8 A farmer uses an automated robot to plant seeds in the field.

(a) State what is meant by the robot being automated.

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..... [1]

(b) Give **three** characteristics of a robot.

1 .....

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2 .....

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3 .....

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[3]

(c) The robot plants seeds and stops when it reaches a fence. It then turns and continues planting seeds. The robot uses sensors and a microprocessor to know when it reaches a fence.

Explain how the robot uses sensors and a microprocessor to know it has reached a fence.

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..... [6]

(d) Give **two** advantages of the farmer using an automated robot to plant seeds.

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2 .....

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[2]

(e) Give **two** disadvantages of the farmer using an automated robot to plant seeds.

1 .....

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2 .....

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[2]

(f) The robot is adapted to have machine learning capabilities.

Explain how this will improve the robot.

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..... [2]