

Strasbourg,
école d'architecture



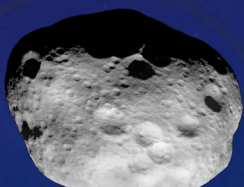
Faculté

de **physique et ingénierie**

Université de Strasbourg

THE MOONWALKER

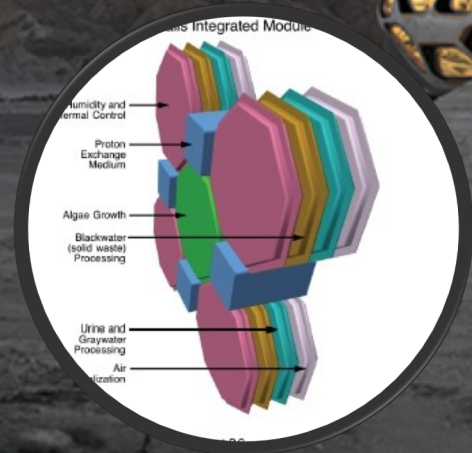
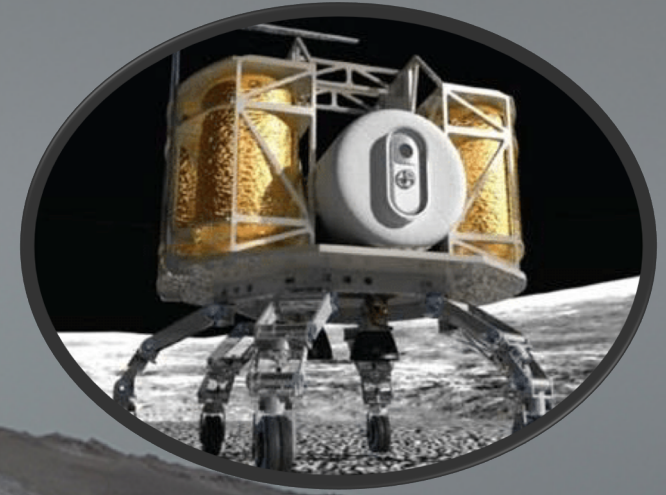
BY : ANA BALTAZAR — PIERRE COSSU — CORENTIN DAVID
— MARTIN FALIU — ANAELLE ROCHAS



Ministère
**Culture
Communication**



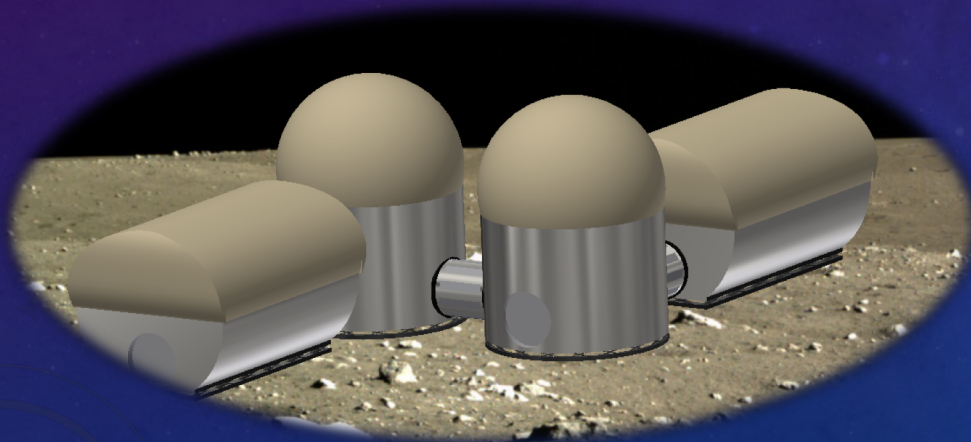
OUR INSPIRATIONS :



