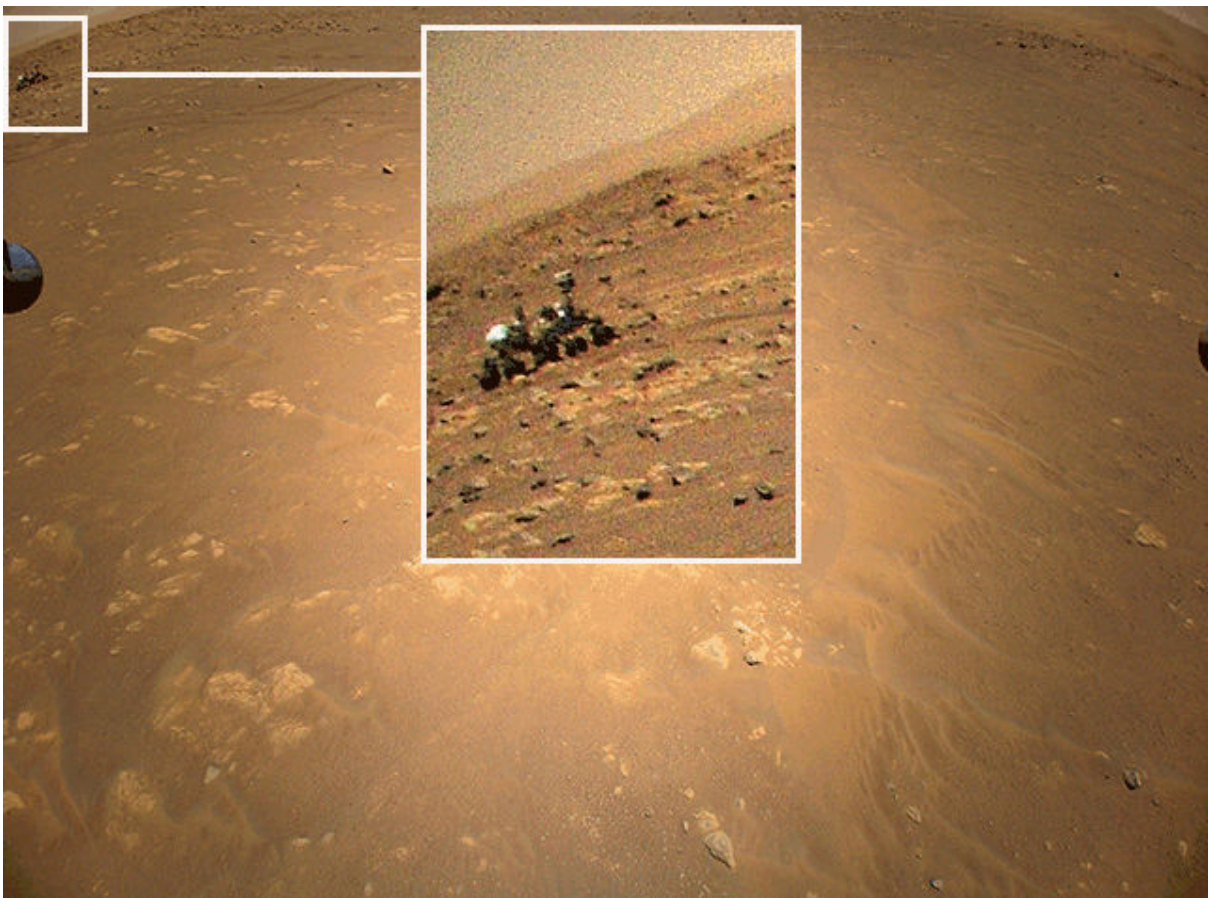


Mars helicopter photographs Mars rover



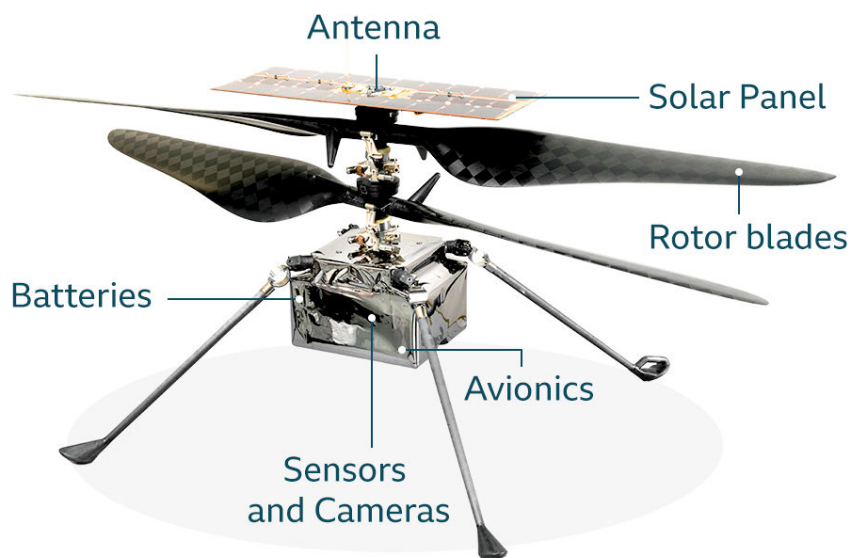
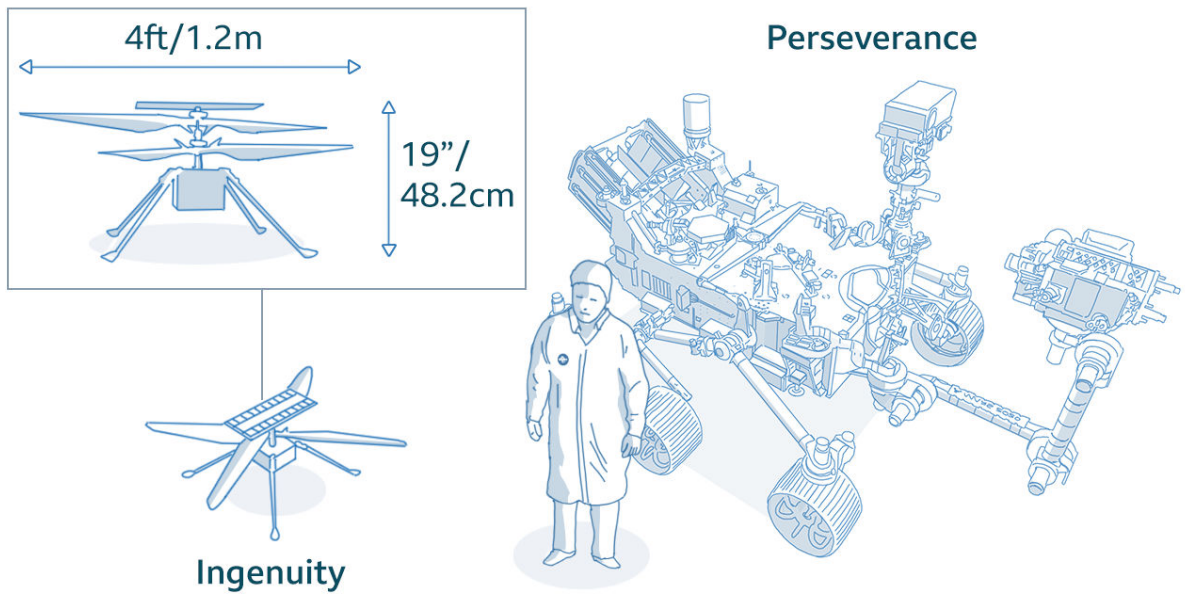
The American space agency's Ingenuity Mars helicopter has photographed the Perseverance rover.

The one-tonne robot, which acts as the drone's radio base-station, is seen nestled in the upper-left corner of a newly released image.

The picture was acquired by Ingenuity during its third demonstration flight on Sunday.

At the time, the mini-helicopter was about 85m from the rover and flying laterally at an altitude of 5m.

Sunday's sortie was the most ambitious yet for Ingenuity and saw it travel 100m over the course of 80 seconds.



Source: Nasa

BBC

Nasa says the drone's next two flights, to be conducted in the coming days, will be its last and will push the chopper technology very hard in terms of speed and distance travelled.

Engineers want to find the Ingenuity's limits, even if that means crashing it in the process.

The major difficulty in flying on the Red Planet is the very thin atmosphere, which has just 1% of the density here on Earth.

This gives the rotor blades on a rotorcraft very little to bite into to produce lift. There's help from the lower gravity at Mars, but still - it takes a lot of work to get up off the ground.

The Nasa chopper was therefore made extremely light and given the power to turn those blades super-fast - at over 2,500 revolutions per minute. Ingenuity was carried to Mars by the Perseverance rover, which landed in Jezero Crater in mid-February.

