

인공지능 딥러닝 활용 시각인지 시스템 구축 및 응용 과정 (Computer Vision)

Chapter 0

2021

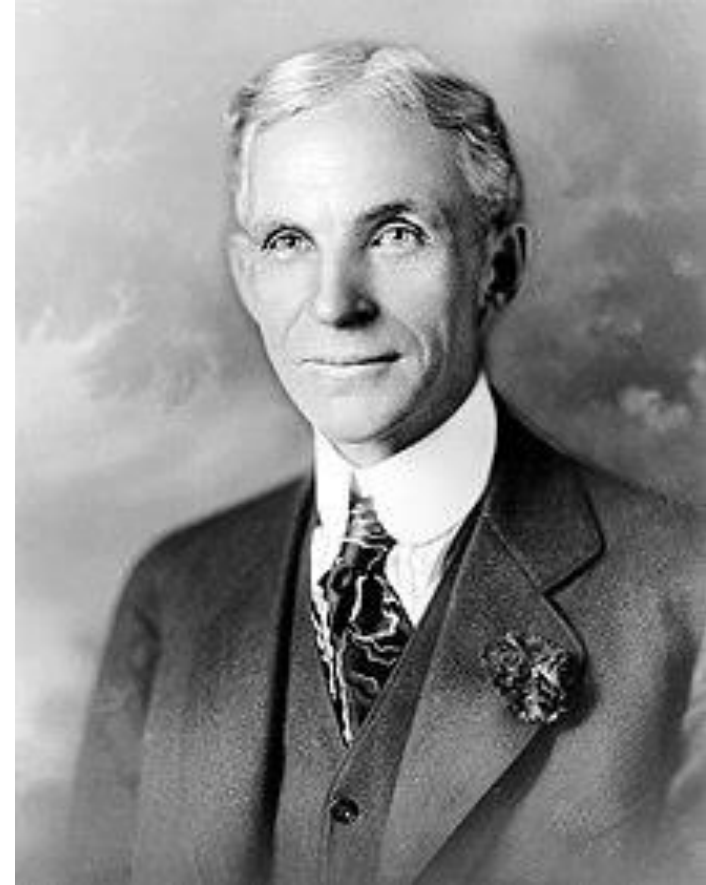
정 준 수 Ph.D.

지금으로부터 100년전



프레더릭 윈슬로 테일러 (Frederick Winslow Taylor)

