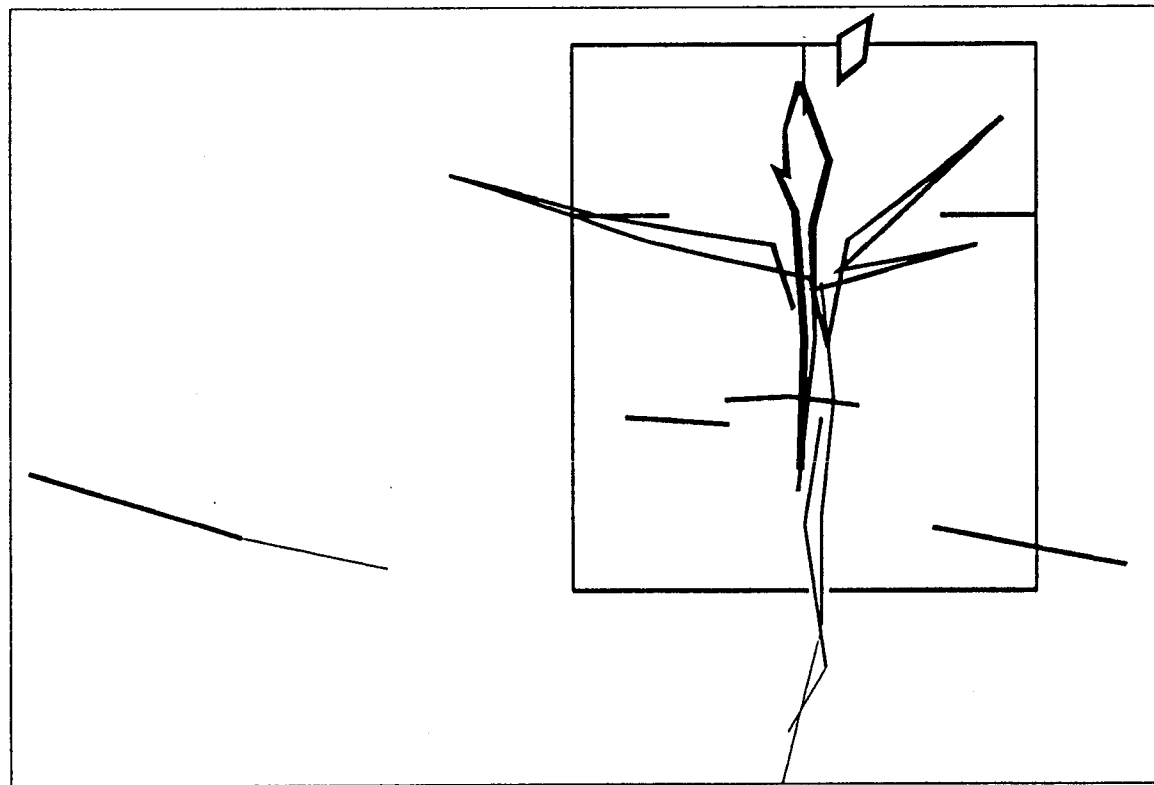

MOON BASE ELANVITAL

Hairuddin Munip



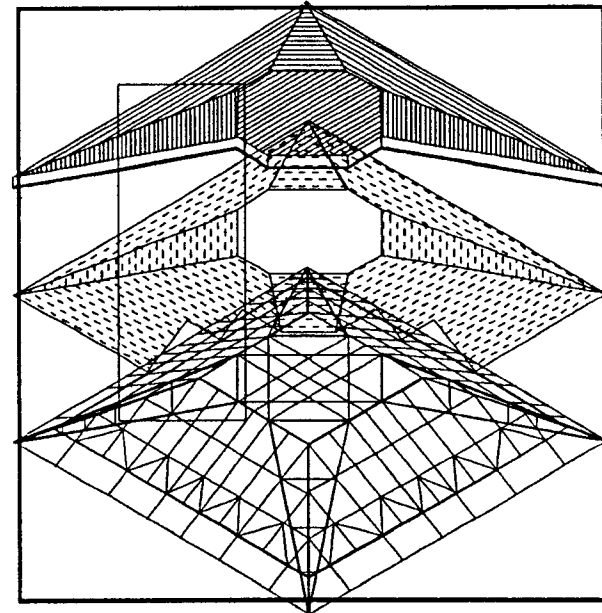
A study of the growth patterns of a lunar base was the primary objective of this solution. Conceptually, the base phasing is likened to the growth of a seed. As the base expands, parts will take on more specialized functions. All the construction components are utilized in the in the final base layout and many serve differing purposes throughout the construction process.

