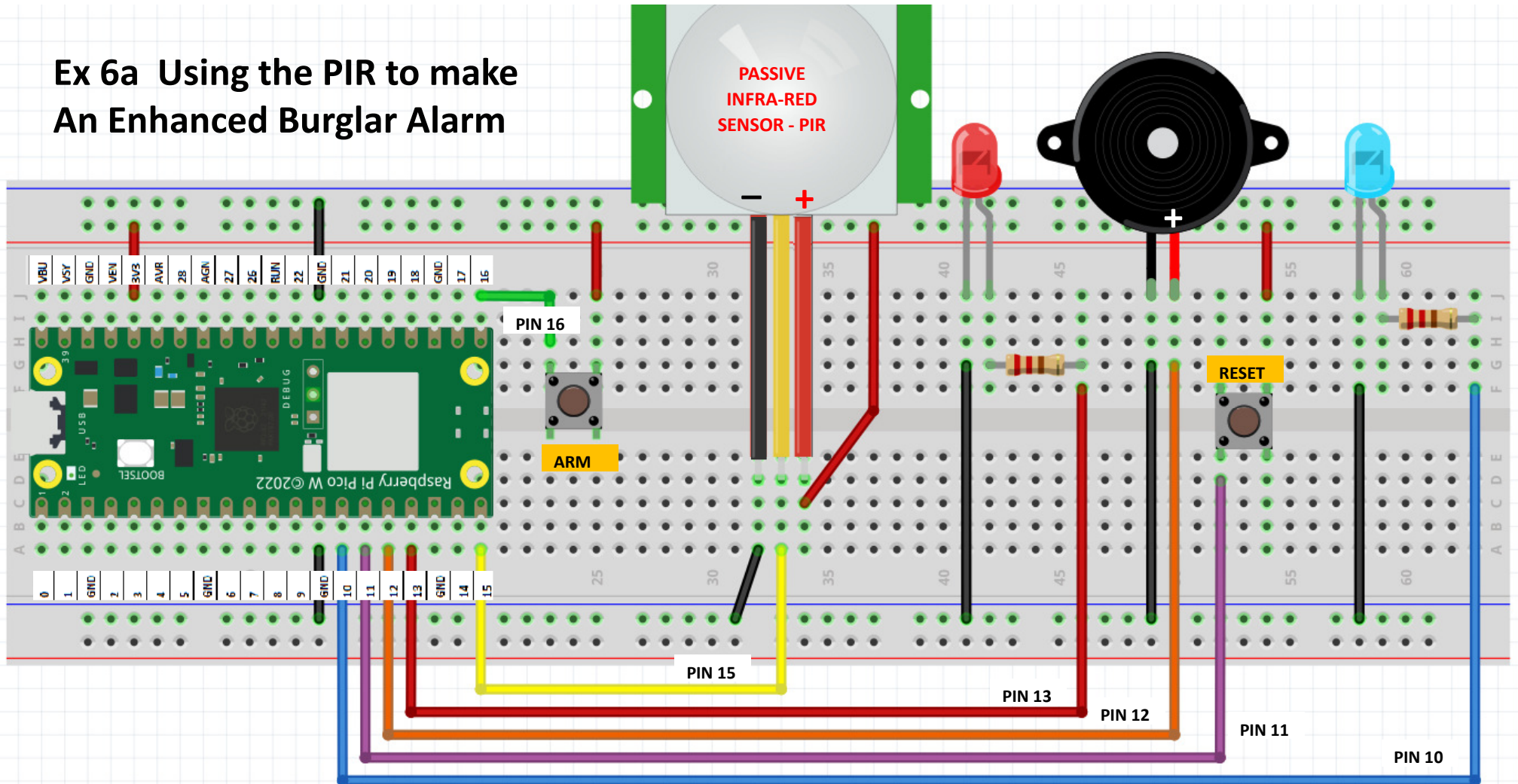
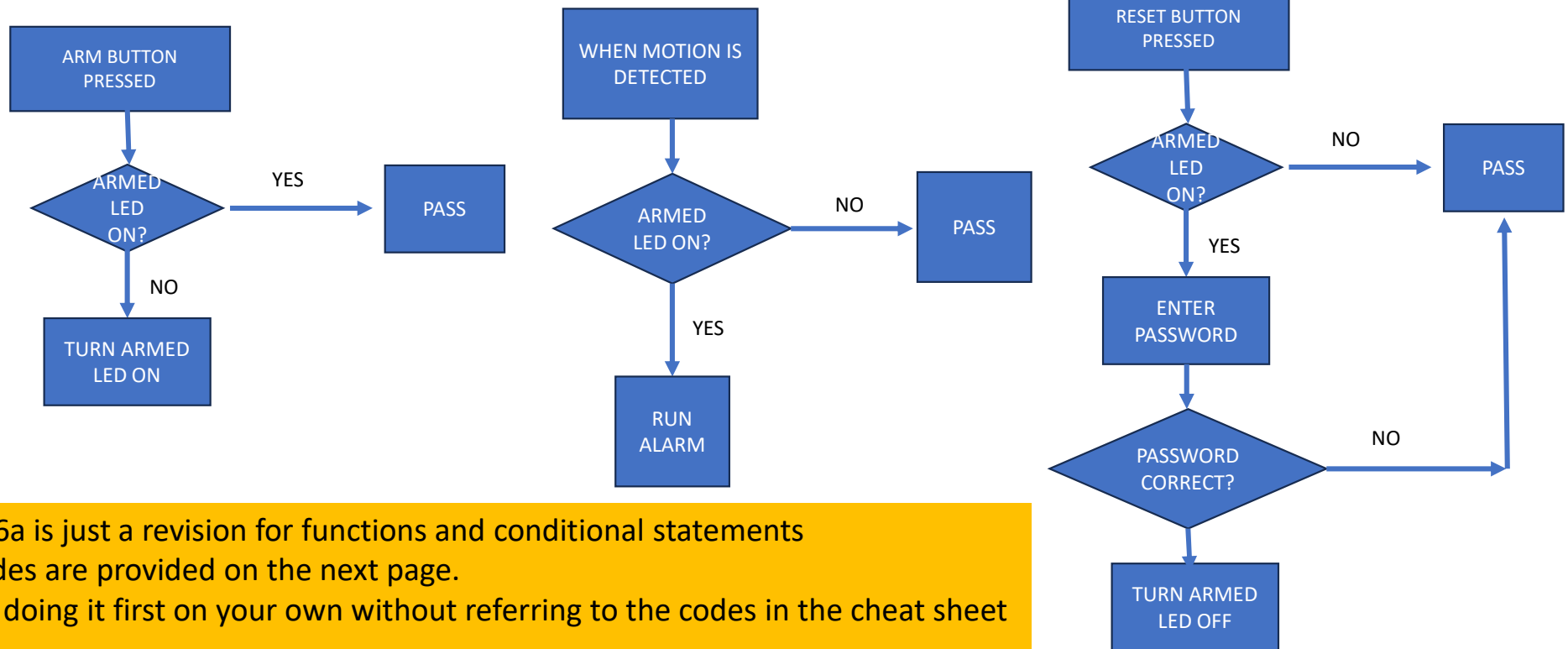


