

## **Survey Results:**

### **FUM Team Support for COVID-19**

#### **Background**

FUM is committed to supporting FRC teams to be more sustainable and successful. This has become more challenging for all of us due to the unprecedented COVID-19 pandemic.

FUM surveyed teams to seek input to provide our community with information about strategies and tactics being used by teams during the COVID-19 pandemic. We had a number of teams complete the survey and share their team's experiences, both successes and challenges. In addition, some of these notes are from a Mentor Meetup that was held virtually on September 10, 2020.

In Frank's FRC Blog on September 15, FIRST is asking teams to develop safety plans for COVID-19. We know that some teams have already put together their plans. We also know that some teams have not yet started. Whether you already have a plan in place or if you are just starting to think about a plan, we hope that the information provided here will help your team consider additional features that you may want to include in your team's COVID-19 Safety Plan.

#### **Survey Results**

If you have not started a safety plan for team meetings around COVID-19, you are not alone. About 60% of teams that responded to the survey do not yet have a safety plan. It's not too late to get your Safety Plan in place and get your team engaged for this season!

#### **Teams Represented in Survey**

About 40% of the teams that responded to the survey were from the Twin Cities metro area, while 60% were from greater Minnesota. One third of these teams have full in person school, 8% have full distance learning, and almost 60% have a hybrid of in person and distance learning.

#### **Technology for Virtual Team Meetings**

About 80% of the teams do not have (or do not expect to have) issues with student access to computers or internet. Some of the teams have not started any meetings yet or the school is not allowing in person meetings. As much as possible, teams are meeting virtually, but some work must be done in person. A few teams are reporting that if there aren't in person meetings, many of the students don't show interest. One team is in a very rural area where the internet does not even reach some houses. They plan to tackle these challenges on a case by case basis since every situation is different.

#### **Plan and Requirements for Team Meetings**

There is a lot of variety in how teams are approaching meetings, both virtually and in person. Here are some examples.

- Only allowed to meet during homeroom (20 minutes), will discuss whether to have virtual meetings.
- Meeting hybrid - operations will be fully virtual while build and programming will do some things virtually, but will mostly meet at school in small cohorts with precautions. In order to do that, we have given the school a robotic and a precautions plan, which they accepted. We will also need to



get parental approval for the activities for each student. And we had to match the mentor needs with appropriate work. In person work is also tied to case incidence.

- We plan to meet in-person, once per week, for core, hands-on activities. The Activities Director at the school released a Covid-19 Preparedness plan that covers general guidance for all activities, and the team leadership used it to create a team-specific preparedness plan. We have a meeting with the director and other administrators on Wednesday to discuss the plan, and make any adjustments needed in order to meet in-person. Additional activities that do not require hands-on participation (for example, work on the Chairman's essay) will continue to be done virtually.
- We can only meet in person if we have school in session. We also have cleaning policies.
- We have not set a plan for the fall yet. We are waiting to see how the first few weeks of school goes and then work with the administration to see how to proceed.
- I am planning for mostly in-person meetings, but will be flexible to follow the school district's policies if they change. I may do virtual meetings for smaller groups and/or planning meetings with team captains. I will make the in-person meetings available virtually also, for anyone who cannot or chooses not to attend in-person.
- We plan to meet outdoors whenever possible, otherwise in the school Commons (a very large high ceiling lunchroom) with maximum of 25 students in pods. The school requires a meeting and safety plan to be submitted to the principal and approved by the District 196 Pandemic Response Team which we have done. We currently have virtual planning meetings on Tuesdays. Then we have a small number of students meet at the school on Thursdays for an in person meeting to work on the robot, while other team members participate virtually.

One team is not allowed to have any in person meetings for Robotics or any other clubs. Of the remaining teams, when teams meet in person team members will be required to:

- 100% wear masks
- 90% practice social distancing
- 90% sanitize work areas
- 82% limit the size of group

One team also mentioned that they will have strict separation between subteams including access to build space.

#### Tracking Information for In Person Team Meetings

Teams will be tracking various information when they meet in person. For example, attendance (100%), taking student temperatures (50%), asking students if they have COVID-19 symptoms (80%), asking students if they have been exposed to COVID-19 (80%). A few schools did not have details on their plan, but reported that they will follow their school's requirements for in person team meetings.

