

# Shredder System / machine

Real world → Deployed in Industry

inference → old → Tensorflow 1.x ~~X~~  
 ✓ ~~depreciated~~

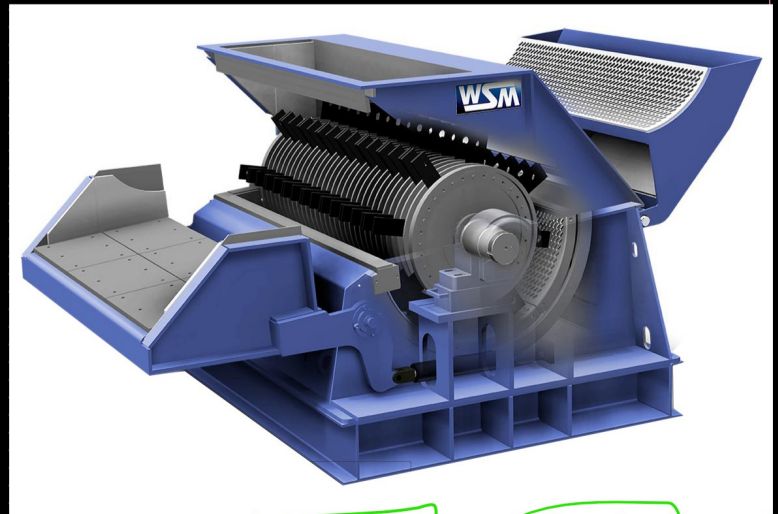
python  
object  
Detection

resume

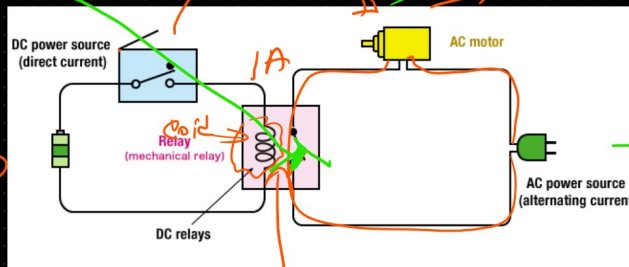
python

→ (Yolo v5) (Detection)  
 tensorflow 2.x

→ open cv



program  
microcontroller  
python  
resistor

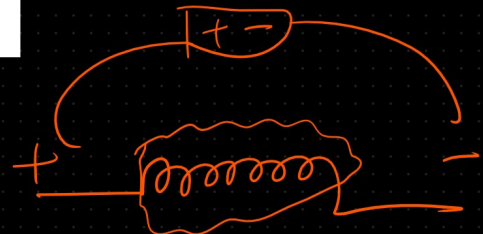


magnetic  
field

Relay

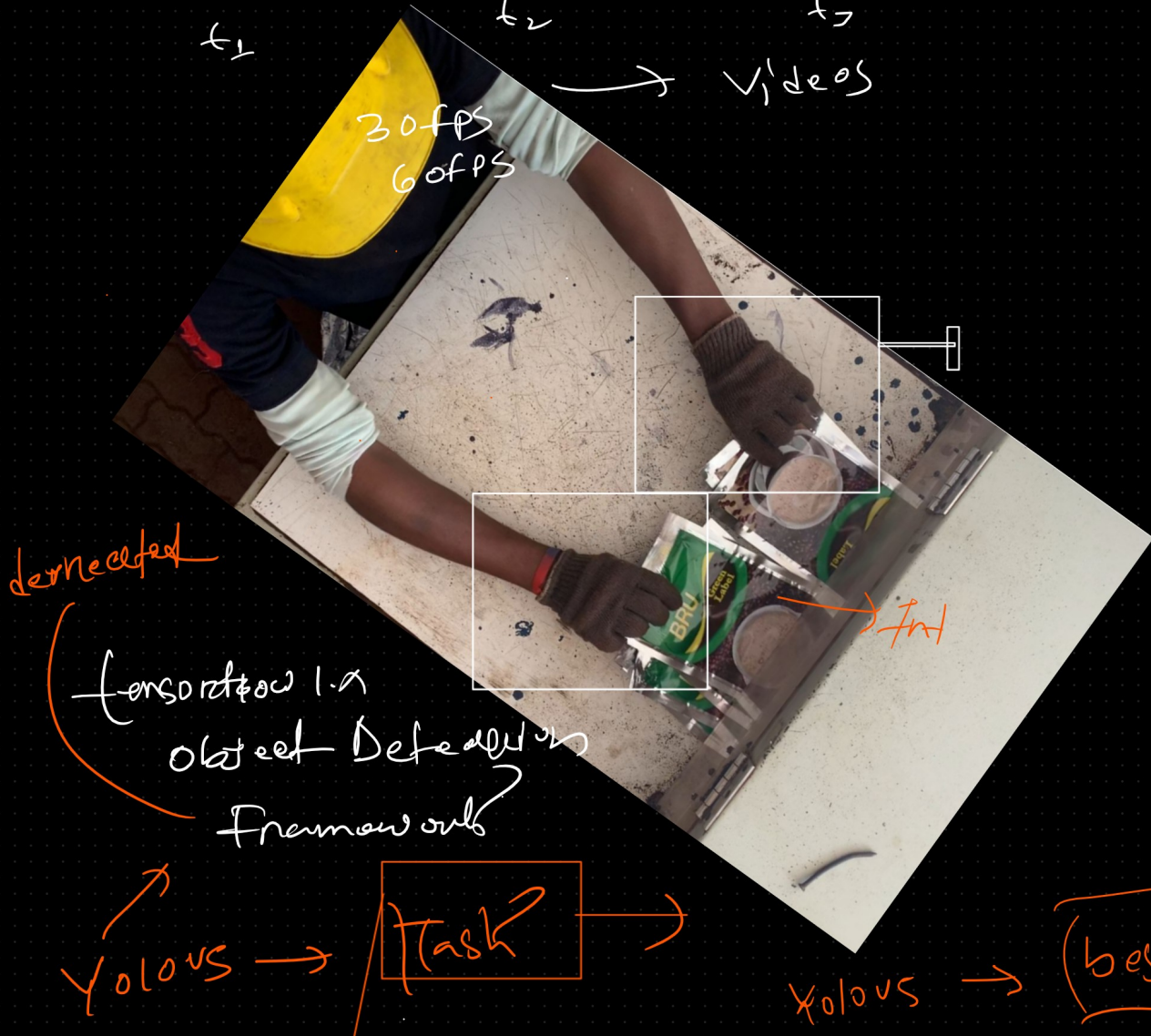
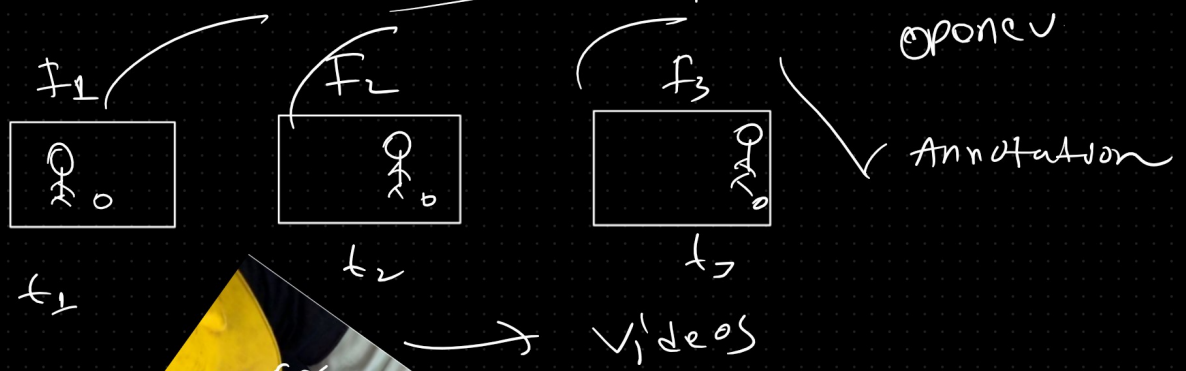
Robotics  
machine  
Electro  
AC/DC

AC 220V



# # Requirement gathering

① Data collection → Image → Hand → palm



- ② Microcontroller → ~~X~~
- ③ IP camera → Web camera — p oc

- ④ Routers → cables → X
- ⑤ NVR/DVR → Record videos ce cam  
↓  
DVR
- ⑥ Relay Switch — DC

Note: Data should be user specific  
 ↗ Depends on Industries  
 (clover)

- ① Safety line → warning
- ② Border line → shut downs → machine

## # Techstack Selection

- ① Programming Lang → python → 3.6
  - ② DL Framework → TFOD 1.x
  - ③ Image processing → opencv, imutils
  - ④ Sound → playsound
- ↗ TensorFlow 1.x  
 ↘ deprecated  
 4/10 yolo v5 } easy  
 7/10 Detection2



