



Things to know before the FRC Build Season Kick-Off

Team 972 Operating Model



TEAM 972 DOMAINS OF JURISDICTION



School / Teacher	Overlap	Students
<ul style="list-style-type: none">• Safety• Equity• Assurance of Learning & Engagement• Management of Materials / Facilities• Budget executive• Personnel Decisions• Outside of class activities	<ul style="list-style-type: none">• Class curriculum• Budget• Materials• Projects• Competition Selection• Leadership Selection & Roles	<ul style="list-style-type: none">• Complete domain over robot design, build, and operation• Game and competition strategy & participation
<p style="text-align: center;">Mentors Responsible for advising the team on the technical aspects of FIRST Robotics, engineering best practices, operations, logistics and safety</p>		

Team 972: Iron Claw Robotics operates fully under the jurisdiction of Los Gatos High School (LGHS). LGHS has ultimate and complete domain over the team and how it operates, allowing for the school at any time to make any decision regarding the team it feels necessary. Within this framework, however, **it is the school's desire to create a team that is student-run and student-managed to the fullest extent.** LGHS recognizes the enormous benefit of student-led learning and is proud that many aspects of this team are fully under the domain of students.

Team 972 Code of Ethics for Students



Students Do:

- Honor, respect, and welcome mentors on the team.
- Follow essential, respectful, courteous communication norms with mentors.
- Acknowledge or greet mentors when possible. (A simple “Hello Mr/Ms._____” is sufficient).
- Actively seek out mentors to learn from their expertise. Initiate questions and conversations.
- Work daily with mentors and include mentors in their decision-making processes.
- Respectfully agree or disagree with mentor’s ideas.
- Respect decisions in mentor/teacher domain.
- Respectfully express if they would rather not have help at the moment.

Students Do Not:

- Ignore mentors.
- Not answer mentor’s questions, (respectfully, answering that you do not know or can’t answer that question is a sufficient answer!).

Team 972 Code of Ethics for Mentors



Mentors Do:

- Actively advise, express ideas and ask questions.
- Respectfully engage students.
- Openly offer suggestions and ideas.
- Respect final student's decision regarding the robot.
- Keep tone respectful; all young people make mistakes.

Mentors Do Not:

- Prototype any part of the robot.
- Design or CAD the robot.
- Machine or fabricate anything.
- Assemble the robot.
- Program the robot.
- Fix or troubleshoot the robot.
- Clean up.

Important Team 972 Dates for the 2024 FRC Build and Competition Season



FRC Reveal and Build Season Kick-Off	01/06/24
Team 972 Build Season – Start / Finish	01/06/24 to 03/01/23
Regional 1 - TBD: Ideally Week 1	03/01/24 to 03/03/24
Regional 2 - TBD: Ideally Week 3	03/15/24 to 03/17/24
Regional 3 - TBD: Ideally Week 6	04/05/24 to 04/07/24
Houston Championships - if team qualifies	04/19/24 to 04/22/24



2024 Scheduled Workdays

January					Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

1/6/24 FRC Game Reveal and Build Season Kick-Off

Build Season Week 1

Build Season Week 2

Build Season Week 3

February					Sa	Su
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29			

Build Season Week 4

Build Season Week 5

Build Season Week 6

Build Week 7, February Break – **Planned Open Shop this year**

March					Sa	Su
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Comp Week 1: TBD

Comp Week 3: TBD

April					Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

Comp Week 6: TBD

Spring Break – No Scheduled Workdays during the break

Houston FRC Championships (if team qualifies) 4/17/24 to 4/21/24

Legend:

- Pre and Post Season Meetings: 2:30 pm to 4:30 pm
- Scheduled Build Season Weekday Workdays
- Scheduled Build Season Open Shop Workdays
- Houston FRC Championships
- No School and no scheduled Workdays

Weekday Workdays

- The **20** scheduled weekday workdays planned are subject to teacher and mentor availability for coverage in the classroom and machine shop.
- The 3-hour weekday work session is structured as follows:
 - > **2:30 pm to 5:30 pm - Mon & Fri: Mandatory attendance.**
 - > **2:30 pm to 5:30 pm - Wed: Optional attendance.**
 - However highly recommended during Week 1 to 3

