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Experiment

R1	R2	Dout	VR2(V)	R2(Ohm)
10k	10k	510	1.64	9222.17
10k	10k//10k	340	1.09	4970.77
10k	10k+10k	680	2.19	19767.44
10k	10k//10k//10k	255	0.82	3315.99

Theory

R1	R2	VR2(V)	R2(Ohm)
10k	10k	1.65	10k
10k	10k//10k	1.1	5k
10k	10k+10k	2.2	20k
10k	10k//10k//10k	0.825	3.3k

Code:

```
import spidev
import time

spi = spidev.SpiDev()
spi.open(0,0)
spi.max_speed_hz = 1000000

ch = 0
while True:
    raw = spi.xfer2([1, (ch << 4) | 0x80,0])
    data = ((raw[1] & 3) << 8) | raw[2]
    print("ADC Output: " + str(data))
    time.sleep(1)
    vr2 = (data * 3.3)/ 1024
    print("Vr2: " + str(vr2))
    r2 = vr2/((3.3 - vr2)/10000)
    print("R2: " + str(r2))
```