Biodegradable Pig Gelatin Robot: Eco-Friendly Disposal Solution
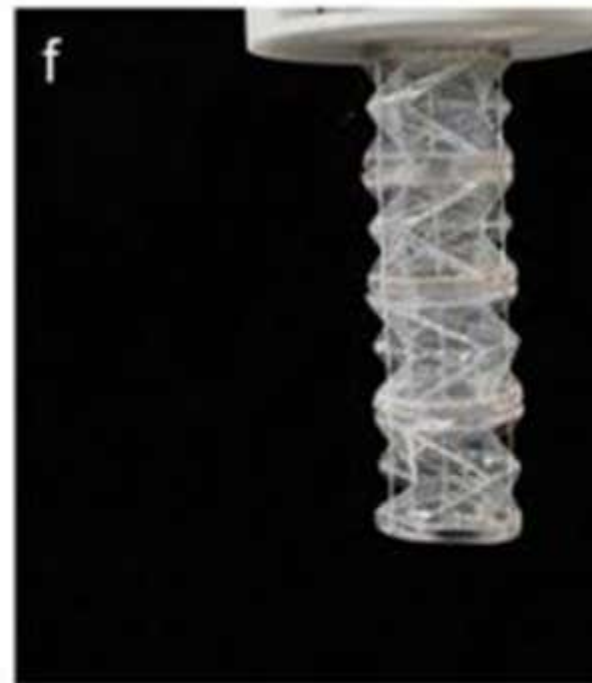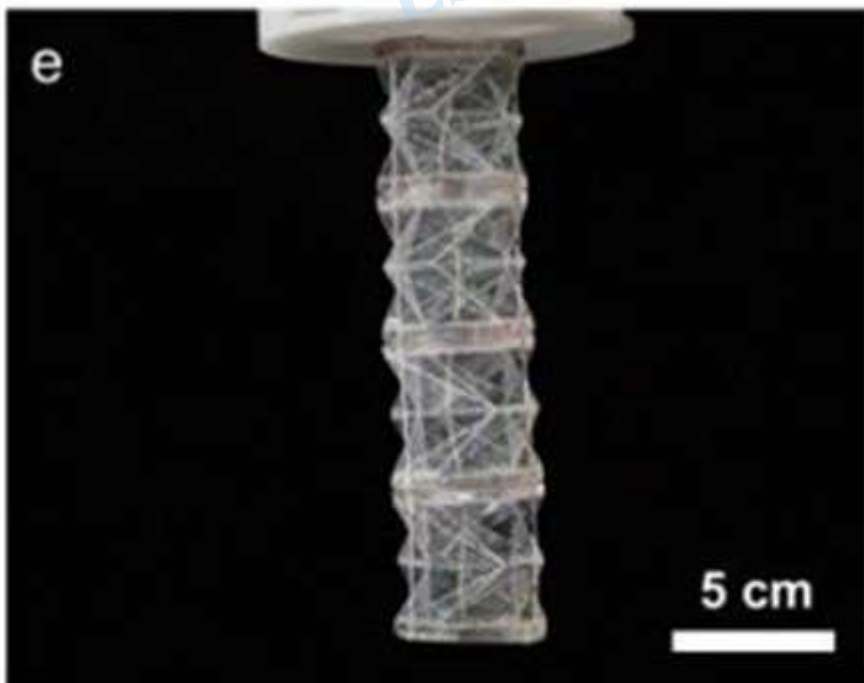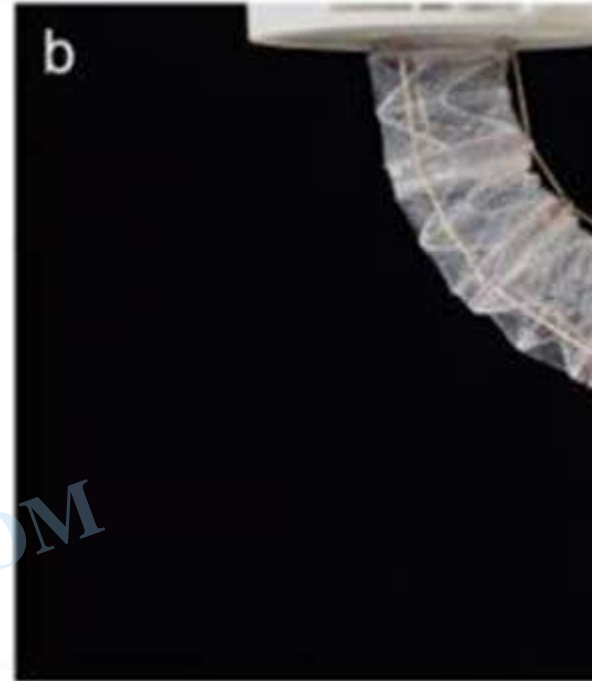
Description

