

# Team 1662: Raptor Force Engineering

## NEWSLETTER

October 2018



### WHAT WE DO

We are a FIRST Robotics Competition, or FRC team. FRC is an international robotics program where teams of students build game-playing, 120-pound robots in just 6 weeks to compete in tournaments across the globe. FIRST Robotics students gain experience in making real-life engineering decisions. They gain first-hand knowledge of what it's like to be in a project leader role, including all the pressure and dynamics that go along with it. To learn more about FIRST, visit [www.firstinspires.org](http://www.firstinspires.org).

#### October 7th Street Fair:

Come visit our booth on Church Street between West Locust & Elm!

#### October 19th Drive Thru

Spaghetti Dinner: From 5:00-7:00 pm in the Jim Elliot High School Parking Lot.

We'll be serving spaghetti, salad, bread, and cookies.

Tickets are \$10 each. To purchase, head to

[www.jimelliotchs.com/robotics](http://www.jimelliotchs.com/robotics)

#### October 26th-27th Off-Season Competition:

Come watch our team compete at Davis Senior High School, 315 W 14th St, Davis, CA 95616.

### OUR ROBOT

Our team is designing and adding platforms to our robot that will be able to carry/lift up to 2 other robots. Two winches will be installed to lift them differentially to keep everything in balance as they climb. The old climbing system has been removed and a new hook system will be connected to the robot's existing elevator system. The cube grabber is being redesigned in aluminum to prevent the cracks that formed in its pre-existing Lexan arms. In efforts to improve the durability and maintainability of the system, this total redesign should give our robot the ability to score 2 rank points, even if it does not win the match. Hopefully this will help us achieve our goal of being in the top 3 at Capital City Classic off-season competition in October!



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## SPECIAL THANKS TO OUR SPONSORS

- The Barnhardt Family
- J.W. Cleveland
- Victor Vineyards
- Lodi Association of Realtors
- Golden State Mortgage
- The Neal Family
- The Grove
- OPS. Inc.
- New Hope Dairy

## MONEY DONATED TO THE ROBOTICS PROGRAM WILL BE USED TO PURCHASE MUCH NEEDED ITEMS

- Shear/Brake press
- Tooling and upgrades For our CNC router
- New updated Lathe
- 2 Axis DRO for lathe
- Dead blow hammer

Donations can be made at:  
[www.jimelliotchs.com/robotics](http://www.jimelliotchs.com/robotics)

CONTACT US AT

[robotics@jimelliotchs.com](mailto:robotics@jimelliotchs.com)



## SENIOR HIGHLIGHT

Emmaleigh Barnhardt, senior and Business Captain of Team 1662, is looking at her future with great expectations. She is planning to pursue education in molecular pathology with focus mostly on the practice of biology. Being open with people and helping the world is what she strives for in her future medical practice.

## SUMMER PROGRAMS & ACTIVITIES

**June 20** OG Cherry Packing Plant - The team took a tour of a cherry packing plant to better understand how robotics and technology are integrated into everyday life.

**August 22** Lions Club Presentation - Students of Team 1662 gave a presentation on their team to the members of the Lodi Lions Club.

**August 23-25** Robotics Workshops - Team members led various skills workshops to help teach interested students the skills they will need on the team.

## ROBOTICS IMPACT

Over 90% see improvements in:

- Conflict resolution
- Time management
- Problem solving skills

Over 80% are more interested in:

- Doing well in school
- Taking more challenging STEM classes
- Attending college

- Over 76% strengthened communication skills
- 33% of women major in engineering
- 2X as likely to major in science or engineering

