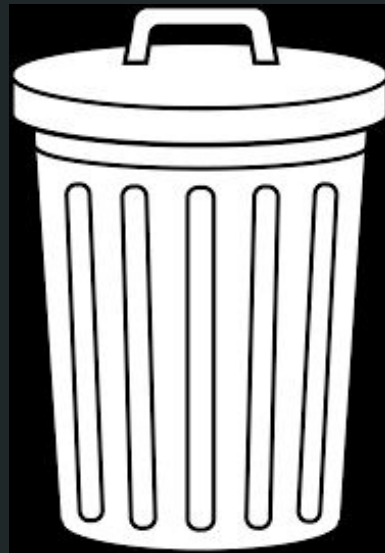


TrashcAI



Team2 莫絲羽 劉芸欣 沈昶劭 蘇峯廣

Objective

TrashcAln goes wherever you are.

Hardware

車體 + 視覺運算

車體：

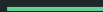
- STM32 Nucleo-144開發板
 - 直流馬達 x2
 - 藍芽
 - 垃圾桶
-

Hardware

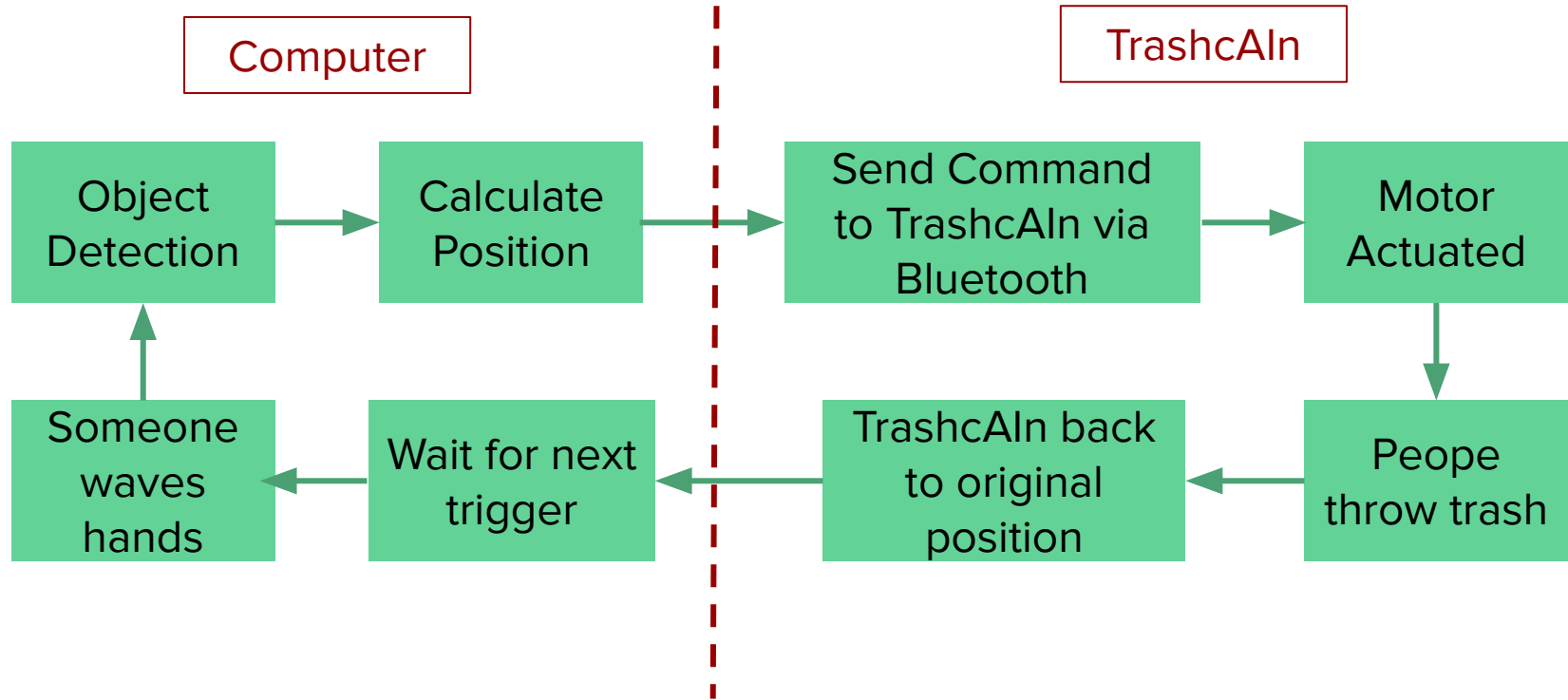
車體 + 視覺運算

視覺運算：

- MacBook Pro
- webcam

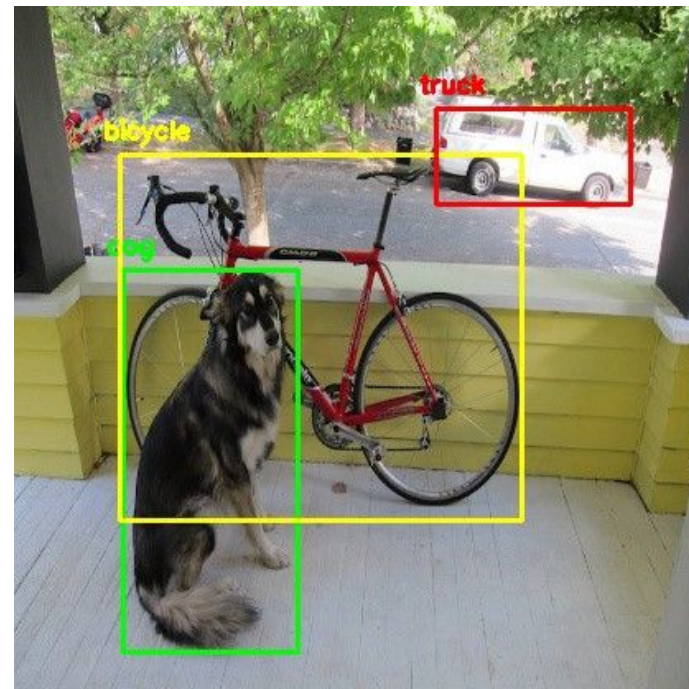


