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(54) Abstract Title: **Patient monitor**

(57) A patient monitor is disclosed for detecting patient movement or abnormal breathing. Images of a patient (20) are obtained by a stereoscopic camera (10). These images are then processed by a 3D position determination module (25) which determines measurements indicative of positions of at least part of a patient. The obtained measurements are then passed to a model generation module (32) which generates a breathing model of the variation in position of the at least part of a patient during a breathing cycle. Subsequently abnormal breathing or patient movement can be detected by processing further images obtained by the stereoscopic camera (10) to determine more measurements indicative of positions of at least part of a patient. These measurements are then compared with a stored breathing model (34) by a comparison module (36). If abnormal breathing or patient movement is detected the comparison module (36) sends a signal to a treatment apparatus (16) to interrupt treatment until normal breathing resumes or alternatively to a mechanical couch (18) to reposition the patient to account for the detected movement.