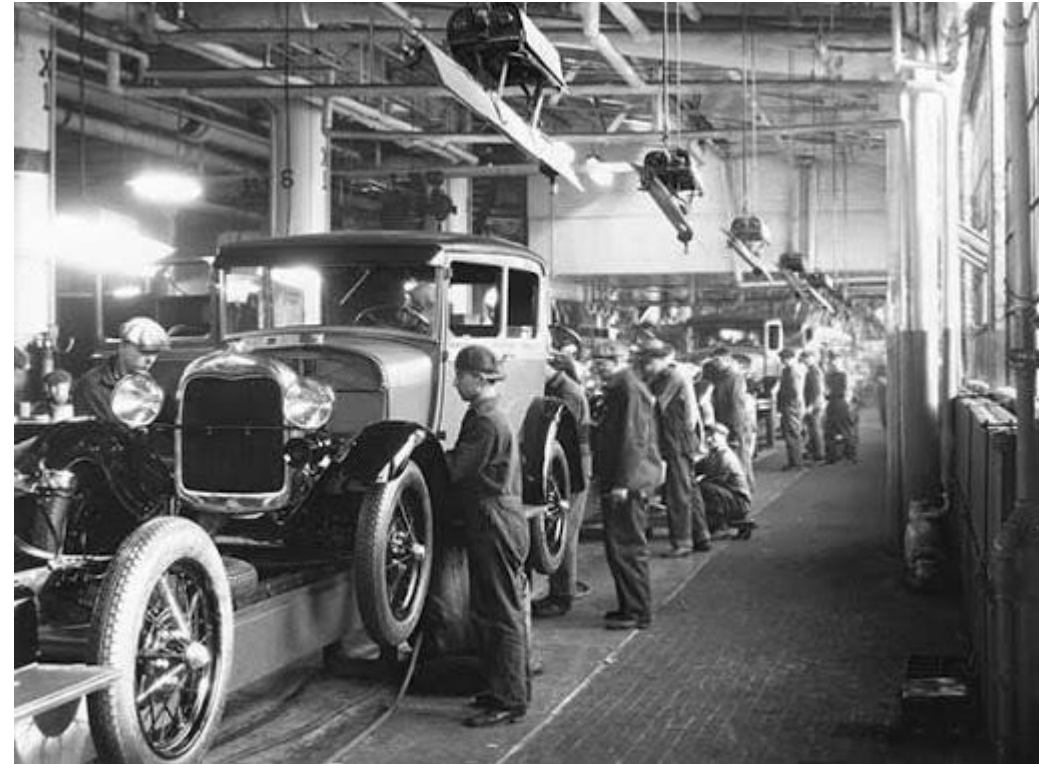
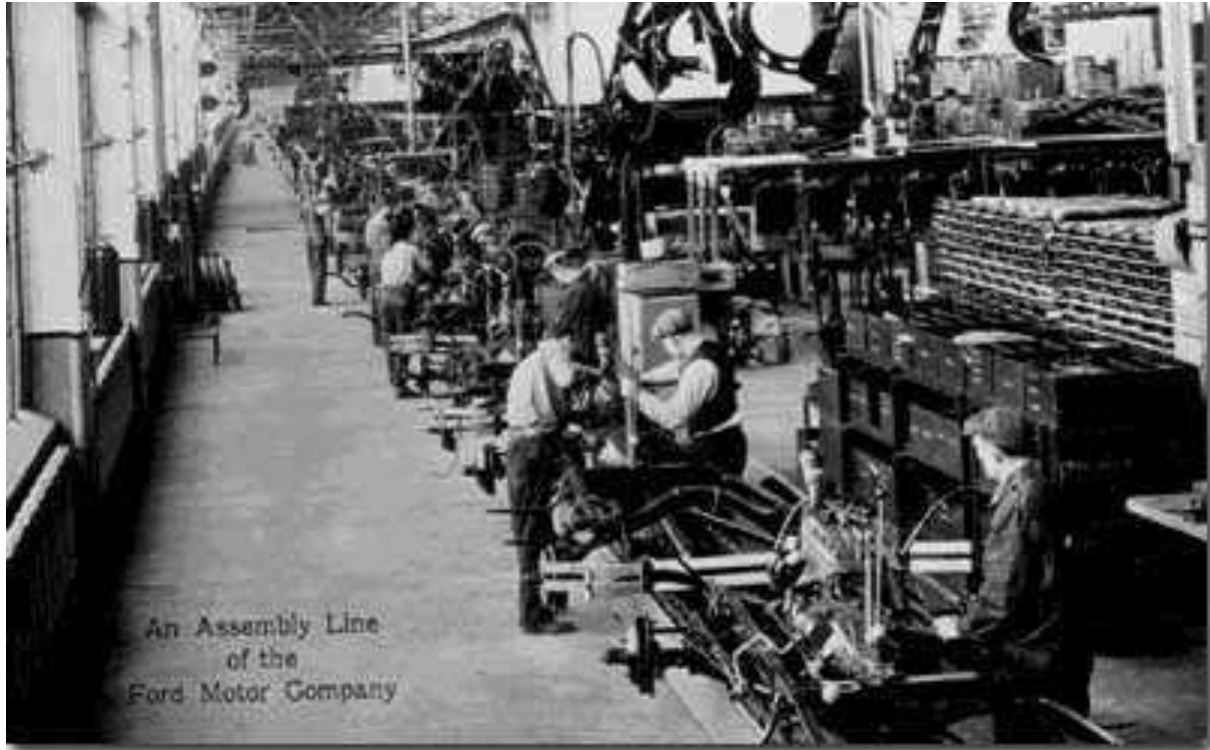
세계 최초의 경영 컨설턴트



헨리 포드(Henry Ford)

