

PHOTO: GERALD SCOTT

Ford ergonomics engineer Patty Racco demonstrates "motion capture" technology at the Ford VR Lab in Dearborn last week.

VR Meets Real World at Ford

by Gerald Scott
Editor
U.S. Auto Scene

Use of Virtual Reality Assists In Making Workers' Jobs Safer

Virtual reality, a new industrial science that promised to revolutionize mainstream business about a decade ago, may be doing just that after all.

Ford is using VR to improve auto plant processes and increase safety on the assembly line, perhaps actually revolutionizing how cars are put together.

So as Ford is building new manufacturing plants in Asia and other parts of the world, the automaker's new Hollywood-inspired "digital work-

er" is building the first cars there to help ensure ergonomically safe workplaces and quality-built vehicles.

"Ford is a leader in virtual reality," said Allison Stephens, Ford ergonomics specialist with Vehicle Operations Manufacturing Engineering.

"We combine Hollywood's motion-capture technology with human modeling software in our Detroit labs to design jobs in Asia and around the world that are less physically stressful on workers.

"We adjusted the sizes of our 'Jack and Jill' models to reflect the populations at our global plants so all our regions can benefit from what we've learned."

Stephens spoke at the Ford Virtual Reality Lab, which is located in an office building on Mercury Drive, just north

of Ford Road in Dearborn.

There, Ford hosted a well-attended media briefing to demonstrate the technology and discuss how it is actually making assembly work safer for Ford employees worldwide.

Ford engineers using VR can "imitate" online how assembly line workers reach for tools and parts and then adjust the environment for the most ergonomically beneficial result to the worker.

Meanwhile, a new avatar was created using size and shape population data gathered from Ford assembly plants across the globe.

By customizing these data, Ford researchers have created a manikin – not anything like a manikin in a department store window – used in ergonomics assessments that

employ motion-capture technology, which is the same technology that mesmerizes filmgoers in movies such as "Mars Needs Moms" or in games such as "Mortal Kombat."

Motion capture is a technology that digitally captures movement, making nonhuman characters appear more lifelike.

Ford ergonomics engineers Patty Racco and Mary Heck demonstrated how the technology actually works for visiting media.

A real person – referred to as a manikin – dons a digital light-sensored outfit that registers movement as the person simulates performing a worker's job on the line.

So, as Ford has added assembly plants around the world, Stephens said, it was imperative the new manikin be standardized to give clear

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Where You Experience the Brand is Through the Interior – Ford's Gelardi

by Christine Snyder
Staff Reporter
Tech Center News

When Robert Gelardi, North American design manager for Ford Motor Company, speaks about Mustang's brand "DNA," he might as well be talking about his own genetic makeup.

Gelardi got his first ride in a Mustang as a newborn coming home from the hospital in his mother's 1969 model.

Gelardi came from Southern California, "a mecca of auto culture" and has early memories of working on cars with his father.

Moving to Detroit reinforced his love of the automobile, particularly the Mustang.

He came to Ford in 2001 and was asked to redesign the 2010 Mustang interior. Gelardi was a keynote speaker at Ward's Auto Interiors Conference, where he shared his approach to the 2010 Mustang and his thoughts on importance of au-



The 2010 Mustang interior was redesigned – using the exterior as a guide – to enhance the Mustang experience.

tomotive interiors.

First, Gelardi said, the Mustang couldn't be differentiated by its craftsmanship. "Craftsmanship has now become an industry-wide expectation," said Gelardi. "Is it really some-

thing you can identify as your brand?"

Mustang had to be more than its signature double brow, though that was echoed in the

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Stacey Coopes Appointed New CEO Of FordDirect, a Dealer Joint Venture

DEARBORN – FordDirect, a joint venture between Ford Motor Company and its franchise dealers, announced today the appointment of Stacey Coopes as CEO.

Coopes previously served as executive vice president of marketing and technology for FordDirect and has been a member of the FordDirect management team for the past eight years.

