

The Buchanan Bird Brains

FIRST® Robotics Competition Team 1671

INTRO: Welcome to Team 1671! We are a high-school robotics team based out of Clovis, CA that participates in the annual FIRST® Robotics Competition. We are excited to have you become a member of our team! This handbook will contain all of the information you will need to know to become a Buchanan Bird Brain!

MISSION STATEMENT: The Buchanan Bird Brain's mission is to spark interest in the fields of Science, Technology, Engineering, and Math in the next generation of leaders, entrepreneurs, and innovators. We strive for teamwork, cooperation, and fun while inspiring young minds to spread their wings.

TEAM ORIGIN: Team 1671 was founded in November of 2004 by BHS student Konrad Miller, when he approached our teacher advisor, Mr. Lake. The team started out with only 14 members but has now grown to an average of 60 members per season.

TEAM STRUCTURE:

Team 1671 has two subteams that are under the acronym: FIRST, and there are a number of subgroups that students can participate in.

IR - Inspiration and Recognition: A subteam that is in charge of educating the community about FIRST robotics, spreading the word about the Bird Brains, and recognizing individuals and supporters for their help. They are in charge of outreach, marketing, grants, fundraising, and sponsors.



- **Media:** Members write and publish articles summarizing the success of the team's major events for the CUSD newspaper, sponsors, and the team website. They also manage and update social media sites that include: Facebook, Twitter, and Instagram. For this, the team is charged with document and take photos and videos for documentation and award submissions
- **Grant and Award Writing:** Members write and enter award submissions such as the FIRST Chairman's Award and Entrepreneurship Award and grant applications such as Google, NASA, and PTC
- **Graphic Design and Merchandise:** Members create graphic design pieces required for the team, making sure our team is well represented on a professional level. This includes brochures, posters, and team T-shirts. They also oversee the management of "Bird Bling", student-made merchandise that feature the team's logo
- **Outreach:** Members organize outreach events, such as FLL tournament(s) and school carnivals They also search for new opportunities to spread the word of FIRST and MAKE IT LOUD!
- **Sponsor Relations:** Members maintain relations with current sponsors through team updates. They also recruit new sponsors, organize calls, emails, and tours for sponsors. Members create awards to give to sponsors for their support

ST - Science and Technology: A subteam that is in charge of building the robot and training new members

- **Computer Aid Design:** Members design a robot through the use of CAD models in PTC's Creo Parametric based on the teams desired game strategy



- **Electronics:** Members work with CAD to design the layout of the electrical components including the microcontroller, speed controllers, relay controllers, sensors, power distribution panel, and battery.
- **Programming:** Members work with the other ST and strategy members to write code using the Java programming language with the provided WPI API library to help ensure reliable operation of the robot for both the autonomous and teleoperated periods during the match.
- **Fabrication & Special Projects:** Members manufacture and build parts for the years given game elements, robot, and other special projects while learning proper tool safety and organization skills.

MEMBER OBLIGATIONS

Meetings:

Team meetings are held every Wednesday and Thursday from 5:00-7:00 pm in room 503 every week during off-season. During build season, team meetings are held Monday through Saturday. It is recommended the Bird Brains attend as many meetings as possible to ensure every member is up to date with the teams' events and priorities.

STIMS:

Every member must be registered through STIMS (Student Team Information Management System) in order to participate in any official FIRST events. When you register in STIMS you are required to complete a consent and release form that you and your parent/guardian must digitally sign.



Code of Ethics:

All members on the team must fill out this form before traveling to an overnight event with the team. This form is issued by Buchanan High School on behalf of the Clovis Unified School District.

Competitions:

Team 1671 typically participates in three off-season competitions:

- Chezy Champs (Mid September)
- Capital Cities Classic (CCC) (Mid October)
- Madtown (Mid November)

and two regional competitions:

- Central Valley Regional
- Monterey Bay Regional or Sacramento Regional

The FIRST Championship event is scheduled: TBD

Hour Requirements:

In order for students to become an official Bird Brain member, they must:

- Meet a minimum of 60 shop hours during build season
- Meet a minimum of 10 volunteer hours with the team before build season
- Complete STIMS
- Attend mandatory and weekly meetings
- Express sufficient enthusiasm on the subject of science

GENERAL INFORMATION

Behavior:

Members must have proper behavior to remain on the team. Members work with real and often dangerous tools, and safety is a top priority. They are expected to treat their teammates, mentors, coaches, sponsors, other members of the team, and the public with respect at all times.



Dress Code:

Clovis Unified dress code applies to the after-school meetings. Members must be in acceptable CUSD attire. When working in the shop, closed toed shoes, short sleeves, and safety glasses are a must.

Confidentiality:

During build season, posting any pictures or videos of the robot or divulging any of the brilliant ideas created by our team is prohibited. The Bird Brains are working to gain an edge on other teams, and although we are gracious and professional, this is still a competition.

FRC - FIRST® Robotics Competition

FIRST Robotics Competitions begins in January after the release of the game animation. Team 1671 holds a Kickoff event at the beginning of the season when the next robot game is revealed where we brainstorm game strategies and robot designs to prepare us for the six week build season.

