GENERAL VISION

Smallest,
Fastest,
Most Affordable
Trainable Vision Device
(Reference Design)

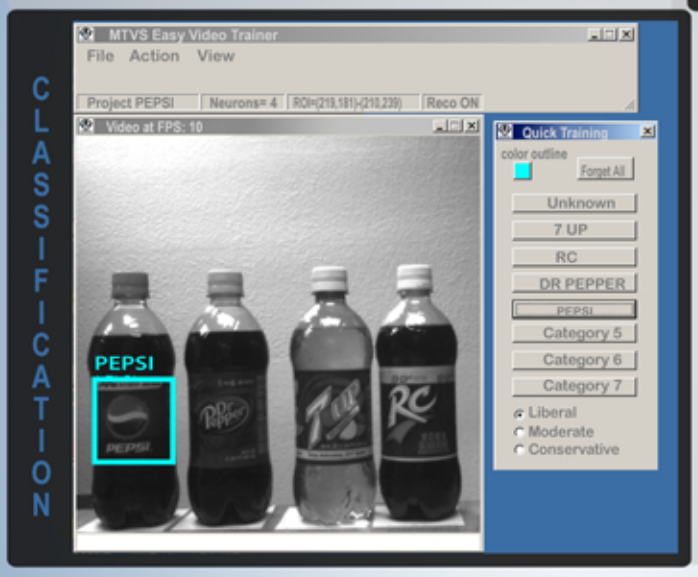
MTVS

Miniature Trainable Vision Sensor

Unique, Versatile…

The CogniMem-MTVS stands out, thanks to its unique features:

- Easy to capture images
- Easy to train
- Easy to run
- Easy to collect results
- Easy to learn more



A Multi-faceted technology!

- Give quick fail/pass feedback
- Assess good/bad state
- Provide classification
- Identify target
- Verify alignment
- More to come…

Capture References

Use the high speed USB link to collect images in the operating environment.

Training

In Easy Video Trainer™, our proprietary tool, define the region of interest, show just a few examples to start recognizing your objects. For example,show a good quality object and that should be enough to start detecting defects of all size in the product to inspect. You can also categorize objects and then let MTVS tell them apart. Whether you're trying to detect defects or recognize specific elements, you can save your knowledge in no time and then transfer it to MTVS for real-time inspection. Increase your productivity: share your expertise without having to write a line of code

.Operational Conditions

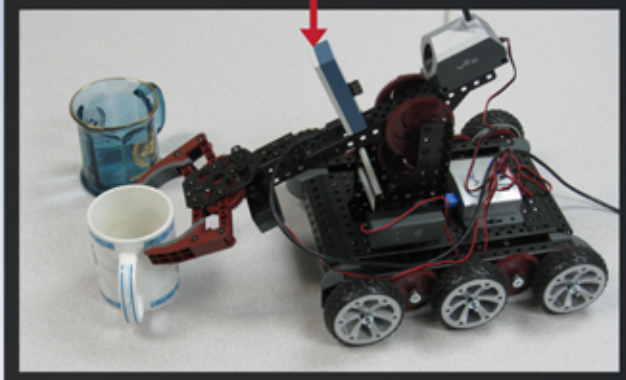
MTVS can inspect virtually any parts. It clearly identifies defective parts with clear graphics. It can detect defects even on reflective surfaces.Once you are satisfied with the training of MTVS and the accuracy of the recognition seen on the Easy Video Trainer screen, you can activate the use of the MTVS I/O lines and RS485 communication to interface directly with actuators and other applications. At this point, MTVS can be disconnected from the PC (provided that it is connected to an external power supply) and inspect autonomously. It will resume inspection at power-up.

Many Applications…

- Part Inspection
- Model Identification
- Classification
- Quality Check
- Defect Detection
- Label Check
- Object Tracking

MODEL IDENTIFICATION

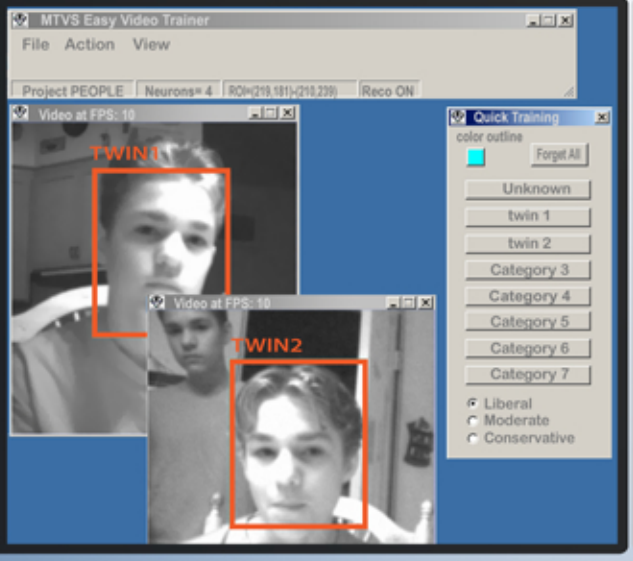
MTVS connected to a VEX Robot,
trained to recognize the cup to pick up.



