

Engineers' News

May 2017

Vol. LXXIV No. 8

[www.FortWayneEngineersClub.org](http://www.FortWayneEngineersClub.org)



Find us on 

## Joint Tour

**SAE** FORT WAYNE  
An SAE International Section

Sweetcars

**SweetCars**  
*The Dealer You Can Trust*

2404 W Jefferson Blvd, Fort Wayne, IN 46802

Thursday May 11th at 6:00 PM

**RSVP Deadline Passed; Cannot join meal, but can join Facility tour at 7:30**

SAE Fort Wayne, IN Chapter is happy to announce a tour of Sweet Cars and extend the invitation to the Fort Wayne Engineers Club.

Please RSVP to [Bharat Rajghatta at brajghatta@gmail.com](mailto:Bharat.Rajghatta@brajghatta@gmail.com)

SweetCars is Northeast Indiana's most trusted independent dealer of low-mileage, meticulously maintained luxury, performance, and just plain fun vehicles. Whether

you're looking for a 200 MPH head-turner or something stylish to get you from A to B safely and comfortably, chances are they have it or they can get it, with no pressure or hassle.

AGENDA:

6:00 -6:30PM      Networking

6:30 - 7:30 PM      Dinner/Buffer and presentation by Sweet car personnel

7:30PM-8:00PM      Facility Tour

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## May Tour



Dana Corporation

[2100 W State Blvd, Fort Wayne, IN 46808](#)

Thursday May 18th at 7:00 PM

**RSVP Required by May 16th**

Tour requirements:

1. RSVP by May 16 2017 to [Bharat Raighatta at braighatta@gmail.com](mailto:braighatta@gmail.com) with who you currently work so we can assure Dana Management that there is nobody from their competition on our tour.
2. No shorts.
3. Closed toes shoes required.
4. No children

Dana background:

In 1904, an engineering student named Clarence Spicer left Cornell University to launch a new business in the vacant corner of a New Jersey factory.

While still a student, Spicer had earned a patent for his groundbreaking design of the

first practical universal joint to power an automobile. Spicer's innovation would quite literally unchain the automobile, which had previously relied on chain-and-sprocket drives to transmit power. But at its outset, his new venture was a decidedly bold step.

A talented engineer and inventor, Spicer had neither business nor manufacturing experience. And although the automobile was destined to become a global institution, its future was still far from certain at the turn of the 20th century. It was from these uncertain beginnings that Dana Incorporated emerged as one of the world's most influential automotive suppliers. Founded on Spicer's designs, and fueled by the business acumen of attorney, politician, and financier Charles Dana, the company proceeded to expand its product array, technological expertise, and geographic scope throughout the century. Along the way, Dana Incorporated also fostered a progressive, people-oriented culture that has added a unique dimension to the products and services the company provides.

Building on these strengths, Dana Incorporated products have helped to drive history's greatest vehicles – from the Model T and the World War II-era Jeep®, to London taxicabs, 18-wheel rigs, giant earth-moving machines, and every car on the NASCAR® racing circuit.

As Dana Incorporated embarks on its second century, it continues to build on this proud heritage. Dana people continue their passionate pursuit of innovation. And the company continues to deliver on its commitment to advancing the science of mobility for the benefit of its global customers.

The Fort Wayne facility makes axle and axle components for the light truck market.

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**June Social**



### RV-12 Kit Plane Update

[Stark Family Farm: 9841 N 750 E, Ossian, IN 46777](#)

Thursday June 8th beginning at 5:30

Ryan Stark has offered the FWEC another check in on the progress of the kit plane that his father began building. This tour is a follow up to our June 2015 tour.

The plane is an [RV-12](#); a two-seat, low wing all aluminum aircraft made by Van's Aircraft Company. This aircraft kit can be purchased in parts and the Stark plane is on the third part. The first was the tail and empennage, and second kit was for the wings, and the third is for the fuselage.

Pizza, chips, beer, and pop will be provided and there will also be a bonfire going in case it gets cold.

Directions from Fort Wayne: Take Winchester Road to the town of Poe. In Poe, turn Right on Poe Road (the last road before you leave town) and head south into Wells County. In Wells County, once you pass 1000 N, look for a large blue house on the East side of the road; it's the farm with a Minion painted on the silo.





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in Fort Wayne at  
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## Board of Directors

### **FY18 FWEC Board Opening**

The FWEC is looking for a Secretary trainee for the FY18 (2017-2018) who will then transition into the Secretary role in FY19 (2018-2019). Please contact [Elizabeth Garr](#) if interested in learning more about the position.

