Practical 2

In his prac you will be interfacing with a peripheral. Specifically: the peripheral which is used to display data on the LEDs.
Write code to perform the functions as specified by the comments in the template:

```
_start:
              @ enable peripheral
              @ configure relevant pins to be outputs

all_off:
               @ turn all LEDs off

display_AA:
               @ display the pattern 0xAA on the LEDs

all_on:
               @ turn all LEDs on

bonus:
               @ If push button SW0 is held down, change the
               @ LED pattern to 0x55.
               @ Or else, do not alter it.

end:           B all_off  @ infinite loop cycling through patterns
```

Note: even if you don't implement the bonus question, leave the label there. The automarker expects it.

Marks:

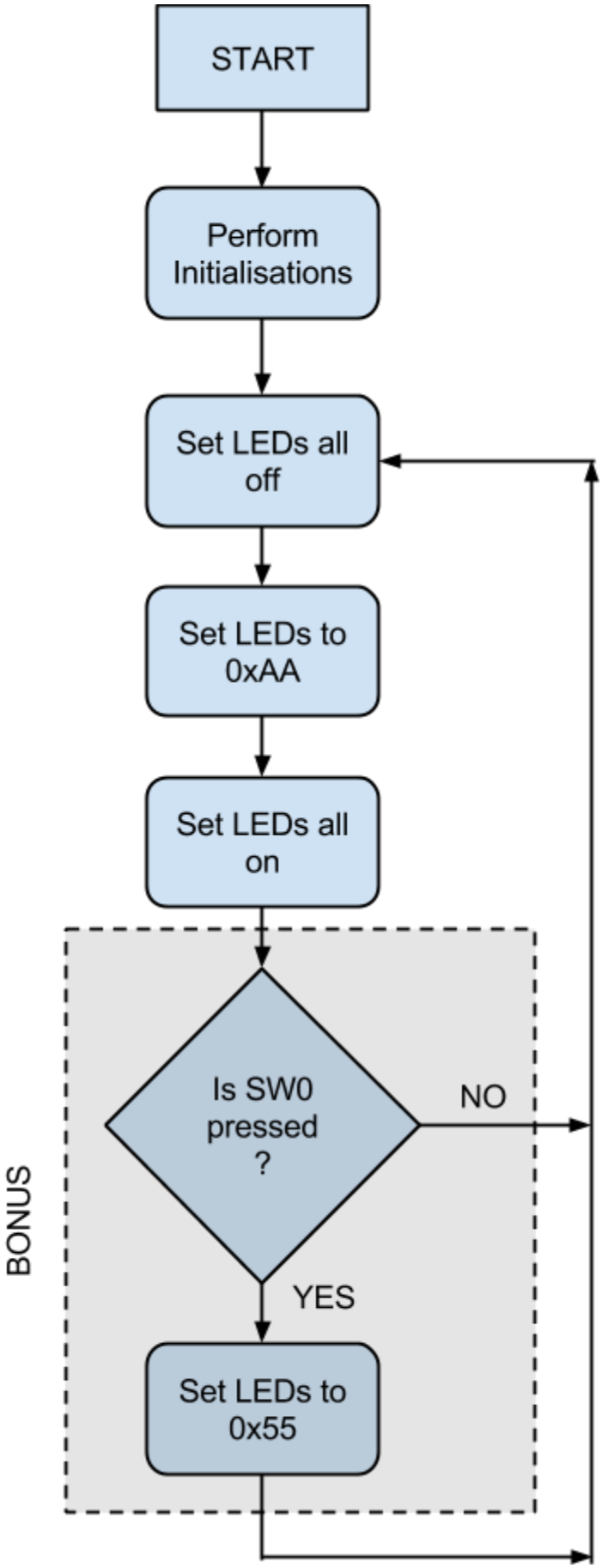
- Only the pins which are connected to LEDs set as outputs: (1)
- Lines between `all_off` and `display_AA` cause the LEDs to go off: (2)
- Lines between `display_AA` and `all_on` cause all LEDS to display 0xAA: (2)
- Lines between `all_on` and `bonus` cause the LEDs to all go on: (2)
- Bonus: (2)

Scale factor:
Before <day> at 10:00:

Monday: 1
Tuesday: 0.9
Wednesday: 0.8
Thursday: 0.7

The scale factor rewards those who work quickly and manage their time well.
Submissions will not be taken after the deadline at 09h55 on Thursday.

Marked out of: 7
Available marks: 9


START
Perform Initialisations
Set LEDs all off
Set LEDs to 0xAA
Set LEDs all on
Is SW0 pressed ?
NO
YES
Set LEDs to 0x55
BONUS