

Here is how I implemented the Shutdown button on my Stratux. I am not a programmer, but I got it to work. It is a modified version of the information contained here:

<http://www.element14.com/community/docs/DOC-78055/l/adding-a-shutdown-button-to-the-raspberry-pi-b>

and here:

<http://www.raspberry-pi-geek.com/Archive/2013/01/Adding-an-On-Off-switch-to-your-Raspberry-Pi>

You will need a normally open Push Button switch.

My first step was to determine which GPIO pins I wanted to use for the switch. After some thought I settled on Pin 37 (GPIO 26) and Pin 39 (Ground). I chose these because they were of the way and the recommended pin in the article was the input for the RY835 GPS data.

Next I created a Python script using nano to monitor the GPIO of the switch. I named the script shutdown_pi.py.

```
sudo nano shutdown_pi.py
```

This is the code for the script:

```
#!/bin/python
# Simple script for shutting down the raspberry Pi at the press of a
button.
# by Inderpreet Singh

import RPi.GPIO as GPIO
import time
import os

# Use the Broadcom SOC Pin numbers
# Setup the Pin with Internal pullups enabled and PIN in reading mode.
GPIO.setmode(GPIO.BCM)
GPIO.setup(26, GPIO.IN, pull_up_down = GPIO.PUD_UP)

# Our function on what to do when the button is pressed
def Shutdown(channel):
    os.system("sudo shutdown -h now")

# Add our function to execute when the button pressed event happens
GPIO.add_event_detect(26, GPIO.FALLING, callback = Shutdown,
bouncetime = 2000)

# Now wait!
while 1:
    time.sleep(1)
```

I then created a Script directory for the script: /home/pi/Scripts and place the script directory.

```
cd /home/pi  
mkdir Scripts
```

Next I modified the rc.local file to launch the script at boot-up.

```
sudo nano /etc/rc/local
```

I added the following

```
sudo python /home/pi/Scripts/shutdown_pi.py &
```

before the line that says

```
exit 0
```

and saved the file. The “&” allows the script to run in the background waiting for a button press.

Next I connected the NO pushbutton switch to Pins 37 and 39.

Restart the Pi and press the push button. You should see the Green LED in the Pi flash and the LEDs in the SDRs extinguish. I typically wait about 5 – 10 seconds after the SDR LEDs extinguish before I pull the plug.