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### **FY17 Membership Year FWEC Board**

#### President

- [Dave Schaller](#) (260) 486-7610

#### Vice President

- [Bharat Rajghatta](#) (260) 615-1869

#### Treasurer & Resident Agent

- [Ryan Stark](#) (260) 456-0809

#### Secretary

- [Elizabeth Garr](#) (260) 486-0158

#### 1st Year Board Members

- [Rod Vargo](#) (260) 416-0986
- [Craig Welch](#) (260) 241-5138

#### 2nd Year Board Members

- [Marna Renteria](#) (260) 744-3407
- [Ellsworth Smith](#) (260) 637-6070

### 3rd Year Board Members

- [John Magsam](#) (260) 482-2843
- [Jack Phlipot](#) (260) 438-0258

### Northeast Indiana DiscoverE Committee Chair

- [Devin Snowberger](#) (260) 450-1098

Board positions are crucial to the planning of tours and events for the FWEC. Please consult the [FWEC constitution](#) or contact us at [info@fortwayneengineersclub.org](mailto:info@fortwayneengineersclub.org) for information on specific duties on board positions.



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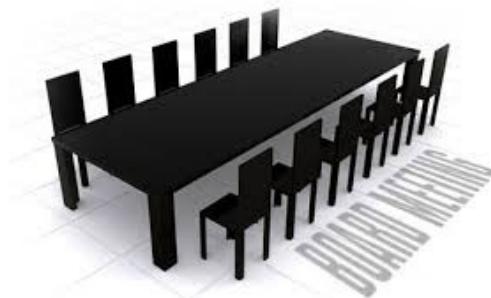
Doug Webster, Vice President, Sidener Engineering  
[dwebster@sidenereng.com](mailto:dwebster@sidenereng.com) (317) 773-8119 Office



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## FWEC Board Meetings



Fort Wayne Engineers' Club board meetings are open to all FWEC members. The next FWEC board meeting will be Tuesday August 29th at 7:00 PM. Board meetings are held on the [Indiana Tech campus in the Academic Center](#) in room ACC-201.

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## **FWEC Membership**



The FWEC exists through funding of its membership. Please forward your copy of the Engineers' News to prospective members and encourage their attendance at tours. Remember, the FWEC is the best deal in town, annual membership is \$10. We offer free monthly tours September through May. Please be sure to recommend FWEC membership to your colleagues and friends.

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## **Advertise in the Engineers' News**

The FWEC provides advertising space within the Engineers' News. Advertisements are \$10 per issue and limited to ½ page of content. For submissions please contact [info@fortwayneengineersclub.org](mailto:info@fortwayneengineersclub.org).

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## **April Tour Summary**





[Apollo Design](#) and [Avid Labs](#)

We were blessed with a triple header of tours on April 27th while staying inside one building. [Apollo Design](#) is a theatrical lighting company and a leading supplier of gobos to project images onto walls, floors screen and more. They are currently planning for their 25th anniversary. [Blue Pony](#) started in 2004 and is a creative design organization that can bring to life experiences for clients both on-line and at trade shows. [Avid Labs](#) was just started in 2012 as a creator of a wave cradle for smartphones. Now they are a design and engineering company for both theatrical uses as well as industrial applications. The separation of companies allows them to more easily serve their different marketplaces since [Apollo Design](#) is a distributor based sales model with 600 distributors while the other two are direct customer sales. Check out the hot links in the company names to see examples of their products.

One of the many interesting facts we learned from our tour guides, Melissa Irk and Bob Kartman, was that of the roughly 70 employees for the three combined companies, only about 8 worked full time in manufacturing. The staffing is heavily loaded with creative individuals like graphic artists and engineers as well as customer service representatives.

The “gobo’ lighting design templates from [Apollo Design](#) are used throughout the world and can be seen at theme parks, political conventions, and professional sporting events including the Super Bowl. They can be seen in the Fort Wayne area at the Embassy, Festival of Trees, Civic Center, Vera Bradley, as well as at the Coliseum for Komets. One of the new trends is for custom lighting at weddings and other such celebrations. With the right type of lighting equipment, the image can be projected 100 to 200 feet. They even surprised us with our FWEC logo projected

onto the floor in manufacturing. Thank you Melissa and Bob, that was a first for our group! Some DJ's and reception halls have gobo ready lighting fixtures now so for your next company event, consider using a local company to customize your event. Large expensive fixtures can have a gobo carousel that hold multiple gobos to allow changing images automatically. Apollo can also tile images to project larger patterns/images onto whole walls or ceilings.



The manufacturing portion of our tour allowed us to see the many laser systems in use to create gobos. While the standard method was a chemical etch, in 2010 Apollo Design took a more environmentally friendly path and became a leader in the

laser cutting method of creating gobos. Very few of their competitors have made this jump. Roughly 90% of the customers provide their own graphics, while the rest rely on the graphic artists at Apollo to make their dreams come to life. Much of their business is fulfilled within two to three days, but for an extra charge same day service is possible. There are over 3,500 patterns already to go for customers with simple metal gobos costing around \$15 apiece and the top end color glass gobos that can be \$700 or more apiece.

