CLAIMS

[Claim 1]

An image forming apparatus that enters a first power state in which a predetermined function is executable and a second power state in which the predetermined function is not executable,

the image forming apparatus comprising:

detection means for detecting an object;

return means that a user operates in order to shift the image forming apparatus from the second power state to the first power state;

notification means for, in a case where an object has been detected by the detection means, providing a notification of information indicating a position of the return means; and

power-source control means for, in a case where the return means has been operated by the user, shifting the image forming apparatus from the second power state to the first power state.

[Claim 2]

The image forming apparatus according to Claim 1, wherein, in a case where the detection means does not detect the object, the notification means does not provide the notification of information.

[Claim 3]

The image forming apparatus according to Claim 1,

wherein the detection means has a first detection range and a second detection range that is smaller than the first detection range, and

wherein, in a case where an object has been detected in the first detection range by the detection means, the notification means provides the notification of information indicating the position of the return means, and, in a case where an object has been detected in the second detection range by the detection means, the power-source control means shifts the image forming apparatus from the second power state to the first power state without operating the return means with the user.

[Claim 4]

The image forming apparatus according to Claim 3, wherein, in a case where an object has been detected in the second detection range by the detection means, the notification means does not provide the notification of information indicating the position of the return means.

[Claim 5]

The image forming apparatus according to Claim 1, wherein the notification means is a light-emitting section that is placed near the return means.

[Claim 6]

The image forming apparatus according to Claim 5,

wherein a manner in which the light-emitting section performs illumination changes in accordance with a position of an object detected by the detection means.

[Claim 7]

The image forming apparatus according to Claim 6, wherein an interval, the light-emission section blinking at the intervals, or a brightness of the light-emission section changes in accordance with a position of an object detected by the detection means.

[Claim 8]

The image forming apparatus according to Claim 1, wherein the predetermined function is at least one of a copy function, a print function, and a fax function.

[Claim 9]

The image forming apparatus according to Claim 1, wherein the detection means includes an infrared sensor.

[Claim 10]

The image forming apparatus according to Claim 9, wherein the detection means includes an infrared array sensor in which infrared sensors are arranged.

[Claim 11]

A method for controlling an image forming apparatus that enters a first power state in which a predetermined

function is executable and a second power state in which the predetermined function is not executable,

the method for controlling the image forming apparatus comprising:

a step of detecting an object with detection means;

a step of, in a case where an object has been detected by the detection means, providing a notification of information indicating a position of return means that a user operates in order to shift the image forming apparatus from the second power state to the first power state; and

a step of, in a case where the return means has been operated by the user, shifting the image forming apparatus from the second power state to the first power state.

[Claim 12]

An image forming apparatus that enters a first power state in which a predetermined function is executable and a second power state in which the predetermined function is not executable,

the image forming apparatus comprising:

detection means for detecting an object;

acquisition means for acquiring, from a medium that stores identification information of a user who is to use the image forming apparatus, the identification information; and

notification means for, in a case where an object has

been detected by the detection means, providing a notification of information indicating a position of the acquisition means.

[Claim 13]

The image forming apparatus according to Claim 12, wherein, in a case where the detection means does not detect the object, the notification means does not provide the notification of information.

[Claim 14]

The image forming apparatus according to Claim 12, wherein the notification means is a light-emitting section that is placed near the acquisition means.

[Claim 15]

The image forming apparatus according to Claim 14, wherein a manner in which the light-emitting section performs illumination changes in accordance with a position of an object detected by the detection means.

[Claim 16]

A method for controlling an image forming apparatus that enters a first power state in which a predetermined function is executable and a second power state in which the predetermined function is not executable,

the method for controlling the image forming apparatus comprising:

a step of detecting an object with detection means; and

a step of, in a case where an object has been detected by the detection means, providing a notification of information indicating a position of acquisition means for acquiring, from a medium that stores identification information of a user who is to use the image forming apparatus, the identification information.

CLAIMS

[Claim 1]

An image forming apparatus comprising:

a detection unit configured to detect an object;

a reception unit including a light emitting unit, configured to receive a user operation for shifting a state of the image forming apparatus from a low power state to a higher power state, wherein the lower power state is a state where the image forming apparatus consumes less power than the higher power state; and

a control unit configured to control a light emitting state of the light emitting unit based on a detection result of the detection unit,

wherein the control unit is further configured, based on the reception unit having received the user operation, to shift the state of the image forming apparatus from the lower power state to the higher power state and control the light emitting state of the light emitting unit so that the light emitting state of the light emitting unit is off.

[Claim 2]

The image forming apparatus according to Claim 1, wherein the control unit performs control so that the light emitting unit of the reception unit blinks based on the detection unit having detected an object.

[Claim 3]

The image forming apparatus according to Claim 1,

wherein the detection unit has a first detection range and a second detection range that is smaller than the first detection range, and

wherein, on the basis that an object has been detected in the first detection range by the detection unit, the control unit performs control so that the light emitting unit of the reception unit emits light, and, on the basis that an object has been detected in the second detection range by the detection unit, the control unit performs control so that the light emitting unit of the reception unit stops emitting light.