The expandable shielding protection is a separate entity from the habitation modules. Compacted regolith serves as the radiation protection material and is placed above the shield infrastructure. The infrastructure loads are distributed in a pyramidal fashion to the sides and corners.

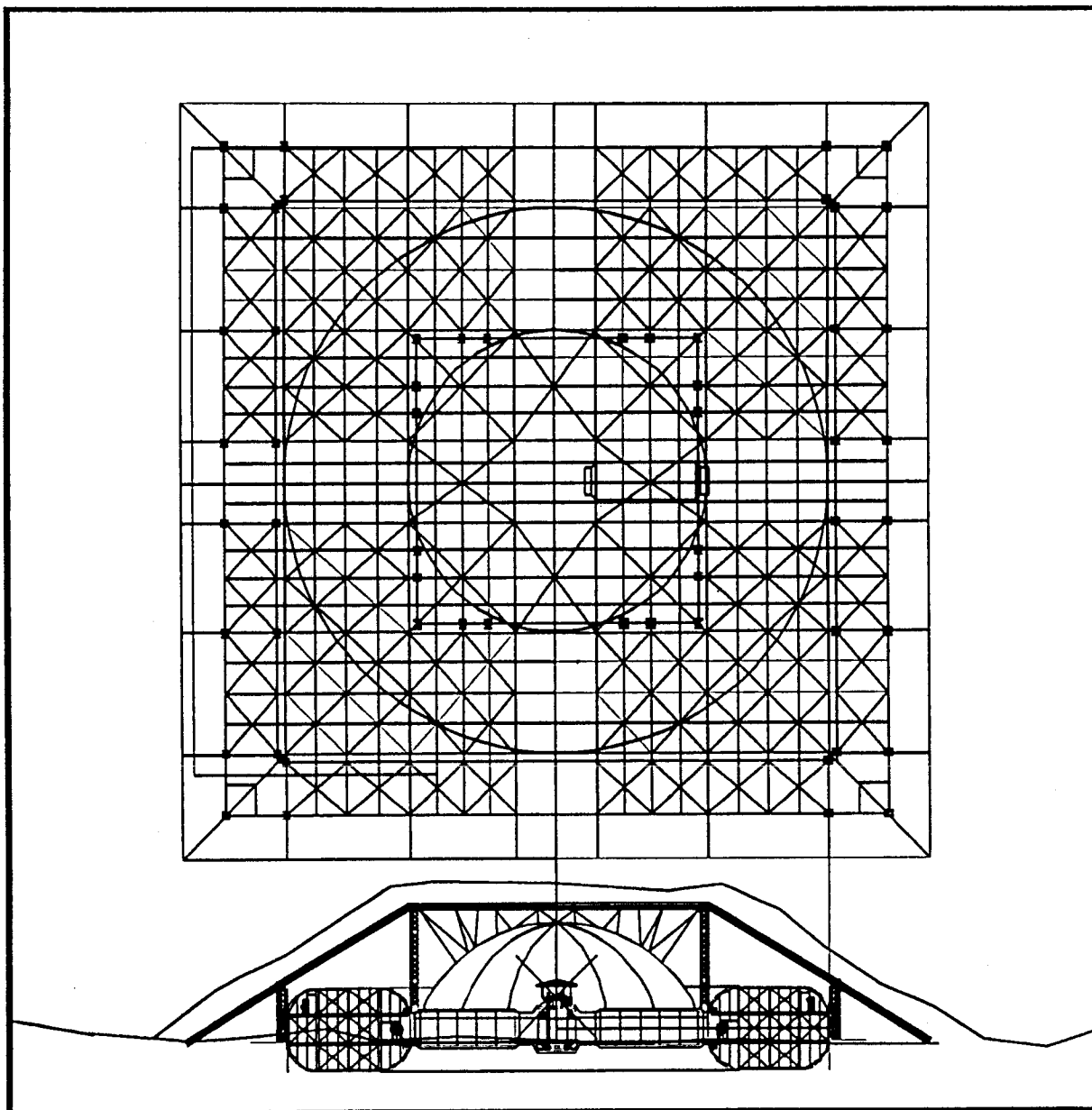
The habitation modules utilize an interior system based on tension elements. The large central membrane dome also operate under fabric tension technology. This dome is dependant on the interior pressure to maintain its shape. "Hard" habitation modules are constructed using a panel system and assembled in a circular fashion around the earlier earth manufactured modules. The information and supply system is linked with the major circulation paths along the perimeter of the base.

