

How Serol's Cosmic Explorers works

Serol will take you on a journey through our Galaxy, so you can see all the wonders it has to offer and have the opportunity to study them.

With the help of Serol, you'll use Las Cumbres Observatory's [robotic telescopes](#) to observe a host of cosmic wonders, from the Moon and planets in our Solar System to galaxies millions of light years away.

The journey to become a cosmic explorer is made up of **three missions**, each one including a series of **challenges**.



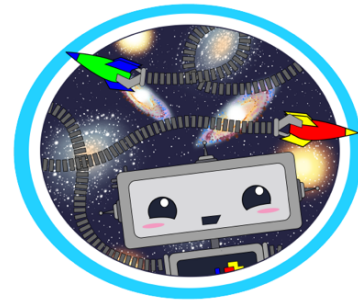
Mission 1

Get to know the night sky



Mission 2

Life and times of stars



Mission 3

The Universe at large

Mission 1: Get to know the night sky

The first mission introduces a wide variety of objects in the night sky, some more familiar objects like the Moon and planets, and other less familiar objects like nebulae. There are 5 challenges in mission 1. Missions 2 and 3 are only unlocked after completing mission 1.

Challenges:

- Get to know galaxies
- Get to know the Moon
- Get to know star clusters
- Get to know nebulae
- Get to know planets

Mission 2: Life and times of stars

Mission 2 is all about stars. It introduces different groups of stars, where stars are born, and what happens to stars at the end of their life. There are 5 challenges in mission 2.



Challenges:

- Get to know open clusters
- Get to know globular clusters
- Get to know star-forming nebulae
- Get to know planetary nebulae
- Get to know supernova remnants

Mission 3: The Universe at large

Mission 3 explores various types of galaxies in the Universe. There are 4 challenges in mission 3.

Challenges:


- Get to know spiral galaxies
- Get to know elliptical galaxies
- Get to know irregular galaxies
- Get to know galaxy groups

What happens in the challenges?

Challenges focus on one type of astronomical object for you to observe and analyze. Start by choosing a target from a selection, and this will then be scheduled by Serol to be taken by one of our telescopes, usually within a week.

Mission 1: Get to know the night sky





Challenge 3: Get to know star clusters

Click a target below to find out more

Serol will take a picture of your choice within 7 days

NGC6093	NGC6910	NGC1193
NGC6093 is a globular cluster 30,000 light years away, also known as M80 contains a large number of ...	NGC 6910 is a young open cluster visible in the Swan constellation 4,000 light years away.	NGC1193 is an old open cluster is located in the constellation Perseus.

[Refresh Targets](#)

You'll be notified by email and the notification icon on the website when your picture has been taken. From here you will be asked to identify your image, and then analyze your image through a few multiple choice questions.



Analyse your image!



What colour are the stars?

Most of the stars are orange or red

Most of the stars are yellow or white

Most of the stars are blue

The stars are a mix of colours

Is there something wrong with the picture?

Let's try again

After you have analyzed your picture, you'll unlock a brand new sticker, to show you have successfully completed the challenge.

Challenge Completed!



Continue your adventure!

Is there something wrong with the picture?

Let's try again



From looking at your picture, your analysis was:

What colour are the stars? Most of the stars are yellow or white
How many stars are in the cluster? I can see more than 1,000 stars
How many bright stars can you count? I can count between 100-1,000 stars

To conquer a mission, you'll need to collect all of the challenge badges. As you earn them, your badges and space pictures will appear on your [Stickers page](#), where you can download them to share with your friends and family.

When you have collected all three mission patches, you can finally declare yourself a real Cosmic Explorer!