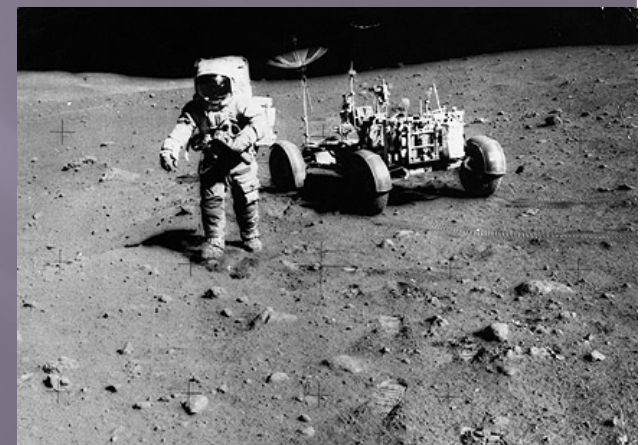


Moon Buggies



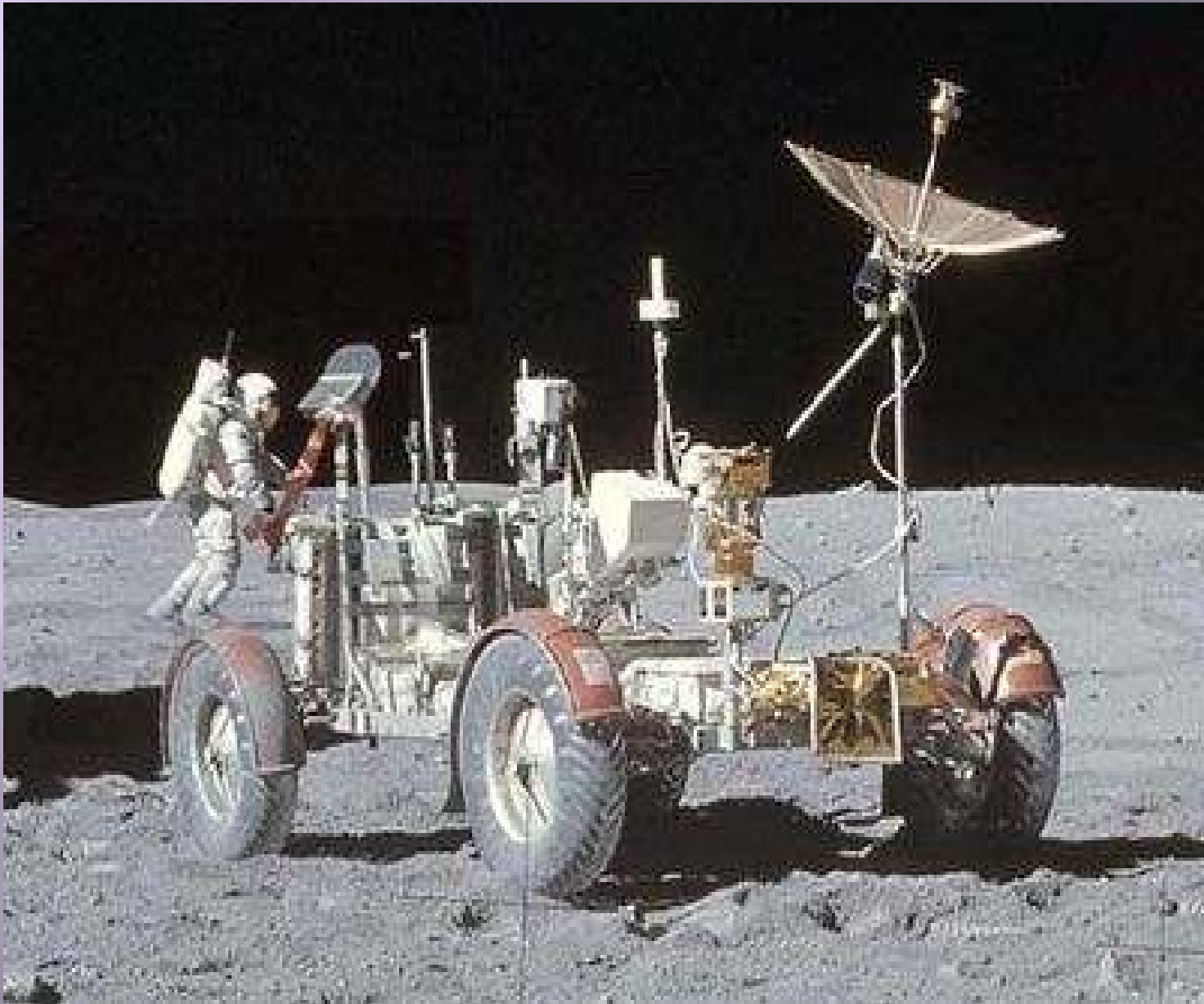
Space Buggy Facts

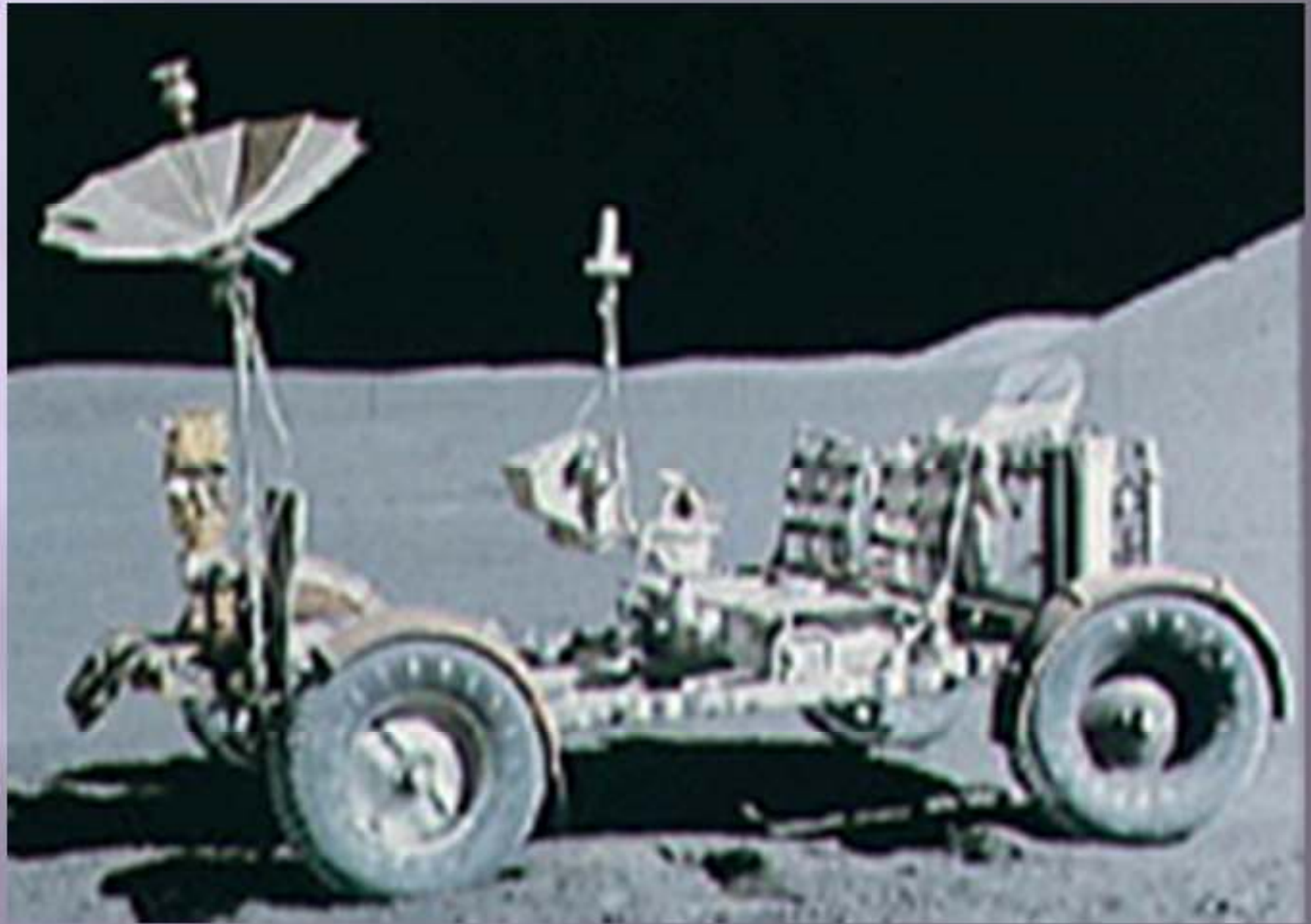
- Space Buggies are called Luna Rovers
- They were designed to help Astronauts explore further on the moon as they can not walk very far in their bulky spacesuits.
- Three Luna Rovers have been taken to the moon and left there—they are still there!
- The Luna Rover uses the sun to help it navigate where to go.
- Harrison Schmitt of Apollo 17 said, "....the Lunar Rover proved to be the reliable, safe and flexible lunar exploration vehicle we expected it to be. Without it, the major scientific discoveries of Apollo 15, 16, and 17 would not have been possible"



Link to video footage filmed from a space buggy.

