TARGET TIPS

Providing new ideas and helpful information about Unmanned Ground / Surface Targets

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kairos autonomi®
altered thinking™

Creating Laser Safe Moving Targets

Unmanned Vehicles Modified to Minimize Reflective Laser Light

The windows (left) are tinted with matte black vinyl and wheels (right) are sprayed with a flat black finish to minimize reflective light.

Through our field experience we have learned from our customers about the need for laser safe operations. We have produced some simple and effective ways that will help minimize reflective laser light.

During aircrew training exercises, a combat laser is used to direct ordinance, designate targets, measure distances, etc. These laser designators fire coded pulses of laser light at a target, which is then reflected from the target's surface. The reflected laser is finally detected by the munition's laser seeker, helping the munition find the center of the reflection.

This laser designator, usually from a Sniper Pod, Litening II Pod, AN/PED-1, or an ATFLIR, is a very intense beam of light that can easily harm any unprotected eyes. And, because the laser is so intense, the reflected light can also cause retinal damage to any persons not wearing proper laser eye protection.

Kairos Autonomi is currently an industry leader in the deployment of Unmanned Targets for aircrew training and weapons testing programs. And, with the threat of laser eye damage so prevalent when utilizing targeting lasers, Kairos is attempting to mitigate this risk.

Kairos has developed a simple but effective 'laser safety' option for our unmanned targets. This option reduces the resultant reflected laser light so that range

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How Can You Benefit from this Newsletter?

Kairos Autonomi continues to grow its presence in the Unmanned Ground Targets community. As our employees interact with range personnel, we are discovering best practices and unique innovations from which other ranges could benefit.

In an effort to collocate these ideas into a single source and distribute them among all of our customers, we will be publishing these Target Tips periodically.

We welcome your input, comments, suggestions and ideas as we seek to deliver not only the best moving land targets, but also the best customer service in support of your efforts.

Kairos Autonomi
498 West 8360 South
Sandy, Utah 84070
801.255.2950
contact@kairosautonomi.com
www.kairosautonomi.com

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personnel are less likely to receive those damaging beams.
We achieve this by masking the glass windows with a matte finish vinyl, removing any chrome or otherwise 'shiny' plastic trims, and spraying any reflective wheel rims with matte finish paint.
The matte vinyl over the glass windows serves several purposes: the laser reflectivity is reduced, the glass is effectively laminated making clean-up easier and safer and the vehicle maintains weather ability with the windows intact.
While the requirement for laser eye protection for anyone in close proximity to the target is not eliminated, the risks to unsuspecting personnel is reduced.

The emblems should be removed from the vehicle to minimize reflective laser light that could cause eye damage.

Kairos Awarded Contract for Umanned Moving Ground Targets

Kairos Autonomi has been awarded a contract by the Army National Guard for moving land targets and will equip 12 Army National Guard ranges across the nation with Pronto4 Robotic Appliqué Kits, ground control stations and radio infrastructure.
The hardware, software and infrastructure will provide each range with remote moving targets controlled from range facilities with full video and radio control.
"This is a natural extension of our position as a market leader in unmanned moving ground and surface targets," said Troy Takach, President and CEO of Kairos Autonomi. "Kairos Autonomi is the largest robotic manufacturer of unmanned ground vehicle systems in the world by volume, and our presence in the test and training markets will only grow as we continue to expand."
The Pronto4 is a robotic appliqué kit that allows vehicles to drive themselves by following a pre-defined GPS path or by remote controlled operation.
The kits provide a realistic moving target that enhances realistic training and test environments for military personnel.
Product deliverables at each range may include site infrastructure and support requirements, vehicles can also be configured for laser operations. The Period of Performance (POP) is expected to be 12 months.

UPCOMING EVENTS

Annual National Test & Evaluation Conference
February 25-28, 2013
Charlotte, NC

Ground Robotics Capabilities Conference & Exhibition
April 29-May 5, 2013
Atlanta, GA

AUVSI Unmanned Systems North America 2013
Walter E. Washington Convention Center
Washington, D.C.
August 12-15, 2013
Booth #1907

Robo Business
Santa Clara Convention Center & Hyatt Hotel
Santa Clara, CA
October 23-25, 2013
Booth #319

QUICK LINKS

-Kairos Autonomi Website

-Kairos Autonomi GSA Schedule

-Kairos Autonomi Blog

- Kairos News

- Kairos YouTube

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