Ex 6a Using the PIR to make An Enhanced Burglar Alarm



Ex 6a. Enhancing the simple Burglar Alarm
A Burglar alarm should work only when it is activated
And should be deactivated when it is not required
Activated means armed_led is switched ON



Ex 6a is just a revision for functions and conditional statements
Codes are provided on the next page.
Try doing it first on your own without referring to the codes in the cheat sheet

CHEAT SHEET FOR THE ENHANCED BURGLAR ALARM

ex5b.py x burglar_with_machine.py

```
1 from machine import Pin
2 from time import sleep
3 sensor_pir = Pin(15,Pin.IN)
4 led = Pin(13,Pin.OUT)
5 buzz = Pin(12,Pin.OUT)
6
7 arm_button=Pin(16,Pin.IN, Pin.PULL_DOWN)
8 armed_led = Pin(10,Pin.OUT)
9 disarm button = Pin(11,Pin.IN, Pin.PULL_DOWN)
10 password='12345'
```

```
12 def alarm():
13     for x in range(1,11,1):
14         led.on()
15         buzz.on()
16         sleep(.5)
17         led.off()
18         buzz.off()
19         sleep(.5)
```

```
22 def armburglaralarm():
23     if armed_led.value() == 0:
24         armed_led.on()
25     else:
26         pass
27
28 def disarmburglaralarm():
29     if armed_led.value() == 0:
30         pass
31     else:
32         pwd=input('Enter Disarm Password ' )
33         if pwd == password:
34             armed_led.off()
35         else:
36             pass
37
40 armed_led.off()
41 buzz.off()
42 while True:
43     if arm_button.value() == 1:
44         armburglaralarm()
45     if disarm_button.value() ==1:
46         disarmburglaralarm()
47     if sensor_pir.value()==1 and armed_led.value()==1:
48         print('detected')
49         alarm()
50
```