System Design



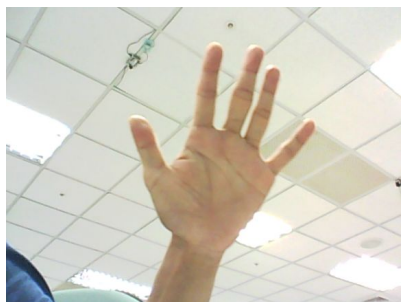
Object Detection

- **Yolo** object detection model
- Computationally expensive
- Turn to traditional computer vision algorithm



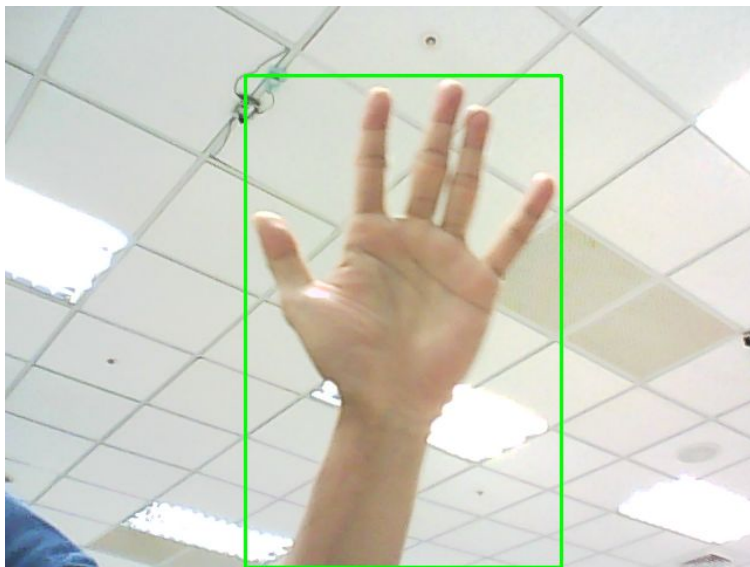
Object Detection

- **Difference** of 2 continuous frames
- we can find the contour of the moving object

