

100%
OF STUDENTS
INVOLVED IN
OUTREACH

2017
CHAMPIONSHIP
CHAIRMAN'S
AWARD

32 SPONSORS

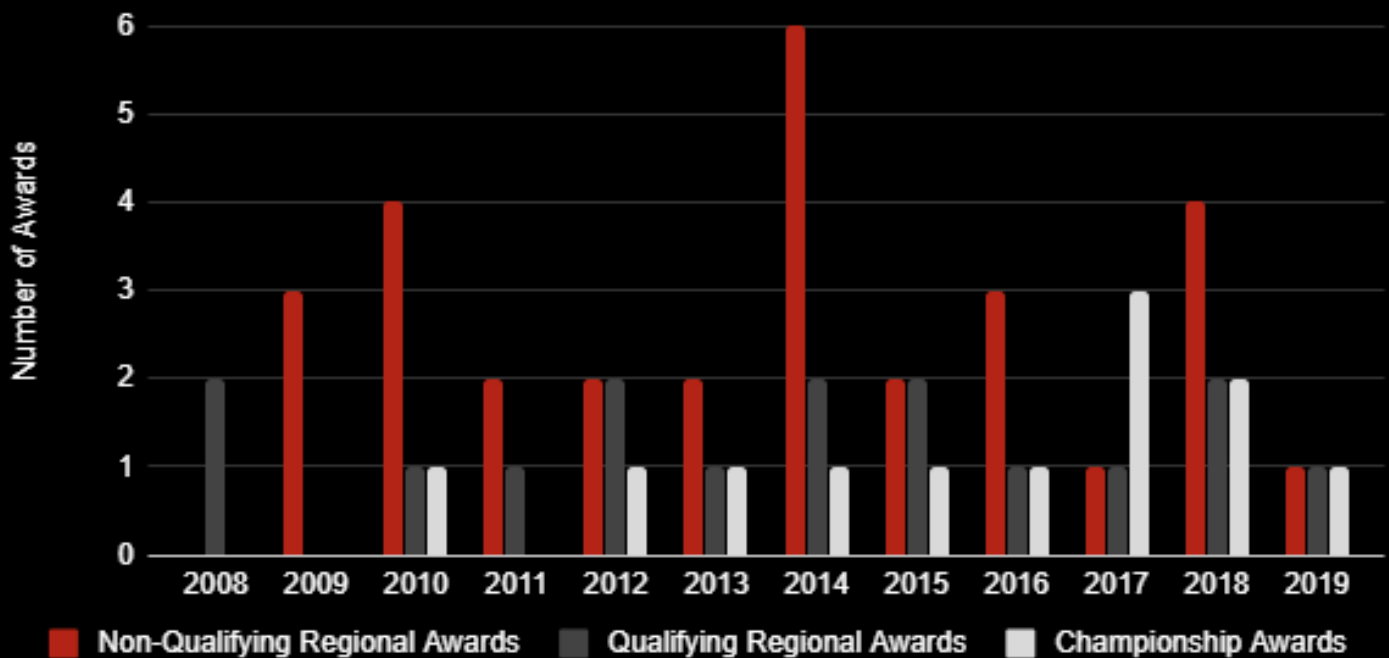
8 Schools Represented
4 Counties Represented

FIRST Events Assisted or Run

29
FLL or JR FLL

6
FTC or FRC

MARS COMPETITION AWARD HISTORY



Current Mentors
38

Current Students
27 Male
15 Female

2008
First Year
as a
Team
67
Outreach
Events
in 2019

100%
Post-Secondary
Education Rate

90%
Majoring In
Stem Fields



OUTREACH HIGHLIGHTS



Scouts and 4-H

MARS BEGAN ITS PARTNERSHIP WITH 4-H IN 2011 ASSISTING THEM IN THE RUNNING OF SEVERAL SCIENCE-BASED SUMMER CAMPS IN WEST VIRGINIA. MARS SHOWCASED ROBOTS, LED HANDS-ON STEM ACTIVITIES WITH FIRST TECHNOLOGY AND VALUES, PRESENTED INFORMATION ON HOW TO GET INVOLVED WITH FIRST, AND INFORMED STUDENTS ABOUT VARIOUS FUTURE STEM OCCUPATIONS. MARS' ASSISTANCE WITH THESE CAMPS PAUSED BY 2015 DUE TO LEADERSHIP SHIFTS WITHIN THE PARTNERED ORGANIZATION; HOWEVER, MARS WAS ABLE TO RESUME WORK WITH THESE CAMPS IN 2018, AND CONTINUE TO FACILITATE THE GROWTH OF STEM AND FIRST IN THE STATE OF WEST VIRGINIA.

