

## Want to receive the Catalysts Monthly Newsletter?

To receive the Catalysts monthly emails along with other Manual MST magnet news, please go to [www.manualmst.com](http://www.manualmst.com) and enter your email address.

## duPont Manual MST Magnets for Sale

MST magnets are available for \$5 each. You can purchase them from Ms. Bynum in the front office or from Mr. Zwanzig in his classroom.



## Catalysts Restaurant Fundraiser

Thank you to all of the families who participated in the spring restaurant fundraiser at California Pizza Kitchen. With only a small group of families participating we raised over \$200. Be on the lookout for future restaurant fundraisers. It is an easy way to support MST while enjoying dinner with family and friends.

## Please Welcome This Year's Catalysts Board

Ann Schwartz .....	President.....	annmerm@gmail.com
Maureen Brekka .....	1st VP .....	maureen_brekka@b-f.com
Keith Robbins .....	2nd VP .....	keithwrobbins@gmail.com
Mike Morgan.....	Treasurer .....	mike@vittitow.com
Barbara Coffield.....	Secretary .....	Barbarajbenjamin@gmail.com
Vidya Ravichandran .....	Parliamentarian.....	vidya@glowtouch.com

### Committee Chairs

Keith Robbins .....	Outreach .....	keithwrobbins@gmail.com
Missy Smith .....	Club Liaison .....	missyky@twc.com
Vidya Ravichandran .....	Fundraising .....	vidya@glowtouch.com
Sheila Baker .....	Budget .....	kail6765@aol.com
Media.....	Open	
Spirit Wear.....	Open	

We are currently looking to fill the roles of Media Chair and Spirit Wear Chair. If you would like to learn more about these positions, please contact Ann Schwartz (annmerm@gmail.com) or Vidya Ravichandran (vidya@glowtouch.com)



# MST Newsletter

From MST Catalyst

August 1, 2016

Edition 2, Volume 1

## Welcome from Skip Zwanzig

Welcome to a new and exciting school year. With new MST class offerings, MST staff, and the incoming Class of 2020, this promises to be a great school year.

Ms. Thomas and Ms. McClain are stepping up to share the MST coordinator role with me. Expanding the coordinator roles will strengthen the MST magnet. The magnet is also expanding and offering additional classes including a new AP Technology class for 9th graders.

I'm part of the Catalysts board, and we've been working hard over the summer. We plan to continue improving communication with MST families, and will support Manual teachers and staff through activities like organizing volunteers and celebrating Pi Day.

Welcome to a great MST year!

**Skip Zwanzig**  
MST Coordinator

### Important Upcoming Dates:

**First Day of School.....August 10**  
**MST Science Fair Dinner.....September 15**

## Catalysts' First Year

Catalysts, the parent group of MST students, has the mission of helping to provide an outstanding MST experience.

In it's first year, the Catalysts:

- Provided a monthly newsletter
- Assisted with Science Olympiad Camp
- Provided awards for the MST distinguished Scholars
- Held several fundraisers such as parking at The Crane House for St. James and restaurant fundraiser night at CPK
- Developed MST car magnets and spirit wear for fundraising
- Provided pies to all YPAS and Manual staff on Pi Day (3/14)
- Recruited volunteers for ACM testing and Science Fair
- Created MST website, twitter, and Facebook pages
- Held an Open House for entering MST freshman

After the August issue, Catalysts newsletters are electronic. Signup information is on Page 3.

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## dMRSF Annual Fundraising Dinner

Mark your calendars for the **duPont Manual Regional Science Fair Fundraiser**. This year, the event will be held on **Thursday, September 15th**.

This fundraiser enables us to host the Regional Fair, cover the cost for students to attend the International Science and Engineering Fair (ISEF), and to attend other similar Fairs like ISweep. Without the support of the community and parent body, Manual students would not have the ability to participate and excel at National and International level science events. We urge you to attend! It's a great night and your support is needed.

**This year's dinner will feature two MST alums as speakers.**

**Dr. Josh Denny** (MST grad – 1994) is an Associate Professor of Biomedical Informatics at Vanderbilt University. Dr. Denny is a leader in the Precision Medicine Initiative, a cutting-edge area of medicine where treatment of individuals is highly targeted to ensure the best outcomes.

Our second featured speaker is **Allan Hsiao** (MST grad – 2009). Allan is enrolled in a Ph.D. program in Economics at MIT. He is also a Harvard graduate and a Rhodes Scholar from Oxford, England. Allan is a member of the Global Shapers Forum.

