Notes/Key: denotes a joint centre x is a rotation vector into the page Black vectors denote the local coordinate frame of the segment they are within. Despite the vectors' locations, the local coordinate systems of the segments always have their origin at the segments' joint centre. Each green vector represents a configuration variable. Use the right-hand-rule on these vectors to determine the positive direction of the configuration variable. **CA1extension CA1rotation CB1rotation** CB1abduction A1A2extension CA1adduction **TCsagittalSpinalFlexion CB1extension TCspinalTorsion B1B2extension** PTbending X **PTsagittalFlexion** somersault twist PJ1extension PK1abduction PJ1adduction **PK1extension** K1 11 J1J2flexion K1K2flexion