THE CONCEPT : A MODULAR BASE

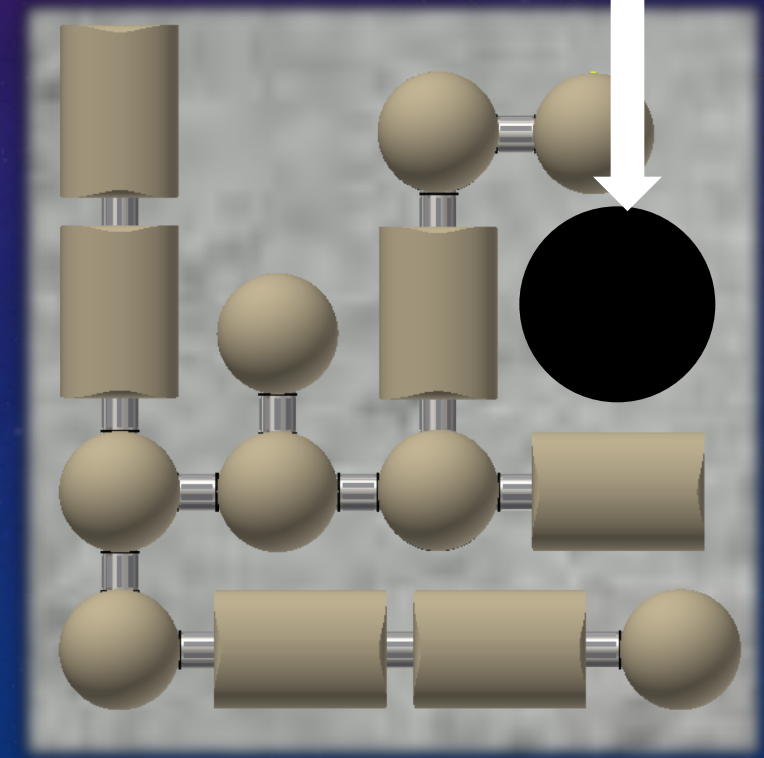


The base can be deployed and adapt to any existing obstacles



2 LAUNCHES TO BEGIN

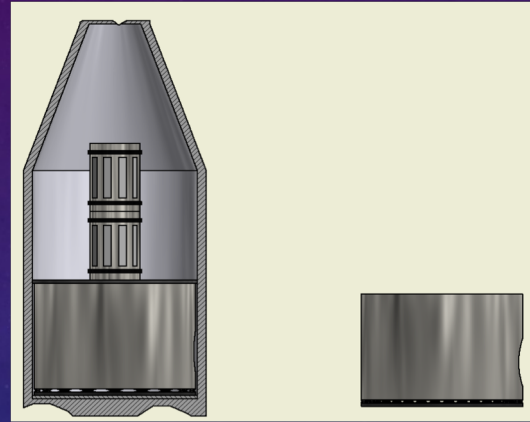
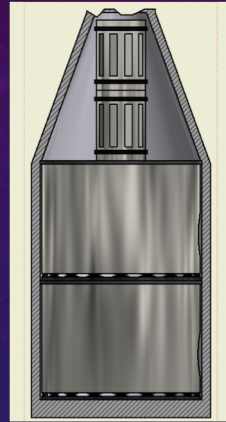
AFTER 7 LAUNCHES



HOW TO OPTIMISE THE LOAD IN THE CARGO ?