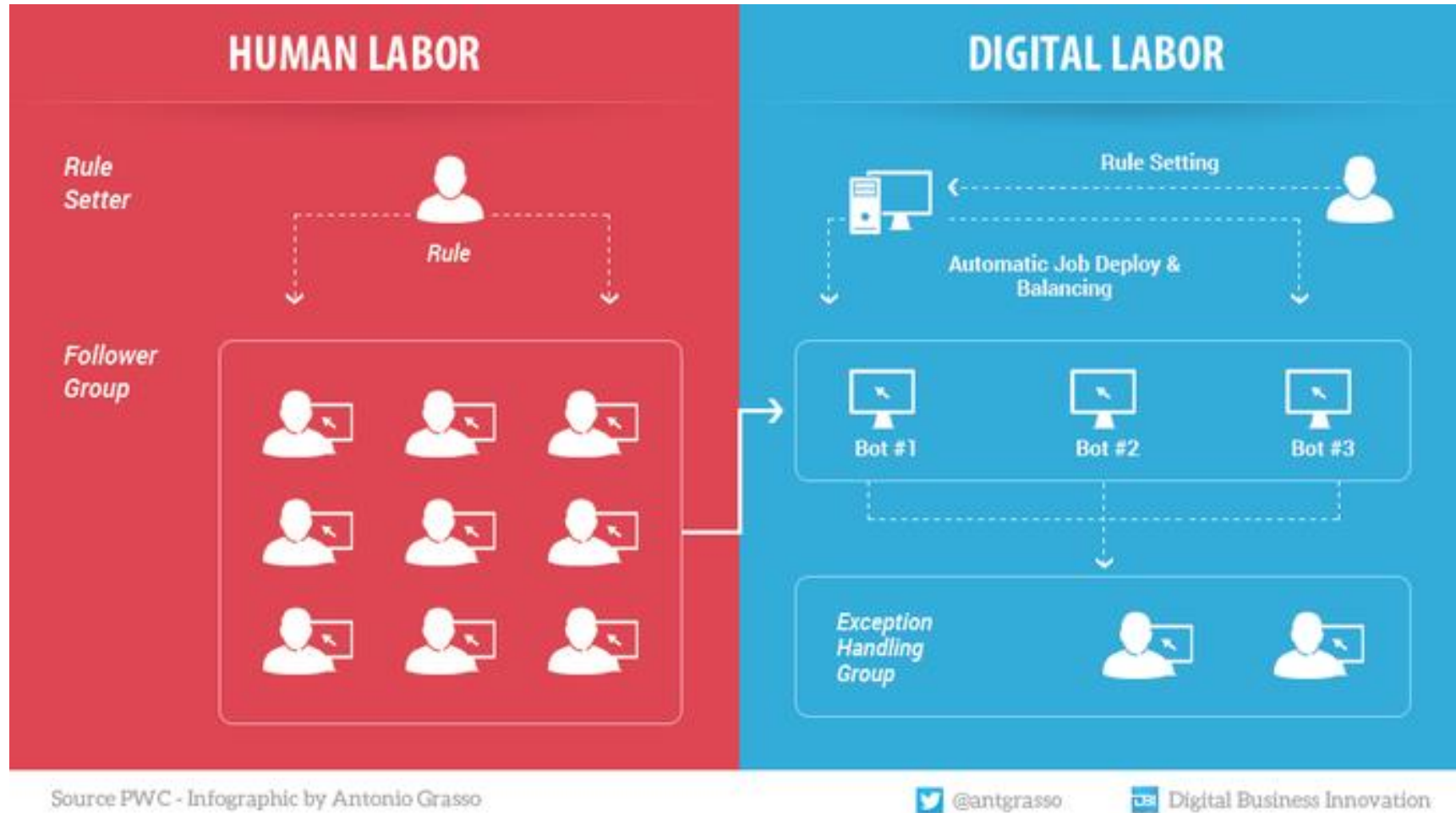
포드 모터 컴퍼니의 창설자

대량생산과 대량소비 시대를 연 컨베이어 시스템



The founder of the Ford Motor Company, and sponsor of the development of the assembly line technique of mass production. The Model T was introduced on October 1, 1908.

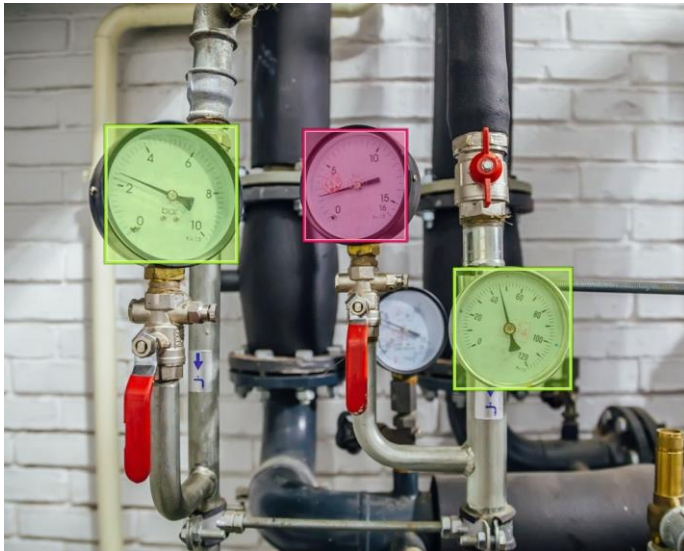
오늘날 Human Labor 에서 Digital Labor로 전환의 대변혁 시기



