Claims

[Claim 1]

An unmanned aerial vehicle comprising:

at least four rotary wings;

a thrust generation propeller;

a drive device that drives the at least four rotary wings and the thrust generation propeller;

a control signal generation circuit that generates a control signal for causing the drive device to drive the at least four rotary wings and the thrust generation propeller; and

an imaging camera,

wherein the unmanned aerial vehicle is configured to fly inside a closed-type space by propelling by rotations of the thrust generation propeller while floating by rotations of the at least four rotary wings with driving the at least four rotary wings and the thrust generation propeller while taking images inside the closed-type space by means of the imaging camera.

[Claim 2]

The unmanned aerial vehicle according to claim 1, further comprising a member for preceding impact which is for causing an impact on a boundary surface in advance when the unmanned aerial vehicle impacts on the boundary surface of the closed-type space.

[Claim 3]

The unmanned aerial vehicle according to claim 2, wherein the member for preceding impact is positioned at the side of one edge of the unmanned aerial vehicle and,

when the unmanned aerial vehicle impacts on the boundary surface

while flying inside the closed-type space with the side of the one edge as the forward side, the member for preceding impact is configured to impact on the boundary surface on the forward side ahead of the position of the center of gravity of the unmanned aerial vehicle.

[Claim 4]

The unmanned aerial vehicle according to any of claims 1 to 3,

wherein the control signal includes an attitude control signal,

and the unmanned aerial vehicle is configured so that the attitude control signal causes the drive device to drive the rotary wings, and, when the unmanned aerial vehicle is tilted, the attitude of the unmanned aerial vehicle is controlled by reducing the number of rotations of one or some of the rotary wings.

[Claim 5]

The unmanned aerial vehicle according to any of claims 1-4,

wherein the drive device includes at least four motors which provide the respective rotary wings with motive powers, respectively, and

each of the motors are configured to provide the rotary wing with motive power at a position with a higher gravitational potential than the rotary wing which receives motive power from the each motor.

[Claim 6]

The unmanned aerial vehicle according to any of claims 1 to 6, further comprising a direction of travel imaging camera and a direction of travel imaging data transmitter,

wherein the unmanned aerial vehicle is configured to fly inside the closed-type space while taking images of the direction of travel inside the closed-type space by means of the direction of travel imaging camera and while transmitting, to the outside, the obtained direction of travel imaging

data from the direction of travel imaging data transmitter.

[Claim 7]

A method of causing a unmanned aerial vehicle having at least four rotary wings, a thrust generation propeller, a drive device that drives the at least four rotary wings and the thrust generation propeller, a control signal generation circuit that generates a control signal for causing the drive device to drive the at least four rotary wings and the thrust generation propeller, and an imaging camera, to fly inside a closed-type space by propelling by rotations of the thrust generation propeller while floating by rotations of the at least four rotary wings with driving the at least four rotary wings and the thrust generation propeller while taking images inside the closed-type space by means of the imaging camera.