IN 2015 SCOUTS BSA AND THE GIRL SCOUTS OF AMERICA ALSO JOINED THE PLETHORA OF MARS SUPPORTED ORGANIZATIONS. NOW, MARS HOSTS MULTIPLE WORKSHOPS FOR THE ROBOTICS MERIT BADGE AND BELT LOOP, EDUCATING APPROXIMATELY 10 SCOUTS PER WORKSHOP.

FIRST Expansion

MARS HAS HAD AND CONTINUES TO HAVE A PROFOUND EFFECT ON FIRST EXPANSION IN MONONGALIA COUNTY AND THE STATE OF WEST VIRGINIA AS A WHOLE. THIS IS, IN PART, DUE TO THE CONNECTION BETWEEN MARS AND THE BOARD OF EDUCATION IN THESE AREAS AS WELL AS MANY DEDICATED MARS STUDENTS WORKING TO IMPROVE THEIR COMMUNITY THROUGH FIRST. AN EXAMPLE OF THIS IS SEEN WITH THE INTEGRATION OF FLL IN WESTWOOD MIDDLE SCHOOL AND MOUNTAINEER MIDDLE SCHOOL; AN INITIATIVE LEAD BY MARS, NASA'S KATHERINE JOHNSON IV&V FACILITY, WV GOVERNOR'S STEM INITIATIVE, AND THE MONONGALIA COUNTY BOARD OF EDUCATION. A TOTAL OF 60 FLL TEAMS WERE FORMED AMONGST THESE MIDDLE SCHOOLS, AND FLL WAS COMPLETELY INTEGRATED INTO THEIR CURRICULUM. IN 2017, FOUR SCRIMMAGES WERE RUN BY MARS FOR THESE TEAMS WITH THE WINNER OF EACH SCRIMMAGE ADVANCING TO THE WEST VIRGINIA STATE FLL TOURNAMENT. HOWEVER, FLL IS NOT THE ONLY LEVEL OF FIRST THE TEAM HAS RIGOROUSLY WORKED TO EXPAND. IN 2017, MARS WORKED WITH THE MONONGALIA COUNTY BOARD OF EDUCATION TO FUND AN FLL JR. CLUB AT SUNCREST ELEMENTARY SCHOOL. THIS INITIATIVE WAS LED BY SHANNON WERNTZ FOR HER GIRL SCOUT AWARD. SIXTY STUDENTS, AGES 6-11, ATTENDED THESE WEEKLY AFTER-SCHOOL CLUBS. THE PROGRAM INCLUDED AN ANNUAL MARS-RUN FLL JR. EXPO. SINCE THIS PROGRAM STARTED, THE LEGO WEDO 2.0 SOFTWARE HAS BEEN DIRECTLY INTEGRATED INTO THE ELEMENTARY SCHOOL CURRICULUM IN MONONGALIA COUNTY. MARS HAS SINCE WORKED TO SPREAD SIMILAR PROGRAMS TO OTHER ELEMENTARY SCHOOLS WITHIN THE STATE.



ALUMNI INITIATIVES

Luke Scime (Graduated 2010)

AS AN ORIGINAL MEMBER OF MARS, LUKE HELPED ESTABLISH THE CORE VALUES OF THE TEAM THAT WE STILL USE TO THIS DAY. HE WAS A PIVOTAL MEMBER OF THE MECHANICAL SUBTEAM AND NOW HAS A PHD IN MECHANICAL ENGINEERING FROM CARNEGIE MELLON, AND IS ALSO LEADING THE EFFORT IN 3D PRINTING METALS.



