



SlothBot Built to Keep an Eye on Animals

What are sloths?

- Sloths are furry mammals that live in the rainforests of Central and South America.
- Sloths spend 15 to 20 hours a day sleeping and typically only manage to travel around 35m a day.

When you think of a robot, you might envisage a small beeping droid? Maybe a human-shaped machine that cleans up or helps fight crime? I'd guess that you didn't think of a sloth!

However, that's what the robotics engineers at the Georgia Institute of Technology, USA, have now designed and made.

They were inspired by these slow tree-dwelling animals when they built a robot to observe plants and animals.

"SlothBot embraces slowness," said Professor Magnus Egerstedt. It is designed to be "slow and hyper-energy efficient".

Professor Egerstedt took inspiration for the robot from a sloth he saw on a visit to Costa Rica, a country in Central America.

The funny-looking shell protects the solar-powered equipment inside. It can track temperature, weather, and carbon dioxide levels.

The robot is programmed to avoid moving if possible. But, it will search out sunlight when its batteries need recharging.

The engineers know that it is whimsical and charming to look at. But, they hope it will do a better job than a land-based robot.

These might scare away or damage the species they are trying to watch, or get stuck on bushes, roots or rocks.

The SlothBot is about a metre long and currently hangs from a 30m long wire in the Atlanta Botanical Garden, USA.

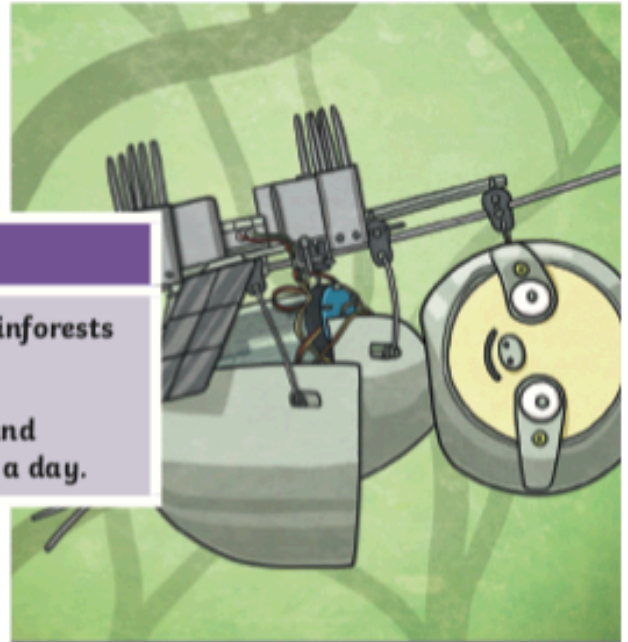


Illustration: The SlothBot.

Emily Coffey, who works at the Atlanta Botanical Garden, said it's a one of a kind "way to engage the public and bring forward a new way to tell our story."

The team chose to put SlothBot there because they want to test their machine before sending it to South America to observe plants and animals.

However, they also hung it there to show off their idea to adults and children who visit the gardens. Professor Magnus Egerstedt hopes that the SlothBot "will get an entirely new generation interested in what robotics can do to make the world better."

Glossary

envisage	Create a picture in your mind.
efficient	Something that uses little energy to provide its needs.
programmed	A set of instructions that a computer follows in order to perform a task.
whimsical	Playfully silly, especially in an appealing and amusing way.

Questions

1. Draw lines to show whether each statement is a fact or an opinion.

Sloths are very inspirational.

Sloths spend most of the day sleeping.

SlothBot is designed.

Sloths are very graceful.

Fact

Opinion

2. Where do the scientists hope to send the SlothBot next?

3. '...it's a one of a kind "way to engage the public and bring forward a new way to tell our story."' Which of the following could be used instead of the phrase 'one of a kind'?

- ordinary
- single
- thoughtful
- unique

4. Use evidence in the text to give two reasons why the engineers think their robot will be better than a land-based robot.

1. _____

2. _____

5. Professor Magnus Egerstedt hopes to inspire children in using robotics to help the environment. What evidence can you find to support this statement?

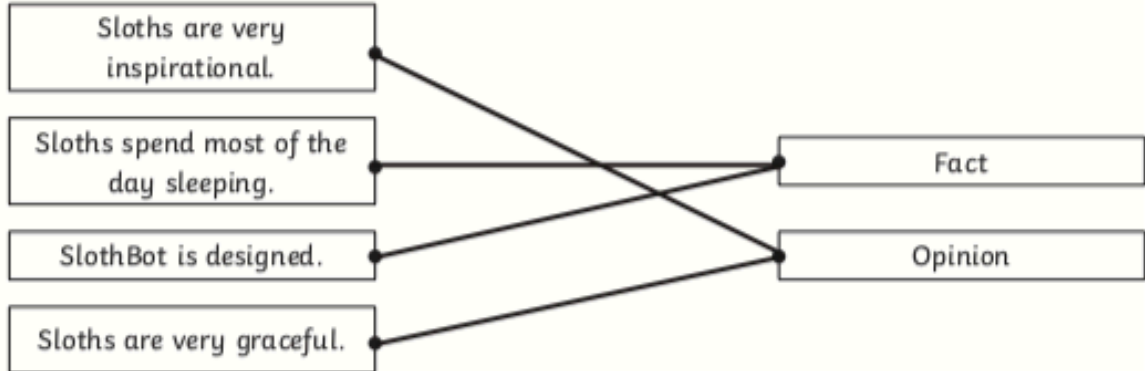
6. Write a different headline for this story using only six words.

ANSWER SHEET

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Answers

1. Draw lines to show whether each statement is a fact or opinion.



2. Where do they hope to send the SlothBot next?

South America

3. '...it's a one of a kind "way to engage the public and bring forward a new way to tell our story."' Which of the following could be used instead of the phrase 'one of a kind'?

- ordinary
- single
- thoughtful
- unique**

4. Use evidence in the text to give two reasons why the engineers think their robot will be better than a land-based robot.

Accept an answer that says it's less likely to do the following: scare away species it is trying to monitor; to damage plants; get stuck on bushes, roots or rocks, e.g. They think it will be better as it won't get stuck on rocks.

5. Professor Magnus Egerstedt hopes to inspire children in using robotics to help the environment. What evidence can you find to support the statement?

Accept an answer referring to Professor Magnus Egerstedt saying that he hopes that the SlothBot "will get an entirely new generation interested in what robotics can do to make the world better", e.g. He says he hopes a new generation will be interested in using robotics to help the world.

6. Write a different headline for this story using only six words.

Accept any answer which includes the key information about the subject, location and/or outcome, e.g. Engineers Build SlothBot To Observe Species