

The Bangladeshi girl excelling in the international robotics scene

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In an era where technology is evolving at an unprecedented pace, one Bangladeshi high school student is proving that the future of robotics is in capable hands. Nasheetat Zainah Rahman, a 12th-grade student at Mastermind English Medium School, is not just a robotics enthusiast — she is a trailblazer in the field. Over the past six years, she has actively competed in robotics olympiads at both national and international levels, earning multiple accolades, including three gold medals at the International Robot Olympiad and five gold medals at the Bangladesh Robot Olympiad.

But her passion for robotics extends far beyond competitions. She has delved into research on increasing female participation in robotics olympiads, had a poster paper published at the Conference on Computer-Supported Cooperative Work and Social Computing '24 as well as a full paper accepted at GE@ ICSE 2025 (Gender Equality, Diversity, and Inclusion in Software Engineering) — both highly prestigious international academic conferences.

In this interview, Nasheetat reflects on her journey,



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the challenges she has overcome, and her vision for the future of robotics in Bangladesh.

Campus (C): Could you share how your journey in robotics began?

Nasheetat (N): My fascination with computers began at a young age — I would spend endless hours on Microsoft Paint, drawing, or playing games. Since I loved gaming so much, my mom introduced me to Scratch,

a block-based programming platform. The ability to create my own games felt almost magical — it was my first step into the world of programming.

At the same time, I had a deep love for LEGO, and when I discovered the LEGO Mindstorms EV3 robotics kit, I was instantly captivated by the idea of building and programming my own robot. That was the moment when my robotics journey began.

Eager to learn more, I attended an Arduino workshop which introduced me to more advanced robotics concepts. It was there that I first heard about the Bangladesh Robot Olympiad — a discovery that led to years of participating in competitions, countless hours of building and coding, and an ever-growing passion for robotics.

Campus (C): What resources have been most valuable in your robotics journey?

N: Workshops have played a pivotal role in my robotics journey. The Bangladesh Robot Olympiad regularly hosts beginner-friendly workshops that make learning robotics accessible and engaging. These workshops were a lifesaver when I was just starting out and they helped me build a solid foundation.

Beyond workshops, YouTube has been an invaluable resource, offering hands-on project tutorials that feel like having countless mentors at my fingertips. I also frequently use a website called Instructables which provides detailed step-by-step guides for various robotics projects.

When it comes to books, Mishal Islam's *Srishtir Ullashe Robotics* series has been particularly insightful, breaking down complex robotics concepts in a simple and engaging way.

Campus (C): What has it been like representing Bangladesh for so many years? Could you share some of your favorite memories and the challenges you've faced along the way?

N: Representing Bangladesh on the international stage for so many years has been an unforgettable journey. One of the most beautiful moments was hearing our team's name announced as winners for gold, and walking onto the stage, holding our country's flag. The sense of pride and joy I felt in that moment is indescribable.

But the medals are only part of the story. The memories I've made with my teammates are what

I cherish the most. We've spent weeks together, supporting each other through challenges, exploring new cities, and pulling all-nighters working on our robots. Those moments of camaraderie made the experience truly special.

Of course, the journey hasn't been without its struggles. As girls in robotics, we often have to face those who doubt our abilities. Even after we had proven ourselves, people's scepticism lingered. It was challenging and it affected my confidence, but these obstacles also taught me resilience. I used to have a tendency to give up when things got tough. However, through these competitions, I discovered a side of myself that refuses to quit, even when everything seems to fall apart.

Six years is a long time, filled with both highs and lows, but the fact that I never gave up makes me incredibly proud. This journey has been full of lessons, growth, and memories I'll carry with me forever.

Campus (C): What are your future aspirations?

N: Looking ahead, I hope to become a robotics engineer focused on developing innovations that address real-world problems and make a positive social impact. Additionally, I'd love to mentor young aspiring roboticists, guiding them through the same journey that shaped me. Helping the next generation of innovators discover their passion for robotics and watching them grow will be just as rewarding as the innovations I hope to create.

Campus (C): What advice would you give to those who are just starting to learn robotics?

N: Robotics can definitely be frustrating at times — when your circuit won't connect or your code doesn't work as you imagined. But trust me, the moment your creation finally comes to life, you will experience one of the most rewarding feelings.

It takes patience, but it's worth every bit of effort. The idea that you can build something entirely from your imagination and watch it move, think, or interact is simply magical. Robotics might seem complex and overwhelming at first, but remember, I was once a beginner too. Don't give up when things get tough because the moment it all clicks is truly unforgettable.

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