



A Briefing for Loudoun Parents

Robotics. Real. In your kid's school.

What FIRST robotics actually is, what your kid would do, and how to get them in — even if their school doesn't have a team yet.

WHAT IS FIRST?

The biggest youth robotics nonprofit in the world. Coverage in Loudoun is uneven.

FIRST is a global K-12 robotics program. Kids form teams, design and build robots, and compete locally, regionally, and at a world championship.

700K+

students every year

50+

countries

\$80M+

FIRST's scholarship pool
for FIRST alumni each year

WHAT YOUR KID WOULD ACTUALLY DO

Build. Code. Compete. With friends.

1 Design and build a robot

From a kit (LEGO or metal). Real engineering — gears, motors, sensors, structure.

2 Code it

Block-based for younger kids; Java or Python for older. They learn debugging through failure.

3 Compete over a weekend

Local qualifiers with other teams.

4 Present what they built

Talk to engineers, mentors, and judges.

THE K-12 PATHWAY

A program that grows with your kid.

GRADES K - 4

FLL Explore

LEGO-based, no competition stress. Showcase events. Pure curiosity and tinkering.

GRADES 4 - 8

FLL Challenge

Real engineering with LEGO Education kits. Local qualifying tournaments. Coding gets serious.

GRADES 7 - 12

FIRST Tech Challenge

Metal robots, Java code, alliance-based tournaments. The closest thing to professional engineering teamwork.

THE COMMITMENT

Less than a sport. Manageable for families.

~2-4 hrs

per week, after school,
September through December

1-2 days

for tournament weekends,
late in the year (Dec)

\$100-300

per kid, depends on
team size and program

Typical family cost is \$100-300 per kid per year. The actual number depends on team size (larger teams spread the kit and registration across more families) and the program (FLL is lower; FTC trends higher). Need-based help is available so no kid is priced out.

Schools provide space and a teacher sponsor. Loudoun Robotics offers team grants for new teams, matches teams with parent mentors, and can help coach parents and teachers to become coaches themselves.

WHAT IT BUILDS IN YOUR KID

Skills that show up everywhere else.

1

Engineering and coding

The foundation of nearly every well-paid technical career, learned by doing instead of by lecture.

2

Teamwork under deadline

Real ones. The robot has to work by Saturday. They learn to disagree, recover, ship.

3

Public presentation

They defend their design to engineers and judges. A skill admissions officers and interviewers notice.

4

A path to college money

FIRST alumni are eligible for FIRST's \$80M+ scholarship pool — awards from partner institutions every year.

YOUR SCHOOL ALREADY HAS A TEAM

Here's how to find it and sign up.

- 1 Ask the school**
Email the principal or front office. Most schools list teams under 'after-school clubs' or 'STEM activities'.
- 2 Search the FIRST team finder**
firstinspires.org → 'Find Teams'. Filter by ZIP code. Loudoun teams are listed.
- 3 Email us — we'll connect you**
We can introduce you to families and coaches on existing Loudoun teams. Established teams can request grants and mentor help from us too — not just brand-new ones.

contact@loudounrobotics.org

YOUR SCHOOL DOESN'T HAVE A TEAM

We help you bring one in.

Many teams in Loudoun started because one parent made the ask. We've put together a step-by-step playbook — talking points for the principal, a budget template the school can sign off on, and a one-page proposal that's already done for you.

How the partnership works: you and your school co-own getting it off the ground. Loudoun Robotics offers a team grant to help cover startup costs (kit, registration, first-year fees), matches you with a parent mentor, and can coach parents or teachers willing to step up as coaches. The school provides space and a teacher sponsor.

Get the parent playbook → loudounrobotics.org/resources.html#parents

Work with your school. We'll help.

The fastest path is parent + school + Loudoun Robotics, working together. Email us — we'll walk you through the conversation with your principal.

contact@loudounrobotics.org

loudounrobotics.org/get-involved/bring-to-school.html

loudounrobotics.org/programs/