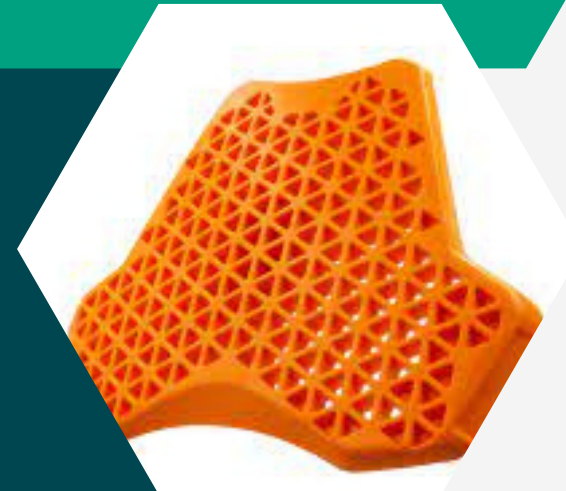
- Good Shock absorber
- Flexibility
- Reusability
- Less weight
- Durability



# Future Vision



Computing brain  
Jetson AGX Orin



Device substrate  
D30 material  
[hello@reallygreatsite.com](mailto:hello@reallygreatsite.com)



Integerete with Cloud  
IoT Cloud platforms