

# Remote Medical Drones

Designed to be utilized as a means of providing medical treatment in remote locations where medical personnel are unable to access, or to provide medical care in areas with too hostile of conditions, these drones are designed to be remotely controlled by a medically trained operator, or to function autonomously.

## Information

- Produced By Lorath Matriarchy, [United Manufacturing Cooperative](#)
- Designed By: High Priest Velor 'Tomoe' Tur'lista
- Available To: Organizations within the United Outer Colonies

### Models

- Mi-Missile variant: LM-SA-MiM-RMMD-001 <sup>1)</sup>
- S-Size and larger missile and shell variants: LM-SA-SM-RMMD-001 <sup>2)</sup>
- 12-Inch Drone Variant: LM-RMD-MD-001 <sup>3)</sup>

### Unit Cost

- Control Interface: 50 KS
- Mi-Type Missile Launcher Compatible Unit (Includes propellant charge for M'Cel Launcher): 25 KS
- Artillery Shell and S-Type and larger Missile Launch able Variants: 50 KS
- 12 Inch Drone Unit: 100 KS

## General Overview

The 'Remote Medical Drone' technology has been designed to incorporate standard medical technology available to the United Outer Colonies and Lorath Matriarchy. Through the combining of technology available, a standardized and affordable drone can be manufactured which allows for the affordable delivery of medical aid to anywhere which it is needed.

To greater serve the goal of being able to deliver aid, the medical drone technology has been designed to be able to be launched from military hardware such as the [M'Cel](#) launcher, or Lorath missile launcher technologies. After being launched and deployed, these drones can effectively seek out injured individuals and deliver emergency medical treatment to stabilize or fully repair wounded individuals depending on the extent of damage present. The drones accomplish their task through remote control by a trained operator, or by following automated programming.

## Appearance

Mi-Type launcher compatible variants are designed to fit the dimensions of the [Mi-Sized missile](#). Other launch able drones are designed to the same parameters.

The 12-Inch drone unit is designed in a spherical shape.

All units are colored a bright orange to improve their ability to be spotted by individuals in distress. However, units can also be painted in other colors to promote stealth deployment.

## Technical Information

### Automated Medical Treatment System

The foundation of the Remote Medical Drone's practicality is the automated medical treatment system, this system utilizes complex programming which allows it to interpret the DNA of a patient and determine what is wrong with a patient based upon the 'blueprint' made available by the patient's DNA. This system allows for the detection of viral material, foreign DNA such as bacterial microbes, and the detection of physical injuries which would disturb the standard structural parameters of the patient's tissues.

An additional function of the automated medical treatment system is the persistent monitoring of surrounding atmosphere and the analysis of tissue samples which would allow for the detection of harmful pathogens such as weapons-grade nanomachines, chemical weapons, biological weapons, harmful gases, and even allergens. When such harmful materials are detected, an alert is transmitted to the operator, and a visual and audio alert is given to the patient.

Along with the capability to diagnose and detect problems, the automated medical treatment system allows for the drone to automatically go about treating a patient's injuries or administering the proper treatment to prevent harm to the patient.

Note: When possible, the drone can connect to the Lorath Matriarchy or UOC database in regard to individual medical files to aid in treatment, this communication is highly encrypted and requires an authorized operator to monitor. Drones which detect tampering to their treatment system automatically self terminate.

### Drug and Nanomachine Reservoirs and Applicators

#### Nanomachines

Housed within the drone is a reservoir of [Lorath medical nanomachines](#). These nanomachines are able to be administered through an extending hypodermal injector device. Between the injector and the reservoir is a nanomachine configuration device which automatically configures the nanomachines which are to be applied to optimize their configuration in regard to the treatment of the patient's detected injuries.

The nanomachines can also be sprayed from the injector assembly as a gas to nullify airborne threats, or

to treat numerous people within a confined space.

## Drugs

The standard configuration of the automated drone includes two doses of [Endurance](#) and two doses of nuclear, biological, and chemical generalized counter agents. These drugs can be applied through the same injector utilized by the nanomachines.

Note: Drones can be outfitted with various drugs, and due to the manufacture of these drones being aided by the United Manufacturing Cooperative, many drugs produced by NovaCorp are available for use.

## Surgical Suite

The automated medical drone system includes a standard medical suite in each unit which is capable of providing surgical care to a patient. Treatment ranging from removing a splinter to removing shrapnel from a major organ can be applied by this unit. The surgical tools included in the surgical suite are housed on a trio of small extending tentacle-like limbs. Each limb includes its own camera.

### Limb 1

'Limb 1' is a tentacle-like tube which is designed to 'snake' its way into a patient to access the location in a patient which needs to be treated.

- **Laser Scalpel:** The automated drone includes a [Laser Scalpel](#) which it uses to make incisions and cauterize wounds.
- **Nanomachine Suture System:** A nanomachine injector device can place small doses of medical nanomachines on internal wounds or incisions which allow for speedy recovery.
- **Suction Tube:** A small port is included beside the laser scalpel which utilizes vacuum suction to clear an area of debris or view obstructing liquid.
- **Electrical Contacts:** A small pair of electrical contacts have been included on this limb. The intended application is for this function to be used to assist patients which have had a heart function failure. To apply the electrical impulse, the limb utilizes the laser scalpel to cut an incision to allow for the limb to enter the chest cavity and deliver the electrical pulse directly to the patient's heart. This system can also be used for extended durations to maintain blood flow even if the heart does not resume its normal function.