We were shown parts packaged for shipment to a large Florida theme park, so you may see local products while on vacation without knowing it. We also witnessed the burn in of some “right arms” that are used to move lighting effects around. While many of us can relate to concerts and stage shows with complicated lighting systems, there are other very practical uses as well. These are used for art museums in NYC and other places, where it is simply impractical to get up to very high ceilings to move lights around as displays change from time to time.

The [Avid Labs](#) area held a wide range of products their three engineers are working on currently. The projects include an LED grow light that puts out 33,000 lumens. They showed us the enormous heat sink for that light in the CNC manufacturing area. They are also producing a “Rail Light” designed for automotive paint inspection in assembly plants. This new system avoids creating “hot spots” that throw off human inspections of completed cars. Avid’s lighting products are also used for applications such as food packaging and cabinet assembly inspection. They frequently tune lights for very specific light spectrums and in one case provided a light for a trade show to project an exact customer desired color. Avid uses outside facilities to perform validation testing.

[Blue Pony](#) records and edits videos, creates digital trade show materials and signage as well as touchscreen projects and special projection work. For instance they can project custom images onto just the exact side of a large dump truck for show purposes. You may see their systems in locations such as zoos and malls as well. Companies appreciate their ability to create devices that not only draw customers into their trade show booths, the interactive nature can keep customers in their booth while learning about their products and services. If you have participated in trade show staffing, you know how critical that can be for your company.

Local entrepreneurs, Joel and Keersten Nichols have created this business from the ground up in 1992. Their passion for being creative as well as efficient and effective in manufacturing was very obvious. The FWEC thanks all involved for the extra special support for our tour as well as the free gobo and gel cover we all received.

One of our members noted the fancy pattern inside an overhead light in the break room and we discovered that is a new product called “DesignScapes”. You may see them in doctor’s or dentist’s offices, but they also have special applications in autistic learning areas to create special calming effects. The creativity at this facility knows no limits.

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## Fort Wayne Astronomical Society



Fort Wayne Astronomical Society, Inc.

P.O. BOX 11093 • FORT WAYNE, IN 46855 • USA 1959

FortWayneAstronomicalSociety.com

The [Fort Wayne Astronomical Society](#) will have the Grand Opening of the Star\*Quest Observatory on Saturday, May 20, 2017 at 7 p.m. at [Jefferson Township Park, 1730 S Webster Road, New Haven, Indiana, 46774](#).

The festivities will begin with a ribbon-cutting and dedication ceremony followed by an openhouse observatory tour. Weather permitting, a public star party will follow until 12 a.m.

Several of our members will have their telescopes set up for public viewing. Dress informally and warmly and bring your family to enjoy this new facility, featuring the state-of-the-art Richard Johnston 16” telescope and the Society’s original hand-crafted Newtonian Harnishfegger-Crow 12.5” telescope.

The Fort Wayne Astronomical Society was incorporated in 1959 with the mission “to promote to the Public in every way the science of Astronomy and allied sciences...” The society has offered free star parties to the public at venues within 35 miles of Fort Wayne, and at their observatory on clear Saturdays, April through November, for 57 years. The Society began its Star\*Quest Project in 2006 to upgrade and relocate its observatory to a new venue.

This unique Star\*Quest Observatory is specifically designed for people with disabilities and to serve public viewing through multiple telescopes. It is the only facility in northeast Indiana and northwest Ohio to offer direct viewing of the sky through telescopes to the public at large, and primary and secondary schools, universities, scouts, churches, and other public groups.

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# Northeast Indiana Chapter Project Management Institute



The Northeast Indiana Chapter of the Project Management Institute will have its next meeting on Wednesday May 24th.

Mark your calendars now for NEIC PMI's 20-year celebration cookout event on May 24, 5-7:30 pm at Swiss Re, 1670 Magnavox Way. Special entertainment and a program is planned to celebrate reaching this milestone. Dinner includes burgers (including veggie), salad, soft drinks and beer. If you have special dietary requirements, please describe them in the reservation and NEIC PMI will try to accommodate. You are also welcome to bring your own meal to the event.



<b>What</b>	Chapter's 20 <sup>th</sup> Anniversary Event
<b>When</b>	Wednesday, May 24 <sup>th</sup> , 5:00 – 7:30 PM
<b>Where</b>	Swiss Re, 1670 Magnavox Way Fort Wayne, IN
<b>Who</b>	Past/Present/Prospective PMI NEIC Members
<b>Cost</b>	Non-Members: \$30 NEIC chapter members: \$20 PMI Hardship Provision: \$10 PMI Student Membership: \$10 Chapter Founders: Free Current Chapter Board Members: Free

Join us to celebrate 20 years of PMI in northeast Indiana.

Special entertainment and a program is planned to celebrate reaching this milestone. Dinner includes burgers (including veggie), salad, soft drinks and beer. If you have special dietary requirements, please describe them in the reservation and we will try to accommodate. You are also welcome to bring your own meal to the event. First time visitors are welcome to attend as our guest to this event. More details will be forthcoming soon.

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