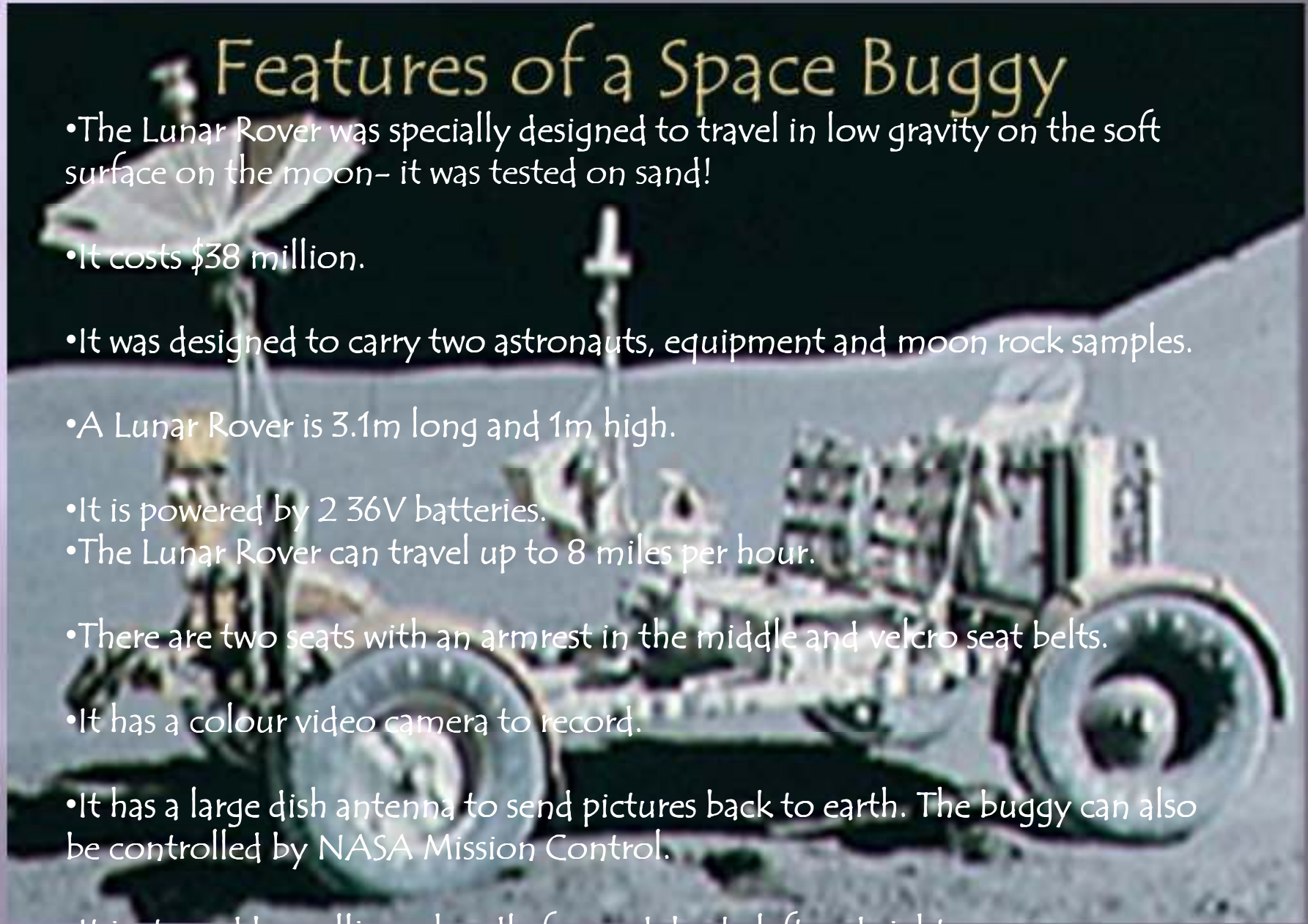
http://starchild.gsfc.nasa.gov/docs/StarChild/space_level2/apollo15_rover.html