Join us to hear from these amazing MST alums who are changing the world and how they got their start at Manual.

## Congratulations to the 2016 MST Distinguished Scholars

At last year's Junior Ring Ceremony, 13 students were honored with the MST Distinguished Scholar Award. These students were selected based on their achievements in the fields of science, mathematics, and technology over the course of their first three years of high school.

**The winners were:**

Lavanya Kanneganti	Sophia Korner	Diya Mathur	Matthew Raj
Abraham Riedel-Mishaan	Sara Frigui	Harsha Paladugu	Nelson Penn
Vanila Annadurai	Emily Liu	Manasaa Sunkara	SooKyung Lee
Mukund Venkatakrishnan			

## Club Spotlight - Winners Circle Robot Jockeys Robotics Team

**Student Leadership:** The team is led by 5 engineering captains and 5 entrepreneurship captains, determined by the beginning of the team's winter competition season.

**Teacher Sponsors:** Alisia McClain and Glenn Zwanzig

**What is the mission of Winner's Circle Robot Jockeys at Manual?** To provide real-world hands-on learning to high school students in engineering, technology, business and communications.

This is done by exposing students to career-enhancing skills through mentorship from professionals in engineering, business, and other fields. This team is working to build a community of STEM champions – sponsors, mentors, parents and students -- who help teens build a foundation for a future in STEM and related fields.

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## Club Spotlight: Winners Circle Robot Jockeys Robotics Team

**What are the requirements to become a WCRJ member?** Membership on the team requires a commitment to attending regular practices, plus parent support to help run the volunteer- managed team (volunteers spent over 2500 hours mentoring and supporting the team last year). The team has two components – engineering and entrepreneurship.

- Membership on the engineering team requires a higher level of commitment, including attending 6-12 hours a week of weeknight and weekend practices, especially during the team's winter build season.
- Membership on the entrepreneurship team is less demanding – attending practices every other Friday after school to help with business, marketing, social media, game strategy, etc.

**How many students were in WCRJ last school year?** Close to 30 students participated last year, just over half from Manual and the other half from other schools in the region. This year, we expect about 20 students on the engineering team and 20 on the entrepreneurship team.

- Leadership opportunities in engineering include CAD, prototyping, building, programming and driving the robot.
- Entrepreneurship includes game strategy, business, marketing/spirit wear, award writing & communications, safety and IT/knowledge management.

**What activities will members be involved in over the next few months?** The engineering team will set up its **new workshop** in UofL's Science Garage and then begin building a practice robot – a 100-pound robot that navigates obstacles using remote control. The students will design, CAD, use machine tools to cut out metal parts, assemble the robot, program it, and then test drive it. The entrepreneurship team will begin fundraising, marketing, updating its website, and organizing the team's outreach activities, including activities through the Girl's Engineering Time club that WCRJ created.

- Girl's Engineering Time (GET) is a group for high school and college-aged women who want extra hands-on experience with engineering. GET will design and build a solar plane with faculty from UofL this year, every other Saturday afternoon.
- The group will also continue its discussion sessions. April's session was "Engineering for the Greater Good" which featured seven professional female engineers who spoke on a wide range of opportunities to impact society through engineering and science.
- This fall, GET will host a series called "**Innovation U**", to explore and improve opportunities to develop a culture of innovation within our local high school and college students. These events will take place on the last Saturday of each month, from 1-3pm, and are especially targeted toward college and high school students and teachers. GET hopes to work with Manual's STEAM Innovation and WISE clubs to involve Manual students in these events.

**What are some goals for this year?** To have all engineering team members trained in either CAD or programming. To recruit sponsors, build a strong team brand, have fun, learn, and develop future STEM and business leaders. The team also hopes to win a regional tournament and attend the World Championships in St. Louis in April.

**Why do you think students should consider joining Winner's Circle Robot Jockeys?** The club provides students with practical real-world skills in engineering and business, valuable leadership opportunities, and a chance to be part of a community that is passionate about learning STEM. Colleges greatly appreciate the valuable training WCRJ team members receive in high school, and often recognize them with scholarships and early internship opportunities.

**Is there anything else you would like to share?** The team is always trying to recruit more girls and minority students to have as diverse a team as possible. **Students do not need prior experience in robotics or engineering.** Students can learn new skills, try out ideas, and pursue passions on this team, all in a fun and supportive atmosphere.

To receive information on WCRJ, Girl's Engineering Time, or the "Innovation U" discussion series, please email [frc5492@gmail.com](mailto:frc5492@gmail.com).

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