NAM Medtech - Cerebral Chip

About the Medtech - Cerebral Chip

Nepleslian Arms and Munitions, building upon the progress made by their initial life-saving device, the Medical Emergency Cryofreezer, began research on the Cerebral Chip in YE 29. The Medical Emergency Cryofreezer, although an effective means of preservation, was deemed both too gruesome and impractical for widespread use. Limitation to select NAMs power armors also made the Medical Emergency Cryofreezer an impossible option for soldiers who chose to do without NAMs power armors, or those outside power armors altogether. Therefore, as an alternative to the Star Army of Yamatai's ST Backup (which NAMs considered not an option, given its secrecy and ties to Yamatai (Planet)), the Cerebral Chip (CC) was invented.

Thanks to its appearance when placed inside the head, the cerebral chip is commonly referred to as the "Brain Spider".

Statistical Information:

Government: Nepleslian Empire (Greens)

Organization: NAMs, Star Army of Nepleslia

Designer: Nepleslian Arms and Munitions

Manufacturer: Nepleslian Arms and Munitions

Appearance / Operation

The CC is a microscopic computer cased within a black ball. A network of tiny receptors runs out from the center of the chip throughout the ball.

Insertion is performed via injection via syringe either through the eyes or the underside of the back of the neck. The ball itself is contained within a solution of synthesized brain fluid. (Obviously, the patient is unconscious during this procedure.)

After insertion of the chip into the subject's brain, the CC adheres itself to the soft matter of the brain, where microscopic barbs attached to the receptors dig into the spongy flesh. While also helping to keep the chip firmly in place, the main purpose of these barbs are to provide a means of receiving the natural electrical charges of the brain so as to power the chip.

Operation of the chip is passive. Within hours of insertion, the receptors on the chip receive impulses given by the memory sector of the brain and begin to store them for removal.

Systems:

Memory Scanner and Decrypter: Perhaps the most important aspect of the chip itself, the memory scanner and decrypter is located around the edges of the chip, where the receptors meet. It is here that the chaos of the electrical pulses that is the brain is broken down into parts. Signals that are not related to the memory of the subject are either rerouted to power the chip or simply passed through the chip entirely.

Signals that are deciphered to be related to the memories of the subject are directed to the main storage unit of the chip.

Main Storage Unit: The MSU is a ring that runs around the chip connected to the Memory Scanner and Decrypter on the outside and the wireless communications device in the center. A marvel of Nepleslian design, the minute hard drive contains approximately several terabytes of data storage capability, as well as a primitive OS designed to interpret the deep and short term memory of the brain.

Wireless communications device: At the heart of the CC rests a nano-sized wireless communications device that fits snugly into the space provided by the MSU. When within range of compatible Nepleslian technologies (NAM power armors, memory storage units, government super computers), the chip emits an encrypted signal, which, when accepted, prompts the chip to begin transfer. This process can be done while the subject is conscious and performing other tasks. Transfer speeds are remarkably fast, but are not comparable to those of the Yamataian ST (which is nearly instantaneous). To compensate for this, the wireless device is in a state of constant update once range is reached. It takes about 10 minutes to create a full backup from the wireless transfer. As there can be multiple personnel in the same area passively transmitting data, each chip carries a unique user ID.

NON WIRELESS VERSION:

For those with proper cybernetic augmentation, installation of the CC is considerably easier. Those with cybernetic brain augmentations can have a larger version of the chip (a few millimeters wide without the ball) installed into their systems. Transfers can be done via wired connections at a tremendously faster speed than wireless (approximately the same speed as ST tech).

OOC Notes

This article was created by Tom. It was approved by Wes on March 10, 2007: Approval Thread

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