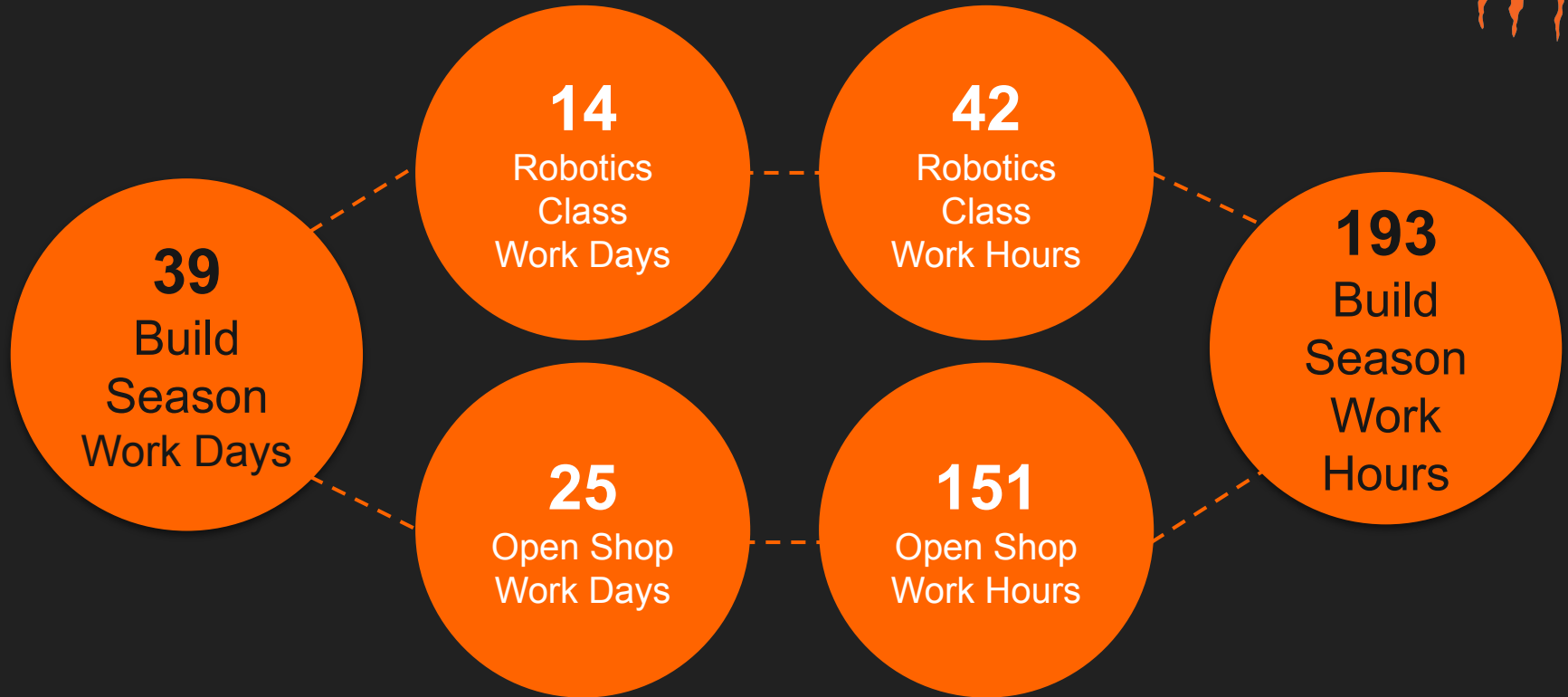
Weekend Workdays

- The **19** scheduled weekend workdays planned are subject to teacher and mentor availability for coverage in the classroom and machine shop.
- The 7-hour weekend work session will be split into two shifts to facilitate the appropriate levels of mentor coverage.
 - > **Shift 1, 3 hrs. 30 min: 10:00 am to 1:30 pm**
 - > **Shift 2, 3 hrs. 30 min: 1:30 pm to 5:00 pm**
- Students will need to sign-up 2 weeks in advance and indicate whether they are committing to Shift 1, Shift 2 or both shifts.

Important Note: A minimum of 20 students is required to have the classroom and machine shop opened by a Mentor for Open Shop Hours.

