

CLAIMS

[Claim 1]

A virtual reality experience apparatus, comprising:

an image apparatus providing an experiencing user with an image; and

a riding apparatus providing the experiencing user with a motion,

wherein the riding apparatus includes a riding part providing the experiencing user with a rideable space; and a gyro mechanism generating at least one of a pitching motion, a yawing motion, a rolling motion, and a reciprocating motion in the riding part,

wherein the gyro mechanism includes a first mechanism generating the yawing motion and the reciprocating motion in the riding part; a second mechanism generating the pitching motion in the riding part; and a third mechanism generating the rolling motion in the riding part,

wherein the first mechanism rotates with respect to a structure supporting the gyro mechanism and reciprocates in a direction to move close to and away from the structure,

wherein the second mechanism is supported by the first mechanism and rotates with respect to an axis perpendicular to a rotational axis of the first mechanism, and

wherein the third mechanism is supported by the second mechanism and rotates with respect to an axis perpendicular to the rotational axis of the second mechanism.

[Claim 2]

The virtual reality experience apparatus of claim 1, wherein the riding part is fixedly coupled to the third mechanism.

[Claim 3]

The virtual reality experience apparatus of claim 1, wherein a first actuator generating a driving force required for a rotating motion of the first mechanism is formed between the structure and the first mechanism, a third actuator generating a driving force required for a rotating motion of the second mechanism is formed between the first mechanism and the second mechanism, and a fourth actuator generating a driving force required for a rotating motion of the third mechanism is formed between the second mechanism and the third mechanism.

[Claim 4]

The virtual reality experience apparatus of claim 1, wherein a second actuator generating a driving force required for the reciprocating motion of the first mechanism is formed between the structure and the first mechanism.

[Claim 5]

A virtual reality experience apparatus, comprising:

an image apparatus providing an experiencing user with an image; and

a riding apparatus providing the experiencing user with a motion,

wherein the riding apparatus includes a riding part providing the experiencing user with a rideable space; and a gyro mechanism generating at least one of a pitching motion, a yawing

motion, a rolling motion, and a reciprocating motion in the riding part wherein the gyro mechanism includes a first mechanism generating the yawing motion and the reciprocating motion in the riding part; a second mechanism generating the pitching motion in the riding part; and a third mechanism generating the rolling motion in the riding part,

wherein the first mechanism rotates with respect to a structure supporting the gyro mechanism and reciprocates in a direction in which a portion supporting the second mechanism moves close to and away from the structure,

wherein the second mechanism is supported by the first mechanism and rotates with respect to an axis perpendicular to a rotational axis of the first mechanism, and

wherein the third mechanism is supported by the second mechanism and rotates with respect to an axis perpendicular to the rotational axis of the second mechanism.

[Claim 6]

The virtual reality experience apparatus of claim 5, wherein a second actuator generating a driving force required for a reciprocating motion of the portion supporting the second mechanism is formed in the first mechanism.