

Do the "setup" to reflect the pin configuration above.

Turn "BCD 7 Segment" into a subroutine called "readPot" as shown on the following page.

Create a new subroutine called "blank". The BCD decoder will display nothing if the binary number is greater than 9.

```

loop
  blank
  set digital output # Locked HIGH
  set digital output # Open LOW
  test digital pin # Button == LOW
  while Commands
    delay MILLIS milliseconds 10
  delay MILLIS milliseconds 500
  test digital pin # Button == LOW
  while Commands
    readPot
    delay MILLIS milliseconds 10
  blank
  set integer variable digit1 value selectedNum
  delay MILLIS milliseconds 500
  test digital pin # Button == LOW
  while Commands
    readPot
    delay MILLIS milliseconds 10
  blank
  set integer variable digit2 value selectedNum
  delay MILLIS milliseconds 500
  test and digit1 == 2 digit2 == 7
  then
    set digital output # Locked LOW
    set digital output # Open HIGH
  if
    test digital pin # Button == LOW
    while Commands
      delay MILLIS milliseconds 10
  delay MILLIS milliseconds 500
  
```

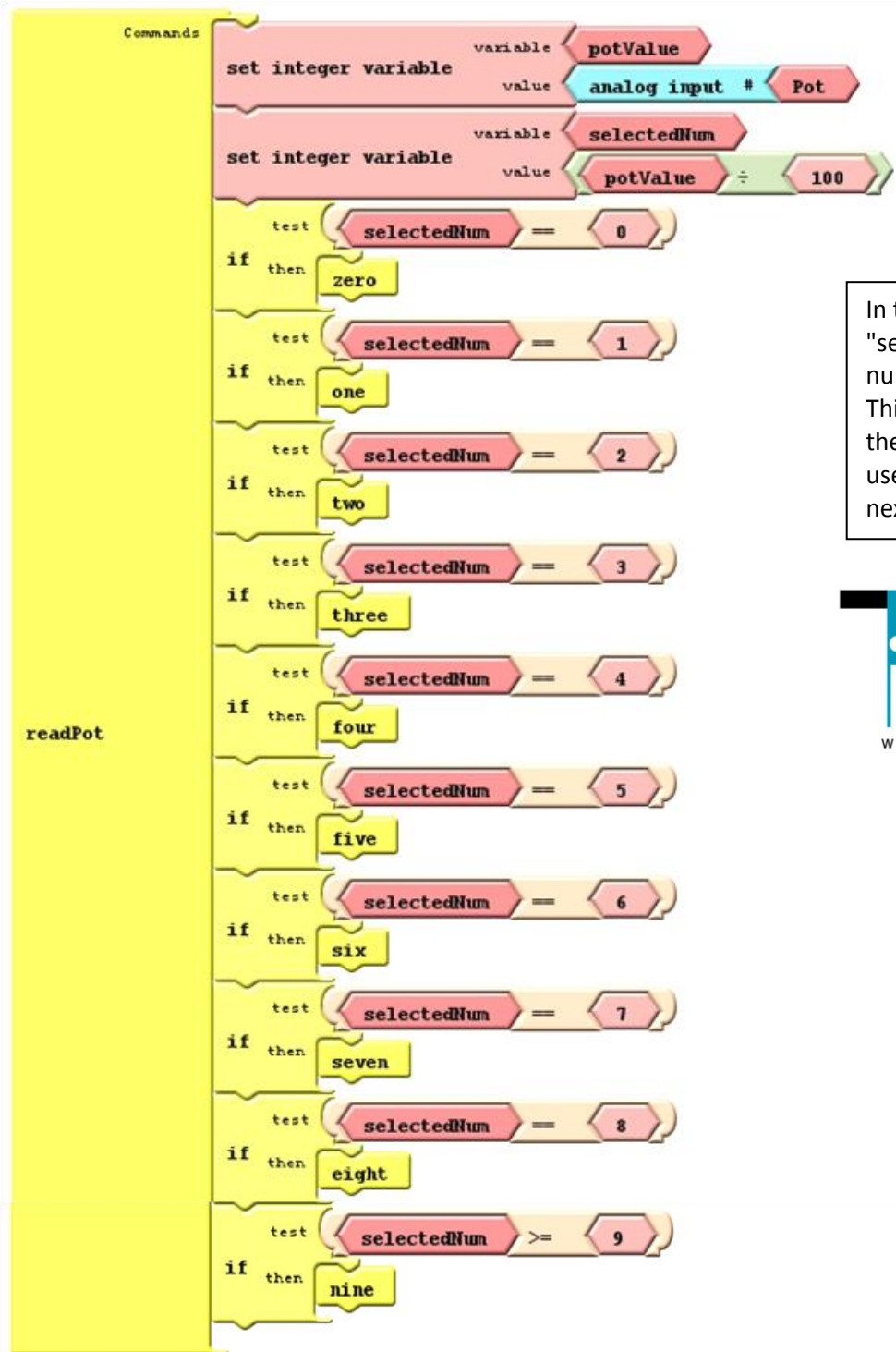
```

Commands
  set digital output # bit1 HIGH
  set digital output # bit2 HIGH
  set digital output # bit3 HIGH
  set digital output # bit4 HIGH
  
```



The code is set by the Digit1 and Digit2 in the "if" test. (eg 2 and 7.)

Push the button to start. Turn dial to select number. Push the button when correct number displayed. If the "Code" is correct the unlock light will come on. Push the button to relock.



In the "if" statements include a "selectedNum" that reflects the number on the display. This will remain the same when the button is pushed and can be used to insert into digit 1 in the next step.

