**CONES:**

These will be the deployed and embedded sensors.

There are going to be three types of them: pressure, temperature and radiation sensors.

We decided to make them with the shape of a cone because (as the Egypt pyramids) they are going to be able to reduce the friction from the wind, helping them to survive at a Martian storm.

The three kind of cones got the same design with the only difference been their color and the type of sensor each one use, there is a little gate from where the sensors are going to get out to make their job. They will have a drum mechanism that will make them shake themselves to take off all the sand that got over them meanwhile their height increases, the cones will have a light sensor programmed to activate the drummer when the cone is fully covered in dust/sand.

The source of the energy for the cones will be based in flexible solar panels placed in the cone itself with an inner battery to conserve the energy when they get covered by the storm.

The information about the environmental conditions of the planet is going to be sent in real time to the astronaut., they are going to be located at every 110km, plus, they will communicate between them with a radio frequency antenna between the spaceship from the astronaut, the ones themselves and the human.

Upgrade del rover

Its function is to be a company during the explorations trips to gather information about the planet in real time while informing it to the traveler, when the robot is “alone” it will be deploying the cones.

Sensors del rover:

* LIDAR: It is a device that allows to determine the distance from a laser emitter to an object or a surface that uses a pulsed laser. In general, this technology has applications in geology, seismology and atmospheric physics. It will be in charge of detecting objects that may represent a danger for its exploration and a new route.
* REMS: It has six sensors which can measure: direction and speed of the wind, pressure, humidity, temperature (weather and ground) and ultra-violet radiation.
* RAD: The Radiation Assessment Detector (RAD) is one of the first instruments sent to Mars specifically to prepare for future human exploration. It measures and identifies all high-energy radiation on the Martian surface, such as protons, energetic ions of various elements, neutrons, and gamma rays.

Energy Source:

It will store the energy obtained with the solar panel in a long live battery as a backup energy to be able to work even during sand storms.

Mobility:

Has six wheels, four traction wheels and two steering wheels (the front ones).