- Build Season starts as soon as the game animation is released, in early January, and goes until mid-February.
- Competitions start in March and continue until World Championships in April
- Our team is a year-round team. We work during the first and second semester of the school year and typically have projects or camps taking place during the summer.
- Off season meetings are held on Wednesdays and Thursdays after school from 5-7pm during the first semester.
- During Build season, we meet everyday after school until 7 pm on Mondays-Thursdays, Fridays after school until 8pm and some Saturdays from 9am - 2pm.

(Dates and times subject to change)

WORK FACILITY

The Bird Brain's nest is Buchanan High School's Room 503 and 504. This includes a classroom and a machine shop.



Facility/Shop rules:

- No member is allowed to work without an advisor, mentor, or coach on site
- Safety glasses are required when using any power tools
- Loose hair and clothes must be tied up before using any tools
- Shop tools must be put away after every work session
- No rough housing or horse playing at anytime

LOGIN SYSTEM:

The system creates a summary of the hours each individual member puts in and manages student information. Logging in is required for members in order for their shop and volunteer hours to be documented. This system is also used by the boosters to estimate the amount of food needed on days they provide it as well as help with contact-tracing when needed during the COVID-19 pandemic.

TEAM IMAGE:

Team I671 is widely known in the FIRST community. It is important the team still maintains its reputation as one of the best robotics teams in the robotics circle.

Dress Code at Events/ Event Uniform:

Because our school is being represented by our team, the Clovis Unified Dress Code applies to all students when traveling to events and competitions. “Business Casual” is required when presenting for judges and presenting in the pits, which is the team shirt OR a dress shirt in our team colors and a nice pair of jeans OR dress pants. It is recommended that you wear a team shirt to all events for spirit and support. Closed toed shoes and long pants are required in the pits (NO shorts or flowing skirts because they are dangerous to your safety). Safety glasses are required in the pits at all times. Glasses are offered to people who do not have their own pair.



Photo and Video Consent:

Upon joining our team, you are willingly allowing your image to be photographed and/or videotaped and for your image to appear in any team publications. This policy also applies when traveling to competitions and events.

TRAVEL AND COMPETITION

There will be competitions held in other areas other than Clovis/Fresno.

Competition eligibility:

In order for members to attend season competitions, the hour requirements must be met and a Code of Ethics form must be turned in.

Some competitions have limited spacing. Mentors and team leaders will determine who are eligible to attend based on working contribution and attendance. Please ensure you can go to an event when you make a commitment to attend a tournament. Backing out at last minute isn't cool.

Payment:

Travel fees will be required and will be asked as donations. Clovis Unified does not permit our team to demand for students to pay for their own cost. If payment is an issue, please talk to Ms. Ravuri..

Behavior:

All members are expected to behave professionally and maturely. Team 1671 also upholds gracious professionalism and coopertition. It is reminded that students are representing Team 1671 at all times and their actions will reflect back on the team. It is also expected for members to treat their teammates, members of other teams, mentors, coaches, and the public with respect at all times.



Absences:

There are some competitions and events that will require the student to miss school. It is the student's responsibility to inform their teachers of their absence(s), arrange for make-up work and tests, and to fill out an attendance "blue slip" given to you by the teacher advisor (if applicable).

COMMUNICATION

Website:

Team 1671's website is www.team1671.com. The website includes a master calendar of all the team's activities, articles of our outreach events, galleries of our current and past seasons, blogs during the build season, direct links to the FIRST website, information about our sponsors, forms to become a supporter of the team, contact information for parents, team history, team videos (vlogs, chairman's video, fundraising videos), and a link to our live stream from our shop.

Calendar:

Located on our website, the calendar informs viewers of current meetings and activities held monthly.

Trello:

Trello is a website used to keep track of our tasks and top-do events. It helps organize and delegate tasks between team members and is efficient for tracking the progress of events.

Team email:

All members are required to provide an email to the team's system. Students are asked to provide an email other than their official school email as it has restrictions on whom emails can be sent to and from. This can be challenging when working with someone of our mentors and sponsors.



Slack:

Slack is an organizational workspace that provides the main source of communication for team members, coaches, mentors and parents. The workspace is organized with many different channels, or topics, regarding different areas of the team. Users can be a member of many different channels and participate in conversations in each one. A set of rules and expectations regarding Slack can be found pinned in the #general channel. Please reach out to a leader, coach or mentor if you have any questions regarding Slack.

Social Media:

Members can also receive team updates through Twitter, Facebook, Instagram, and YouTube. The Director of Online Media and media members can post photos/videos of events Team 1671 partakes in.

AUTHORITY OF THE HANDBOOK

The rules and policies stated in this handbook must be followed by all team members. The leadership team and mentors have the right to modify the handbook at any time. Members will be notified of any modifications, if there are any.

By signing the contract, the google form posted alongside this handbook, students accept and commit to abiding to the Authority of the Handbook.

