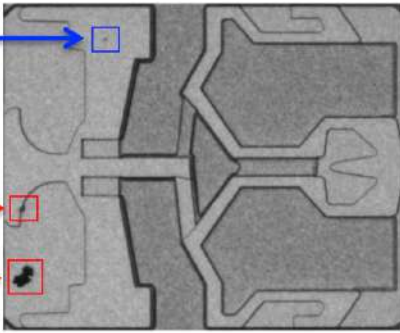


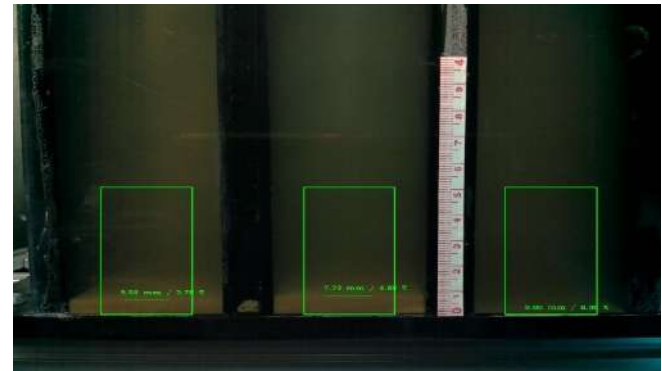
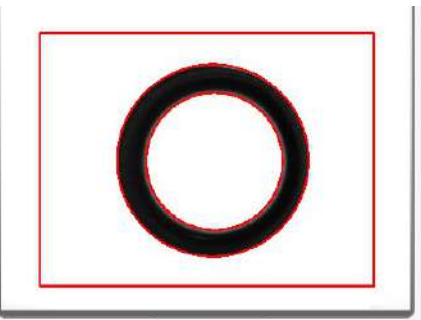
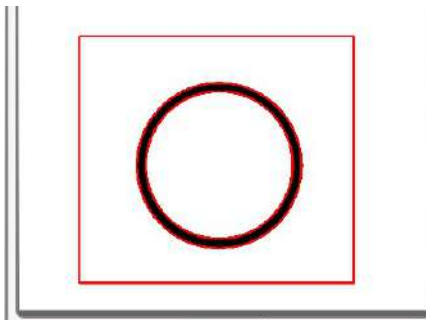
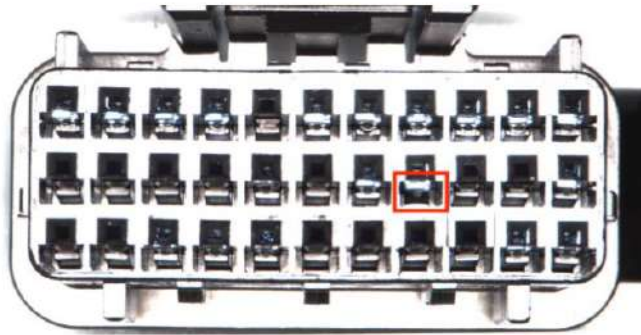
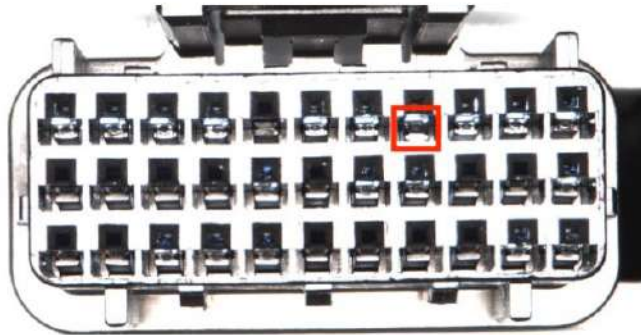
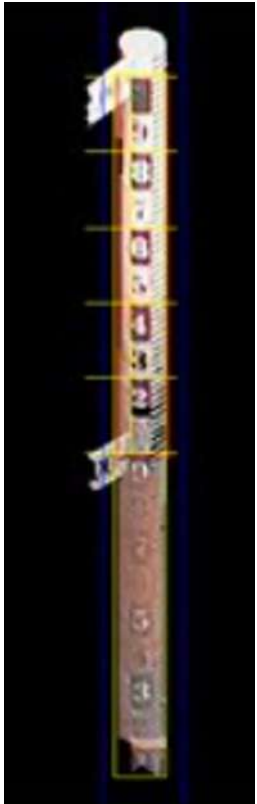
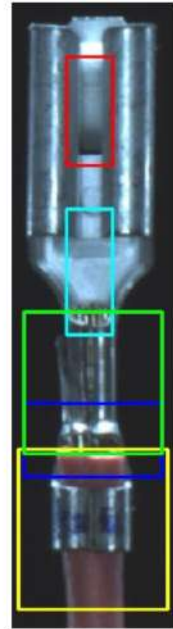
Visual Inspection