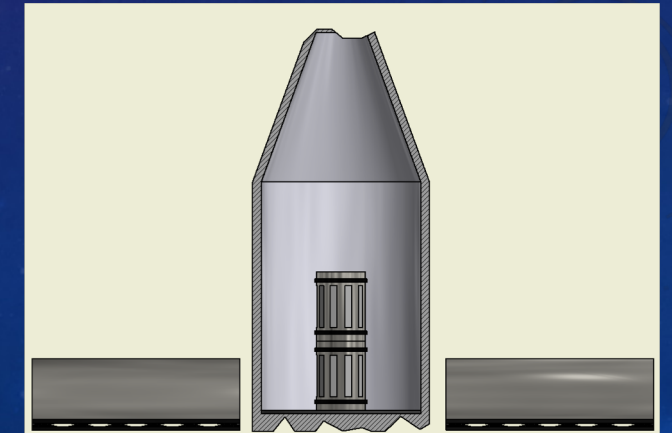
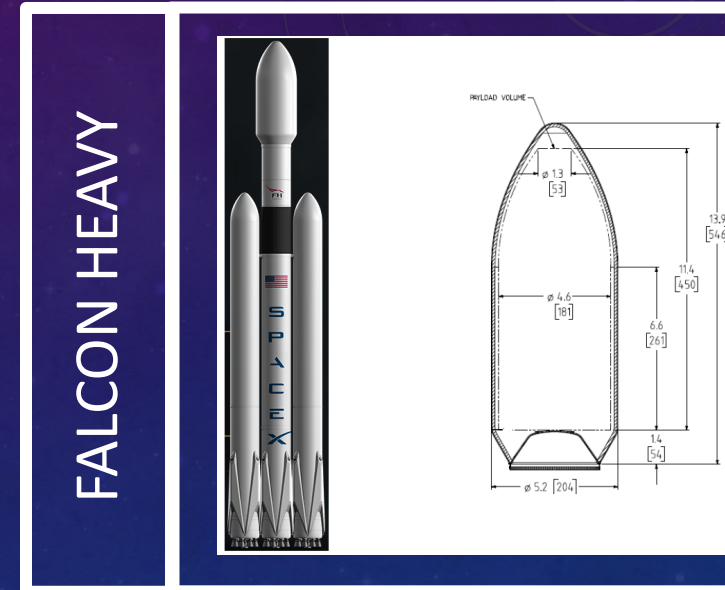
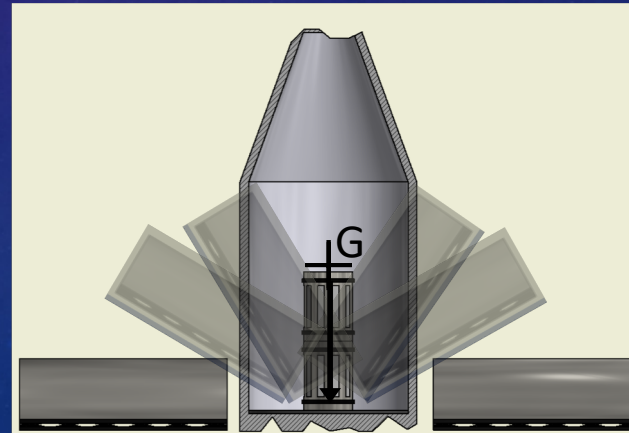
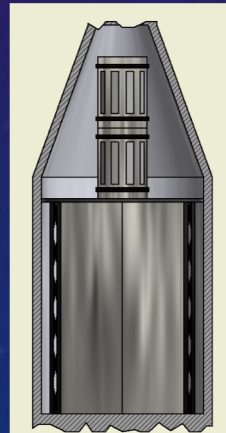
Model 1

- 2 little modules with 3 airlock connections
 - 2 airlocks
- Rovers and stuff to fulfill the cargo



Model 2

- 2 big modules with 2 airlock connections
 - 2 airlocks
- Rovers and stuff to fulfill the cargo

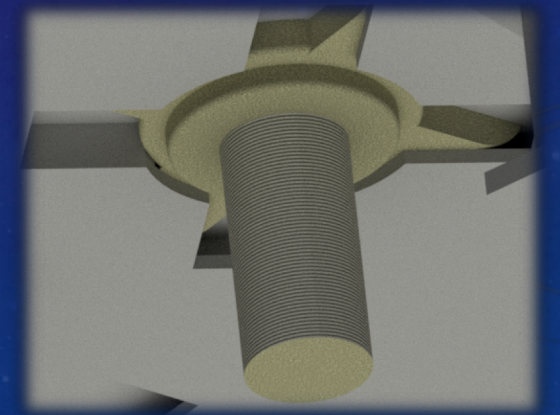
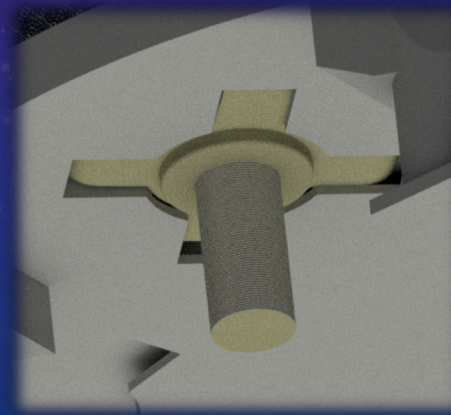
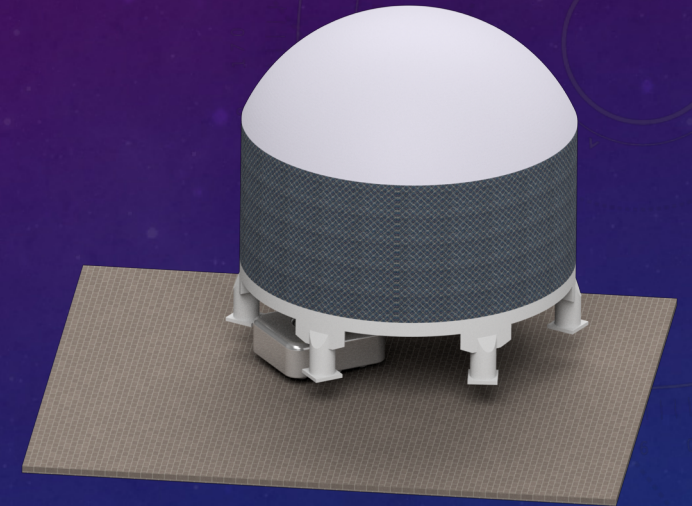
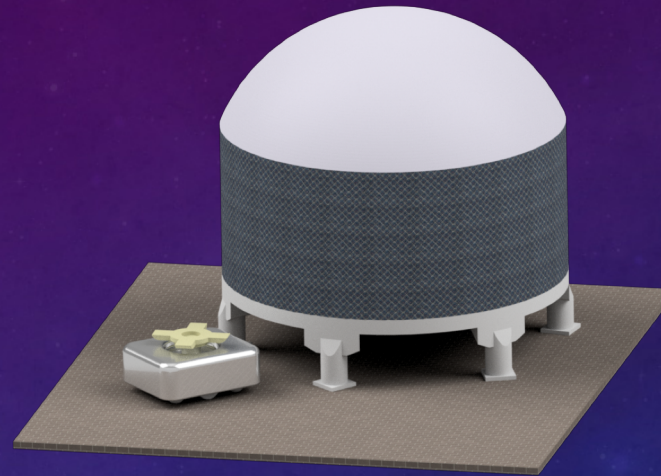