"Stacey has been instrumental in the success of FordDirect and we are very excited for the continued growth under her leadership," said Bill Keith, chairman of the FordDirect Board of Directors and dealer principal of Freehold Ford and Steamboat Motors.

"The FordDirect team develops innovative, industry-leading digital solutions that drive dealer profitability and keep dealers on the leading edge of the digital space."

FordDirect Internet referrals represent 21.7 percent of Ford Motor Co. retail sales.

Under Coopes' direction, FordDirect volume to Ford dealers for both new and used vehicles has grown by more than 40 percent year over year. Ford dealers sold more than 275,000 new vehicles from FordDirect Internet referrals in 2010.

"The unique structure of FordDirect gives us a competitive advantage and has made Ford Motor Company a leader



Stacey Coopes

in digital products and services for our dealers," said Ken Czubay, Ford Motor Company

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Ford Donates Another \$50,000 to Joplin Relief

DEARBORN – The Ford Motor Company Fund is donating another \$50,000 to assist with hunger relief efforts in communities hit by tornadoes, bringing the total donations to Feeding America this month to \$100,000.

Additionally, employees at the Ford Kansas City Assembly Plant, including employees with UAW Local 249, and local Ford offices are assisting with relief efforts in Joplin, Mo. An employee gate collection is expected to raise several thousand dollars in further contributions.

"Our hearts go out to our neighbors without shelter and food in the wake of these devastating storms," said Jim Vella, president, Ford Motor Company Fund.

"Our partnership with Feeding America allows us to provide help where it is need-

ed most."

Feeding America aids disaster relief and recovery by distributing food and grocery products through a network of more than 200 food banks that serve 61,000 local charitable agencies.

"The donations from Ford this season will greatly benefit those working to rebuild communities affected by the damaging storms," said Vicki Escarra, chief executive officer of Feeding America. "For years, our partnership with Ford has helped to better communities across the nation."

Ford Motor Company has a decade-long partnership with Feeding America and Newman's Own, Inc., to provide Ford refrigerated trucks loaded with Newman's Own food products to communities in need.



Ford partner Azure Dynamics of Oak Park has begun receiving orders for the Transit Connect Electric from new customers.

Major Vehicle Fleets Buy Ford's Transit Connect Electric Vans

OAK PARK – Azure Dynamics Corporation has sold 27 Ford Transit Connect Electric vans, including a five-unit sale to returning customer FedEx Express, a four-unit sale to the City of Toronto, a three-unit sale to DTE Energy, and 15 units to various Ford commercial truck dealers.

"These new orders underscore several key drivers in the electric vehicle market ex-

pansion," said Scott Harrison, Azure Dynamics CEO.

"Some major vehicle fleets like Azure customers FedEx, AT&T, Canada Post, Post Norway, etc., are employing specific quantities of Transit Connect Electric vans to gain operational experience with the technology in advance of expected increased deployment.

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New Civil War Exhibit Takes 'Deep Dive' in History

by Gerald Scott
Editor
U.S. Auto Scene

The Civil War was bigger, busier and more complicated than even the history books seem to remember.

This much is clear after touring "Discovering the Civil War," the new exhibit about America's 19th century maelstrom that just opened at the Henry Ford and runs all summer through Labor Day weekend (Sept. 5).

The much-anticipated Civil War exhibit draws extensively from the records of the National Archives and other major sources to offer a must-see, insider's look at the Civil War.

"In 1859, the prospect that the U.S. would break apart and plunge into a civil war seemed remote," the exhibit notes.

"Few Americans could have imagined a war that would last four years, destroy much of the South, kill 620,000 soldiers and slaves, and free 4 million slaves.

"Yet, just two years later, it happened."

Indeed, the new exhibit is nothing short of a "deep dive" into not only the causes of the war – principally slavery, of course – but also a detailed history lesson in how the war accelerated growth on every front in America including food growth, medicines, health care applications on the battlefield, industrial might being

put toward field weapons and much, much more.

