

THE ULSTER BIOMEDICAL ENGINEERING SOCIETY
and the
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A B S T R A C T S

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Developing a Kinematic Knee Screener

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A new machine has been built in the Department of Orthopaedic Surgery, Queens University of Belfast for the study of vibration arthrography of the knee. One signal from the patello-femoral joint known to be extremely sensitive to changes in the angular velocity and loading of the joint has been under investigation for several years. The mechanism of its production is now understood and its potential to investigate the mechanical properties of articular cartilage been realised.

This paper discusses the design requirements of the machine, its calibration and the instrumentation which has been developed for its verification.