Interior systems are based on the open plan system and are easily adaptable for various sizes and needs. Space division is accomplished with hung fabric partitions. This system allows certain areas to become very personalized. The individual also has the ability to change their environment often if they wish to do so.

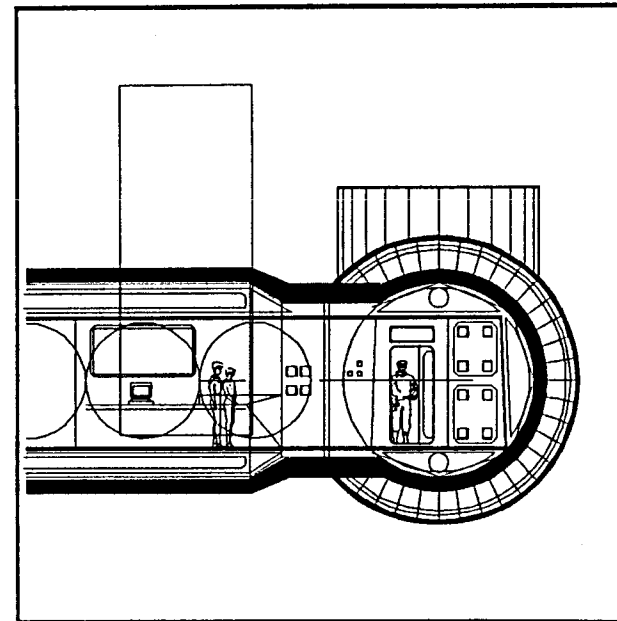
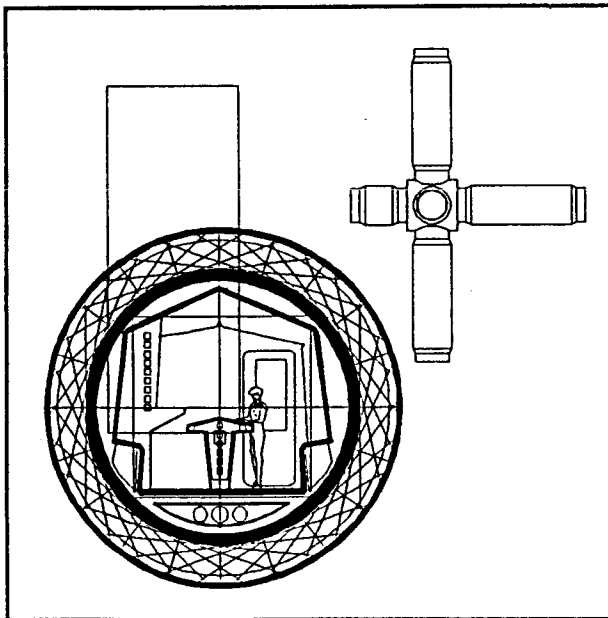