A special robot arm that can be used for medical procedures is made from natural materials like cotton and gelatin. This arm can be controlled by a computer and is very flexible. It is easy to use in small spaces or near people because it is soft and safe.

Traditional robot arms are hard and rigid, but this new soft robot arm is made to be gentle when it interacts with things. The materials it is made from can break down naturally when it's not needed anymore.

Scientists are working on ways to make these soft robots useful in many different areas. They can be used in industries that need to reach tight spaces or in surgeries where they can be left inside the body without any harm. Soft robotics is a new and exciting field that has lots of potential!

Vocabulary List:

1. **Flexible** /ˈflɛk.sə.bəl/ (adjective): Capable of bending easily without breaking; adaptable.
2. **Gentle** /ˈdʒɛn.təl/ (adjective): Having a mild or kindly nature; not harsh or severe.
3. **Interact** /ˌɪn.təˈrækt/ (verb): To act in such a way as to have an effect on another; to communicate or work together.
4. **Potential** /pəˈtɛn.ʃəl/ (noun): The ability or capacity to develop into something in the future.
5. **Robot** /ˈroʊ.bɒt/ (noun): A machine capable of carrying out a complex series of actions automatically especially one programmable by a computer.
6. **Materials** /məˈtɪə.ri.əlz/ (noun): The substance or substances from which a thing is made or composed.

Comprehension Questions

Multiple Choice

1. What are the main materials used in the special robot arm for medical procedures described in the text?

   Option: Aluminum and steel
   Option: Cotton and gelatin
   Option: Plastic and rubber
   Option: Glass and ceramic

2. How is the flexibility of the special robot arm advantageous in its use?

   Option: It prevents it from moving
   Option: It allows it to break easily
   Option: It makes it easy to use in small spaces

Option: It increases its weight

3. What distinguishes the new soft robot arm from traditional robot arms?

   Option: It is only controlled by humans
   Option: It is made of hard and rigid materials
   Option: It can be used near people because it is soft and safe
   Option: It requires special cleaning procedures

4. How do the materials of the soft robot arm described in the text behave when not needed anymore?

   Option: They remain intact forever
   Option: They can break down naturally
   Option: They become harder
   Option: They change shape spontaneously

5. In what fields are scientists exploring the use of soft robots according to the text?

   Option: Agriculture and fashion
   Option: Construction and mining
   Option: Healthcare and surgery
   Option: Astronomy and space exploration

6. What is one potential advantage of using soft robots in surgeries based on the text?

   Option: Reduced precision
   Option: Limited flexibility
   Option: Ability to be left inside the body without harm
   Option: Inability to reach tight spaces

