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Becoming a synchrotron designer; experiences, challenges, and teachings.

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I am early in my career designing synchrotron systems within high vacuum (HV) and ultra-high vacuum (UHV) conditions, joining the Diamond Light Source around a year ago. Since starting I've been working on SWIFT (Spectroscopy WithIn Fast Timescales), one of the Diamond-II flagship beamlines. To get up to speed I needed to rapidly become accustomed to the unique features and challenges surrounding designing for HV & UHV. These challenges tested my understanding of physics, mechanics, electromagnetism, and control systems. While training provides a strong basis of understanding, getting involved and interacting with colleagues frequently provides a stronger grasp on how these technical problems should be approached. My findings summarise my recommendations I have for fellow engineers new to this sector. With this advice I hope to help clear the path toward future technical prowess and personal development for others in this industry.

Footnotes

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