CLAIMS

[1.] A cleaning robot comprising:

a main body housing that is provided with a suction opening and an air exhaling opening;

a pair of drive wheels that have a horizontal rotary shaft and allows the main body housing to move by itself;

an electric fan that is disposed in the main body housing;

a dust collection portion that is disposed on the rotary shaft and collects dust of an air flow which is sucked from the suction opening because of driving of the electric fan; and

a battery that supplies electric power to each portion; wherein

the electric fan is disposed on one side of the dust collection portion and the battery is disposed on another side of the dust collection portion.

[2.] The cleaning robot according to claim 1, wherein

the rotary shaft is disposed on a center line of the main body housing.

[3.] The cleaning robot according to claim 2, further comprising:

a rotary brush that is disposed at the suction opening arranged in front of the drive wheels; and

a rear wheel that is disposed behind the drive wheels; wherein

the rotary brush, the drive wheels and the rear wheel contact a floor surface, so that the main body housing moves by itself on a floor surface.

[4.] The cleaning robot according to any one of claim 1 to claim 3, further comprising:

a control board that controls each portion; wherein

the control board is disposed on the same side as the battery with respect to the dust

collection portion.

[5.] The cleaning robot according to claim 4, further comprising:

an air flow path that connects the suction opening with the dust collection portion, and connects the dust collection portion with the air exhaling opening; wherein

the air flow path is disposed on one side with respect to the dust collection portion.

[6.] A cleaning robot comprising:

a main body housing that is provided with a suction opening disposed through a lower surface and an air exhaling opening disposed through an upper surface and moves by itself on a floor surface;

an electric fan that is disposed in the main body housing;

a dust collection portion that collects dust of an air flow which is sucked from the suction opening because of driving of the electric fan;

an air flow path that connects the suction opening with the dust collection portion, and connects the dust collection portion with the air exhaling opening; and

a control board that controls each portion; wherein

the air flow path is disposed on one side of the dust collection portion and the control board is disposed on another side of the dust collection portion.

[7.] The cleaning robot according to claim 6, further comprising:

a dust collection chamber that houses the dust collection portion in a freely mountable and demountable manner and extends in a direction to partition an inside of the main body housing; wherein

a wall surface, which extends in a longitudinal direction of the dust collection chamber, is provided with a first air inhaling path through which the air flow flows in and a second air

inhaling path through which the air flow flows out; and

another wall surface of the dust collection chamber is closed.

[8.] The cleaning robot according to claim 7, wherein

the dust collection portion includes:

a dust collection vessel which is provided with an air flow-in opening and in which the dust accumulates;

an upper cover which opens and closes an upper surface of the dust collection vessel and is provided with an air flow-out opening; and

a filter which is disposed on a lower surface of the upper cover and collects the dust.

[9.] The cleaning robot according to claim 8, wherein

opening surfaces of the air flow-in opening and air flow-out opening include an inclined surface; and

a packing is disposed on circumferential rims of the opening surfaces.

CLAIMS

[**Claim 1**] A cleaning robot comprising:

a main body housing that is provided with a suction opening and an air exhaling opening;

a pair of drive wheels that have a horizontal rotary shaft and allows the main body housing to move by itself;

an electric fan that is disposed in the main body housing;

a dust collection portion that is disposed on the rotary shaft and collects dust of an air flow which is sucked from the suction opening because of driving of the electric fan; and

a battery that supplies electric power to each portion; wherein

the electric fan is disposed on one side of the dust collection portion and the battery is disposed on another side of the dust collection portion.

[**Claim 2**] The cleaning robot according to claim 1, wherein

the rotary shaft is disposed on a center line of the main body housing.

[**Claim 3**] The cleaning robot according to claim 2, further comprising:

a rotary brush that is disposed at the suction opening arranged in front of the drive wheels; and

a rear wheel that is disposed behind the drive wheels; wherein

the rotary brush, the drive wheels and the rear wheel contact a floor surface, so that the main body housing moves by itself on a floor surface.

[**Claim 4**] The cleaning robot according to any one of claim 1 to claim 3, further comprising:

a control board that controls each portion; wherein

the control board is disposed on the same side as the battery with respect to the dust collection portion.

[**Claim 5**] The cleaning robot according to claim 4, further comprising:

an air flow path that connects the suction opening with the dust collection portion, and connects the dust collection portion with the air exhaling opening; wherein

the air flow path is disposed on one side with respect to the dust collection portion.