#### How will teams work on building or modifying the robot, programming and practice driving?

Many teams have not planned how they will work on the robot or practice driving yet. Here are some plans from a few teams that are starting that work.

- First, we will be working on our coding experience virtually, and in person modifying our build to adhere to a more growth experience as most of my team this year will be new.
- Design/CAD works well virtually. We have an almost brand new programming team - we will do some virtual, but want to get them working with last year's robot as soon as possible, watching their



code make the robot move. They will likely meet in the gym with last year's robot. Build will meet in three cohorts in our shop, prototyping, learning tools, and eventually building a new robot.

- Additional up-front planning. strict separation of sub-teams, and even of working groups within a subteam. For example, a group dedicated to the intake won't have any close interaction with the group working on the shooter.
- We will break down the work to be done on the robot into smaller parts, then the robot or parts and tools will be delivered to a student's home to be worked on, then it will be picked up when the work is done. When working at the school, we will allow the subteam pods to work on the robot sequentially but separately. The drivers will get their turn as another pod.
- We will be meeting only virtually until after Thanksgiving. Some CAD training, also game nights, trivia, baking challenge (including the whole family).
- Several teams report that they are having good success with CAD training on line. It is easier for one student to show concepts on a virtual platform by sharing their screen vs. having students crowd around one computer. A few teams are moving to Onshape which is great because it is cloud based (don't need large computer processing power).

#### Recruiting Plans

Almost all teams will continue to recruit new team members this year. The most common recruiting methods reported for this year include announcements, newsletters, virtual recruiting, word of mouth, recruiting from FTC teams, by invitation and a few teams will have in classroom or lunch time demonstrations. One team reported that they are creating a recruiting video to send to all of the teachers to show in the classrooms.

#### Participation Requirements

Due to the significant changes in team meetings and the yet to be determined plan for competitions, many teams are adjusting attendance and participation requirements for team membership, competition eligibility and earning a varsity letter. Although in most cases it is uncertain how that will change until we know what the season looks like. One possibility is that students must participate in a minimum percentage of the opportunities. Another team suggested: We accept that some students are not allowed by their parents to attend in person during the COVID19 pandemic so we will be considering their aggregate contribution to the team for competition and varsity letter eligibility.

#### COVID-19 Safety Plans

Less than half of the teams that responded to the survey have a COVID-19 Safety Plan. For teams that have COVID-19 Safety Plans, the plans vary from very simple to more complex. Most teams will be following the protocols that their school has put in place for COVID-19 safety. Take a look through the Safety Plans that were shared below. Note that each team is customizing the safety features that will work for their team and their workspaces. Feel free to replicate any of the features of these plans that may also work for your team.

- Students will be assigned areas and records will be kept as to who is around each other at meetings. At this time only the lead mentor (me) will be around students until school gets underway. The mentors cannot get exposed by students because that impacts their work which for most of ours is self-employed.



- The safety plan will be adapted from the school's plan, which covers entry/exit of the school, masks, social distancing, food and drink, transportation, and exposures. A positive test from a team member will affect their entire cohort of 3-4 students and 1-3 mentors.
- The safety plan for The Robettes, Team 2177 is built around social distancing, and separation of groups in order to facilitate contact tracing. Here is a link to the full plan.  
<https://docs.google.com/document/d/1PLnd2HUQszmdFf0iNRadr7dc8PKSi841mSRQuctCjf0/edit?usp=sharing>
- I am not going to take any unnecessary risks. Any time outside of build season, I do not see in-person meetings as so critical that we would be hurt by missing a couple weeks. If there is any known chance of COVID in the team, we will refrain from all in-person activities for two weeks. During build season, we will not be able to take 2 weeks off, so I will develop plan for that before January.
- Team has 3 sets of sanitized tools to be used only by 3 students during a team meeting. One student assigned to the mill for a meeting, then cleaned afterwards. Laptops assigned and handled by only one student. Work outside or with doors and windows open to increase ventilation.
- Setting up cohorts recognizing that different families have different needs. Also, mentors may have different needs.
- Only one subteam allowed on site per day, then clean workspace. Another option is to have two pods on site if there is space for them to have different work areas.
- This safety plan for Team 2220 Blue Twilight has been approved by the District 196 Pandemic Response Team. The team is meeting in a larger work area to enable social distancing.
  - Any student or mentor asking to attend an in-person meeting must sign up online in advance.
  - The school provides additional masks, hand sanitizer and disinfectant wipes for the team to use as necessary.
  - Upon arrival, the students and mentors check in with the lead coach who asks each person "Are you feeling ill?" Anyone responding with a "yes" is sent home immediately without any other team member interaction.
  - All participants are required to wear a cloth or commercial mask before entering the worksite, and during the entire meeting, unless they leave the area.
  - All participants for each meeting date will be signed in on an attendance sheet that is maintained by the coach.
  - Hand sanitizer must be used upon arrival, and just before leaving for the day.
  - No food or sharing of water bottles is allowed.
  - All tools and supplies are taken from the team's workshop in the Eagan HS warehouse by team coaches (only coaches are allowed in the team workshop), sanitized, and placed on mobile workbenches, with chairs/stools as appropriate (also sanitized).
  - A maximum of 15 students and five coach/mentors are allowed at the school meeting site, working in pods of five maximum. Work activities are set up to maintain at least 6 feet of social distance, as much as possible.
  - The school custodial staff will mist the work area with disinfectant after the team has cleaned up and left the area for the day.
  - If a team member reports positive for COVID19, we will immediately report to the school and follow their guidance.