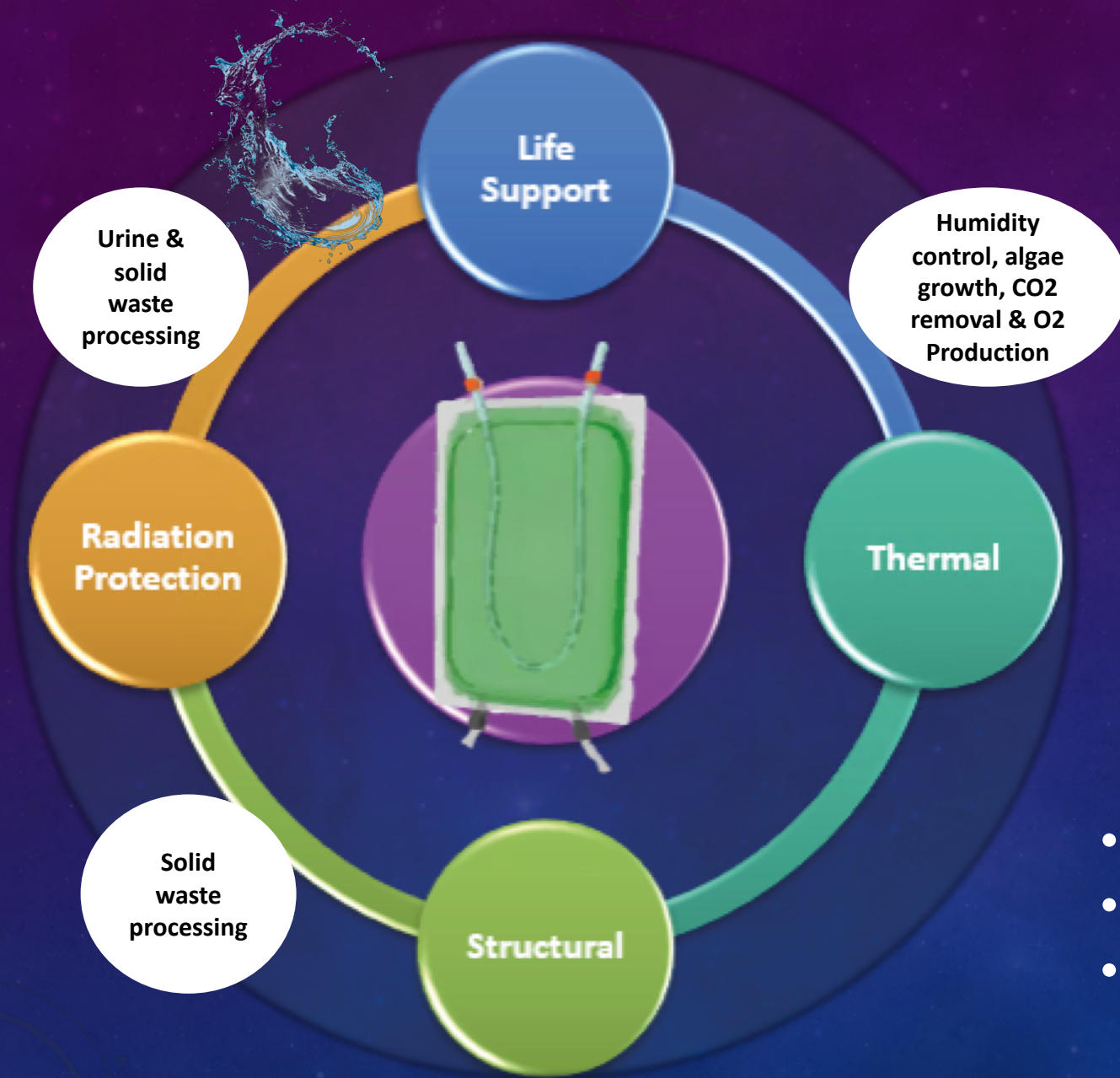
HOW TO MOVE THE MODULES ?