As well as acting as a base station for the chopper, the six-wheeled robot has been taking stills and movies to document the demonstration flights. Soon, however, Perseverance must abandon the helicopter to begin its primary mission of searching for signs of life on the Red Planet.

Link: <https://www.bbc.co.uk/news/science-environment-56912808>

Should We Invest In Space Exploration?

Yes	No
<ul style="list-style-type: none"> ⇒ Humans are curious to find out everything, it's human nature ⇒ It's resulted in inventions in the past (such as teflon, velcro) ⇒ Could result in something positive if we find something amazing (e.g. new planet colonization) ⇒ It provides jobs to an entire industry ⇒ It's becoming privatised (e.g. SpaceX) 	<ul style="list-style-type: none"> ⇒ It doesn't benefit us directly ⇒ It's expensive and money could be better spent elsewhere ⇒ Needs of humanity should come first ⇒ Creates unnecessary competition (e.g. Cold War) ⇒ Exploration hasn't resulted in anything - pictures of the moon

Vocabulary:

Spaceshuttle

Astronaut

Starving

Poverty

Exploration / to explore something

Stars

Money well-spent - a waste of money

To invest in something

To research / to develop / investigate

Questions:

- 1) Would you ever be interested in going to space?
- 2) Is it fair to single-out space exploration? Why doesn't the argument "money could be better spent" apply to football salaries?
- 3) What do you think about space tourism? Would you be interested in this?
- 4) Do you think there are too many films/TV series about space? (ET, Star Wars)
- 5) Would you ever be interested in being an astronaut?
- 6) Do you know much about astronomy/stars?
- 7) Do you use telescopes? / Have you ever used a telescope before?