Claims:

1. A shelf assembly, comprising:

a mount;

a gravity sensor including a fixed end fixed to the mount and a free end suspended in the air relative to the mount; and

a tray fixed to the free end;

a first protrusion is provided on the mount, and the fixed end is fixed on the first protrusion;

a groove is provided at an edge of the mount, the first protrusion is accommodated in the groove, and the gravity sensor is fixed in the groove.

~~2. The shelf assembly of claim 1, wherein a first protrusion is provided on the mount, and the fixed end is fixed on the first protrusion.~~

~~3. The shelf assembly of claim 2, wherein a groove is provided at an edge of the mount, the first protrusion is accommodated in the groove, and the gravity sensor is fixed in the groove.~~

~~4.~~2. The shelf assembly of claim 1, wherein a limit mounting slot is provided on a side of the mount distal to the tray.

~~5.~~3. The shelf assembly of any one of claims 1 to ~~4~~ 2, further comprising a bearing plate provided with a second protrusion, the second protrusion being fixed to the free end, and the tray being fixed to the bearing plate.

~~6.~~4. The shelf assembly of claim ~~5~~ 3, ~~wherien~~wherein the number of the gravity sensor is two, the number of the bearing plate is two, and the two gravity sensors are distributed on both sides of the mount in a center-symmetric manner and the two bearing plates are distributed on both sides of the mount in a center-symmetric manner.

~~7.~~5. The shelf assembly of any one of claims 1 to ~~4~~ 2, wherein the tray comprises a tray body and a partition plate, the partition plate is located on a side of the tray body distal to the mount, and the partition plate is movable and fixable along a width direction of the tray body.

~~8.~~6. The shelf assembly of claim ~~7~~ 5, wherein the tray further comprises a pair of sliding rails extending along the width direction of the tray body, the sliding rails are fixed on the tray body, both ends of the partition plate are provided with sliders, and the sliders are slidable and fixable along the sliding rails.

~~9.~~7. The shelf assembly of claim ~~8~~ 6, wherein an anti-falling groove is provided on each sliding rail, and each slider comprises a limit portion that enters an interior of the anti-falling groove from both ends of the sliding rail.

~~10.~~8. The shelf assembly of claim ~~9~~ 7, wherein both sides of the tray body along the width direction are provided with flangings, and the flangings block ends of the sliding rail.

~~11.~~9. A container, comprising a container body and support columns located in the container body, wherein the container further comprises the shelf assembly of any one of claims 1 to ~~10~~ 8, the shelf assembly being mounted on the support columns.

~~12.~~10. The container of claim ~~11~~ 9, further comprising:

a camera component, mounted on a side of the mount distal to the tray, and configured to acquire image information of an interior of the container body;

a processor, configured to receive gravity data measured by the gravity sensor and the image information; and

a display module, connected to the processor, and configured to display a pick-up or replenishment status based on the image information and the gravity data.

~~13.~~11. The container of claim ~~11~~ 9, further comprising:

a fan disposed on a top of an inner cavity of the container body; and

vent holes, provided on both the tray and the mount.