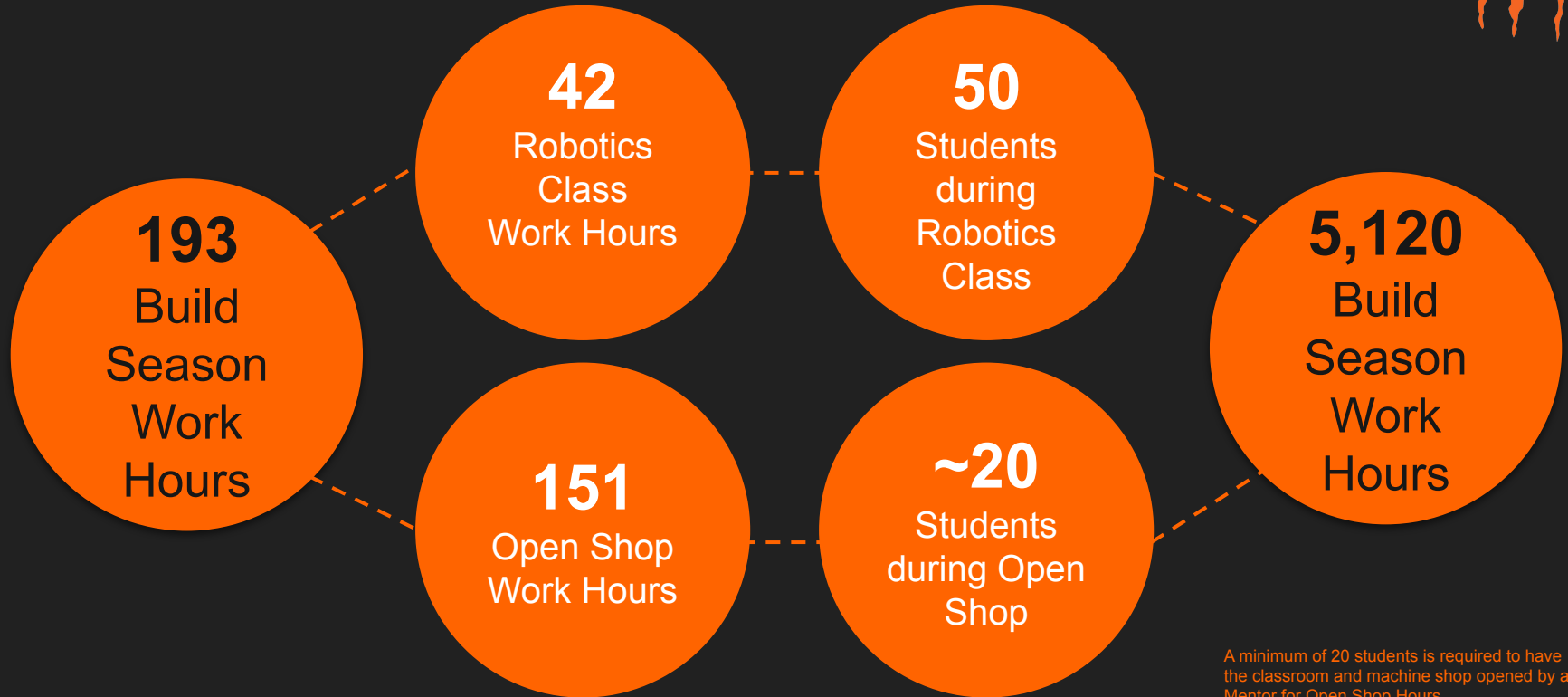


Robot Workdays and Work Hours

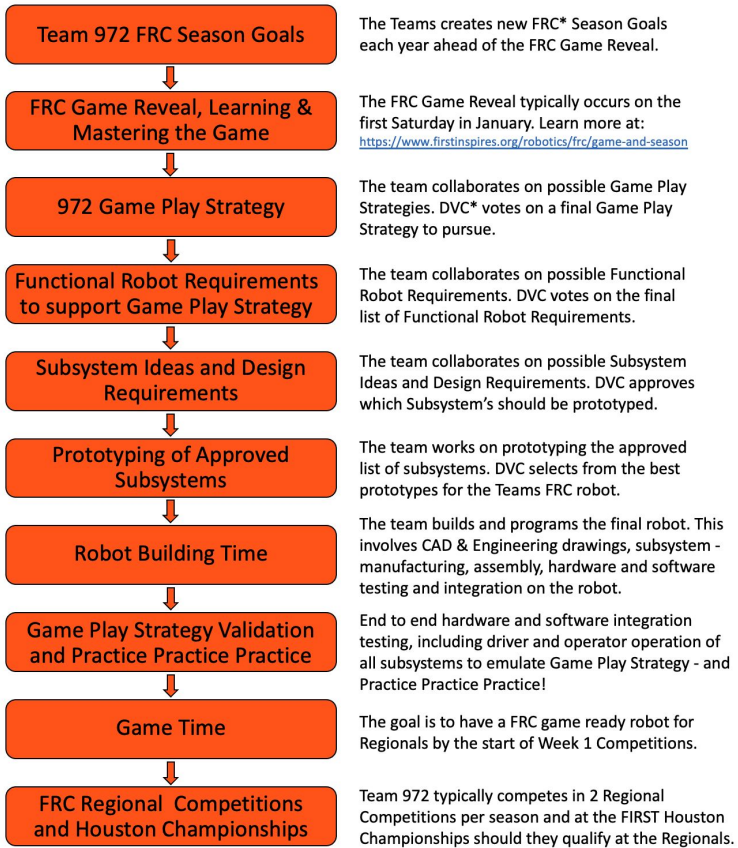




Turning 193 Work Hours into 5,120



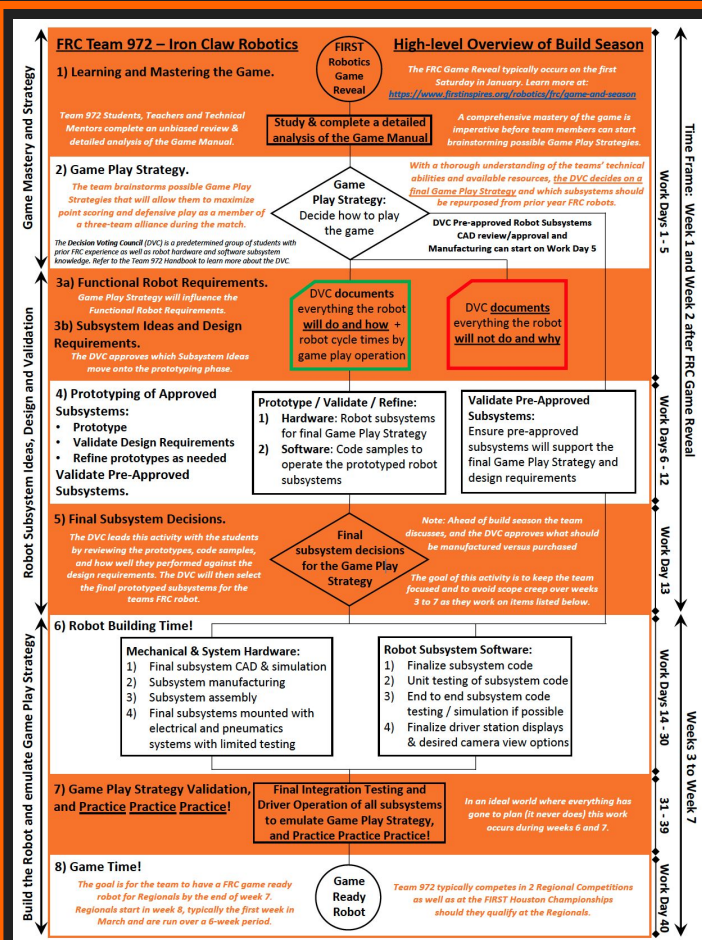
A minimum of 20 students is required to have the classroom and machine shop opened by a Mentor for Open Shop Hours.



- * FRC: FIRST Robotics Competition. Learn more at www.firstinspires.org
- * DVC: The Decision Voting Council (DVC) is a predetermined group of students with prior FRC experience as well as robot hardware and software subsystem knowledge. Refer to the Team 972 Handbook to learn more about the DVC.

High-Level FRC Season Workflow

This workflow is intended to provide a high-level overview of the logical flow of activities undertaken by the Team 972 during an FRC Season.



High-Level Build Season Flowchart

This flowchart is intended to provide a high-level overview of the of activities and decisions undertaken by the Team 972 during a 7-Week Build Season with 40 Work Days.