- Edina Team 1816 Green Machine Safety Plan is detailed below. One important additional note: 3 students on 1816 also held a meeting with school administration, during which the COVID health/safety plan and the tentative plan by FRC to hold limited attendance, 1-day local events were discussed. It was not until this online meeting that the team received permission from both the EHS principal and the Activities Director to enter EHS and access the 2 workshop spaces. Permission was also granted for the Team to attend a one-day, limited attendance event.
  - The team will track and monitor attendance for each session. Team leaders will organize a schedule beforehand to communicate the schedule, and which mentors/students are permitted on-site.
  - Communications to families will include schedule, including the required cleaning of tools and surfaces when scheduled work is concluded.
  - All participants are to stay home if they are not feeling well.
  - It is required that any participant (student/adult) who tests positive for COVID-19 or other respiratory viruses, notify the lead mentors as soon as possible.
  - Every team member and mentor will arrive prepared with their own personal protective equipment (Mask, Safety Glasses, Ear Protection, Hand Sanitizer, Hand Wipes), and filled water bottles. There will not be any shared PPE or water bottles. Food is prohibited.
  - Participants will arrive no earlier than 10 minutes before the scheduled start time. They will wait in their cars or socially-distance spacing outside EHS until scheduled start time, and the mentors on duty have arrived. All participants will enter and exit the building via the main school entrance, Door 5. Parents will be prompt to pick-up students at the end of each work session.
  - Participants will walk directly to their assigned work area; there will be no congregating in hallways. Hallways are only to walk between the workshop and Fab Lab and/or to use the restrooms.
  - Each participant will be assigned their own workspace (in the upper workshop) and work table (in the Fab Lab). Assigned workspaces will correspond to the participant's predetermined & communicated work plan for the session. Each participant is responsible for wiping down all of the surfaces/tables/tools they use before leaving the workshop or Fab Lab.
  - FRC Team 1816 will provide Hand Sanitizer and Cleaning Supplies to the scheduled participants. These items will be used during workshop time, and used to clean surfaces before permitted space is closed and locked.

#### Fundraising and Outreach Plans

Some teams are continuing with their traditional sponsorship and donation plans. Many teams are modifying fundraising and outreach plans for this year. Several teams indicated that there is a lot of uncertainty around what they will do. Here are a few examples from teams that are moving forward with fundraising:

- No contact fundraising – selling items that can be delivered to porch with no contact (examples: wreaths, mattresses, meat packs)
- Mostly virtual: emailing and calling potential sponsors, filling out grant applications
- Contacting sponsors and donors, specifically targeted to previous donors
- Virtual meetings and working on good Zoom presentation skills
- Virtual presentations, in person with only 3 students if companies will allow it
- Robot display with poster including QR code for link to donate to the team

#### Summary



Does your team need a COVID-19 Safety Plan? FIRST is asking teams to create their own Safety Plans. We hope that this information will be useful to your teams as you develop a COVID-19 Safety Plan for your team. If you are associated with a school, check in with your school administration. They will likely have some ideas for you as well.

Stay safe and we hope you have a great season!