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Duos Announces Latest Railcar AI Detection Model and Customer Deployment

Company Plans to Continue Expansion of AI Catalogue, With More Than 50 Use Cases Planned by Year End

JACKSONVILLE, Fla., May 18, 2023 (GLOBE NEWSWIRE) -- [Duos Technologies Group, Inc.](#) ("Duos" or the "Company") (Nasdaq: DUOT), through its operating subsidiary Duos Technologies, Inc., a provider of machine vision and artificial intelligence that analyzes fast moving vehicles, today announced the release of its latest key railcar artificial intelligence ("AI") detection model for use with the Company's Railcar Inspection Portal ("[rip®](#)" or "RIP") solution. The new algorithm covers end-of-car cushion inspection, a condition which can potentially lead to derailments.



The new "Head of Cushioning Unit Condition" detection model identifies when a cushion unit head, located between railcars and similar to a shock absorber, is broken or missing. When the head of a cushion device is damaged or missing, it can cause the coupler to not travel properly, which can lead to a derailment and associated line-of-road-delays. Leveraging this new algorithm, the RIP system can detect when a cushion unit head is damaged or missing, so that it can be replaced before greater damage occurs. Once identified by the system, determination as to whether the detection result is actionable is made by a qualified mechanical car inspector in accordance with AAR Rule 59 (Cushioned Underframe Devices) and FRA 49 CFR 215.

The new model was developed in response to a specific customer request and deployed during mid Q2. Within the first five days of deploying Duos' new detection model, the customer recorded 19 validated defects, which were immediately addressed to avoid potential derailments.

"We are continuing to advance rail safety standards with the development of specialized AI models capable of identifying defects that can cause real problems for rail operators, including derailments," said Duos CEO Chuck Ferry. "This new 'Head of Cushioning Unit Condition' model is already in use at one of our Class 1 customers, and we've demonstrated meaningful results in identifying validated defects. As we expand the breadth of detection models for our RIP systems, customers have shown a clear desire to add this greater level of coverage. We plan to continue expanding our AI development work and expect to have more than 50 models available in our catalogue by year end."

The Company [recently released](#) news regarding the publication of its catalogue of AI detection models for the rail industry, which can be accessed [here](#).

To stay up to date on the Company's most recent developments or to learn more about the Duos story and its revolutionary technology platforms, be sure to follow [here](#) or sign up for email alerts [here](#). For more information please contact DUOT@duostech.com or visit the Company's website and social media channels: [Website](#), [LinkedIn](#), [Twitter](#).

About Duos Technologies Group, Inc.

Duos Technologies Group, Inc. (Nasdaq: DUOT), based in Jacksonville, Florida, through its wholly owned subsidiary, Duos Technologies, Inc., designs, develops, deploys and operates intelligent vision based technology solutions supporting rail, logistics, intermodal and government customers that streamline operations, improve safety and reduce costs. The Company provides cutting edge solutions that automate the mechanical and security inspection of fast-moving trains, trucks and automobiles through a broad range of proprietary hardware, software, information technology and artificial intelligence. For more information, visit www.duostech.com.

Forward-Looking Statements

This news release includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, regarding, among other things our plans, strategies and prospects -- both business and financial. Although we believe that our plans, intentions and expectations reflected in or suggested by these forward-looking statements are reasonable, we cannot assure you that we will achieve or realize these plans, intentions or expectations. Forward-looking statements are inherently subject to risks, uncertainties and assumptions. Many of the forward-looking statements contained in this news release may be identified by the use of forward-looking words such as "believe," "expect," "anticipate," "should," "planned," "will," "may," "intend," "estimated," and "potential," among others. Important factors that could cause actual results to differ materially from the forward-looking statements we make in this news release include market conditions and those set forth in reports or documents that we file from time to time with the United States Securities and Exchange Commission. We do not undertake or accept any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements to reflect any change in our expectations or any change in events, conditions or circumstances on which any such statement is based, except as required by law. All forward-looking statements attributable to Duos Technologies

Group, Inc. or a person acting on its behalf are expressly qualified in their entirety by this cautionary language.

A photo accompanying this announcement is available at
<https://www.globenewswire.com/NewsRoom/AttachmentNg/d2ab796b-b635-4e1d-ba62-fdcd7f747601>

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