Fixed loops

Core BUILD THE BASICS

C1 **State** the type of loop that repeats forever. **[1]**

C2 **State** the type of loop that repeats a set number of times. **[1]**

C3 **State** what the decision in a fixed loop checks. **[1]**

C4 **State** the number of passes when the decision is '×6?'. **[1]**

C5 **State** the value of count after 4 passes (starting at 0, +1 each pass). **[1]**

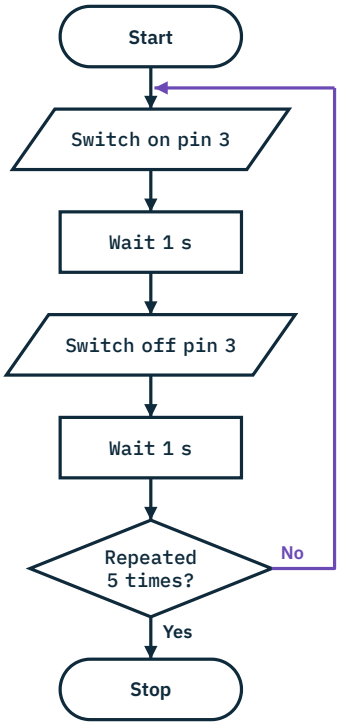
C6 **State** where the No route of a fixed-loop decision goes. **[1]**

C7 **State** the type of loop used for a set number of repeats. **[1]**

Fixed loops

Stretch GO FURTHER

S1 **Describe** what happens in this flowchart. **[2]**



S2 **Explain** why a fixed loop is used for a warning horn, not a continuous loop. **[2]**

S3 **Calculate** the time taken by the flowchart in the notes (×6, 1 s on, 1 s off). **[2]**

S4 **Complete** a trace table for count = 0; loop: count = count + 1; if count = 5 then end. **[2]**

S5 **Explain** why the loop in the notes is fixed and not continuous. **[1]**

Fixed loops

Exam Ready QUALIFICATIONS SCOTLAND STYLE

E1 A ski-lift bell on pin 6 rings 3 times (on 1 s, off 1 s) when the start switch on pin 0 is pressed. **Complete** the flowchart. **[6]**

E2 A beacon (pin 4) at Strathmore (fictional) flashes 6 times (on 1 s, off 1 s) when a switch (pin 0) is pressed, then the ramp motor (pin 7) runs for 8 s. **Complete** the flowchart. **[8]**

Fixed loops

E3 **State** the total time from pressing the switch to the motor stopping in E2. **[1]**

Total: 31 marks. Use the Data Booklet. Show your working and give units.