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

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| Beginners worksheet #3 | |
| Project | Simple blinking LED with python |
| Description | In this project you will learn how to make an LED blink |

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| Tools required | | | |
| □ Raspberry Pi + SD card | | □ Breadboard |  |
| □ Keyboard |  | □ 1 X Red LED |  |
| □ Monitor + HDMI Cable | | □ 1 X Blue LED |  |
| □ Power supply |  | □ 2 x 330 Ω resistors |  |
|  |  | □ 3 x m/f jumper wires | |

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| C:\Users\matthew.manning\Desktop\LEDs_bb.png |

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| Code |
| TURN ON THE LEDS “3\_blink.py”  #!/usr/bin/python  import time  import RPi.GPIO as GPIO  GPIO.setmode(GPIO.BCM)  GPIO.setwarnings(False)  GPIO.setup(17,GPIO.OUT)  GPIO.setup(27,GPIO.OUT)  #Turn LEDs on  GPIO.output(17,GPIO.HIGH)  GPIO.output(27,GPIO.HIGH)  time.sleep(1)  #Turn LEDs off  GPIO.output(17,GPIO.LOW)  GPIO.output(27,GPIO.LOW)  time.sleep(1)  #Turn LEDs on  GPIO.output(17,GPIO.HIGH)  GPIO.output(27,GPIO.HIGH)  time.sleep(1)  #Turn LEDs off  GPIO.output(17,GPIO.LOW)  GPIO.output(27,GPIO.LOW)  GPIO.cleanup |
| TURN ON THE LEDS “3\_blink\_forever.py”  #!/usr/bin/python  import time  import RPi.GPIO as GPIO  GPIO.setmode(GPIO.BCM)  GPIO.setwarnings(False)  GPIO.setup(17,GPIO.OUT)  GPIO.setup(27,GPIO.OUT)  while 1:  GPIO.output(17,GPIO.HIGH)  GPIO.output(27,GPIO.HIGH)  time.sleep(1)  GPIO.output(17,GPIO.LOW)  GPIO.output(27,GPIO.LOW)  time.sleep(1) |
| 1. Change directory “cd Desktop/gpio\_python\_code/”  2. Create file “touch 3\_blink.py”  3. Create file “touch 3\_blink\_forever.py”  4. Enter the code above code  Once complete “Ctrl + x” then “y” then “enter”  5. To run the python code “sudo python 3\_blink.py” << Watch the LEDs blink 2 times  6. To run the python code “sudo python 3\_blink\_forever.py” << Watch the LEDs blink forever |