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| Cambridge Raspberry Jam | |
| Name |  |
| Age |  |
| Parent |  |

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| Beginners worksheet #6 | |
| Project | Buzzer – Morse code sos |
| Description | In this project you will learn how to wire and program a buzzer. Let’s all make lots of annoying noises. This will be an SOS program |

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| Tools required | | | |
| □ Raspberry Pi SD card | □ 1 X Red LED | □ 6 x m/f jumper wires | |
| □ Keyboard | □ 1 X Blue LED | □ 2 m/m jumper wire | |
| □ Monitor + Cable | □ 2 x 330 Ω resistors | □ Buzzer |  |
| □ Power supply | □ 4.7k Ω resistors |  | |
| □ Breadboard | □ Push button |  | |
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| Code |
| TURN ON THE LEDS “6\_morsecode.py”  #!/usr/bin/python  import os  import time  import RPi.GPIO as GPIO  GPIO.setmode(GPIO.BCM)  GPIO.setwarnings(False)  GPIO.setup(22,GPIO.OUT)  loop\_count = 0  def morsecode ():  #Dot Dot Dot  GPIO.output(22,GPIO.HIGH)  time.sleep(.1)  GPIO.output(22,GPIO.LOW)  time.sleep(.1)  GPIO.output(22,GPIO.HIGH)  time.sleep(.1)  GPIO.output(22,GPIO.LOW)  time.sleep(.1)  GPIO.output(22,GPIO.HIGH)  time.sleep(.1)  #Dash Dash Dah  GPIO.output(22,GPIO.LOW)  time.sleep(.2)  GPIO.output(22,GPIO.HIGH)  time.sleep(.2)  GPIO.output(22,GPIO.LOW)  time.sleep(.2)  GPIO.output(22,GPIO.HIGH)  time.sleep(.2)  GPIO.output(22,GPIO.LOW)  time.sleep(.2)  GPIO.output(22,GPIO.HIGH)  time.sleep(.2)  GPIO.output(22,GPIO.LOW)  time.sleep(.2)  #Dot Dot Dot  GPIO.output(22,GPIO.HIGH)  time.sleep(.1)  GPIO.output(22,GPIO.LOW)  time.sleep(.1)  GPIO.output(22,GPIO.HIGH)  time.sleep(.1)  GPIO.output(22,GPIO.LOW)  time.sleep(.1)  GPIO.output(22,GPIO.HIGH)  time.sleep(.1)  GPIO.output(22,GPIO.LOW)  time.sleep(.7)    os.system('clear')  print "Morse Code"  loop\_count = input("How many times would you like SOS to loop?: ")  while loop\_count > 0:  loop\_count = loop\_count - 1  morsecode () |
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| 1. Change directory “cd Desktop/gpio\_python\_code/”  2. Create file “touch 6\_morsecode.py”  3. Enter the code above code  Once complete “Ctrl + x” then “y” then “enter”  4. To run the python code “sudo python 6\_morsecode.py” << listen to it beep SOS |