

MISSION X

TRAIN LIKE AN ASTRONAUT



NIMBLE NAVIGATION

MISSION

Time for a brain (and body) twisting game! Using your flexibility and agility, we want to see you navigate your way to the ISS on a course of hand and footprints. The goal is to go as fast as possible from the beginning to the end without any mistakes: at each row you must always touch the paper with either hands or feet that match the picture on the card.

Watch the video of this mission here: <https://trainlikeanastronaut.org/nimble-navigation/>

SET-UP:

To complete this activity, start off by drawing or painting handprints and footprints on cards (or print some from the internet). We recommend 36 cards: 8 from left hand, 8 from right hand, 8 from left foot, 8 from right foot. Print out or draw the ISS picture. Tape 3 cards in a row to the floor, mixing and matching the handprint and footprint cards, with the ISS at the end of the course. Have a stopwatch or cell phone ready to record how fast you complete the course.

EQUIPMENT:

- Drawing or painting utensils
- Blank cards or paper
- Printed image (e.g. of the ISS)
- Tape
- Stop watch

TIME:

Approximately 30 minutes



COSMIC CARTWHEEL

MISSION

In microgravity, astronauts love to perform spectacular somersaults. Here on Earth it's not so easy, but it certainly is fun! To practice your coordination and strength, perform a series of gymnastics moves: the original front roll, the backwards roll and finally the cartwheel.

Watch the video of this mission here: <https://trainlikeanastronaut.org/cosmic-cartwheels/>

SET-UP:

Roll out an exercise mat or use carpet for a soft landing. First, practice the [Space Rock-n-Roll](#) activity to perfect a front roll. Slowly practice the backwards roll and cartwheel steps, to build up confidence and strength.

EQUIPMENT:

Exercise mat or carpet

TIME:

Approximately 30 minutes



ASTRO ART

MISSION

During a spacewalks, astronauts need some serious dexterity and hand-eye coordination to carefully complete tasks, all while wearing bulky gloves to protect them from the harsh space environment. In this challenge we want to see your artistic skills. Draw, paint, or colour a picture while wearing space gloves.

Watch the video of this mission here: <https://trainlikeanastronaut.org/astro-art/>

SET-UP:

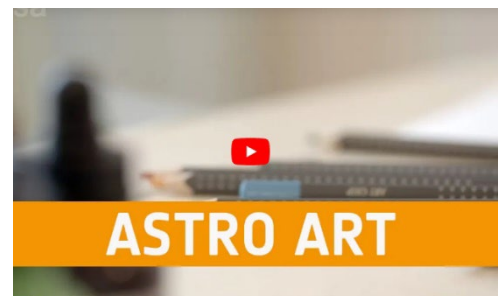
Put on two pairs of gloves: the first should be tight to your hands, and the second should be bulky, like thick winter gloves. Grab some paper and your choice of colourful writing utensils to create your picture. Time to make some art!

EQUIPMENT:

- 1 tight pair of gloves
- 1 bulky pair of gloves (e.g. winter mittens)
- Drawing utensils
- Paper

TIME:

Approximately 30 minutes



HIIT THE SPACE GYM

MISSION

Let's HIIT the space gym and get ready to sweat! To keep those hearts and lungs healthy, perform a series of high-intensity interval training (HIIT) exercises in the following order: squats, commander crunches, bear crawls, pilot planks, and crab walks. Complete each activity for 30 seconds, with 15 seconds of rest in between. Complete the whole circuit twice (or three times if you're brave).

Watch the video of this mission here: <https://trainlikeanastronaut.org/hiit-the-space-gym/>

SET-UP:

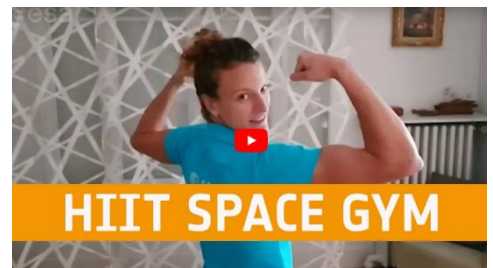
To complete this activity, you will need a timer or interval app on a mobile phone. If you want, use a workout mat or towel to make some of the exercises more comfortable. Remember to focus on doing each exercise correctly rather than quickly.

EQUIPMENT:

- Timer or interval timer application on a mobile phone
- Exercise mat or towel

TIME:

10-20 minutes



LIFTOFF LANGUAGES

MISSION

Astronauts need brains and brawn! Using your coordination, endurance, and quick thinking, perform five jumping jacks, with a star-jump finish, while calling out the liftoff sequence: "5,4,3,2, 1, liftoff!". Repeat it again with one catch –call out the liftoff countdown in another language!

Watch the video of this mission here: <https://trainlikeanastronaut.org/liftoff-languages/>

SET-UP:

Using the internet, a book or by asking a friend or family member, learn to say "5,4,3,2,1, liftoff" in a language other than your own. Practice saying it a few times. Practice your jumping jacks and when completing the "lift-off jump" extend your arms and legs to form the shape of a star in the air. Put it all together and show us what you've got!

EQUIPMENT:

N/A

TIME:

10-15 minutes



VENUS VOLCANOES

MISSION

Venus is the most volcanic planet in our solar system and recent research suggests some of these volcanoes are still active. Pretend you are on the surface of Venus- surrounded by erupting volcanoes! Using your astro-agility and spatial awareness skills, carefully navigate back to the home base without touching the lava floor.

Watch the video of this mission here: <https://trainlikeanastronaut.org/venus-volcanoes/>

SET-UP:

Using items around the house, like pillows, create a pathway from one side of the room to the other. Try to move across the room on these objects, avoiding obstacles and never touching the floor.

EQUIPMENT:

Household items to be used as stepping-stones

TIME:

10-15 minutes



SKIP TO THE MOON

MISSION

Did you know that jumping might be a key activity in keeping astronauts healthy in space? Try some jump rope tricks to improve jumping skills! After mastering the classic jump, try out the following: jumping jacks, one foot, criss-cross legs, criss-cross arms and the big finale... double-unders.

Watch the video of this mission here: <https://trainlikeanastronaut.org/skip-to-the-moon/>

SET-UP:

First things first, grab your jump rope! Next, practice each of the exercises individually. Finally, try putting all of the exercises together without stopping in between.

EQUIPMENT:

Jump-rope

TIME:

10 minutes



BASE STATION BOOGIE

MISSION

You have just had a great day of exploring the Moon, but it's time to head back to the base station. Instead of simply walking back, show off your out-of-this-world dance moves! Using your coordination and orientation skills, dance your way all the way back to the base.

Watch the video of this mission here: <https://trainlikeanastronaut.org/base-station-boogie/>

SET-UP:

First things first, grab your jump rope! Next, practice each of the exercises individually. Finally, try putting all of the exercises together without stopping in between.

EQUIPMENT:

N/A

TIME:

10 minutes

