

Our 2019 Build Season  
by Week

1

### Week 1

- Kickoff
- Strategic Design
- Prototyping
- Drivetrain
- CAD Design

2

### Week 2

- Finalize Subsystem
- CAD Designs
- Begin fabrication

3

### Week 3

- Final Fabrication
- Drivetrain complete
- Begin Assembly of Subsystems

4

### Week 4

- Finish Assembly of Subsystems

5

### Week 5

- Full robot assembly
- Start Second Robot

6

### Week 6

- Full Programming
- Programming Tuning



Henry Sibley High School

# Lightning Turtles Robotics

## Build Season Newsletter Week #5

February 4th - February 9th

## SIBLEY ROBOTICS OPEN HOUSE

Tues, Feb 26 - Program begins at **7:00p** Sharp!

Coming Soon!



All sponsors, students, educators, mentors, friends and families are invited to join us at our Open House on Tue Feb 16. See our new robot - *Razorback* - in action, learn all about how we built this complex robot and where we will be competing (including the Twin Cities in late March)

*Refreshments Served!*

Henry Sibley HS - 1897 Delaware Ave, Mendota Heights ([map](#))

*Come through the main entrance and follow the signs*

Want a Sneak Peak of our 2019 robot *Razorback*? We will be at a Week Zero scrimmage with 25 other teams at Eagan HS on Sat Feb 16 - 10a - 4p

## INSIDE:

CONTROL  
SYSTEMS  
UPDATES

DISTRICT  
197 SUPER-  
INTENDENT

ROBOT  
TEASER!

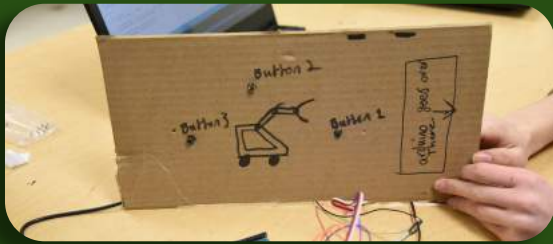
TEAM FUN!

STUDENT  
SPOTLIGHT!

AND  
MORE!

# Eagerly Approaching the End of the Season!

## Driver Station Developers

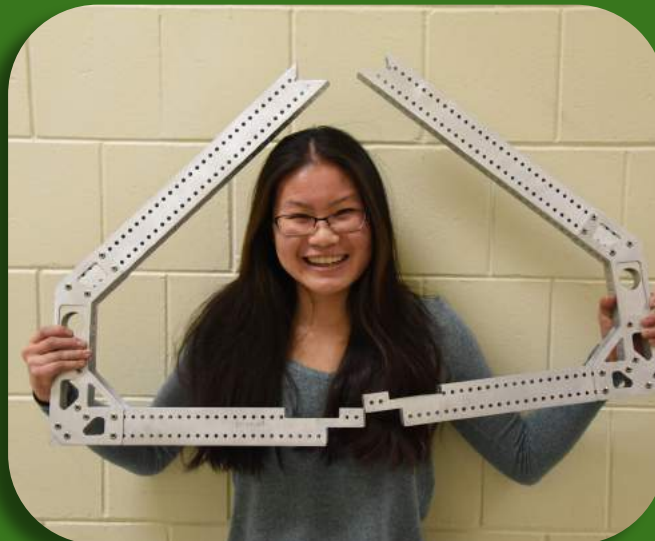
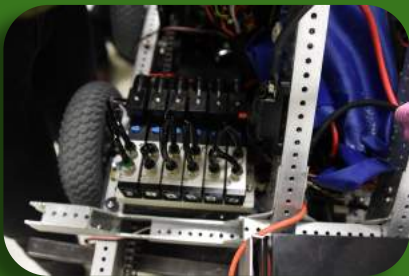
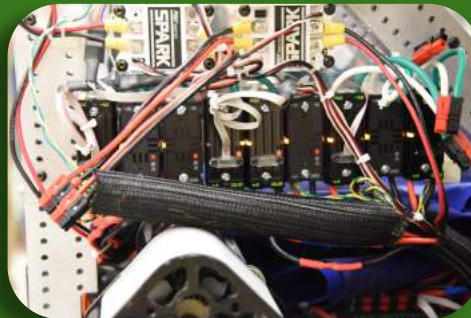


Our Electrical / Programming Divisions are finishing up very nicely by designing a button board for the drive team to control all our automatic one-button solutions for the game.



## Teasers!

GREAT THINGS TO COME in next week's reveal!

