CLAIMS

[Claim 1] A cleaning mechanism for an autonomous cleaning robot comprising:

a mount assembly;

a swappable cleaning module having a securing arrangement for releasably securing the swappable cleaning module to the mount assembly; and

a displacement actuator for lowering and raising the mount assembly relative to a floor surface to allow for engagement of the swappable cleaning module with the floor surface, the swappable cleaning module(s) conducting a maintenance operation on the underlying floor surface when in contact with the floor surface;

wherein different types of the swappable cleaning module can be mounted on the mount assembly depending on the maintenance operation to be conducted on the floor surface; and

wherein the securing arrangement comprises at least one engagement member supported on the swappable cleaning module, the engagement member(s) including a rotatably mounted knob, wherein the knob can pass through a corresponding aperture provided in the mount assembly when in at least one rotational position, and wherein the knob can be rotated into at least one other rotational position to engage the mount assembly thereby preventing the knob from passing back through the aperture to thereby lock in position the swappable cleaning module on the mount assembly.

[Claim 2] The cleaning mechanism for an autonomous cleaning robot, according to claim 1, wherein the aperture is generally slot shaped, and the knob includes a pair of opposing lateral wings.

[Claim 3] The cleaning mechanism for an autonomous cleaning robot, according to claim 1 or 2, the securing arrangement further comprising a magnetic engagement assembly including one or more magnets and cooperating ferromagnetic material respectively provided on the mount assembly and the swappable cleaning module.

[Claim 4] The cleaning mechanism for an autonomous cleaning robot according to claim 1, wherein the swappable cleaning module is in the form of a squeegee module supporting a rubber squeegee blade for collecting water on the floor surface.

[Claim 5] The cleaning mechanism for an autonomous cleaning robot, according to claim 1, wherein the swappable cleaning module is in the form of a dust mop module supporting a dust mop for removing dust from the floor surface.

[Claim 6] The cleaning mechanism for an autonomous cleaning robot, according to claim 1, wherein the swappable cleaning module is in the form of a wet mop module supporting a wet mop for wet cleaning of the floor surface.

[Claim 7] A swappable cleaning module for the cleaning mechanism according to any one of claims 1 to 3.

[Claim 8] The swappable cleaning module according to claim 7, wherein the swappable cleaning module is in the form of a squeegee module supporting a rubber squeegee blade for collecting water on the floor surface.

[Claim 9] The swappable cleaning module according to claim 7, wherein the swappable cleaning module is in the form of a dust mop module supporting a dust mop for removing dust from the floor surface.

[Claim 10] The swappable cleaning module according to claim 7, wherein the swappable cleaning module is in the form of a wet mop module supporting a wet mop for wet cleaning of the floor surface.

[Claim 11] An autonomous cleaning robot having a cleaning mechanism according to any one of claims 1 to 6.