True-False

7. Soft robot arms made from natural materials like cotton and gelatin can be controlled by a computer.

8. The special robot arm mentioned in the text is hard and rigid like traditional robot arms.

9. Soft robotics is an established field with no room for further development.

10. The materials of the soft robot arm degrade naturally when not needed.

11. Soft robots are mainly limited to industrial use due to their properties.

12. Soft robots cannot be safely used near people.

Gap-Fill

14. The soft robot arm can be controlled by a _____ .

15. Scientists are exploring ways to make soft robots useful in many different _____ .

16. Soft robotics is a new field with significant _____ .

17. Soft robots can be used in surgeries and left inside the body without causing any

_____ .

18. Traditional robot arms are hard and rigid, while the new soft robot arm is designed to be

_____ .

Answer

Multiple Choice: 1. Cotton and gelatin 2. It makes it easy to use in small spaces 3. It can be used near people because it is soft and safe 4. They can break down naturally 5. Healthcare and surgery 6. Ability to be left inside the body without harm
True-False: 7. True 8. False 9. False 10. True 11. False 12. False
Gap-Fill: 14. computer 15. areas 16. potential 17. harm 18. gentle

Vocabulary quizzes

Multiple Choice (Select the Correct answer for each question.)

1. What are costs that a company incurs to generate revenue known as?

   Option: Assets
   Option: Liabilities
   Option: Expenses
   Option: Income

2. What process involves converting information into a code to prevent unauthorized access?

   Option: Encoding

Option: Decoding

Option: Encryption

Option: Decryption

3. Which term refers to the efficiency of production or performance in a given period of time?

Option: Profitability

Option: Efficiency

Option: Productivity

Option: Sustainability

4. What is the way in which a living organism or person acts or conducts oneself?

Option: Personality

Option: Intelligence

Option: Behavior

Option: Emotion

5. What is the state of being free from public attention or observation?

Option: Security

Option: Anonymity

Option: Privacy

Option: Exposure

6. Which term refers to the state of not being easily moved or changed?

Option: Flexibility

Option: Adaptability

Option: Stability

Option: Variability

7. What is the process of taking care of one's appearance especially to look well-groomed?

Option: Hygiene

Option: Grooming

Option: Cleaning

Option: Dressing

8. What are groups of people working together in a structured way for a common purpose called?

Option: Societies

Option: Associations

Option: Firms

Option: Organizations

9. What occurs when the number of existing human population exceeds the carrying capacity of Earth?

Option: Overgrowth

Option: Overpopulation

Option: Overcrowding
Option: Overdensity

10. What is a machine capable of carrying out a complex series of actions automatically?

Option: Droid
Option: Automaton
Option: Robot
Option: Android

Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. He always pursues his goals _____ to achieve success.

12. She is struggling to recover _____ after the unexpected expenses.

13. In any negotiation both parties may need to _____ to reach an agreement.

14. Being _____ in your approach allows you to adapt to changing circumstances.

15. The user was denied access to the system due to _____ login attempts.

16. To be successful in this role you must be highly _____ in your work.

17. The construction company ordered quality _____ for the new building project.

18. Every action has its own set of _____ so it's important to choose wisely.

19. The charity _____ raised a significant amount of money for the cause.

20. A customer satisfaction _____ showed areas for improvement in service.

Matching Sentences (Match each definition to the correct word from the vocabulary list.)

21. Social beings require opportunities to connect and with one another.
22. With dedication and hard work individuals can unlock their true for success.
23. The firefighters the family from the burning building just in time.
24. Ensuring the of customer data is a top priority for online businesses.

25. To maximize productivity it's crucial to streamline processes and be highly in tasks.
26. Adapting to changing circumstances requires a approach to problem-solving.
27. The artist painted a beautiful portrait of the majestic mountain .
28. The grand opening featured music food and entertainment for all attendees.
29. After years apart the long-lost siblings were finally and celebrated their reunion.
30. The popular product experienced a surge in due to its innovative features.

Answer

Multiple Choice: 1. Expenses 2. Encryption 3. Productivity 4. Behavior 5. Privacy 6. Stability 7. Grooming 8. Organizations 9. Overpopulation 10. Robot

Gap-Fill: 11. Aggressively 12. Financially 13. Compromise 14. Flexible 15. Unauthorized 16. Efficient 17. Materials 18. Consequences 19. Event 20. Survey

Matching sentence: 1. Interact 2. Potential 3. Rescued 4. Security 5. Efficient 6. Flexible 7. Landscape 8. Event 9. Reunited 10. Demand

CATEGORY

1. Sci/Tech - LEVEL2

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