ดร.พีเชษฐี บุญหนุน
นักวิจัย ทีมวิจัยสมองกลอัจฉริยะและความจริงเสมือน (SMR)
กลุ่มวิจัยไอโอทีและระบบอัตโนมัติสำหรับงานอุตสาหกรรม (IIARG)
เนคเทค สวทช.

Spotty Contamination



Dark-Patch Contaminations



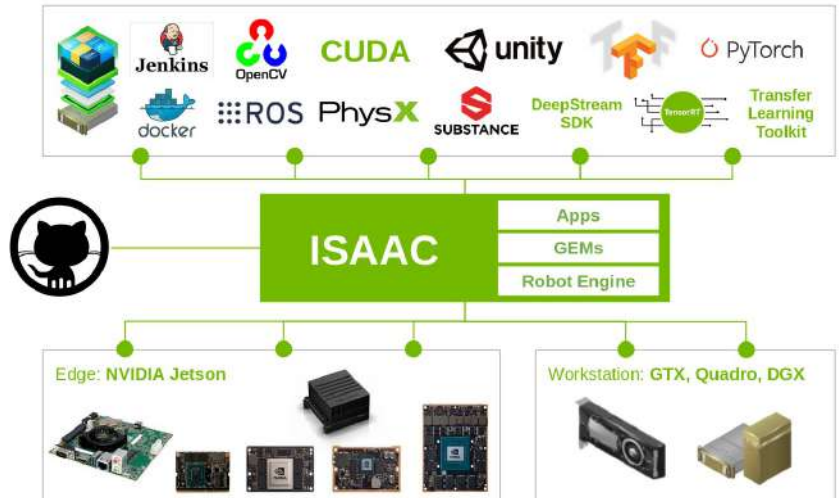


งานประชุมวิชาการและนิทรรศการเนคเทค ปี 2564



AI Open Source

Open Sources : AI + Robot

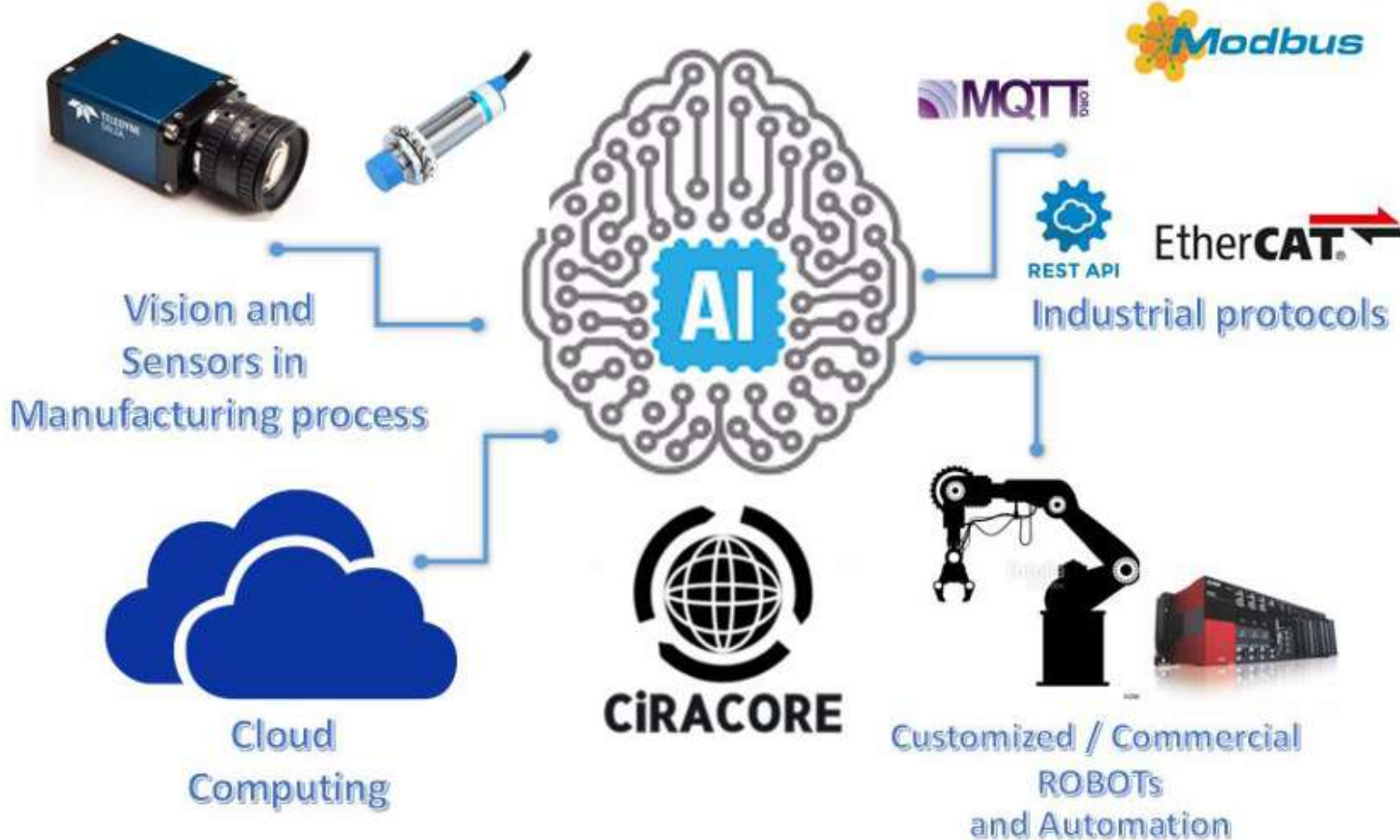


Best Data Science Open Source Tools

Scoring SELDON ONNX	AutoML AdaNet Featuretools AutoKeras Neural Network Intelligence	Speech Recognition wav2letter Mozilla deep speech KALDI	Natural Language Processing fastText spacy flair BERT AllenNLP Transformers	Reinforcement Learning ReAgent Gym