[참고 영상] <https://www.youtube.com/watch?v=TUx-ljgB-5Q>

제조 현장에서의 컴퓨터 비전 적용 사례

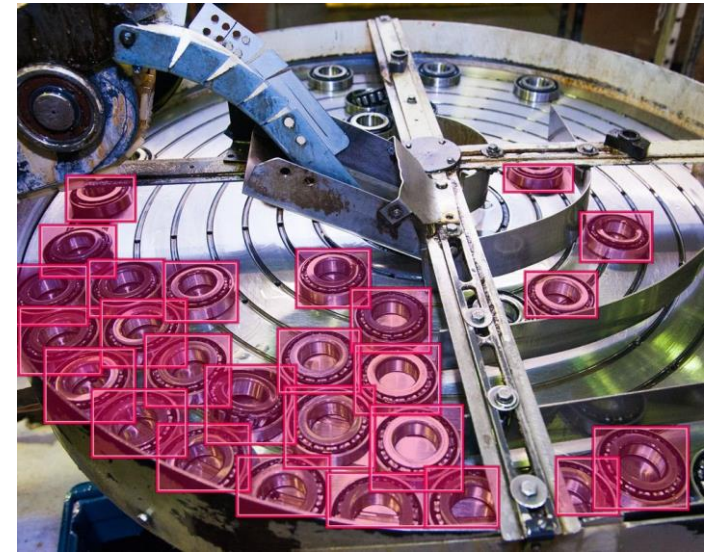
Predictive maintenance



Defect detection



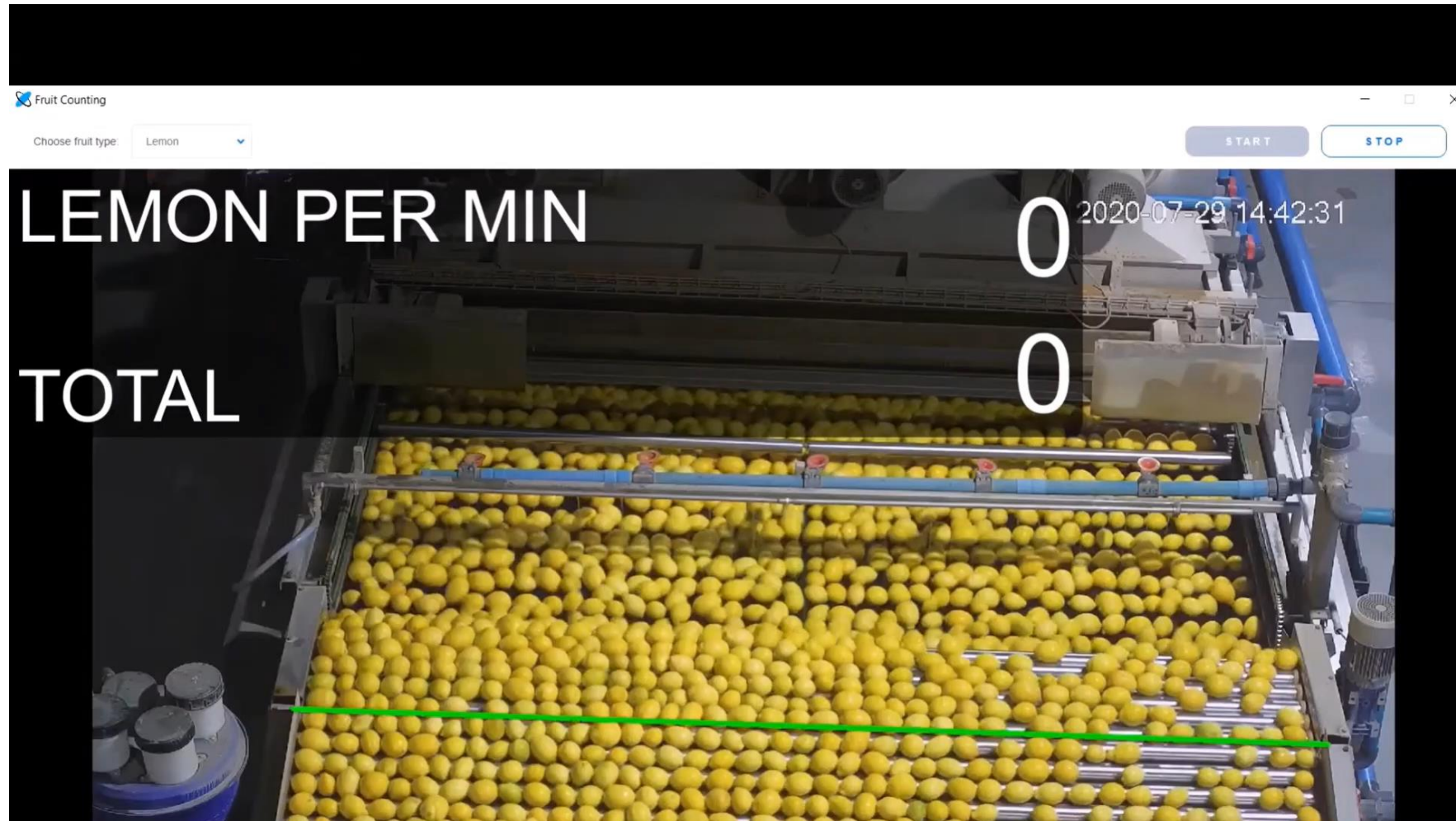
Assembling products and components



Object Counting