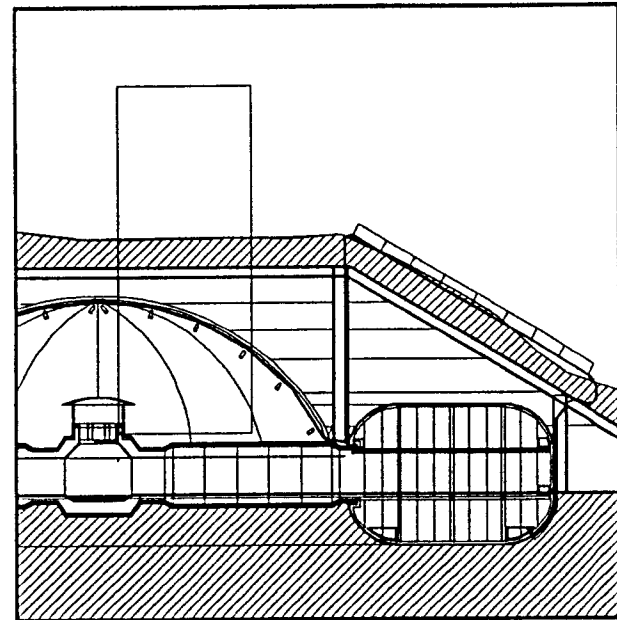
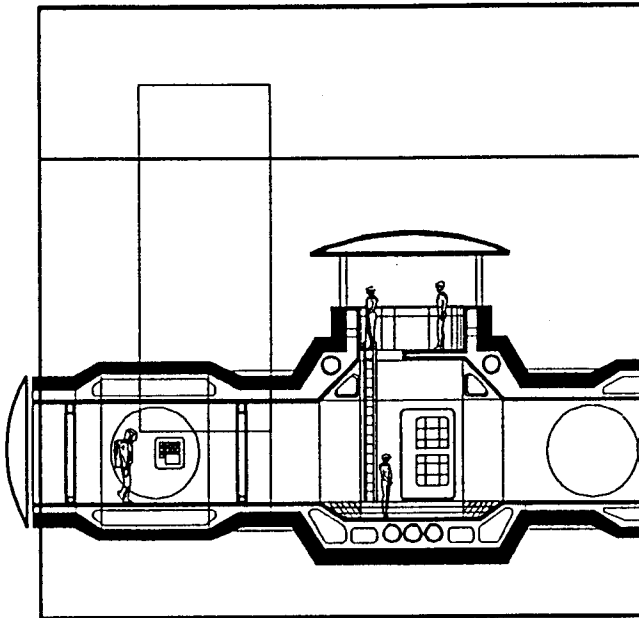
Construction of the base begins with the superstructure for the separate radiation shield since this construction is much faster than the habitat construction and the radiation shield is of such importance. Base design is analogous to a Bedouin lifestyle in which tent-like structures allow a quickly erected temporary shelter.