### Limb 2

Limb two is another tentacle-like tube, however, this tube houses robotic components which are designed to mechanically handle a patient.

- **Stonethread Suture System:** This system utilizes a set of small needle-like tongs to pass a thread of stonethread fiber through a patient's tissues to create a suture. Due to the strength of stonethread, the suture would have to be removed later on, however, the thread would be very difficult to break during strenuous activity.
- **Clamp Applicator and Removal Unit:** The second limb includes a container of small spring-loaded clamps which can be applied by an automated applicator. These clamps can be used for various applications. The unit also includes a pair of small tongs which can be used to grasp onto the clamp and remove it.
- **'The Grabber' Manipulator Tool:** The primary feature of the second limb is a small three-finger one-thumb rubber-tipped hand which is included on the end of the limb. This hand is capable of grasping onto objects as small as .25mm, and the fingers can extend to allow the hand to grasp onto objects as large as 9cm in diameter.
- **Self-Cleaning Pico-Jelly Sponge:** Due to the nature of field treatment, there is often a need to clean a location on a patient of blood, dirt, or other contaminants. To aid in this process, this limb has been built with a small amount of Pico-Jelly keyed to it which is designed to function as a sponge for the majority of it's use. However, if needed, this portion can be reconfigured.

### **Limb 3**

The third limb is designed to deliver essential drugs, nutrients, and air to the patient. This limb is designed to split in half to allow for the limb to position itself properly.

- **Half One:** One half of the limb is dedicated to inserting itself into the patient's nasal cavity. This portion is a tube which is designed to deliver air to the patient's lungs.
- **Half Two:** The other half of the limb places itself upon the patient's neck, where it can use an injector device to administer drugs, inject nutrient supplements, and gather tactile data such as pulse, temperature, and blood pressure.
- **Electrical Contacts II & Neural Emulator:** The second half of limb three includes an additional set of electrical contacts and a specialized sensor which is designed to monitor neural activity which passes through the spinal column and brain stem. If required, this unit can apply additional impulses through the electrical contacts. This function is primarily included to assist in the event of paralysis or shock and can be used to manually operate the patient's lungs, heart, and other autonomic functions.

## **Nutrient Supply System**

### **Small Unit Compliment**

Small drone units are capable of delivering three days worth of nutrients to a single patient which can be injected directly into the patient.

## 12 Inch Unit

The larger drone unit is capable of delivering a week's worth of nutrients to a single patient.

### Alternative Function

The nutrients held onboard the drone can alternatively be utilized as material to be used in the construction of new tissues when utilized with nanomachine compound treatments.

## Sterilizer System

### Internal Autoclave System

Housed within the unit are a series of internal autoclaves which are utilized to sterilize the limbs of the drone. The internal autoclave system reaches 2500F.

### Nanomachine Bath

When not in use, the limbs of the drone are treated with [Lorath Assault and Recombination Nanoscopic Probes](#) which are designed to seek out any pathogens or harmful organics and neutralize them. Before limb deployment, these nanomachines are purged from the arms and stored in a small holding compartment.

### External Shell Heating System

To prevent the transfer of pathogens upon the surface of the drone itself, it includes a heating system which can heat it's external shell to 4000F. This system has a safeguard built into it which prevents it from being in operation near humanoids. However, the system can be overridden by an operator. The heating system also activates if the drone is being tampered with by an unauthorized individual.

### Alcohol Mister

A small tube can be extended from the drone which can spray a mist of alcohol upon a given area on a patient or upon the drone itself to sterilize it.

## Power

The drone is powered by [bacterial charge packs](#), [hydrogen cells](#), and is compatible with external power

[systems.](#)

## Communications

The drone utilizes [conventional Lorath communication technology](#).

## Propulsion

### Mechanical Legs

The drone moves itself upon terrain and patients through the use of a series of spider-like limbs which allow it to crawl about. These limbs include an adhesive gel upon the tips which allow for the unit to grasp onto surfaces in zero atmosphere.

### Gravitational Propulsion

In space applications, the drone unit is capable of moving itself at up to 30 MPH utilizing gravitational propulsion systems. In atmosphere, the unit is capable of moving at 15 MPH without external assistance.

## Construction

The primary structure of the drone is hardened stonethread fiber, internal components are [Class B Structol](#), the outer shell of the drone is a thin layer of fine polished non-porous [Duremium Alloy](#).

- Damage Rating: 5

## Sensor Suite

The automated drone includes [common sensors, and empathic sensors](#), along with an [Advanced Emergency Monitor and Communication Device](#). Also included are tactile, olfactics, and gustation sensors, which allow for the drone to touch, smell, and taste.

## Computing Suite

The computational functions of the drone are handled by [Class B Structol](#), and [neural processor](#) technology. Instruction can be given by remote device or [Neural Interface System](#).

## OOC Notes

Authored by [DocTomoe](#) and approved by [Andrew](#) on May 28, 2008 <sup>4)</sup>

<sup>1)</sup>

Lorath Matriarchy - Solid Ammo - Mini-Missile - Remote Medical Drone - 001

<sup>2)</sup>

Lorath Matriarchy - Solid Ammo - S-Missile - Remote Medical Drone - 001

<sup>3)</sup>

Lorath Matriarchy - Remote Drone - Medical Drone - 001

<sup>4)</sup>

<https://stararmy.com/roleplay-forum/index.php?threads/lorath-medical-drone.2338/>

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