Proposed Build Season Schedule



Flowchart (FC) Section Headings / High Level Subtasks / Weekly Team Standup Meetings	FC Section	Start Date	Finish Date	Work Day	Work Hours	Participation by:
Learning and Mastering the Game	1 & 2	1/6/24	1/6/24	1	7	All Students
Game Play Strategy and Functional Robot Requirements	2 & 3a	1/7/24	1/7/24	2	7	All Students
Subsystem Ideas and Design Requirements	3b	1/8/24	1/12/24	3 to 5	9	All Students
Prototyping of Approved Subsystems and validate Pre-Approved Subsystems	4	1/13/24	1/21/24	6 to 12	37	All Students
Games Rule Final		1/16/24	1/16/24	8	1	All Students
Weekly Team Standup Meeting (1)		1/16/24	1/16/24	8	1	All Students
Final Subsystem Design Decisions	5	1/22/24	1/22/24	13	3	All Students
Robot Building Time: Work Day 6 - Pre Approved Subsystems. Work Day 14 for the rest	6	1/24/24	2/16/24	6 to 30	75	
Bumpers - starts in parallel with subsystem prototyping.		1/13/24	1/28/24	6 to 17	52	Bumper Team
Drivetrain - starts in parallel with subsystem prototyping.		1/13/24	1/28/24	6 to 17	52	Drivetrain Team
Vision Systems - starts in parallel with subsystem prototyping.		1/13/24	1/28/24	6 to 17	52	Vision Team
Driver and Operator Station - starts in parallel with subsystem prototyping.		1/13/24	1/28/24	6 to 17	52	Driver and Operator Station Team
Autonomous Scenarios. Drivetrain pathing routines without subsystems integrated.		1/29/24	2/16/24	18 to 30	52	Auto Team
Intake		1/24/24	2/16/24	14 to 30	75	Intake Team
Storage/Index, for example hopper or indexer		1/24/24	2/16/24	14 to 30	75	Storage/Index Team
Outtake, for example position/place or shoot.		1/24/24	2/16/24	14 to 30	75	Outtake Team
End Game, for example climb, elevate, or hang.		1/24/24	2/16/24	14 to 30	75	End Game Team
Robot Subsystem Data Collection, Analytics and Health Status Dashboards		1/29/24	2/16/24	18 to 30	75	Data Analytics Team
Weekly Team Standup Meeting (2)		1/22/24	1/22/24	13	1	All Students
Weekly Team Standup Meeting (3)		1/29/24	1/29/24	18	1	All Students
Weekly Team Standup Meeting (4)		2/5/24	2/5/24	23	1	All Students
Weekly Team Standup Meeting (5)		2/12/24	2/12/24	28	1	All Students
Game Play Strategy Validation, and Practice Practice Practice	7	2/17/24	2/28/24	31 to 39		Captains / Directors / Driver & Operator
Weekly Team Standup Meeting (6)		2/26/24	2/26/24	38		All Students
Game Time	8	3/1/24	3/1/24	40		

Parents / Guardians Don't Forget...



- Build Season is a busy time for your students. Your Students only have **scheduled workdays** to build a FRC Robot from 01/6/24 to 03/01/24.
 - **Your students need more mentors to sign-up.**
 - **Presently we do not have enough approved mentors to provide 39 workdays of coverage in the classroom and machine shop for your students, especially during Open Shop hours during the week and the weekends.**
 - Please follow-up directly with **Rodrigo Coppelli** at rcoppelli@lgsuhd.org to learn more about becoming an approved Team 972 mentor.
 - **We need parents to sign-up to provide lunch on the 14 scheduled weekend Workdays.**
 - Please follow-up directly with **Mariam Fan** at mfan@lgsuhd.org to learn more about lunches and snacks sign-ups for students during build season.

Students Don't Forget...



- As students if you don't know something or lack the experience to do a task assigned to you – don't be afraid to ask or look for resources online that can help you out.
- Reach out to other FRC teams, build good relationships ahead of the competition season, there are many teams out there who want to help other FRC teams be successful.
- The Robotics Teachers and Mentors are here to advise you and provide guidance in areas you may not be an expert in – we want to set you and the team up for success, so don't hesitate to reach out to us.