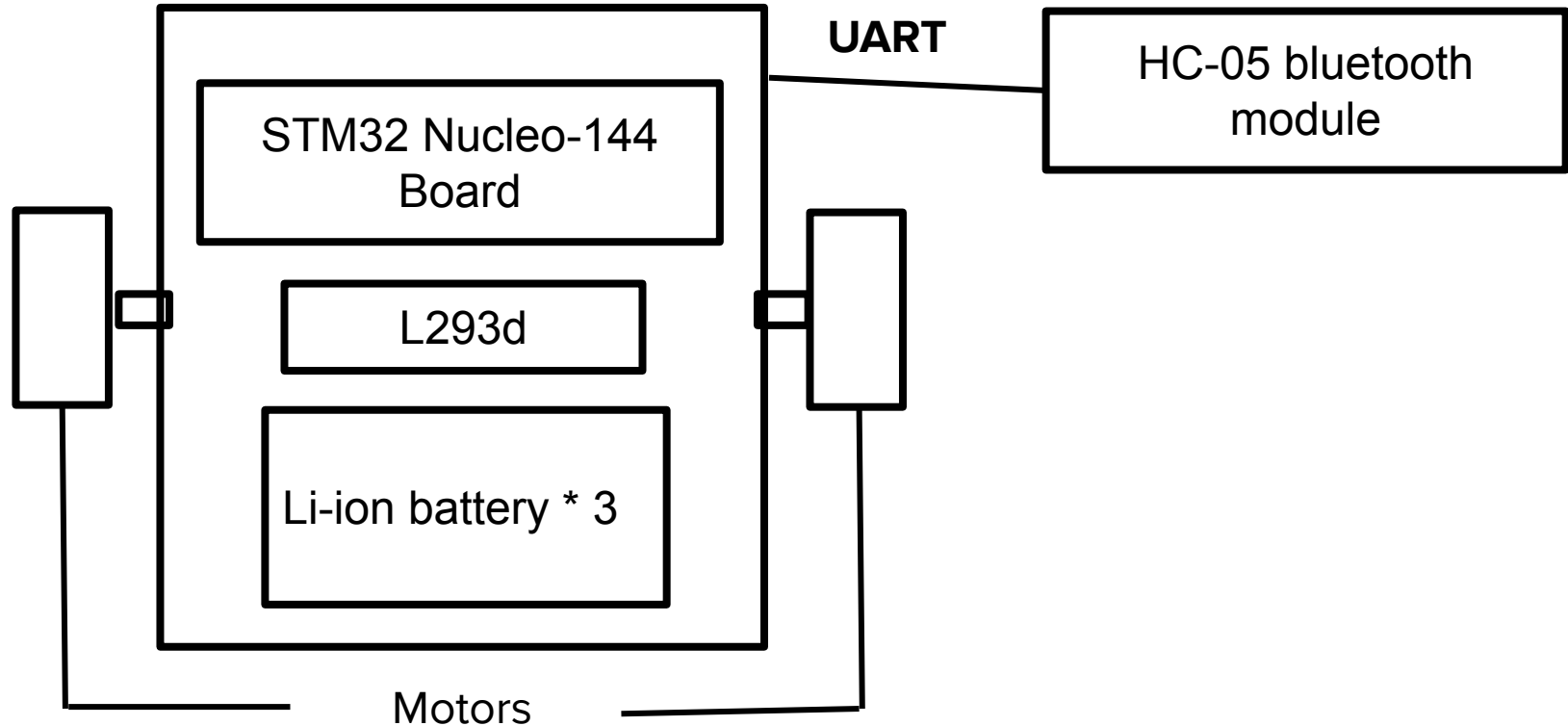


Object Detection

- find the bounding box according to the contour
- Calculate the center of bounding box as the target position



TrashcAln Architecture



DEMO

2019 MakeNTU Group 2 超萌妹子

Thanks for your attention.