

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

CYWEE GROUP LTD.,

Plaintiff

v.

SAMSUNG ELECTRONICS CO. LTD.
AND SAMSUNG ELECTRONICS
AMERICA, INC.,

Defendants.

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NO. 2:17-CV-00140-RWS-RSP

**DEFENDANTS SAMSUNG ELECTRONICS CO., LTD. AND SAMSUNG
ELECTRONICS AMERICA, INC.'S MOTION FOR SUMMARY JUDGMENT
OF INVALIDITY UNDER 35 U.S.C. § 101**

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I. INTRODUCTION

This motion presents a simple question for the Court: Does claiming basic, well-known sensors and other off-the-shelf components convert a mathematical algorithm into patentable subject matter? Plaintiff CyWee Group Ltd.’s (“CyWee”) experts admit that the claims of the patents-in-suit set forth an open-ended framework of mathematical equations. It is well established that such claims do not recite patentable subject matter under 35 U.S.C. § 101.

CyWee argues that the patent claims set forth a particular configuration of sensors in a hand-held device and are thus patent eligible. The claims, however, merely recite well-known sensors performing their usual functions without any restriction about how they are physically configured. The prosecution histories confirm that the alleged point of novelty was the claimed algorithms, not the sensors or their configuration. Because there is no plausible reading of the claims that renders them patentable subject matter, Samsung respectfully requests that the Court grants its motion and find the asserted claims invalid under 35 U.S.C. § 101.

II. STATEMENT OF THE ISSUES TO BE DECIDED BY THE COURT

Algorithms are not patentable subject matter under 35 U.S.C. § 101. CyWee’s patent claims merely recite algorithms that operate on data obtained from conventional sensors and were allowed because of the details of those algorithms, not the sensors or their configuration. Given this, are CyWee’s patent claims invalid?

III. STATEMENT OF UNDISPUTED MATERIAL FACTS

A. U.S. Patent No. 8,441,438

CyWee has asserted Claims 1, 3–5, 14–17 and 19 of

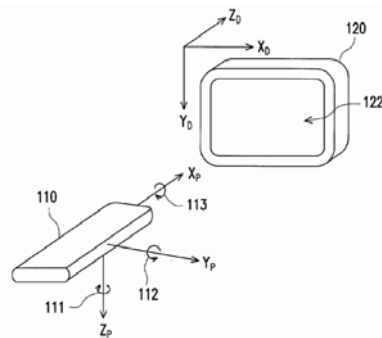


FIG. 1 (RELATED ART)

U.S. Patent No. 8,441,438 (“the ‘438 Patent”) (Ex. 1)¹ against Samsung. These claims are minor variants of the same basic concept of calculating the attitude or orientation of a “3D pointing device” using well-known mathematical formulas. In a parallel lawsuit, in its opposition to Google’s motion to dismiss under Section 101, CyWee mapped a flow chart from the ‘438 Patent to a paraphrased version of the algorithm recited in Claim 14:

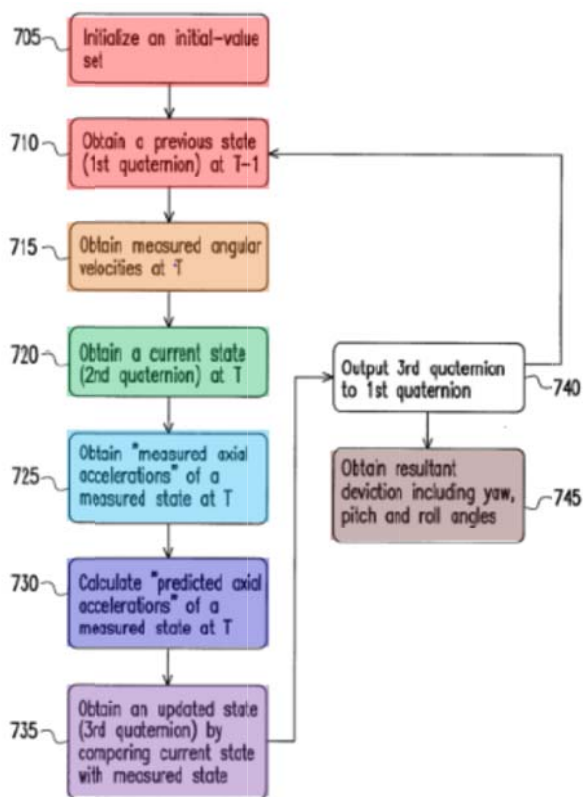


FIG. 7

1. Obtain a first quaternion¹⁹ representing the previous state.
2. Obtaining measured angular velocities from the gyroscopes (or other rotation sensors).²⁰
3. Convert the angular velocities into the second quaternion representing the current state.²¹
4. Obtaining measured axial accelerations from the accelerometers.²²
5. Calculate a predicted set of axial accelerations based on the current state.²³
6. Compare the predicted and measured axial accelerations to the second quaternion to obtain the third quaternion representing the updated state.²⁴
7. Obtain resulting deviation, including yaw, pitch and roll angles.²⁵

Ex. 2 at 5.

CyWee further mapped the above to the algorithm literally recited in Claim 14:

A method for obtaining a resulting deviation including resultant angles in a spatial pointer reference frame of a three-dimensional (3D) pointing device utilizing a six-axis motion sensor module therein and subject to movements and rotations in dynamic

¹ Unless otherwise stated, all exhibits referenced herein are attached to the Declaration of Elizabeth L. Brann, filed concurrently herewith.

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