Kiva robot – Amazon.com

- Able to move in any directions
 - 360° rotation
- Possibility to carry up to 2 tons





LSS & INSULATION: WATER WALL

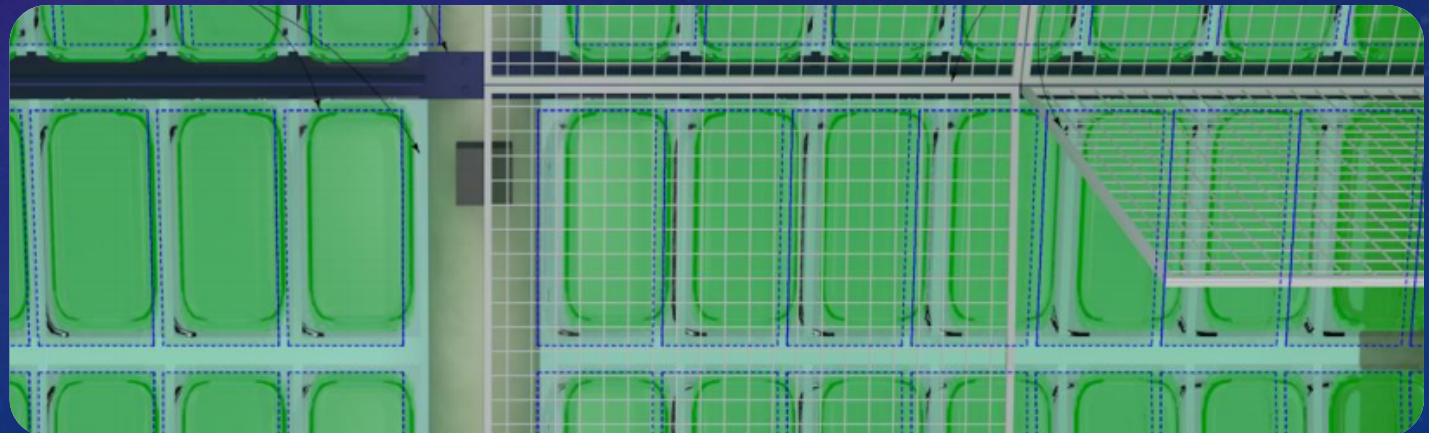
- Forward Osmosis Principle
- Biologically and chemically passive
- Inflatable-structure friendly

