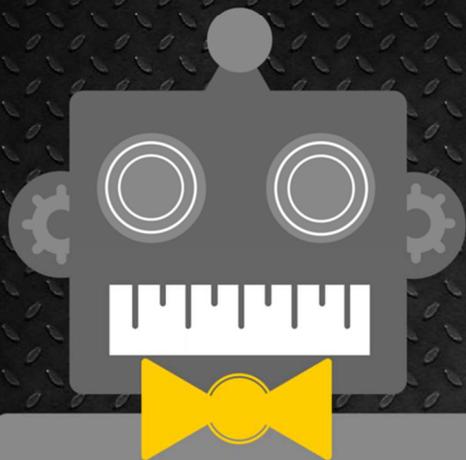




The Piqued Geek

Art by Eric Joyner



Upcoming Events:

Oct. 13th-14th: Minnesota Robotics Invitational (MRI)

Large Group Meeting:

Oct. 5th, STEM 130
Oct. 26th, STEM 130
Nov. 7th, STEM 130
Nov. 30th, STEM 122

Weekly Watts Up:

Attention FIRST Volunteer Want to Bee's:

Do you want to have a key or technical role in one of the FIRST FRC competitions coming up this Spring? Then come to the Minnesota Robotics Invitational (MRI) on October 13th through the 14th in Roseville Minnesota. Prior experience with the FIRST program is not at all needed. Rides to and from the event along with where we will be staying will be further discussed closer to the event. Again you need to go to this event in order to have a key or technical role for volunteering at any of the FIRST FRC competitions! It's not too late to email the Service Officer, Rose McNamee, at bisonroboticsservice@gmail.com. Hope to see lots of people signed up!

Fundraising Event:

Whether just want to get your \$20 back or if you want to help the team more money so we can do more fun things there is a fundraising event coming up. It is called The Shaq at the SHAC on October 3rd and 4th. You might be wondering why the funny name? Well if you fundraise at this event then you might even meet Shaq! Yes the Basketball player Shaq. Whatever the reason you are interested sign up with your name and one of the projects you are associated with to help them get some money too. Just [Click Here](#).

Other Announcements

Don't forget to send me pictures to be put in the spotlight on the last page with a quote. It has to be robotics related but can be funny, informative or just cool looking! If you have a picture in mind or have questions feel free to email me at bisonroboticssocialmedia@gmail.com.

Check out...

[Twitter](#)

[Facebook](#)

[Instagram](#)

[Vine](#)

[BR Website](#)

[Trello](#)

Sun 10/2	Mon 10/9	Tues 10/3	Wed 10/4	Thurs 10/5	Fri 10/6	Sat 9/30
Snowplow: 6:00pm Auxiliary Enterprises	Quad: 6:00pm QBB 108 NRMCM: 7:00pm Dolve 215	Battlebots: 5:30pm Dolve 117 ICCC: 8:00pm Dolve 202	Snowplow: 7:00pm Auxiliary Enterprises	Video Game Design: 5:00pm, QBB 114 Snowplow: 6:00pm Auxiliary Enterprises	NRMCM Mechanical: 5:00pm Dolve 115 Quad: 5:00pm, TBD NRMCM GITogether: 6:00pm	Quad: 6:00pm QBB 108 or ME Computer Lab Snowplow: 8:00pm Auxiliary Enterprises

If you have any questions, please contact Michael Holthaus at michael.holthaus@ndus.edu! Thanks!



Project Updates

NRMC

Contact: noah.m.curfman@ndsu.edu

Test Frame is fully mechanically assembled and should be driving by the beginning of October. The team will now enter a design and prototyping phase to get everything prepared for the manufacturing phase that begins November first.

There is no GroupMe just email the email above.

Quadcopter

Contact: abduallah.almosalami@ndsu.edu

Detailed CAD model of UAV constructed, from which new design shall be made and simulated, tests shall be run on Solidworks. Computer Vision team is working on thoroughly understanding the OpenCV library and has run some basic image analysis algorithms using our cameras. Obstacle Avoidance System team currently working with an Arduino with a sensor shield connected to several ultrasonic sensors. Control team is working through and building upon previous MAVLink and QFroundControl code. Initial phase of statistical model used to predict most likely location of a single targets is completed. GroupMe Link [Here](#)

Snowplow

Contact: abduallah.almosalami@ndsu.edu

Now that CAD model has been completed, various designs have been put up to improve upon the current design and within the coming month, orders shall be placed and modifications will be made. Software/Electronics: All individual modules are ready to be used (GPS, IMU, encoders, LIDAR, motor controllers) and logic model is being built up to start putting it all together. Strategists: Initial phase of strategy selection is complete. Due to faster time, less risk, and more reliability, we are going with a more vertical method of clearing the field instead of row-by-row. This comes with the added requirement of yaw-orientation control of the plow, which is on the other two teams to now work on.

GroupMe Link [Here](#)

Volunteering

Contact: rose.m.mcnamee@ndsu.edu

Many opportunities to get involved in Bison Robotics through volunteering! Updates on different volunteer opportunities throughout the year will be sent out via GroupMe, your email, or at large group meetings. Looking forward to a great year!

There is no GroupMe just email bisonroboticsservice@gmail.com

Game Development

Contact: benjamin.mohan@ndsu.edu

Video Game Development Club is a project for novices and experts alike who wish to work on fun game development projects. We will be using Unity, Visual Studio, Blender, and many more tools to make awesome games.

GroupMe Link [Here](#)

ICCC (Learn Code)

Contact: Joseph.cluett@ndsu.edu

Last week we finished the intro to pointers and functions. This week we start structs, classes and loops. Next week we start on our collaborative project.

GroupMe Link [Here](#)

Miscellaneous/Other:

Any questions? Lost on where to begin or how to do something or even what there is to do? Check out the [Bison Robotics Member Guide!](#) This will be your best non-human friend; I promise you. If you have something that you think should be added to it, bisonroboticssocialmedia@gmail.com!

"To the optimist, the glass is half full. To the pessimist, the glass is half empty. To the engineer, the glass is twice as big as it needs to be."
~Unknown

CHECK THIS OUT.

Battle Bots

Contact: Kevin.king@ndsu.edu

Decided on a preliminary design and began fine-tuning details.

GroupMe Link [Here](#)

Ri3D

Contact: brian.kalvoda@ndus.edu

Robot in 3 Days (Ri3D) is one of BR's most intense events as members are tasked with working as a team to create a fully functional robot in just 72 hours. This event takes place in early January but, planning starts now! Keep an eye out for more updates and join the Ri3D GroupMe to be a part of the action.

GroupMe Link [Here](#)

AGVR

Contact: karl.klindworth.2@ndsu.edu

AGVR is still working on the overall programming architecture of the robot. The main work of this is to create data packets that are transferable between the Rasberri Pi and the STM microcontroller. A small controller will also be developed which will work to keep the robot following a simple line. The bracket which holds the GPS and Pi has been installed, but the base station of the wireless emergency stop still needs to be wired. We are hoping for late next week to have basic travel.



No pictures were sent this week so maybe this will help get an idea of what can be sent in

~Social Media Officer