Automatic inspection systems for vehicles
Adding technology to your repair or tire shop
Overview

The automotive industry is changing rapidly, including the approach to legislation, maintenance and service of vehicles. In order to keep up and stand out in the modern era, and to provide customers with trustworthy service while ensuring their safety, there is a need for technological, automatic and objective solutions.

Different sources suggest there are over 175,000 repair, tire and body workshops for vehicles in the US alone. There are over 800,000 mechanics working in different positions at these shops. How can their jobs be made more efficient while increasing transparency towards customers and retaining a marketing edge over the competition?

When inspecting a vehicle entering your workshop, you often need to find the right balance between customer trust and ensuring there are no long-term issues that could affect the car at a later stage.

Many workshops today rely on heavy, bulky machinery, and there is no one objective source of truth to determine different issues that can be seen in the undercarriage or other parts of a vehicle. Some mechanics may notice the signs of a problem indicated by leakage or corrosion, while others won’t pay too much attention to it.

Different workshops and garages are willing to pay over $50 per incoming vehicle to different listing and advertising websites even though it is known that having a technological edge is an effective marketing tool to get people through the door.

Transparency with vehicle owners for different repairs and tire changes is also important, and being able to show a customer where the problem is with objective technology may increase loyalty.

Many repair shop chains are switching to automated scheduling and better customer service relying on technology. Some of them have even started using animated repair videos demonstrating different types of work for customers, and many mechanics have started using mobile apps for professional guidance, part ordering and customer quotes.

Up until now there has been no objective damage assessment solution to aid the mechanic in real time without needing to put the car on a lift or relying on heavy machinery. However, it is clear that aiding the operators and mechanics with a tablet-based tool that identifies damage and provides high-resolution images could benefit shops greatly.
**Which damage can be assessed automatically?**

UVeye has created a three-product suite that can be used together or alone and connected to one cloud-based platform.

<table>
<thead>
<tr>
<th>Helios</th>
<th>Undercarriage Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artemis</td>
<td>Tire Inspection</td>
</tr>
<tr>
<td>Atlas</td>
<td>Body Inspection</td>
</tr>
</tbody>
</table>

**Helios**

UVeye has created a drive-through solution that can be placed on the ground inside or outside, rain or shine and can scan the undercarriage of any type of vehicle. The technology uses artificial intelligence and deep learning algorithms and analyzes high-resolution images to detect and point out potential issues below the vehicle.

**Which issues?**

- Oil leaks
- Water leaks
- Corrosion or rust
- Broken parts
- Missing or modified parts
- Dents or cracks
- Holes in the exhaust pipes
- Broken connecters
  
  And more.

Today, Helios is available in both a stationary or mobile version and can be placed in the parking lot or entry lane of the shop. Once a customer drives over the system (at up to 30 km/h), the mechanic will be able to view the undercarriage image and exposed issues on a mobile tablet device without needing to put the car on a lift.
Helios

UVeye - automatic inspection for repairshops
The high-resolution image can be rotated, and every component or area of the undercarriage can be zoomed in on for a better view.

Common issues that might be missed at early stages, like oil leaks, are a good opportunity for the shop to upsell and find damage early on before it poses a safety threat and becomes a more serious issue.

The undercarriage images and reports can be shared directly or via API with your customers, and in that way before charging them for work, you will be able to increase transparency and show the potential damage.
**Artemis**

UVeye has created a mobile and easy-to-set-up tire inspection device. All you need to do is set up two sets of Artemis from both sides of the tires, and vehicles that drive past them will automatically be scanned, and their tire details will be uploaded to the cloud. Artemis can detect things like the estimated air pressure of the tire, any kind of damage on the sidewall including bubbles, cracks or damaged rubber, damage on the rim of the tire, and more.

The system also scans all the text written on the side of the tire like the date of manufacturing and the model size, which can be used for model comparison and making sure the right tires are in place. There is also an option to add an extended module to analyze the tread depth and expose damage that indicates a tire change is needed.

UVeye’s platform is cloud-based, and vehicle or tire data can be accessed from anywhere through the cloud. If a vehicle has driven through more than once, it is possible to compare recent scans and switch between the undercarriage to the tires or the body if more than one product is used.

Artemis includes high-resolution industrial cameras that provide an accurate image with the ability to zoom in on tire damage down to a sub-millimeter level.
Placing an Artemis device at the entry lane of your shop, or even at the exit of a car wash, can help you upsell up to four times as many tires as you are currently selling by exposing sidewall cracks or bubbles and potentially assisting with other issues that might occur because of the wrong tire model (for example gearbox issues) and wheel alignment. The setup is quick and easy, and customers will appreciate the extra information like the date of their tire make or a lack of air pressure.
UVeye's body analysis product is made of an arch-like device and is also drive-through up to a speed of 15 km/h. Atlas can be set up inside your shop and equipped with high-resolution cameras and lighting that can detect any kind of scratch, dent, gap or exterior damage on the body of a vehicle down to 0.5mm.

This kind of analysis can assist with damage accountability whether it took place before or after entering your shop and can also assist in inspecting issues like hail damage and its depth. Pricing can also be added to the different types and size of damage, which can create objective reports for insurance companies.
We have learned from our clients that using the Atlas system can improve customer engagement and transparency, assist with damage liability, and also be included in customer reports for remarketing purposes.
UVeye benefits

We have learned from our clients that using the Atlas system can improve customer engagement and transparency, assist with damage liability, and also be included in customer reports for remarketing purposes.

The UVeye platform and products support:

- $10K-$20K in upselling a month
- Technological edge - marketing advantage
- The platform - cloud and business intelligence from the data you never had access to
- Full documentation and reporting for insurance purposes and historical data

The UVeye pricing models vary between a fixed monthly subscription or a pay-per-scan model. Get in touch with the UVeye team today in order to receive a quote for your shop’s needs. You will be able to install any of the three products together or alone and enjoy the benefits of automatic inspection from the first day of installation.

For more information please visit us at www.uveye.com
or email us at info@uveye.com

+ 1 (475) 292-0417 - Stamford, CT   |    + 44 (20) 380-70445 - London, UK