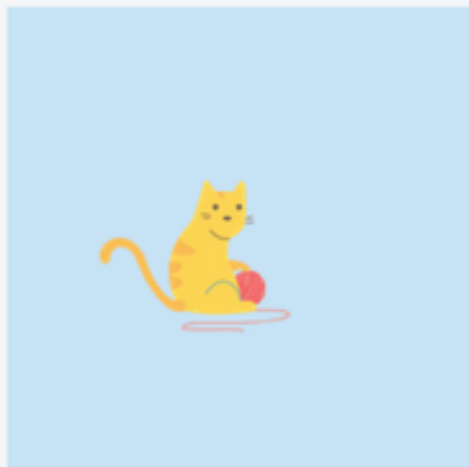


Object Counting



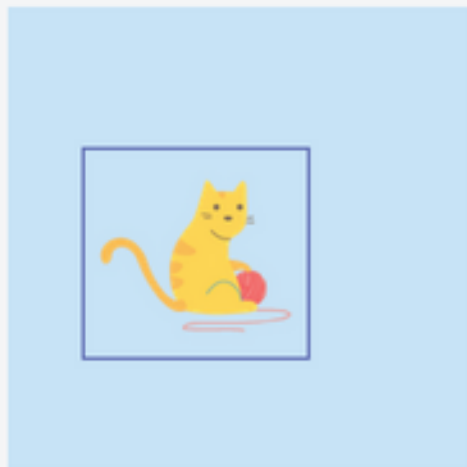
Computer Vision Problem Types

Classification



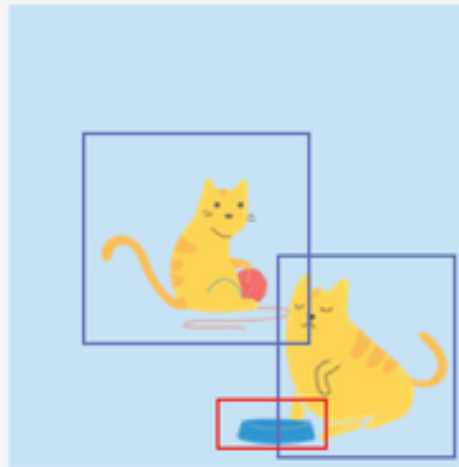
CAT

Classification
+ Localization



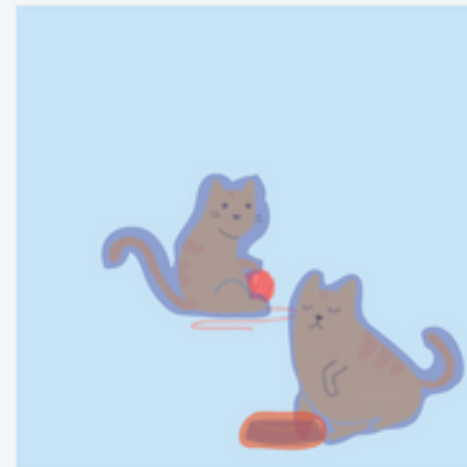
CAT

