Structure from motion (SfM) is a photogrammetric range imaging technique for estimating three-dimensional structures from two-dimensional image sequences that may be coupled with local motion signals. It is studied in the fields of computer vision and visual perception. In biological vision, SfM refers to the phenomenon by which humans (and other living creatures) can recover 3D structure from the projected 2D (retinal) motion field of a moving object or scene. Flexibility is presented as a natural consequence of these demands. A number of technologies are relevant to extending feasible performance into regions of the design space previously avoided due to the resulting flexibility of the structures and drives. Control technology is considered foremost, but passive damping, structural materials, structural design, operational strategy and sensor technology are closely related. Numerous references are presented for those wishing to employ these technologies.

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