Sourish Pramanik

16 ∞ Junior ∞ Montgomery High School ∞ Sour

Hobbies: YouTube (making physics videos, animations, and occasionally gaming content) - Sour; Tennis; Painting; Starting 2-week-long Minecraft Servers and then forgetting about them; Grinding to GC in Rocket League; The Study Hall Bumper Pool Grind; All-You-Can-Eat Sushi

Clubs: Science Olympiad (Wind Power, Optics, Air Trajectory, WIDI), TSA TEAMS Captain, Math League, member of the JV Tennis Team, self-declared leader of our phenomenal Feodor Fan Club

Contest/Competition Experience or Honors: USAPhO Gold 2023; USAAAO Bronze 2023; USAAAO Qual 2024; US Physics Team Member 2024; SO States Winner 2022 & 2024; Multiple Medals at SO invites; Physics Unlimited Explorer Competition Honorable Mention 2023; BIPhCT Champions (1st Place); AIME Qual; Co-Creator of the Great MIT Optics Double Spike; Breaking Monty Scioly Record for Highest Placement (72nd in WIDI); 2023 TEAMS Nats 4th place MCQ; 112% completion on Hollowknight (2021); defeating Mr. Sullivan in bumper pool; and named intrepid student (verified by our revered instructor, CJB)

Autobiography:

When I was young, my mom regularly asked me to come downstairs to drink a glass of water. But, because I was too lazy to go all the way down each time, I hatched a plan. Over the course of a week, I designed a network of straws, going from my bed down to the kitchen, to drink water. My plan was perfect. But when I tried sipping from my bedroom, I was out of breath within seconds, and the water barely moved up the straws. Wondering what went wrong, I decided to experiment—by testing out different lengths of straws, I found out that I could only bring water halfway up the stairs in a single breath. But I also discovered that if I quickly put my thumb on the straws after running out of air, the water would stay at nearly the same level, allowing me to regain my breath before trying again. Eventually, after multiple tries and an exhausting amount of sips, I finally tasted the sweet ambrosia of victory.

Still disappointed in my solution, I went online searching to see if someone had done it in one breath, and in the process, discovered the YouTuber Veritasium. From that day on, whenever I came home, instead of watching Wild Kratts, I started watching physics videos on YouTube, learning about the mysteries of our universe. Later, in middle school, I also joined Science Olympiad, working on events like machines, mouse-trap vehicles, and Mission Possible which taught me a lot about classical mechanics.

However, my view of physics all changed when I moved to Montgomery High School. Our freshman-year physics teacher, Mr. Buzska, taught in a way I hadn't experienced before. Instead of regurgitating numbers and formulas on tests, he made us derive everything—yes,

even Newton's Laws—empirically before we were able to use them, allowing me to intuitively approach concepts like acceleration, energy, and even the ideal gas law. And he also pushed me to make my first video on thermodynamics. Our labs in freshman year gave me such a strong foundation regarding these physical laws. I also met Aarush, a senior who introduced me to the world of astronomy and modern physics. Over the summer, he gave me tons of books and resources to read and problems to solve.

I discovered Physics Olympiad near the end of freshman year summer and was immediately hooked. Over the next 6 months, I began reading HRK and KZ Handouts. After qualifying past F=ma, I grinded even harder and earned a gold medal in USAPhO sophomore year. Although I was disappointed I didn't camp, it gave me the motivation and the confidence to work harder in the coming year. And now, here I am, on the US Physics Team. But I know my journey in physics doesn't end here.

Thank you Mr. Buzska, for teaching me how to think. Thank you Aarush, for introducing me to a world I didn't know existed. Thank you Ms. Tingire, for always believing in my abilities (and letting me take mock USAPhOs during math class). Thank you Mr. Sullivan, for showing me how to design and build things (and playing bumper pool with me in study hall). Thank you, David, Max, Eddie, Joel, Andrew, and Kevin for being the most supportive friends ever. Finally, I would like to thank my mom and dad, the best parents in the entire world. Thank you for looking after me and always asking me to come downstairs to drink water.

It's truly an incredible honor to be on this team and I know I'll have the best time meeting everyone at camp.