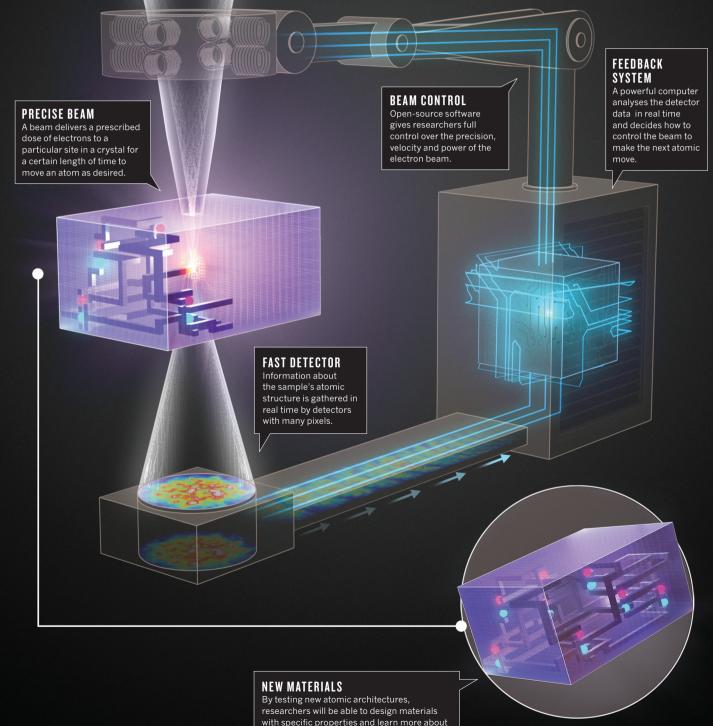
THE ATOMIC FORGE

A SCANNING TRANSMISSION ELECTRON MICROSCOPE (STEM) fires a beam of electrons through a sample of material to pinpoint atoms and reveal the material's crystal structure. For imaging, the downside is that the beam can move atoms slightly. But if these modifications can be controlled, it could be a boon. New materials could be built atom by atom by controlling the electron beam precisely. Such bespoke materials might enable new classes of devices for quantum computing, spin sensing and more.



interactions between the beam and sample.

ILLUSTRATION BY XVIVO SCIENTIFIC ANIMATION