Engineering at SLAC: Designing and Constructing Experimental Devices for the SSRL

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Thanks to the versatility of the beam lines at SSRL, research there is varied and benefits multiple fields. Each experiment requires a particular set of experimental equipment, which in turn requires its own particular assembly. As such, new engineering challenges arise from each new experiment. My role as an engineering intern has been to help solve these challenges, by designing and assembling experimental devices. My first project was to design a heated sample holder, which will be used to investigate the effect of temperature on a sample's x-ray diffraction pattern. My second project was to help set up an imaging test, which involved designing a cooled grating holder and assembling multiple positioning stages. My third project was designing a 3D-printed pencil holder for the SSRL workstations.

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