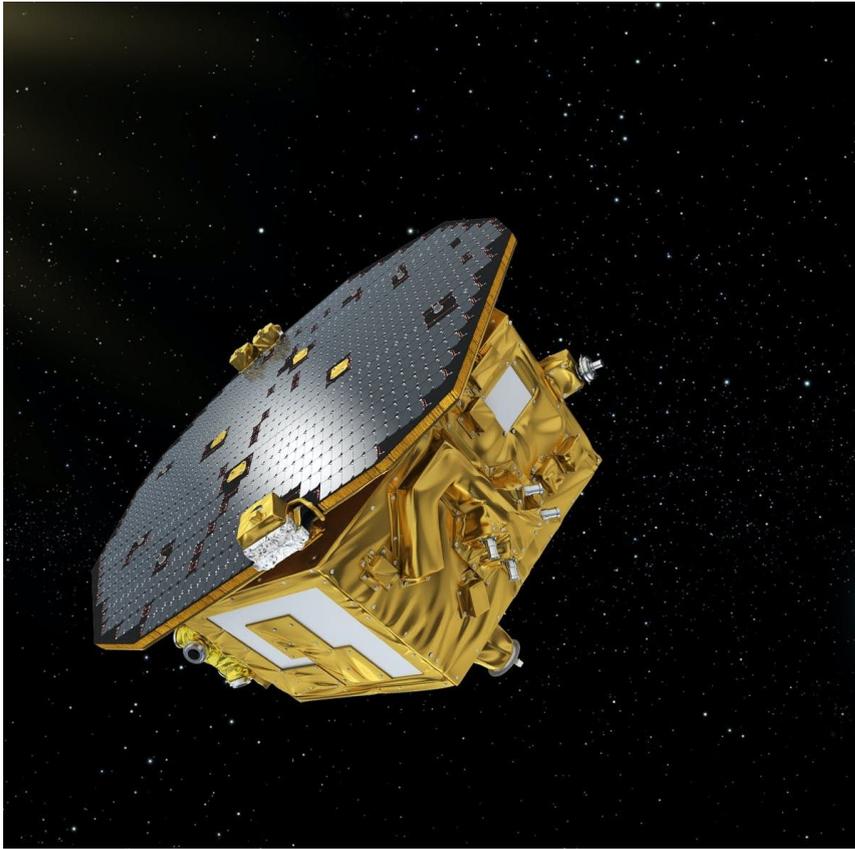


## Knit Kit 5: Earth's eELISA



iPods listen to music, space pods listen to the universe.

### The Story

Dr. Brynley Pearlstone

Science isn't always easy or straight-forward. eLISA is a science experiment that has been just an idea for a very long time.

eLISA is a detector for gravitational waves that will be in space, made of 3 pods connected by laser beams. It's changed a lot since it was first thought of - NASA didn't want to be part of the project any more, the ideal length between pods has changed, and the amount of money that it can cost has gone up and down. But the team behind eLISA have been very clever, and stuck with the idea. They kept a clear picture of why it's important for science, and kept trying to make it the best they could. The story reminds me that as long as you hold on to the most important ideals, and keep trying, you will do your best for those around you.

## The Science

We have huge “ears” on Earth to listen for ripples in time and space, called gravitational waves. They can hear only certain things whizzing around up there. Scientists around Europe wanted to build an ear that can hear the biggest things in the universe going around each other - colliding galaxies! To hear bigger things making ripples, you need to have an even bigger bit of kit. They came up with eLISA, an ear that uses laser beams to measure the distance between 3 pods. Because it's in space, the ear can be as big as it needs to be. In fact, the three pods are so far apart, you could fit all of the Earth in between them!

eLISA will launch into space some time in the 2030s.

This is an intermediate knit. You will need:

- 4 colours of wool - we used glittery black, blue, green and grey.
- A pair of knitting needles

If you can use double-knit (DK) wool and 4mm needles, your knitting will work out around 15-18cm on each side, but use what you have or what you can get hold of.

Colours don't have to match the image, you can use whatever you or your family have lying around. In this knit, we used around 25g of black, and 10g each of blue, green and grey. We knitted on 4mm knitting needles.

Skills used include: Cast On, Knit, Purl, Change Colour (fair isle), and Cast Off. Go to our website [www.knittheuniverse.co.uk](http://www.knittheuniverse.co.uk) for links to handy YouTube videos to learn these skills. Remember: After casting on, knit odd-numbered rows, changing colours as you go, and purl even numbered rows, changing colours as you go.