Object Detection



CAT, CAT, BOWL

Semantic
Segmentation



CAT, CAT, BOWL

Single Object

Multiple Objects

roboflow

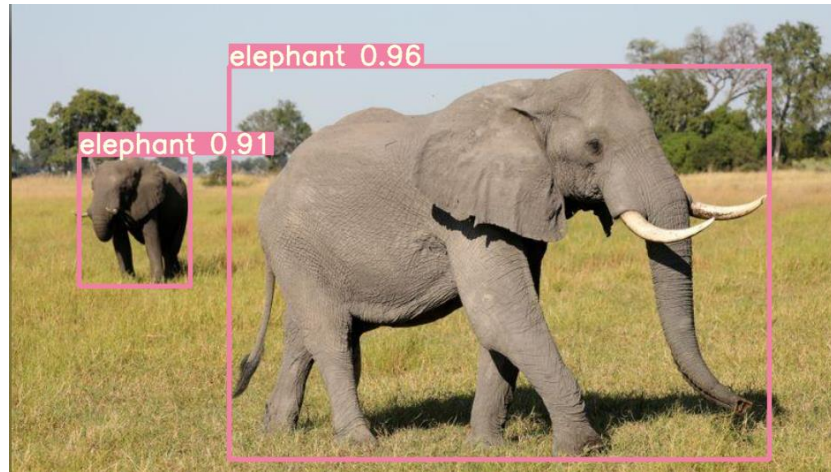
구현 사례 1: Object Counting



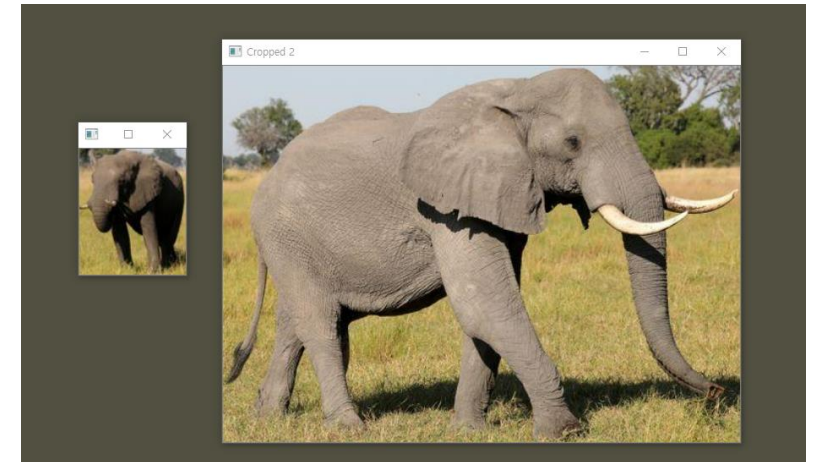
구현 사례 2: Image Classification & Object Detection



