Traffic Monitor

Below is the Mestech X-15 "Eye in the Sky," a traffic monitoring system developed by Mestech Creation Corporation, Houston, Texas that incorporates NASA imaging and robotic vision technology. The system includes a camera, or "sensor box," mounted in a weather resistant, temperature controlled housing; a portable monitor; and a controller cabinet containing a computer and test switches for on-site set-up and repair. Below, a Mestech engineer is conducting circuit board tests on an X-15 prior to shipping.

Marketed by SIDS, Tomball, Texas, the X-15 system employs up to four imaging sensors that operate over a wide range of electromagnetic wavelengths and are designed to withstand bad weather, extremes of temperature and street vibrations. At top right is a closeup view of the sensor box, which has very low light capability along with high infrared and ultraviolet sensitivity, providing high accuracy for object identification in both high and low contrast lighting.

The key sensor technology was developed with the help of NASA information supplied by Jet Propulsion Laboratory (JPL). In
the monitoring camera. When a vehicle passes through these areas, the computer processes the sensor's information and signals the controller unit of the vehicle's presence and the zone it occupies; it does this 32 times a second.

An alternative use of the X-15 is its "smart highway" application, in which the system detects, or counts, vehicles on a highway and computes the number of vehicles in each lane and their speeds. Information of this type is important to freeway control engineers when they are required to divert traffic for highway repairs.

The system has additional applications. In airport operations, it can be employed in ground monitoring of runways and taxiways. It can also be used to monitor train yards, parking lots or any large area where an intruder detection system is needed (cost would preclude its use for small area surveillance, home monitoring, for example). Another potential application is its use to monitor robotic assembly lines.

In the traffic monitoring application, the system acquires several images, processes them simultaneously in less than 30 milliseconds, and transmits the results to the controller computer. The sensor's range of detection is nominally 10 to 200 feet; with optional equipment it can be extended. The system is intended to replace loop-type traffic detectors buried in the road surface; use of the pole-mounted X-15 eliminates the need for cutting the street to install or repair a system. The sensor units weigh less than eight pounds.

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SCREEN: X15 TRAFFIC MONITOR VISITIC 93/7/2 11:47
View: 1
Exit: Output: 2
Active: Yes
Type: Pres.
Delay: 0.3
Extend: 0.0 S
Place: View: 1
F1 View 1
F2 View 2
F3 View 3
F4 View 4
F3 Menu View
Help
It keys move.
- changes.
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