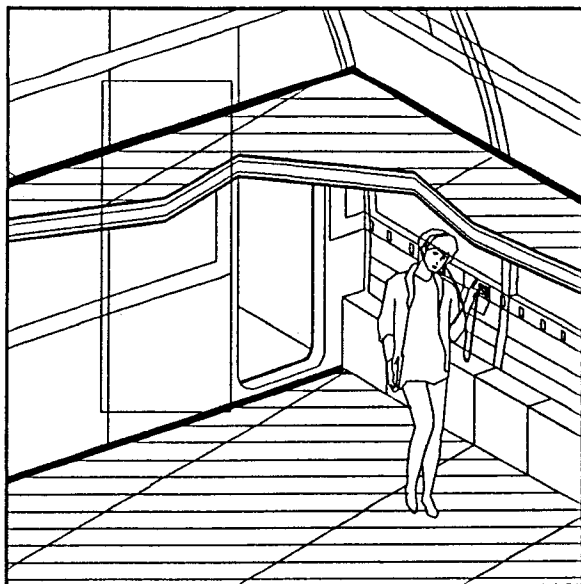


Radiation shield construction isometric.

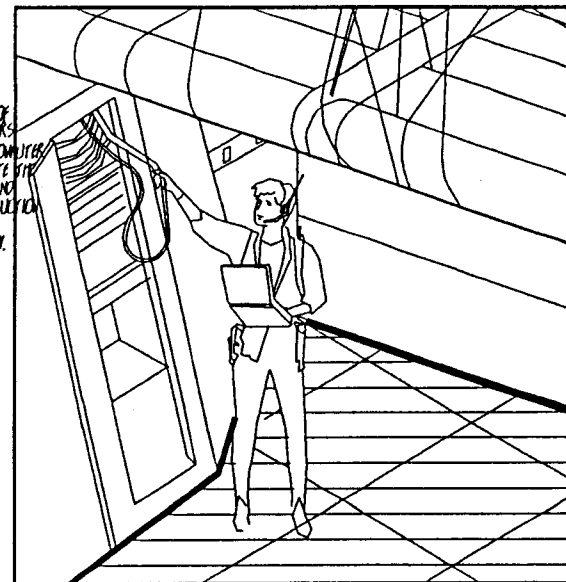


Base section and shield plan



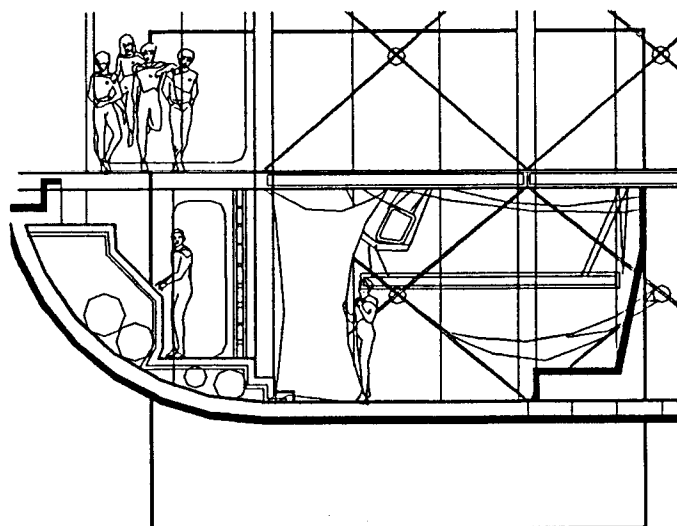


Accessing the communications/computer links.

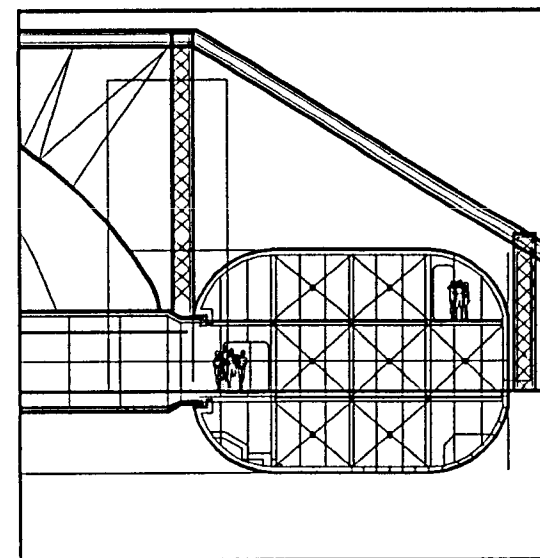


IF IN NEED OF
MINOR REPAIRS
THE MAIN COMPUTER
WILL ISOLATE THE
PROBLEMS AND
GIVES INSTRUCTIONS
TO THE
REPAIR CREW.