Source Image

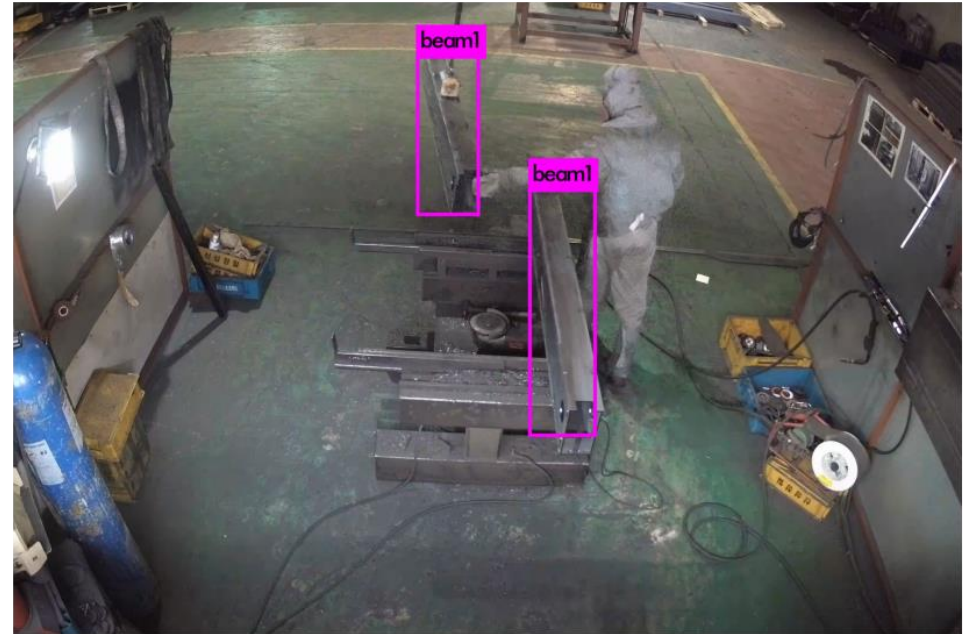


Object Detection



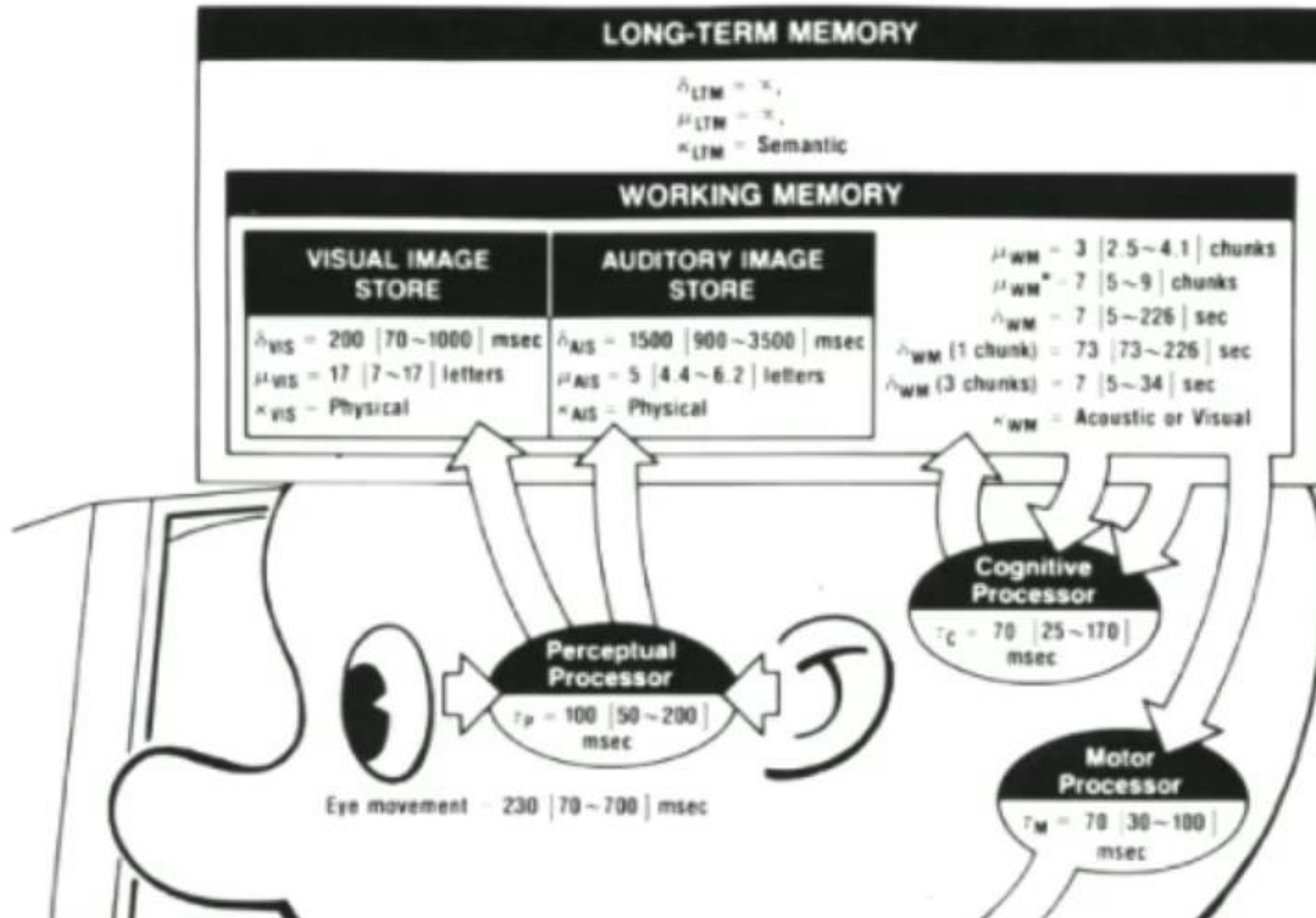
Cropped Image

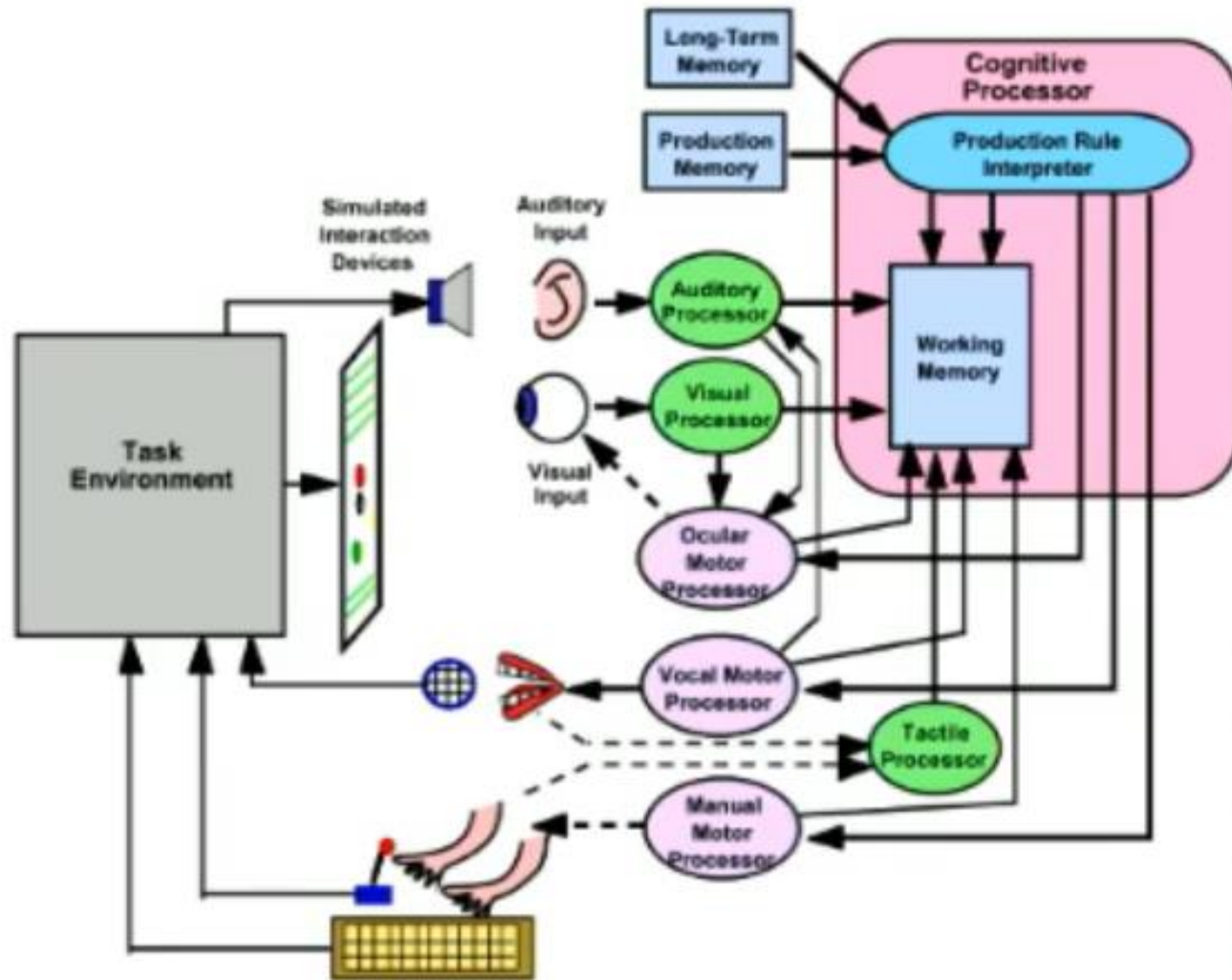
구현 사례 3: CCTV 영상을 이용한 작업 수량 확인



Artificial intelligence started as a field whose goal was to replicate human level intelligence in a machine.

인공 지능은 인간 수준의 지능을 기계에 복제하는 것을 목표로 시작되었습니다.





The EPIC architecture
for cognition
and performance
with application to
human-computer interaction

교안 및 예제 Code

https://github.com/JSJeong-me/SDF-Computer_Vision

강사 소개

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- <https://github.com/JSJeong-me/>

