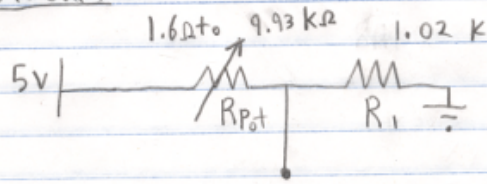
Sensor Lab - Potentiometer

Circuit



$$V_{out} = 5v \cdot \left(\frac{R_1}{R_{pot} + R_1} \right)$$

Predicted (assuming Pot is ideal 0Ω to 10kΩ, and R_1 is 1K)

V_{out} max = 5v

V_{out} min = .45 v

Actual

V_{out} max = 4.99 v

V_{out} min = .47 v

Angle	V_{out}
0°	.47 v
45°	.49 v
90°	.60 v
135°	.74 v
180°	.97 v
225°	1.40 v
270°	2.94 v
315°	4.99 v

⇐ non-linear between angle and V_{out}