Systems repair/replacement



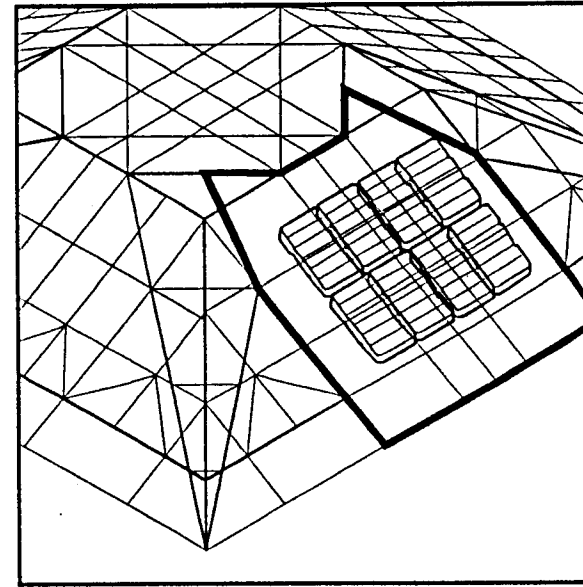
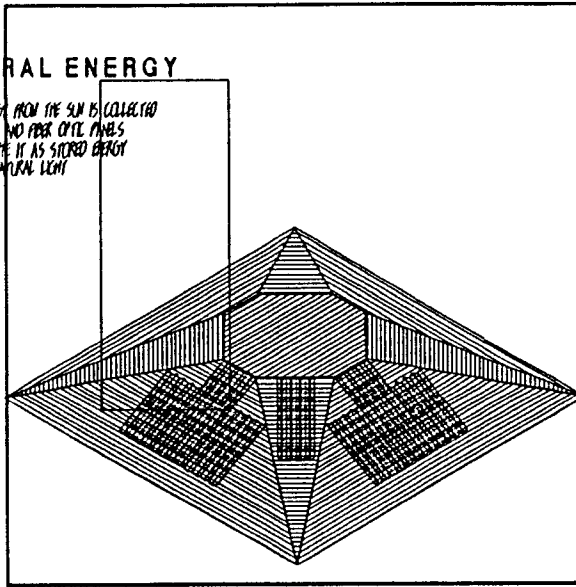
Living quarters detail



Expansion ring section

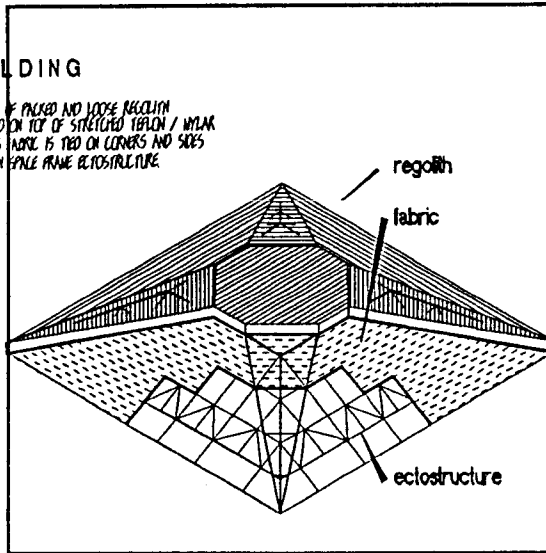
NATURAL ENERGY

NATURAL ENERGY FROM THE SUN IS COLLECTED BY THE SOLAR AND FIBER OPTIC PANELS THAT DISTRIBUTE IT AS STORED ENERGY AND PURGED NATURAL LIGHT



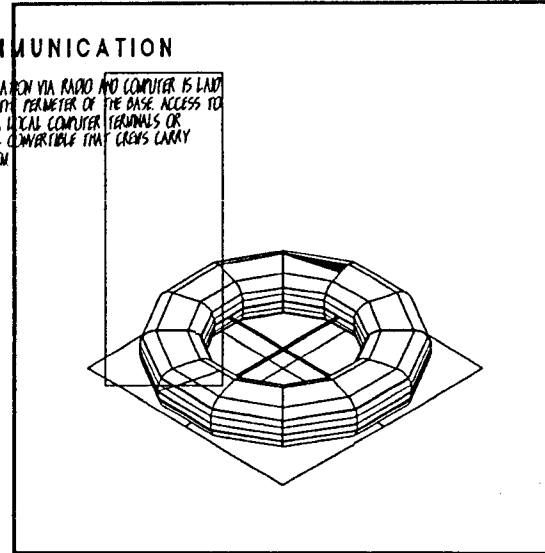
SHIELDING

COMBINATION OF PACKED AND LOOSE REGOLITH ARE LAYERED ON TOP OF STRETCHED TIBULON / WELAR FABRIC. THIS FABRIC IS TIED ON CORNERS AND SIDES TO THE MAIN FRAME ECLOSTRUCTURE.



COMMUNICATION

COMMUNICATION VIA RADIO AND COMPUTER IS HANDLED ON THE PERIMETER OF THE BASE. ACCESS TO IT IS VIA LOCAL COMPUTER TERMINALS OR PERSONAL CONVERTIBLES THAT CARGOES CARRY WITH THEM



OBSERVATION MODULE
SECTION

