



MY FIRST STEM PASSPORT • FAMILY & STUDENT GUIDE

FIRST® Tech Challenge Chesapeake Championship

Meadow Event Park • Doswell, VA (across from Kings Dominion) • Saturday & Sunday, February 6–7, 2027

Free and open to the public. Come for an hour or stay all day.

How This Guide Works

Nearly 100 of the best FIRST® Tech Challenge teams from Maryland, Virginia, DC, and West Virginia (middle and high school students, grades 7–12) compete here in two divisions, Blue Crab and Red Cardinal. You do not need a tour, a ticket, or a reservation. This guide is your My FIRST STEM Passport: visit the five stops in any order, at your own pace, with your family or a small group. At each stop, a team member or volunteer adds a sticker to your passport. Four stickers earns a completion certificate aligned to the Virginia SOLs, handed to you on the spot (with a little something extra).

Before You Go (5 minutes)

- **Watch the game animation.** Every season has a new game. Search "FIRST Tech Challenge 2026–27 game animation" and watch it together (about 3 minutes) so you know what the robots are trying to do.
- **Pick a lens.** Each person picks one thing to track all day: a mechanism, a team role, a strategy, or a team to root for.
- **Dress for it.** Closed-toe shoes. The arena is loud during matches (music, cheering, buzzers), so bring ear protection for anyone sensitive to noise. Safety glasses are required in the pits and are free at the pit entrance.
- **Write one question.** Everyone arrives with one question to ask a team. Teams love being asked.

The Passport: Five Stops

The five missions below match the My FIRST STEM Passport. Visit in any order; each stop takes 10 to 20 minutes. Ask a team member or volunteer at each stop for your sticker.

1 The Pits — Engineering in Action

Find a team working on their robot. Ask: "What broke this season, and how did you fix it?" Spot three things: a motor, a sensor, and the control hub (the robot's brain). Every robot started inside an 18-inch cube.

STICKER HERE

2	The Field — Physics in Motion Watch two full matches (2 minutes 30 seconds each). The first 30 seconds are autonomous: no drivers, just code the students wrote. Then alliances of two teams work together. Notice who scores and who plays defense.	STICKER HERE
3	Scouting — Data in Action Think like a strategist picking alliance partners. Pick one robot and rate it on speed, accuracy, and teamwork, then watch it again. Did your rating change? This is exactly what the students in the stands with laptops are doing.	STICKER HERE
4	Talk to a Team — People Behind the Robots Ask a team member: "What class at school has helped you most on this team?" and "What do you want to do after high school?" Ask a coach how the team started.	STICKER HERE
5	Tech Mixer — Careers That Build This Visit the exhibitor tables. Find one company or university you have never heard of and ask what a first job there looks like. [Confirm Tech Mixer hours and location before printing]	STICKER HERE

What You Are Looking At

Elementary (K–5)	Middle School (6–8)	High School (9–12)
- Robots are machines that follow instructions people write - Teams work together toward a goal, even when things break - Gears, wheels, and arms are simple machines doing big jobs - Every problem on the field was solved by a student	- Force, motion, and energy transfer in every match - The engineering design process: build, test, fix, repeat - Programming and sensors driving the autonomous period - How math (ratios, speed, scoring) shows up in strategy	- Mechanical systems, control loops, and autonomous code - Design trade-offs between speed, strength, and weight - Data-driven strategy from scouting - Career pathways in engineering, software, fabrication, business, and media

For Teachers: Virginia Standards of Learning

All four Richmond-area divisions follow the Virginia SOLs. Use these connections for extra-credit assignments, a Monday warm-up, or a club outing.

Grade band	Subject area	Standards connections
Elementary K–5	Science & Computer Science	K.1–5.1 scientific investigation and reasoning; 4.2 force, motion, and energy (simple machines in robot mechanisms); C/CT K.1–5.2 algorithms, sequencing, and computational thinking; K.9–5.14 measurement and data (robot size limits, match time, scores).
Middle 6–8	Physical Science, CS, Technology & Engineering, Math	PS.1 investigation; PS.10 force, motion, Newton's laws; PS.11 energy transformation; C/CT 6.1–8.5 programming constructs and debugging (autonomous period); T/E 6–8 engineering design process; 6.1–8.17 ratios, proportional reasoning, and data analysis (gear ratios, scouting data).
High School 9–12	Physics, CS, CTE	PH.1, PH.5, PH.6, PH.7 investigation, forces and torque, work and energy, rotational motion; C/CT 9.1–12.5 algorithms, control structures, real-world computing; TED.1–TED.6 engineering design, mechanical systems, electronics, career readiness; all CTE pathways represented by team roles.

After Your Visit

Elementary (K–5)	Middle School (6–8)	High School (9–12)
• What was the most surprising thing you saw a robot do? • What job on a robotics team would you want? • Draw the robot you would build for this game.	• Where did you see Newton's laws during a match? • How did the team you scouted change between matches? • What would you add to your school to start a team?	• Pick one mechanism. What physics governs it? • What design trade-offs did you notice between two robots? • What career did you see today that you had not considered?

Completion

Finish	Four of five stickers completes the passport. Then flip it over and fill in your Hive Report.
Turn in	Bring your passport to Pit Admin any time before you leave, Saturday or Sunday. [Confirm location with Ryan]
Certificate	Handed to you on the spot, with a small prize for every completed passport.
Groups of 10+	Classes, clubs, after-school programs, scout troops, and Saturday academies can request a free 45-minute guided visit with a student ambassador at firstchesapeake.org/ftc/championship-27 (Field Trips and Groups section) or by writing events@firstchesapeake.org .

Plan Your Visit

Dates	Saturday, February 6 and Sunday, February 7, 2027. Saturday: passport and guided visits start at 10:00 AM with practice matches, before opening ceremonies; qualification matches follow. Sunday: qualification matches in the morning, alliance selection and playoffs in the afternoon, awards to close. [Confirm Sunday times]
Venue	Meadow Event Park, 13191 Dawn Blvd, Doswell, VA 23047 (across from Kings Dominion, 25 minutes north of Richmond).
Admission	Free. Free parking.
Food	Concessions on site. Outside food welcome in designated areas.
Safety	Safety glasses required in the pits, provided free. Closed-toe shoes recommended. Children stay with an adult in the pits.
Accessibility	Accessible venue and parking. Quiet area available; ask any volunteer.
Best for younger kids	Saturday from 10:00 AM (practice matches, open pits, shortest lines for stickers) or Sunday afternoon playoffs (the most exciting matches, biggest crowd).

Bring FIRST to Your School

Elementary & Middle (K–8)	Middle & High School (7–12)	We're Here to Help
FIRST® LEGO® League Explore (grades PreK–4) and Challenge (grades 4–8): teams research a real-world problem, build and program a LEGO robot, and present at a tournament. Ask us about what is next for K–8 in the 2027–28 season.	FIRST® Tech Challenge: everything you are watching today. Teams of 7–12th graders design, build, and program a robot. The ideal entry point for a new school, with startup support through our Geared Up cohort.	FIRST® Chesapeake supports your school with program setup, local team connections, near-peer mentors, funding guidance, and follow-up materials. No experience required. Reach out any time.

Contact FIRST® Chesapeake • events@firstchesapeake.org • firstchesapeake.org • Serving 10,000+ students across DC, Maryland & Virginia

Materials courtesy of FIRST® Chesapeake • 240 West Main Street, Suite 100–V42, Charlottesville, VA 22902