



LOVE NASA? LOVE SCIENCE? VOLUNTEER TO DO REAL NASA SCIENCE!

NASA's volunteer scientists are searching NASA data for new worlds, asteroids, and comets. They are tracking the impacts of climate change on lake levels, coral reefs, and mosquito populations. Hundreds of volunteers have co-authored publications in professional journals. Many have made new, lasting friendships with NASA scientists and with one another. Scientific discoveries made by NASA volunteers include:

- Hundreds of extrasolar planets
- . Thousands of brown dwarf stars
- 100,000s of emperor penguin nests
- . Most of the known comets
- A new kind of aurora phenomenon

Our volunteer projects, sometimes called "citizen science" projects are open to everyone around the world, and not limited to U.S. citizens or residents. They aim to teach you everything you need to know as you go along - so don't worry if you never studied science or forgot what you learned in school. Pick one and try it out!

Just be ready: there are no guaranteed results, and sometimes the answers will remain unknown. But if you're tired of just reading about other people's groundbreaking discoveries and ready to get involved, visit *science.nasa.gov/citizenscience* or click on the links below.

Projects with the **X** require no prior knowledge, experience, or special tools beyond a computer or smartphone. Other projects may involve going to a specific location or using tools such as a backyard telescope.

Astrophysics

- Are We Alone In The Universe arewealone.earth 🕇
- Backyard Worlds: Planet 9 backyardworlds.org 🕇
- Dark Energy Explorers -

www.zooniverse.org/projects/erinmc/dark-energy-explorers

- Disk Detective diskdetective.org
- Exoplanet Watch exoplanets.nasa.gov/exoplanet-watch 🕇
- Planet Hunters TESS planethunters.org *
- Planet Patrol exoplanetpatrol.org 🕇
- Unistellar Network Investigating TESS Exoplanets (UNITE) science.unistellaroptics.com

Biological and Physical Sciences

• Growing Beyond Earth - fairchildgarden.org/gbe

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Earth Science

- Air Quality Citizen Science agcitizenscience.rti.org/#/
- Community Snow Observations communitysnowobs.org
- Fjord Phyto fjordphyto.ucsd.edu
- Floating Forests floatingforests.org 🕇
- Fresh Eyes On Ice fresheyesonice.org
- GLOBE Observer: Clouds, Eclipse, Land Cover, Mosquito Habitat Mapper, Trees - observer.globe.gov/do-globe-observer
- Lake Observations by Citizen Scientists and Satellites locss.org
- Landslide Reporter gpm.nasa.gov/landslides/index.html
- Mapping Application for Penguin Populations and Projected Dynamics (MAPPPD) - penguinmap.com *
- Mountain Rain or Snow www.rainorsnow.org
- NeMO-Net nemonet.info 🕇
- Spritacular spritacular.org
- Soundscapes to Landscapes soundscapes2landscapes.org
- Chesapeake Water Watch serc.si.edu/citizen-science/projects/chesapeake-water-watch

Heliophysics

- Aurorasaurus aurorasaurus.org 🕇
- Goldstone Apple Valley Radio Telescope (GAVRT) gavrt.lewiscenter.org
- HamSci hamsci.org
- Radio Jove radiojove.org
- Solar Jet Hunter -www.zooniverse.org/projects/sophiemu/solar-jet-hunter *
- Sungrazer Project *sungrazer.nrl.navy.mil* *
- Heliophysics Auditied: Resonances in Plasmas (HARP) listen.spacescience.org 🕇
- Solar Active Region Spotter ★
 www.zooniverse.org/projects/eimason/solar-active-region-spotter

Planetary Science

- Active Asteroids www.zooniverse.org/projects/orionnau/active-asteroids *
- Catalina Outer Solar System Survey www.zooniverse.org/projects/fulsdavid/catalina-outer-solar system-survey *
- Cloudspotting on Mars www.zooniverse.org/projects/ marek-slipski/cloudspotting-on-mars *
- International Astronomical Search Collaboration ("Isaac") iasc.hsutx.edu
- Jovian Vortex Hunter *\footnotextarrow\footnote
- JunoCam www.missionjuno.swri.edu/junocam