GT New Horizons

Drone Centre

The **Drone Centre** is an IV tier multiblock for automatic maintenance repairs, power control, and monitoring of nearby machines. Drones are inserted through an input bus and service any machines within range that have a Drone Downlink Module installed (replaces the maintenance hatch). The Drone Centre does not consume any power and the maintenance repairs are free, but there is a slight chance every second that a drone crashes and voids. There are three tiers of drones in total with increasingly larger ranges and longer lifespans. The drones do not actually fly around or leave the Drone Centre, unfortunately.
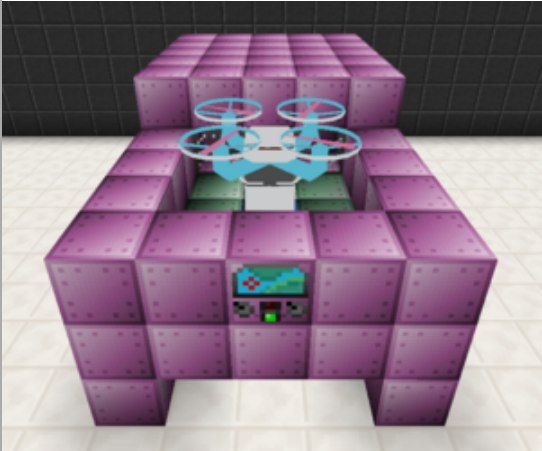
Construction

The Drone Centre is very simple to build; all it needs is an input bus for the drones. There is no maintenance, energy, or muffler hatch and the tiered glass can be anything. Once active, the Drone Centre renders a drone animation above the tungstensteel machine casing that can be disabled by right-clicking the controller with a screwdriver. The Multiblock Structure Hologram Projector can show/build the structure for the player.

Unique to the Drone Centre is the Drone Downlink Module which replaces the maintenance hatch on OTHER machines to connect them to the network for automatic maintenance repairs, power control, and monitoring. The Drone Downlink Module searches for an active Drone Centre every 10 seconds until it finds one, but try not to have too many without an active connection to avoid lag spikes. Right-click the Drone Downlink Module to rename the host machine for easier identification.

Requires:

- 1 Drone Centre (controller)
- 85-91 Stable Titanium Machine Casing
- 8 Heat Proof Machine Casing
- 6 Tiered Glasses
- 1 Robust Tungstensteel Machine Casing
- 1+ Input Bus (any titanium machine casing)

Drone Centre

Mod	GregTech
Type	Tile Entity
Relevant Quest	Drone are not Drones!
Tier	IV
Size	5x9x4 (LxWxH)

More information   OK

Machines can wallshare the same Drone Downlink Module, but the power control and monitoring only applies to one of the machines; the machine list in the Drone Centre only ever shows one machine per Drone Downlink Module.

Usage

Drones are inserted through an input bus on the structure. On machine start, the controller consumes the highest tier drone available to service all machines within range that have a Drone Downlink Module installed. The active drone runs until it "crashes" based on a random chance every second. When that happens, the active drone is voided and the next highest tier drone available assumes responsibility. The player can view the tier of the active drone in the WAILA of the controller and even retrieve it by breaking the controller.

Drones

There are three tiers of drones available--search for "Aircraft" in NEI to see their recipes. They are all functionally the same but higher tiers have larger ranges and longer lifespans. The following table summarizes the properties of each.

Tier	Range	Probability to Crash	Average Lifespan
1	128	1 / 28,800 each second	8 hours
2	512	1 / 172,800 each second	48 hours
3	4096	Never	Infinite

Note that the range is determined by the Euclidean Distance between a Drone Downlink Module and the Drone Centre controller. Use the following equation to calculate the distance from their coordinates.

$$Distance = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

The Tier 3 drone is effectively unbreakable and has a very wide range, but is unlocked at approximately the same time as the auto-taping maintenance hatch. Preference is left to the player to decide which one to use, but the auto-taping maintenance hatch should eventually eliminate the need for any Drone Centre(s).

Control

All machines with a Drone Downlink Module installed appear on the machine list within the GUI of the controller. The machines can be renamed, highlighted in the world, and enabled/disabled remotely. There are also buttons in the GUI of the controller to enable/disable ALL machines in the same dimension regardless of distance. The power control is extremely useful when trying to re-enable everything after power-failing, or preparing to upgrade/move a Lapotronic Supercapacitor.