MTVS is a production-efficient solution that allows saving on the inspection costs in many ways:

- Low-power consumption
- No pc needed
- Higher pace and higher accuracy than human inspection
- Flexibility in the lighting environment
- On-site fine adjustment

FACE RECOGNITION



- Face Recognition
- Conformity Verification
- Condition Monitoring
- Event Detection
- Surface Inspection
- Alignment / Positionning

Specifications

MECHANICAL

Dimensions	30mm x 30mm x 60 mm
Weight	50g

POWER

Voltage	6-36 VDC - ¾W

ACCESSORIES(optional)

Tripod / DIN Rail Mounting / Lens Mount

SOFTWARE

Easy Video Trainer with Single Region of Interest
Windows SDK (Optional)

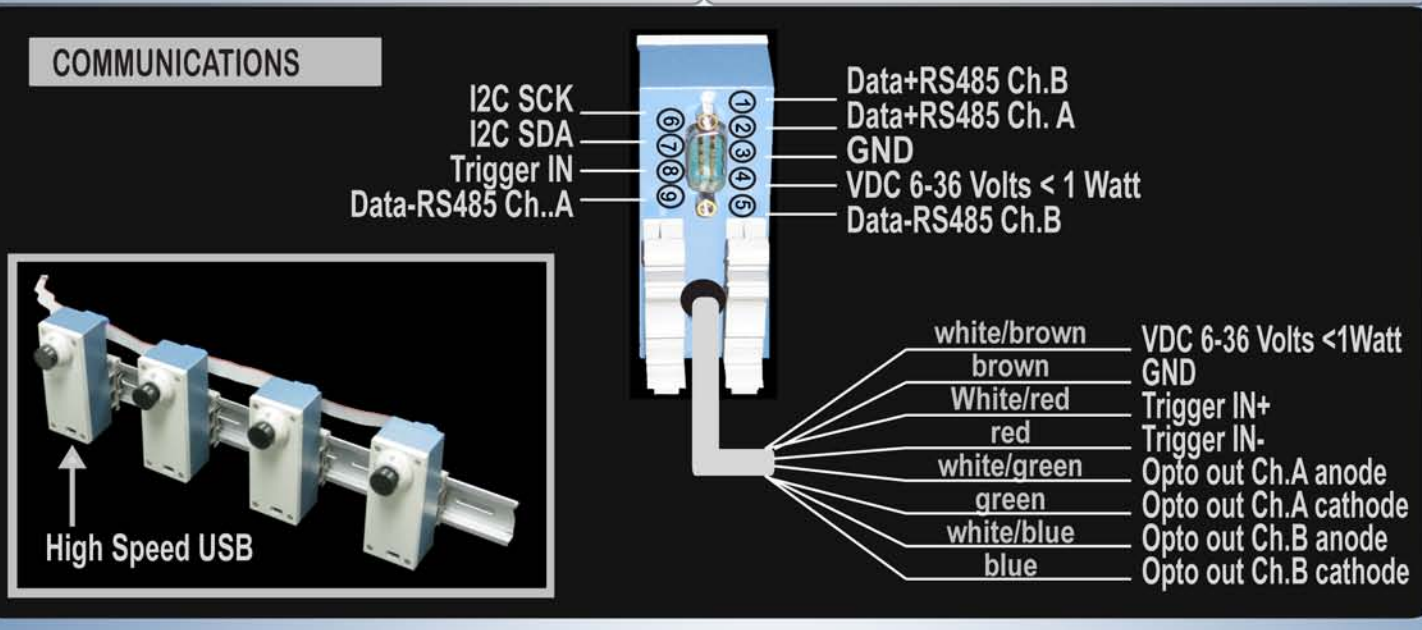
IMAGE

Resolution	752x480(pixels), monochrome
Sensor	progressive scan
Acquisition	60fps
Recognition	60fps

COMPONENTS

CogniMem, 1024 neuron chip
CogniSight, recognition engine chip
Aptina CMOS Sensor- MT9V022, Global Shutter
Lens Field of View Angle - 60°

COMMUNICATIONS



Reference Design Available - License Available

RECOGNITION FACTS

Recognition Rate	one region per frame at 60fps
Region Size	16x16 to full frame
Associative Recognition	up to 1024 models
Knowledge	built by examples

for specific recognition engine, contact us

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