7 A train station has a ticket inspector who checks each customer's ticket before they are allowed to get on the train.

The train station wants a system that will allow the tickets to be automatically checked.

(a) Identify **two** suitable input devices that can be used to automatically read the tickets.

1 .....

2 .....
[2]

(b) The train driver pushes a button to close the train door when all passengers have boarded the train. The train door will only close when there are no passengers in the doorway.

The system to check there are no passengers in the doorway uses a sensor and a microprocessor.

Explain how the sensor and the microprocessor are used to check whether the train door can be closed.

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