LSS & INSULATION: WATER WALL

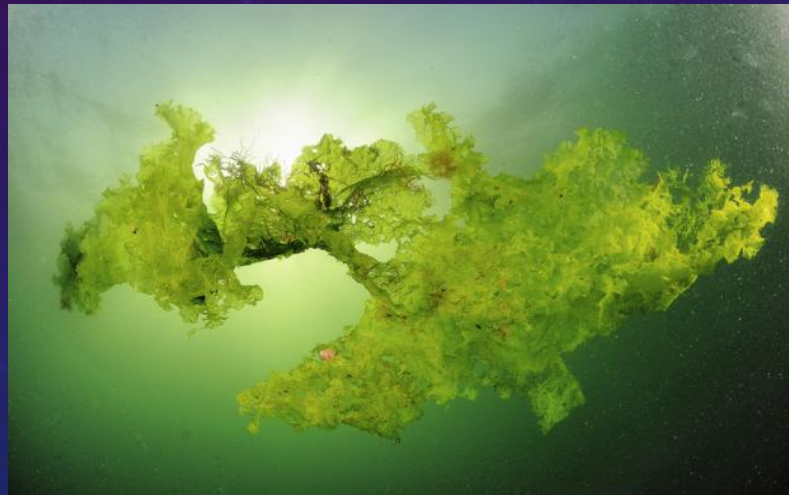
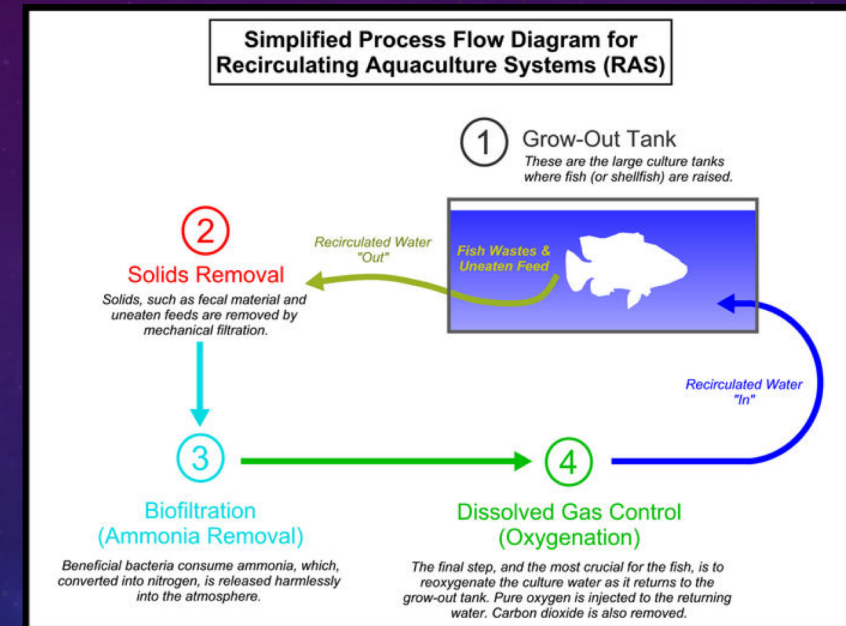
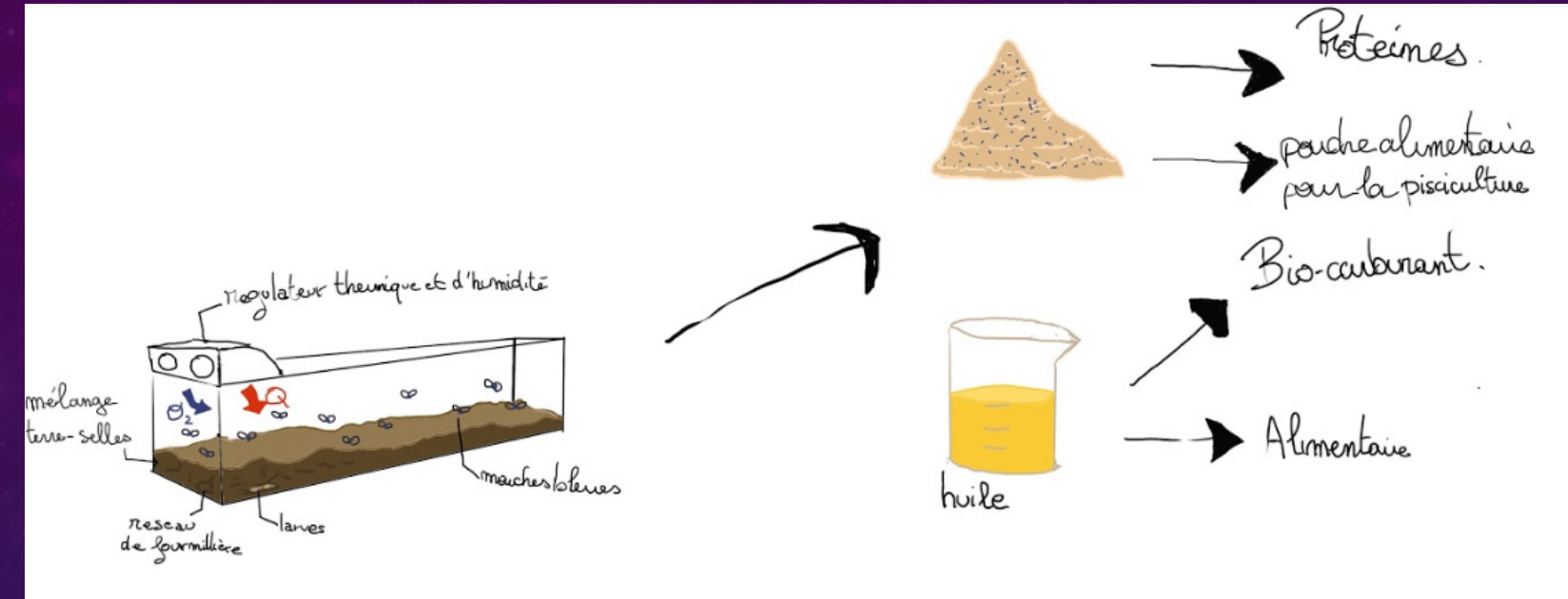
- Membrane based polyethylene bags
- Water is supplied on-site
- 15 L/person-day waste = 6 layer wall
- TRL 4



