Aerosols are tiny particles suspended in air we can't see them. They're all around us all the time and the reason we care about aerosols is that they can be a health hazard whether on earth or in space.

Humans need fresh air to breathe and remain healthy.

The NASA Earth and Space Air prize is a technology competition with support provided by the Robert Wood Johnson Foundation.

Can you build a compact lightweight and durable sensor to measure particles in the air? Submit your idea for a chance to win a grand prize of $100,000.

We're looking for really great people innovators who will design new kinds of sensors that help us understand the quantity of particulate in air either in a community or in an environment in space. Health and safety are two core values that we develop our spacecraft with. We absolutely care about the health of our astronauts. That is our prime driving factor for developing technologies for monitoring human health.
The space station is a really unique environment.

It's been in operation for 17 years. There have been over 200 people that have come and gone.

They clean the air with filters. So the filters are always taking out particles.

But at the same time the humans are always generating particles.

There are a lot of science experiments on the space station and all of those materials that are brought up make tiny particles.

We cannot put a full-size aerosol instrument on the space station.

Air quality is also a concern for long-term missions.

When we go to Mars, there's going to be a lot of dust.

We're gonna be very interested in measuring and controlling the aerosols.

in a Martian habitat for example.

The technology developed for space could even be used on earth.

We want to work with leaders all across the country to help build what we call a culture of health. That's a time in a place in the future where everyone in the United States has lots and lots of opportunity to live a healthy life. Do you have an idea for a new technology?
Do you have an idea for a new technology?

Register by December 13, 2017.

Submit a design idea by January 31st, 2018

Propose your solution so we can all breathe easy