Platforms Kubeflow mlflow H2O.ai	Distributed Training RAY HOROVOD DASK MAHOUT SPARK ML	Classic Machine Learning Accord.NET XGBoost mlkit learn	Computer Vision FACENET OpenPose YOLO Detectron2 OpenCV	
IDEs Apache Zeppelin SPYDER jupyter	Deep Learning DL4J PYTORCH mxnet Sonnet TensorFlow			

footnote.ai

Center of Industrial Robots and Automation (CiRA)



What can we do ?

Industrial AI Enabler

CiRA CORE = BRAIN POWER + CONNECTIVITY



งานประชุมวิชาการและนิทรรศการเนคเทค ปี 2564



SMR Platform

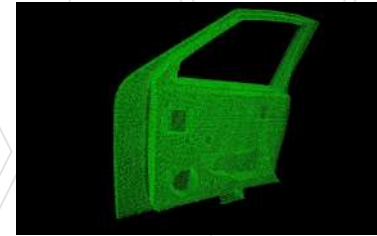
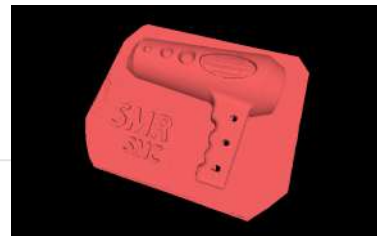
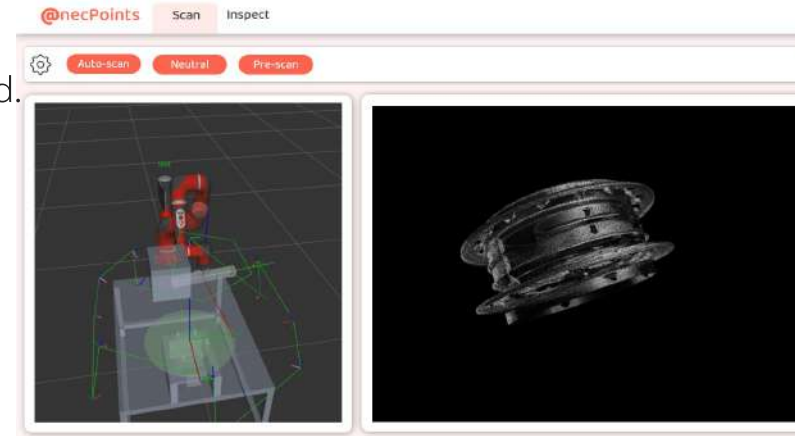
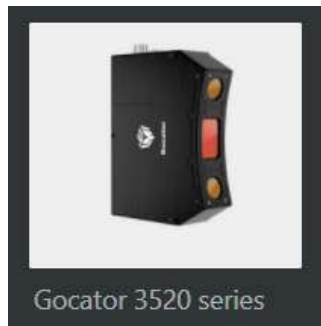
3D Scan and Inspection Robot

