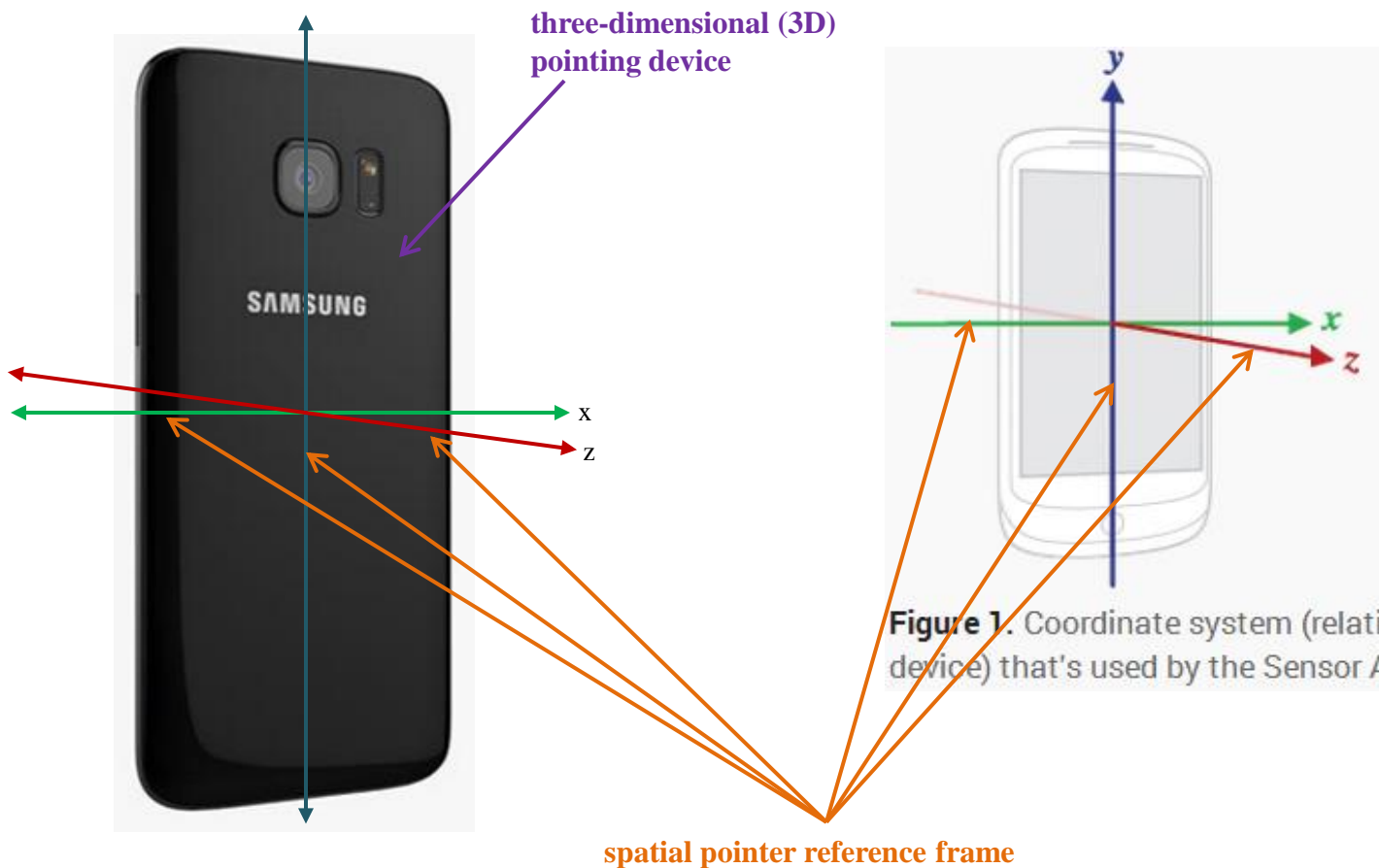

EXHIBIT A

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

Samsung Galaxy S7 Edge

Claim 14

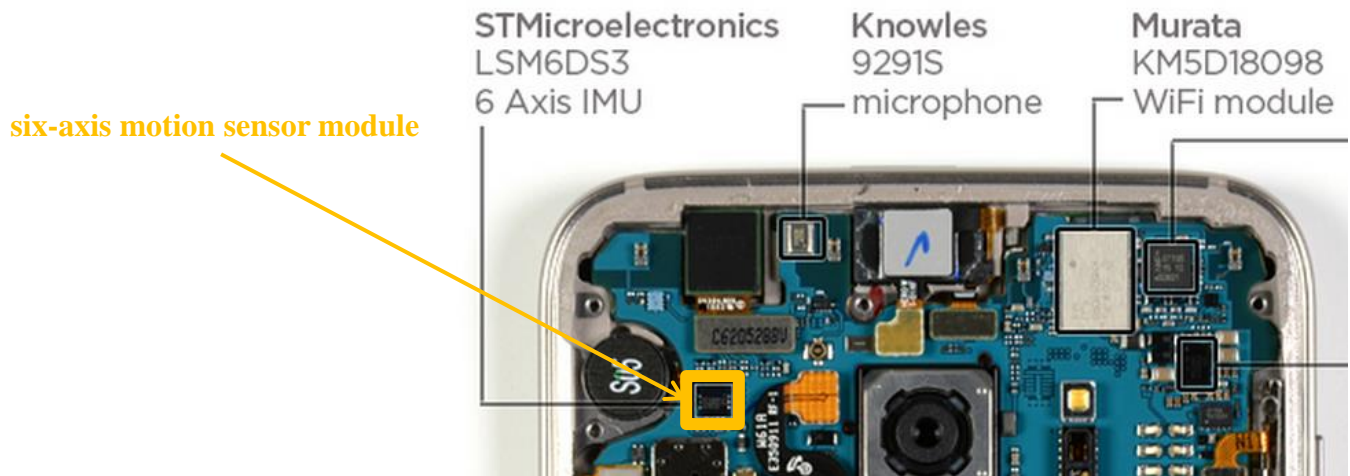
A method for obtaining a resulting deviation including resultant angles in a **spatial pointer reference frame** of a **three-dimensional (3D) pointing device** utilizing a six-axis motion sensor module therein and subject to movements and rotations in dynamic environments in said **spatial pointer reference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



Source: <http://developer.android.com>

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 environments in said spatial pointer reference frame, comprising the steps of:



Claim 14

obtaining a **previous state** of the six-axis motion sensor module; wherein the **previous state** includes an initial-value set with **previous angular velocities** gained from the motion sensor signals of the six-axis motion sensor module at a previous

The previous state is obtained through an update program that includes a predict() function and an update() function that are used to update the global variable x0 based on x0 (the **previous state**) associated with **previous angular velocities** w gained at a previous time T-1 to obtain an updated state x0. The updated state x0 becomes the previous state x0 at time T (the next iteration) of the update program to obtain the updated state x0 at time T.

```

430 void Fusion::predict(const vec3_t& w, float dT)
431     const vec4_t q = x0; ← previous state
485     x0 = 0*q;

```

```

495 void Fusion::update(const vec3_t& z, const vec3_t& Bi, float dT)
496     vec4_t q(x0);

```

```

529     const vec3_t e(z - Bb);
530     const vec3_t dq(K[0]*e);
531
532     q += getF(q)*(0.5f*dq);
533     x0 = normalize_quat(q);

```

next iteration

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