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An Automated Image Collection System For Crystallization Experiments Using SBS Standard Microplates.
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As part of a university laboratory structural genomics platform, a low-cost, in-house developed, automated imaging system for SBS microplate experiments has been designed and constructed. The imaging system can scan a microplate in around one to six minutes depending on the plate layout and scanning options. A web-based crystallization database system has been developed, enabling users to follow their crystallization experiments from a web browser.

The system is mechanically simple and leaves room for further developments and additions, but the basic idea is for the system to be non-complicated, robust and low-cost. The software is developed in-house and consists of a robot controlling software and an Image Management system. The software is stand-alone, but we have chosen to partly integrate the image management system into our in-house developed lab information management (LIMS), thus making it an integrated part of our lab environment.