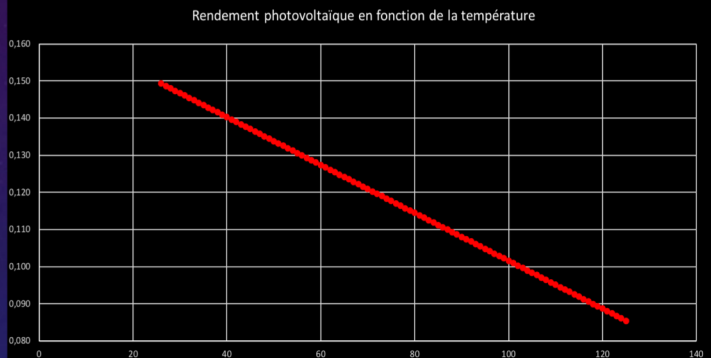
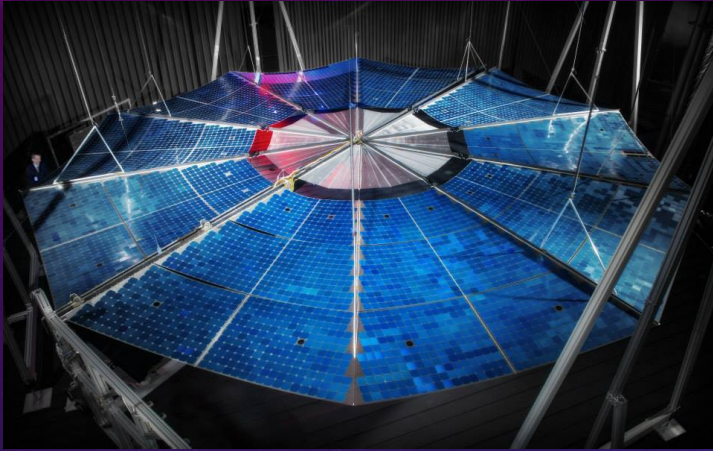
Water Wall Installation



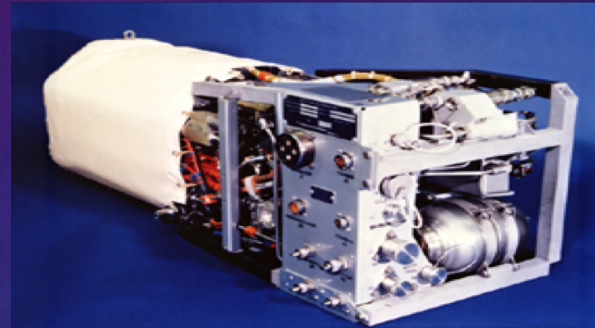
UN LABORATOIRE VIVANT



L'ÉNERGIE SOLAIRE



	MegaFlex
Surface pour 20 KW	51 m2
Rendement considéré	28,7 %



- Thermoélectricité
 - Effet Thomson : Différence de température au sein d'un même matériau
 - Effet Seebeck : Différence de température entre deux matériaux