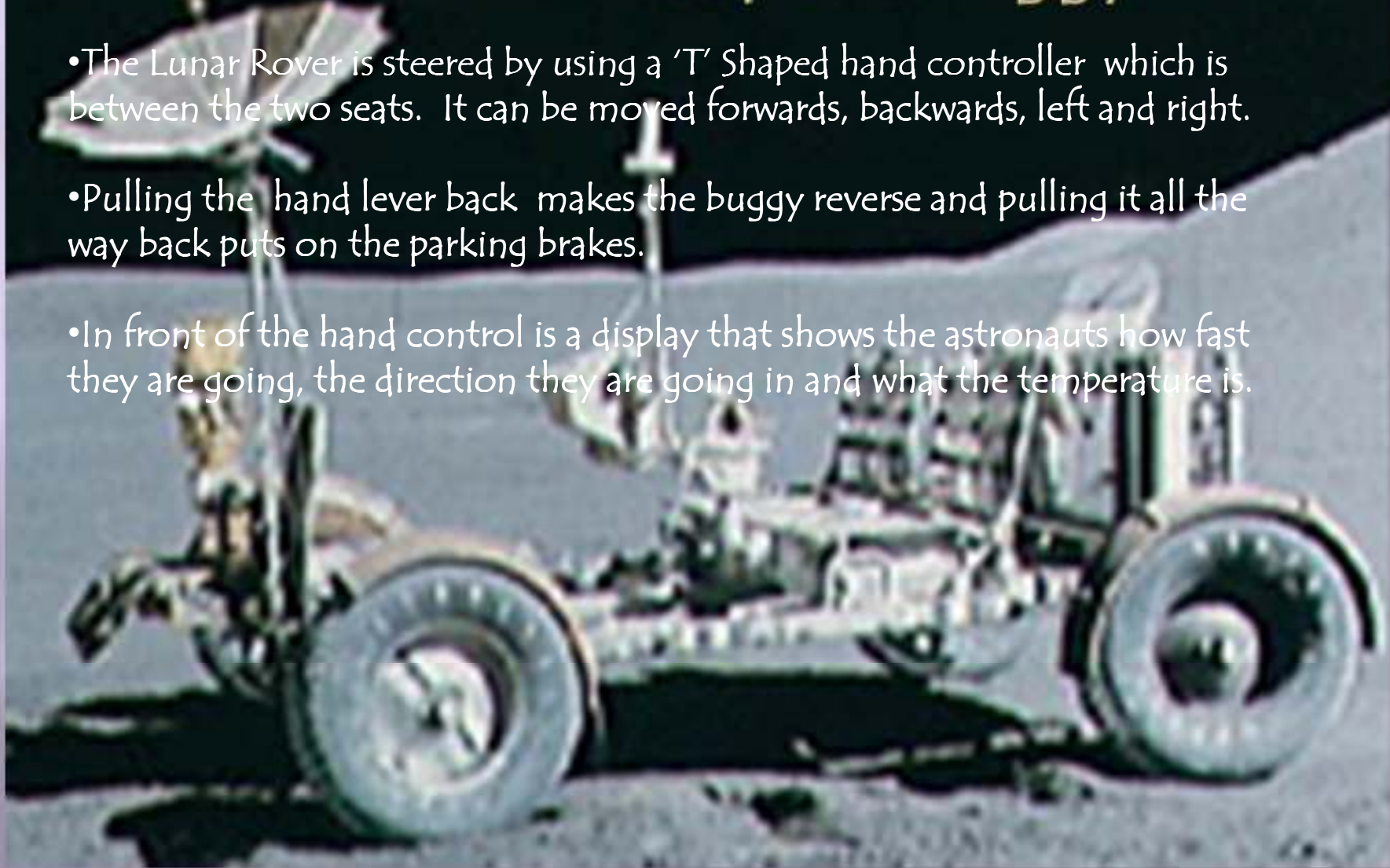
Features of a Space Buggy

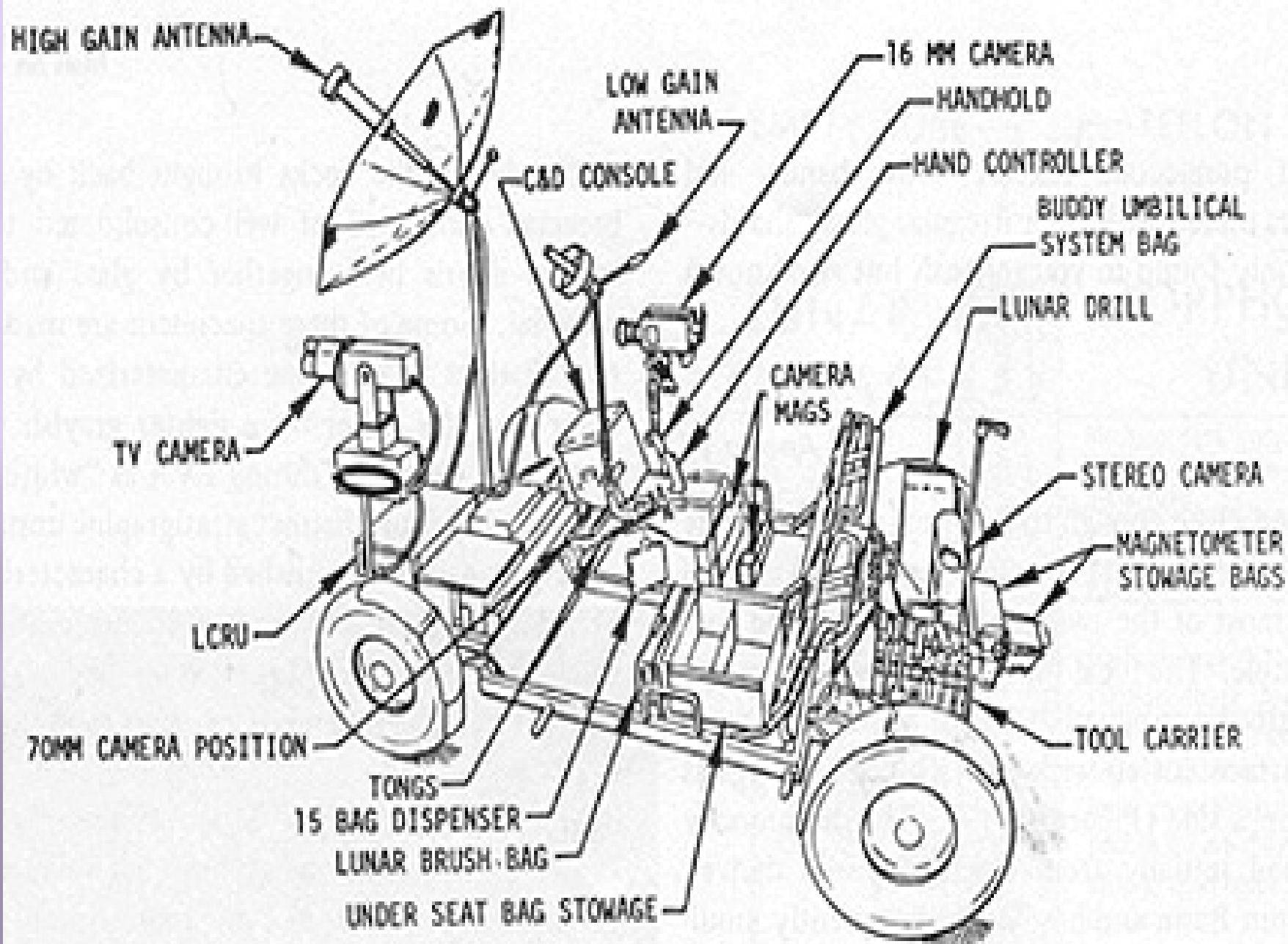
- The Lunar Rover was specially designed to travel in low gravity on the soft surface on the moon- it was tested on sand!
- It costs \$38 million.
- It was designed to carry two astronauts, equipment and moon rock samples.
- A Lunar Rover is 3.1m long and 1m high.
- It is powered by 2 36V batteries.
- The Lunar Rover can travel up to 8 miles per hour.
- There are two seats with an armrest in the middle and velcro seat belts.
- It has a colour video camera to record.
- It has a large dish antenna to send pictures back to earth. The buggy can also be controlled by NASA Mission Control.
- It is steered by pulling a handle forward, back, left and right.



Features of a Space Buggy

- The Lunar Rover is steered by using a 'T' Shaped hand controller which is between the two seats. It can be moved forwards, backwards, left and right.
- Pulling the hand lever back makes the buggy reverse and pulling it all the way back puts on the parking brakes.
- In front of the hand control is a display that shows the astronauts how fast they are going, the direction they are going in and what the temperature is.





Moon Buggies in the Future

NASA are planning to send a team of astronauts to the moon again in 2021 and are currently testing a new Lunar Rover in the desert.

It is the size of a pick-up truck (with 12 wheels).

It is designed for two astronauts to spend 14 days on board and has sleeping and toilet facilities.

It can travel thousands of miles. Its wheels will move in any direction so it can even move sideways and can climb over rocks.

It has been designed to be reusable and last at least 10 years.

It is battery powered and NASA hopes if it is successful the design will be used to make energy efficient cars on earth!



<http://www.youtube.com/watch?v=d1OacTW2J1E>

LO: To design a space buggy.

- ▣ Draw your own design for a space buggy and include labels for the different parts. What do you need to include? Why is your design the best?
- ▣ Or if you are feeling more adventurous you could create a model of a space buggy instead.

