Reflections on the robotic challenge

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From the start, our project posed significant challenges. Our first task was to program Zumi to follow a line autonomously, without using its built-in line-following feature. As someone with minimal Python experience, I found this especially difficult. Fortunately, one teammate had professional experience with both Python and Git, which helped guide us through the early technical hurdles.

About two weeks in, I raised concerns with our subject matter expert about the difficulty level. Other groups shared similar feedback, and the following missions were adjusted to better match beginner-level programming skills. Still, the initial lack of guidance on programming practices and Git created a steep learning curve. A few clear tutorials at the outset would have made a big difference.

We also ran into practical issues with Zumi itself. Environmental factors like lighting and the difference between inkjet vs. laser-printed lines, affected its performance far more than expected. Sharing one Zumi among four teammates also meant limited hands-on time, which made communication and coordination critical, and, at times, inconsistent.

Team dynamics added another layer of complexity. One teammate had special needs that required more accommodations than I initially anticipated. While I support inclusive teams, clearer communication up front might have helped shape a more balanced group structure.

Midway through the project, I took on more management responsibilities: scheduling extra group coaching sessions and setting up a structured GitHub workflow to keep us on track. It helped somewhat, but the organisational overhead was high, and it didn't always translate into smoother collaboration. Eventually, we decided that one teammate would work independently, which was a difficult call, especially during a stretch when our subject matter expert was out for surgery and another team member was sick.

Most of my focus ended up on team coordination rather than learning Python. I plan to shift that focus next semester and build a stronger technical foundation.

Still, there were real positives. I've developed a growing interest in robotics and plan to explore more projects involving hardware components, though probably not at an advanced programming level just yet. And while our team had its bumps, the core group grew stronger and more cohesive through the process. In the end, the experience was messy, challenging, and surprisingly rewarding.