LUKE HAS NOW MOVED BEYOND MARS TO BE A KEY MENTOR WITH 4265 SECRET CITY WILDBOTS, BASED IN OAK RIDGE, TENNESSEE.

Many MARS alumni are galvanized by their work and experiences on the team to continue inspiring people with the expansion of STEM and FIRST, in their local community and abroad. The Alumni featured here are just a select few MARS alumni who are doing just that.

Ryan Utzman (Graduated 2011)

RYAN UTZMAN GRADUATED FROM MARS AS A CRITICAL MEMBER OF THE MECHANICAL SUBTEAM AND DRIVE TEAM. RYAN CONTINUES TO BE INVOLVED IN MARS AS AN ACTIVE MENTOR AND AS LEAD DRIVE TEAM MENTOR. HE IS ALSO EXTREMELY CONNECTED WITH FIRST AS HE CURRENTLY LEADS NASA'S KATHERINE B. JOHNSON IV&V FACILITY'S ROBOTICS AND FIRST OUTREACH IN WEST VIRGINIA.



Nysha Hongpasian (Graduated 2017)

DURING HER TIME ON MARS, NYSHA WAS A KEY MEMBER OF THE MECHANICAL SUBTEAM. NOW, SHE IS STUDYING AEROSPACE ENGINEERING AT WEST VIRGINIA UNIVERSITY, NYSHA IS ALSO A SKILLED PILOT AND AN EXTREMELY IMPORTANT MEMBER OF THE MARS ALUMNI. SHE HAS CONTINUED TO STAY INVOLVED WITH MARS THROUGH VARIOUS METHODS, LIKE MENTORING, AS WELL AS SETTING UP EVENTS FOR MARS SUCH AS THE EXTREMELY SUCCESSFUL CIVIL AIR PATROL OUTREACH EVENT IN 2018.



Caleb Sorensen (Graduated 2017)

THE FIRST PRESIDENT IN MARS HISTORY, CALEB SERVED AS THE MECHANICAL SUBTEAM LEAD AND FLL JR. TASK FORCE LEAD WHILE ON MARS. CALEB CONTINUES TO HELP MENTOR THE MECHANICAL SUBTEAM AND THE DRIVE TEAM, WHICH HE WAS A PART OF DURING HIS FOUR YEARS ON THE TEAM.



NOW, HE IS DUAL MAJORING IN CIVIL ENGINEERING AND SURVEYING AT FAIRMONT STATE UNIVERSITY, WEST VIRGINIA. HE IS STUDYING THERE ON THE ALLAIRE FUTURE ENGINEERING LEADERSHIP MEDAL GIVEN TO A STUDENT FROM A WORLD CHAIRMANS TEAM.

Sam Cyphert (Graduated 2018)

SAM WAS AN EXTREMELY VALUABLE MEMBER THROUGHOUT ALL ASPECTS OF THE TEAM AND AN AWARD-WINNING CHAIRMAN'S PRESENTER. HE HAS HELD THE MOST LEADERSHIP POSITIONS AT ONCE IN THE HISTORY OF MARS: AS, IN 2018 HE WAS THE ADMINISTRATOR, THE ELECTRICAL SUBTEAM LEAD, THE OUTREACH AND PUBLIC RELATIONS SUBTEAM LEAD, AND THE COMMUNITY EVENTS TASK FORCE LEAD. SAM ALSO WON THE WVROX SCHOLARSHIP IN 2018 AND NOW STUDIES PHYSICS AND ENGINEERING AT WEST VIRGINIA UNIVERSITY.



MSI

MOUNTAIN STATE INVITATIONAL (MSI) IS AN FLL OFF-SEASON EVENT RUN BY NASA AT FAIRMONT STATE UNIVERSITY (FSU)



OVER 120
VOLUNTEER HOURS LOGGED
BY MARS AT THE 2019 MSI.

HOSTED BIENNIALLY,
EVERY OTHER YEAR
FROM WVROX.

MARS WILL BE INVOLVED IN
RUNNING MSI IN 2021 AND
YEARS TO COME.

