#code example for a sensor to detect if the light is off and cut power from its own switch to turn off connected A/C and projector connectors

import RPi.GPIO as GPIO

# Using Raspberry Pi GPIO library is used as the sensor

import time

import os

LIGHT\_SENSOR\_PIN = 17

AC\_RELAY\_PIN = 18

PROJECTOR\_RELAY\_PIN = 19

SPEAKER\_PIN = 20

GPIO.setmode(GPIO.BCM)

GPIO.setup(LIGHT\_SENSOR\_PIN, GPIO.IN)

GPIO.setup(AC\_RELAY\_PIN, GPIO.OUT)

GPIO.setup(PROJECTOR\_RELAY\_PIN, GPIO.OUT)

GPIO.setup(SPEAKER\_PIN, GPIO.OUT)

def play\_sound():

os.system("aplay beep\_sound.wav")

while True:

light\_status = GPIO.input(LIGHT\_SENSOR\_PIN)

if light\_status == 0:

GPIO.output(AC\_RELAY\_PIN, GPIO.LOW)

GPIO.output(PROJECTOR\_RELAY\_PIN, GPIO.LOW)

print("Light is off. Turning off A/C and projector.")

play\_sound()

else:

# Light is on, do nothing

print("Light is on.")

# Delay for 30 minutes before checking again

time.sleep(1800)

# Cleanup GPIO

GPIO.cleanup()