The war extended as long as it did in part because of a combination of Southern cleverness and Northern ineptitude in executing the war.

Here's a note the exhibit has entitled, "Riding Circles Around the Enemy."

"Over three days in June, 1862, Confederate Brigadier General J.E.B. Stuart and 1,200 cavalymen rode completely around Union Maj. Gen. George B. McClellan's Army of the Potomac," it read.

"Stuart's superior, Gen. Robert E. Lee, put the information gathered to good use. Virginia Gov. John Letcher wrote this letter (on display) to President Jefferson Davis recommending Stuart for promotion."

Indeed, Lincoln famously went through general after general to find the right leader and it took several years, many lost battles and thousands of Union Army deaths before U.S. Grant finally emerged as the officer to challenge the South's Lee.

The exhibit painfully points out that most of the generals on both sides served together at West Point prior to the war so field battles became personal vendettas.

Marking the sesquicentennial of the Civil War, "Discovering the Civil War" offers visitors the chance to walk in the shoes of researchers in un-

locking secrets, solving mysteries and uncovering unexpected events from one of the most pivotal moments in our history.

Rather than trying to recreate the 1860s, this rather unconventional exhibit creates an environment that allows visitors to see the war through the lens of today's technology.

Touchscreens, interactives

and social media tools reveal Civil War letters, diaries, photos, maps, petitions, receipts, patents, amendments, and proclamations in a way never seen before.

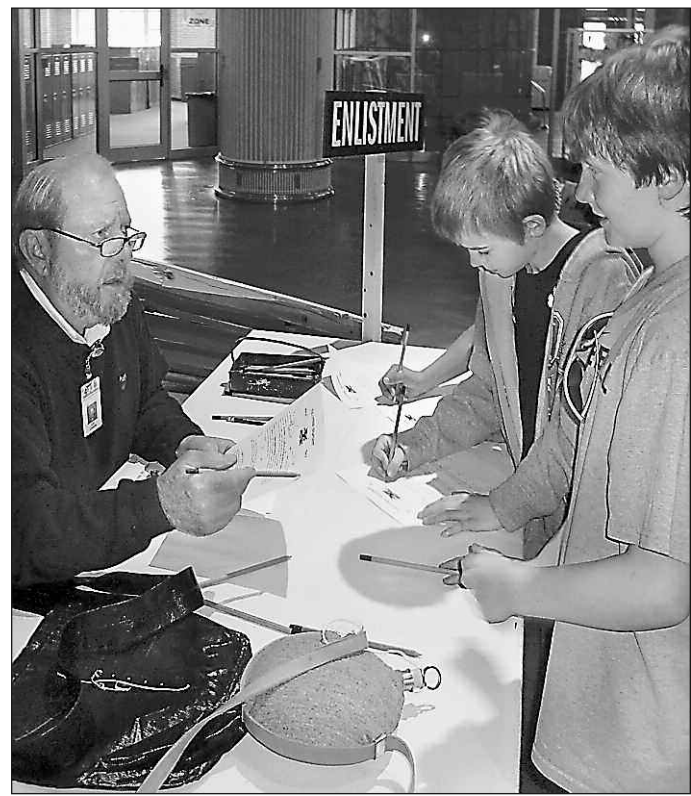
Passing over the traditional chronological approach, both sections of "Discovering the Civil War" are arranged by

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Cleaning Up for Kids



At Michigan International Speedway, MIS Consumer Marketing Specialist Chris Lykins and Group Sales Manager Rob Hemmig wash a Ford Five Hundred during the NASCAR Unites Car Wash for Kids charity event. The car wash was held in conjunction with a child safety seat inspection with the Michigan State Police, a first of its kind for Lenawee County. Child seats that were found expired or did not pass inspection were replaced for free.



Young visitors to the new Civil War exhibit at The Henry Ford line up to "enlist" in the army.