Support robot arm with ROS compatible.

Customizable

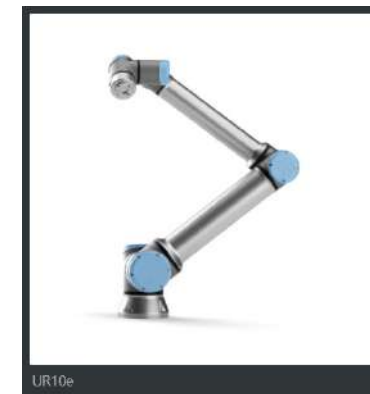
Choose the right configuration to suit your need.

Support a wide variety of 3D scanner with different accuracy.



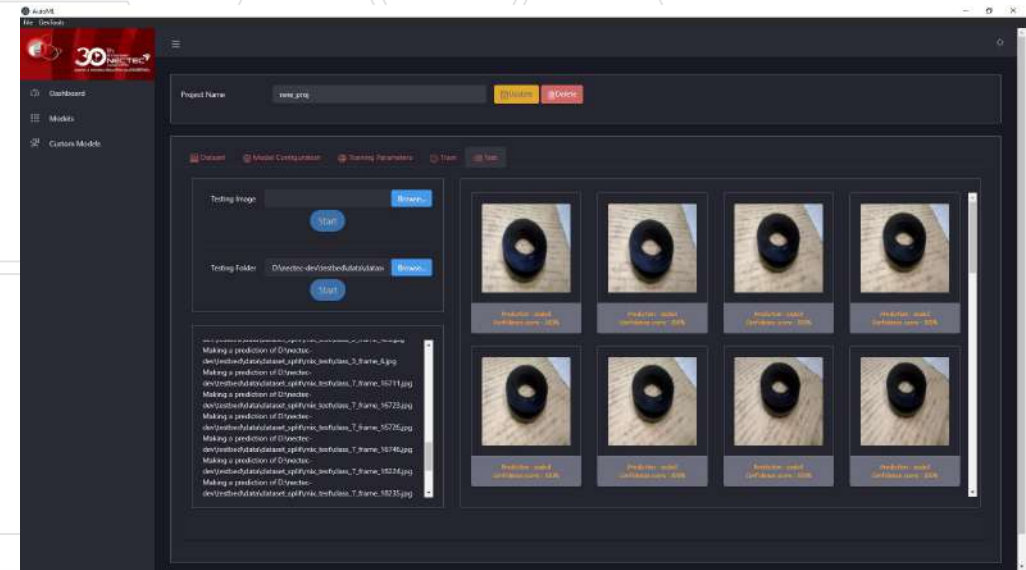
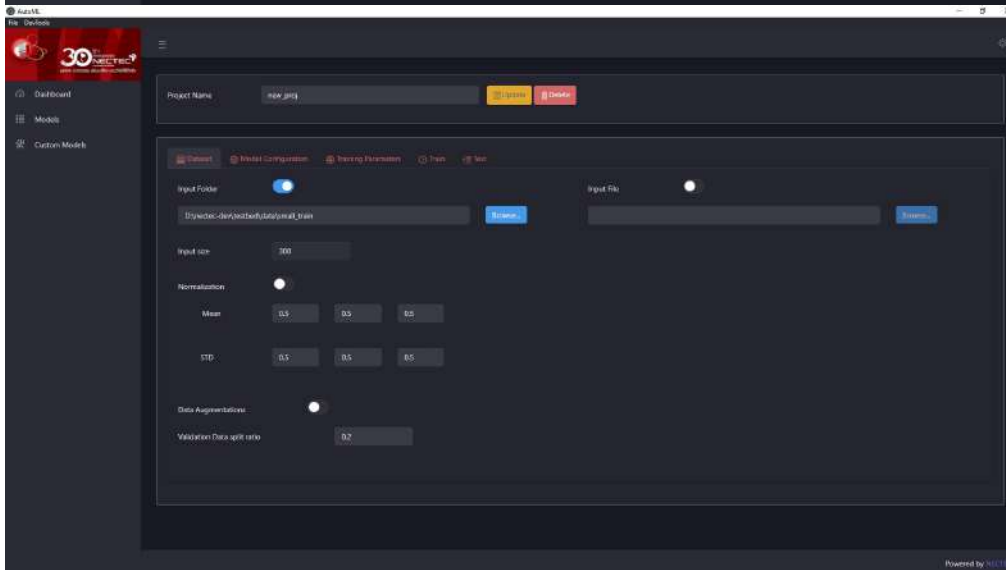
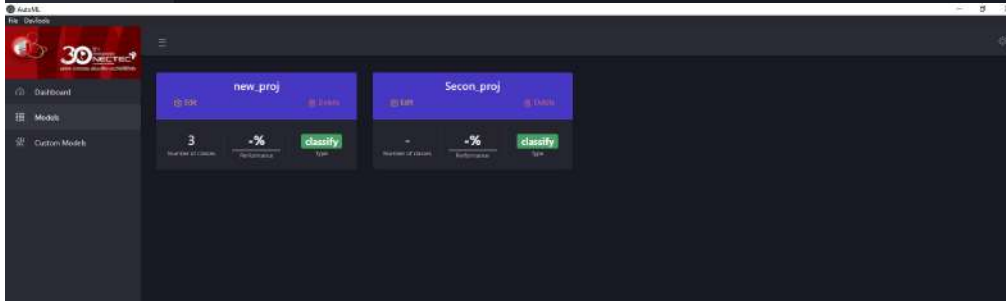
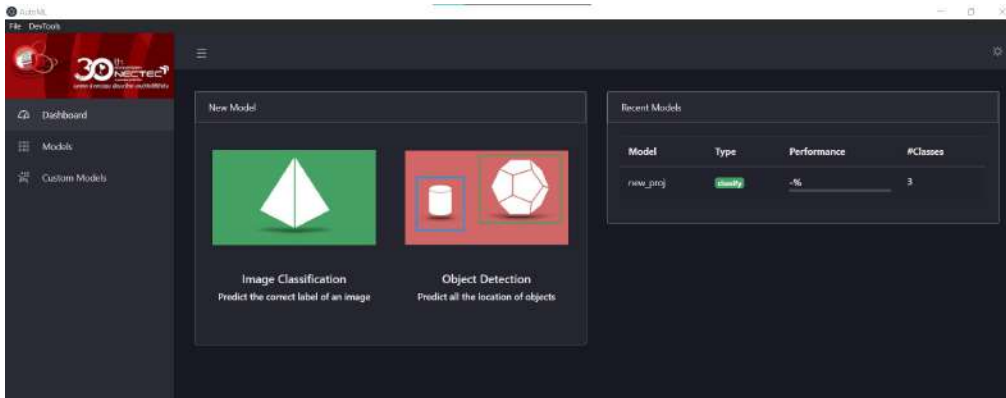
All-in-One Software

- Scan
- Inspection



AutoML

- Develop and train your ML models locally.
- Customizable pretrained models are available.
- No coding is needed.
- Currently support classification tasks only.



CVisualDev

The screenshot displays the CVisualDev software interface. The main workspace shows a video frame with green bounding boxes around the text "EAUANILTBS" and a smaller "S". The interface includes a Node Category panel on the left, a Properties panel on the right, and a Workspace panel at the bottom right. The video frame is titled "CV Image Display" and shows a person in a lab setting. The "Info Display" panel lists the detected text "EAUANILTBS" multiple times. The "CV Video Loader" panel shows the video file "WIN_20211209_18_24_03_Pro.mp4". The "ACE 2021 Detection" and "ACE 2021 Robot Comm" panels are also visible.