MARS STUDENTS FORM AN
INCREDIBLY SIGNIFICANT
AMOUNT OF VOLUNTEERS AT
THE EVENT, AND WE WORK
VERY CLOSELY WITH NASA
AND FSU TO COORDINATE
THE INVITATIONAL AND
GROW FLL AS A MAJOR
FORCE IN WEST VIRGINIA
AND THE WORLD.

DURING ITS FIRST COMPETITION
IN 2017, MARS ASSISTED IN
THE ADMINISTRATION,
ORGANIZATION, AND STAFFING
OF MSI.



WVROX



HOSTED BIENNIALLY
IN CONJUNCTION WITH



IN AUGUST OF 2020
WVROX WILL BE HELD AGAIN.
ALONG WITH MSI, MARS
BRINGS A FIRST EVENT TO WV
EVERY SUMMER.

605 MAN HOURS

WERE LOGGED IN 2018 WITH
AN AVERAGE OF 23 MARTIANS
WORKING AT ANY GIVEN HOUR.

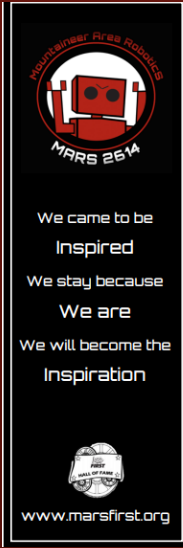
WEST VIRGINIA ROBOTICS
EXTREME (WVROX) IS A 26
HOUR AND 14 MINUTE FRC
COMPETITION HELD
BIENNUALLY SINCE 2014. THIS
IS THE ONLY FRC ENDURANCE
EVENT IN THE WORLD, AND THE
FIRST FRC EVENT EVER HELD IN
WEST VIRGINIA. IT INCLUDES
MANY IRREGULAR MATCHES
THROUGH THE NIGHT.

WVROX INCLUDED FEATURED
TOURS TO THE PUBLIC AND
MEDIA TO MAXIMIZE THE STEM
EXPOSURE.

2018 MARKED THE THIRD
SUCCESSFUL WVROX EVENT,
THE EVENT HAD 24 TEAMS
FROM 13 DIFFERENT STATES-
AS WELL AS A TEAM FROM
CHINA IN ATTENDANCE.



MARKETING



MARS DISTRIBUTES BOOKMARKS TO SCHOOLS, AS WELL AS MEDICAL AND DENTAL WAITING ROOMS AROUND MONONGALIA COUNTY AS A WAY TO INTEREST CHILDREN IN STEM.

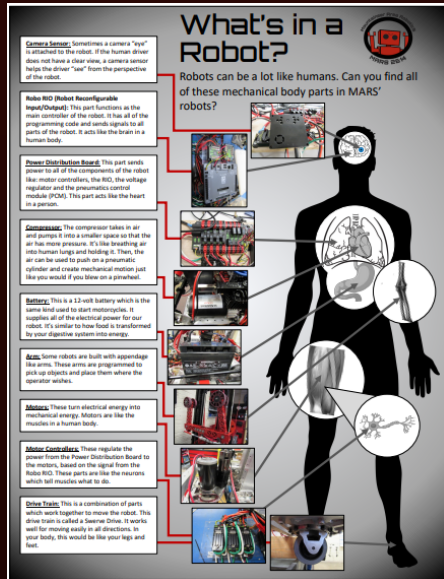


ONE OF OUR VITAL TOOLS IS STUDENT-CREATED STORYBOOKS, FEATURING MARVIN, WHICH PROVIDES MARS WITH A YOUNGER, STUDENT-FRIENDLY WAY TO EXPLAIN ENGINEERING AND FRC TO CHILDREN.



ADDITIONALLY, WE TURNED IT INTO COLORING BOOK TO INVOLVE AN EVEN YOUNGER AUDIENCE, AND ADD A ARTISTIC ELEMENT TO A STEM DRIVEN PROJECT - PROVING THAT EVERYONE CAN BE ENGAGED IN ROBOTS NO MATTER THEIR INTERESTS.