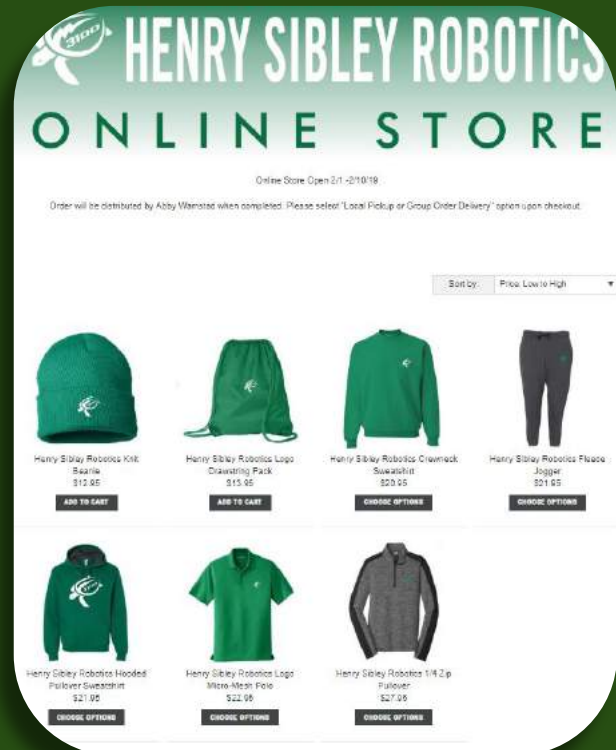


# Show Us Your Support!

## We've Got Spirit, Yes We Do!

Hats, Bags, Shirts, Hoodies, Sweatshirts, Joggers, and Jackets are available for purchase on the [Henry Sibley Robotics Online Store](#), and will be open just through Sunday, February 10th!

It's the Lightning Turtles **10th Anniversary Season** and that Lightning Turtles logo shows you are one of our Top Turtles Supporters!



(Click [here](#) to see last year's robot in action at our Week Zero event!)

## Support us at Week 0!

We will be attending a Week Zero Scrimmage event at Eagan High School on Sat Feb 16th from 10a-4p, where we will be competing in a mock-competition and preparing for the main competitions ahead! Week Zero means it's the last week before the end of Build Season.

All are welcome to attend, find directions to Eagan High School [here](#).



# A Visit from the District!



On Tuesday afternoon, Peter Olson-Skog, Superintendent of School District 197, spent time with the team to get an in-depth understanding of design, materials fabrication, wiring and testing of our robot. It was really great getting to show all we have accomplished so far during this build season!



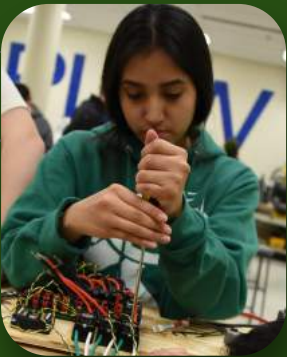
**SCHOOL  
DISTRICT  
197**



**Fundraising for 2019:** We have a goal to raise **\$40,000** and we're over 85% of the way there! Please see the last page for info on how you can sponsor us!

# Student Spotlight

## Luz



*Q1: How long have you been involved with FRC?*

A1: For two years.

*Q2: What is the main thing you've been working on?*

A2: I have been working on the electrical subsystem, mainly everything that has to do with wires in the drivetrain.

*Q3: How would you explain your job to a child?*

A3: I work with electricity...meaning I work with wires that help the robot go "vroom Vroom".

*Q4: A six year old asks you if Santa is real... What do you say?*

A4: Santa is a phony and you shouldn't believe what you hear.

**Fun fact:** My name Luz Mundo translates to Light World in english.

## Lily



*Q1: How long have you been involved with FRC?*

A1: Last year was my first year on the team but previously my older brother was on the team so I found out about the team through him

*Q2: What is the main thing you've been working on?*

A2: Currently I have been working on wiring and soldering things that go on the electrical board and also made spacers on the lathe to mount the electrical board onto the actual robot

*Q3: How would you explain your job to a child?*

A3: I basically connect wires to different components to make things like wheels spin and make the robot drive and be able to collect game pieces

*Q4: A six year old asks you if Santa is real... What do you say?*

I would say yes he is real, make sure to be good this year

**Fun fact:** Last year I joined the team going not knowing much about any of the divisions and I learned so much very quickly and had so much fun and I look forward to being on the team for the rest of high school.

## Josiah

*Q1: Why did you join the team*

A1: I knew one of my friends who was in robotics and he seemed like he had a lot of fun so I joined. I'm in the programming division.

*Q2: What are your hobbies*

A2: Playing video games, playing with my dog and studying.

*Q3: How has being part of the team affected you*

A3: I've gained knowledge in the woodworking, metal working, and programming fields.



**Fun fact:** Most people don't think this is true, but I am *actually* Mexican.



**TEAM FUN!**



A BIG THANK YOU TO OUR SPONSORS!

**ECOLAB<sup>®</sup>**



Vic & Mary Holec

**METROSPEC**  
TECHNOLOGY<sup>®</sup>

BW Systems, Inc.



LCS Company

**CRAY**

MJ Shea Consulting  
and Design LLC

**ics** | CONSULTING, INC



**3S**  
**SOLIDWORKS**

**3M**

**Teleflex<sup>®</sup>**

**PRIME DESIGN**  
A Safe Fleet Brand

*Southview*  
COUNTRY CLUB

**GENISYS**  
CREDIT UNION

Free Bird Counseling and  
Consultation  
George Halsey  
Employer Solutions Group  
Herschbach Properties  
Tricom Communications  
Bank Cherokee  
Minnesota Wire & Cable Co.  
Cherokee Service  
Van Paper Company  
Culver's West St Paul  
Jennifer Pluhar

Want to get in touch with us? Email [3100lightningturtles@gmail.com](mailto:3100lightningturtles@gmail.com)  
or contact Dan Halsey - Lead Mentor at [halseyusa@gmail.com](mailto:halseyusa@gmail.com)

Want to become a sponsor? Learn more at [www.team3100.com/sponsors/](http://www.team3100.com/sponsors/)  
or sponsor us here: <https://www.gofundme.com/frc3100>

Visit our website at: [www.team3100.com](http://www.team3100.com) to find our complete calendar