[Claim 4]

The image forming apparatus according to Claim 3, wherein the control unit is further configured to shift the image forming apparatus from the lower power state to the higher power state based on a detection result of the detection unit.

[Claim 5]

The image forming apparatus according to Claim 1, wherein the control unit performs control so that the light-emitting unit of the reception unit emits light based on the detection unit having detected an object and performs control so that a brightness of the light emitting unit of the reception unit is changed little by little.

[Claim 6]

The image forming apparatus according to Claim 1, wherein the control unit performs control so that a brightness of the light-emitting unit of the reception unit increases as a human detected by the detection unit approaches the image forming apparatus.

[Claim 7]

The image forming apparatus according to Claim 1, wherein the image forming apparatus has at least one of a copy function, a print function, and a fax function.

[Claim 8]

The image forming apparatus according to Claim 1, wherein the detection unit is an infrared sensor.

[Claim 9]

The image forming apparatus according to Claim 8, wherein the infrared array sensor is an infrared array sensor in which infrared sensors are arranged.

[Claim 10]

A method comprising:

a step of detecting an object with a detection unit;

a step of receiving, at a reception unit, a user operation to shift a state of the image forming apparatus from a lower power state to a higher power state, wherein the reception unit

includes a light emitting unit and is configured to receive a user operation for shifting a state of the image forming apparatus from the lower power state to the higher power state, wherein the lower power state is a state where the image forming apparatus consumes less power than the higher power state;

a step of controlling, based on a detection result of the detection unit, a light emitting state of the light emitting unit;

a step of shifting, in response to receiving the user operation at the reception unit, the state of the image forming apparatus from the lower power state to the higher power state; and

a step of controlling, in response to receiving the user operation at the reception unit, a light emitting state of the light emitting unit of the reception unit so that the light emitting state is off.

[Claim 11]

An image forming apparatus comprising:

a detection unit for detecting an object;

an acquisition unit including a light emitting unit, configured to acquire, from a medium that stores identification information of a user who is to use the image forming apparatus, the identification information; and

a control unit configured to control a light emitting state of the light emitting unit based on a detection result of the detection unit.

[Claim 12]

The image forming apparatus according to Claim 11, wherein the control unit performs control so that the light emitting unit of the acquisition unit emits light based on the detection unit having detected an object.

[Claim 13]

The image forming apparatus according to Claim 11 or 12, wherein the control unit performs control so that the light emitting unit of the acquisition unit emits light based on the detection unit having detected an object and performs control so that a brightness of the light

emitting unit of the reception unit is changed little by little .

[Claim 14]

A method for controlling an image forming apparatus comprising:

a step of detecting an object with detection unit;

a step of acquiring, at an acquisition unit, from a medium that stores identification information of a user who is to use the image forming apparatus, the identification information, wherein the acquisition unit includes a light emitting unit and is configured to acquire the identification information; and

a step of controlling, based on a detection result of the detection unit, a light emitting state of the light emitting unit of the acquisition unit.

[Claim 15]

The image forming apparatus according to Claim 1, wherein the reception unit is located near a display unit.

[Claim 16]

The image forming apparatus according to Claim 1, wherein the reception unit is a button.

[Claim 17]

The image forming apparatus according to Claim 16, further comprising a touch panel, wherein the touch panel is separate from the reception unit.

[Claim 18]

The image forming apparatus according to Claim 17,
wherein the touch panel is off in the lower power state, and
wherein the touch panel is on in the higher power state.

[Claim 19]

The image forming apparatus according to Claim 1, wherein the detection unit is configured to detect a human while the image forming apparatus is in the lower power state.

[Claim 20]

The image forming apparatus according to Claim 1, wherein the control unit is further configured to shift the state of the image forming apparatus from the lower power state to the higher power state based on the reception unit having received the user operation

while the image forming apparatus is in the lower power state.

[Claim 21]

The image forming apparatus according to Claim 1, wherein the light emitting unit is in an active state while the image forming device is in the lower power state.

[Claim 22]

The image forming apparatus according to Claim 21, wherein

the control unit is further configured to shift the state of the image forming apparatus from the lower power state to the higher power state based on the reception unit having received the user operation when the light emitting unit of the reception unit is in an active state while the image forming device is in the lower power state.

[Claim 23]

The image forming apparatus according to Claim 22, wherein, when the light emitting state of the light emitting unit is the active state, the light emitting unit constantly emits light.

[Claim 24]

The image forming apparatus according to Claim 22, wherein, when the light emitting state of the light emitting unit is the active state, the light emitting unit blinks.

[Claim 25]

The image forming apparatus according to Claim 22, wherein the detection unit is configured to detect a human while the light emitting unit of the reception unit is in an active state while the image forming device is in the lower power state.