IN 2017, WE CREATED THE "WHAT'S INSIDE A ROBOT?" VISUAL TOOL WHICH DRAWS COMPARISON FROM OUR PARADE BOT TO A HUMAN BODY. THIS YEAR WE MADE THE VISUAL INTO A POSTER AVAILABLE FOR STUDENTS TO TAKE HOME, ENCOURAGING STUDENTS TO SHOW INTEREST IN ROBOTICS DURING THEIR OFF TIME.



AT OUTREACH EVENTS, MARS STUDENTS DEMONSTRATE AND MAKE EFFORTS TO EXPLAIN DESIGN DECISIONS AND SYSTEMS OF THE CAPABILITIES OF BOTH OUR COMPETITION ROBOTS AND OUR SPECIAL OUTREACH ROBOT, PARADE BOT; WE ALSO ENCOURAGE PARTICIPANTS TO DRIVE AT LEAST ONE OF THE ROBOTS.







Dedicated to the late
Phil Tucker
&
Dr. Woodie Flowers

Your ideas will never be
lost

MARS 2014

2020 Sponsors



United Way of Monongalia
and Preston Counties



Katherine Johnson IV & V
Robotics Alliance Project



DEPARTMENT OF PHYSICS AND ASTRONOMY
DEPARTMENT OF MATHEMATICS
BENJAMIN M. STATLER COLLEGE OF
ENGINEERING AND MINERAL RESOURCES



Animal Medical Center
Brewer & Giggenbach, PLLC

Monongalia County Commission
Mountaineer Boys & Girls Club



Compton Metals

MPL



Daniel Hill
Dassault Systèmes

Phillip M. Tucker Memorial Fund



Rotary Club of Cheat Lake

M&S Consulting

Tanner's Alley



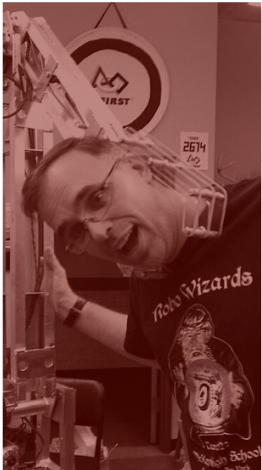
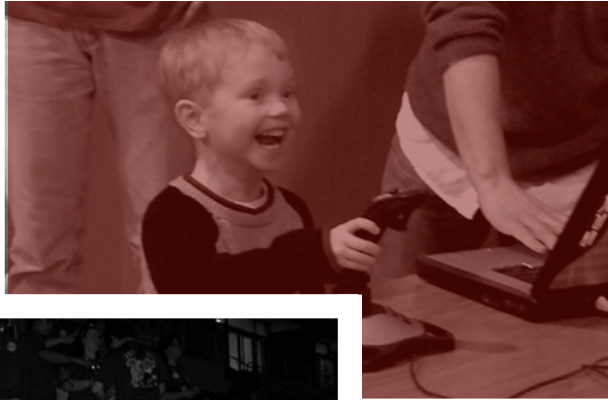
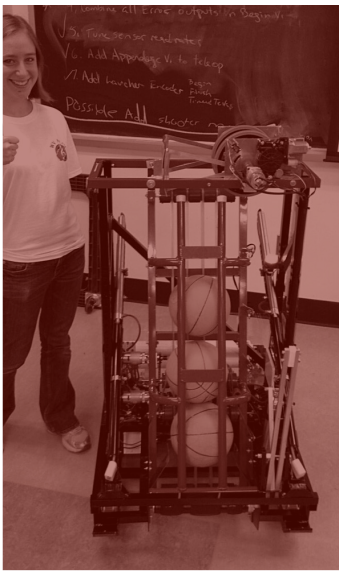
Med Express Urgent Care

Wilson Works

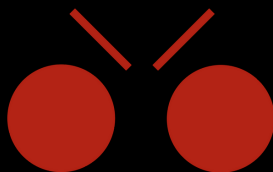
Monongalia County Board
of Education

WVU Credit Union





**WE ARE
MARS**



MARSFIRST.ORG