Date: 11/3/21

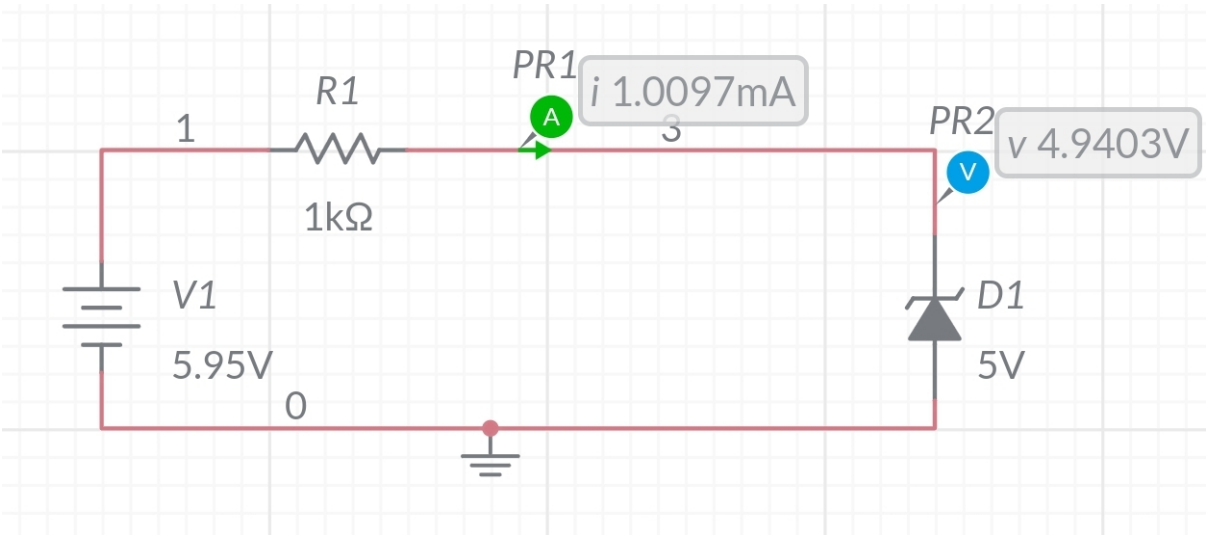
Experiment no. 2

Objective: To study characteristics of V-I in Zener diode

Software used: Multisim Live

Theory: A Zener Diode is constructed in reverse biased. After reaching a certain voltage, called breakdown voltage, the current increases widely even for a small change in voltage.

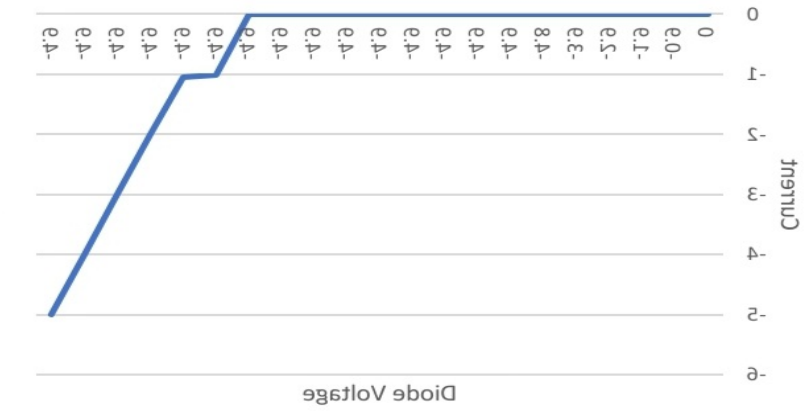
Circuit:



Results & observations:

Observations Table

Applied Voltage (V)	Diode Voltage (V)	Current (mA)
0	**0**	**0**
1	**-0.9**	**0**
2	**-1.9**	**0**
3	**-2.9**	**0**
4	**-3.9**	**0**
5	**-4.8**	**-0.001**
5.1	**-4.9**	**-0.002**
5.2	**-4.9**	**-0.002**
5.3	**-4.9**	**-0.003**
5.4	**-4.9**	**-0.004**
5.5	**-4.9**	**-0.005**
5.6	**-4.9**	**-0.006**
5.7	**-4.9**	**-0.007**
5.8	**-4.9**	**-0.008**
5.9	**-4.9**	**-0.009**
5.95	-4.9	-1.009
6	**-4.9**	**-1.05**
7	**-4.9**	**-2**
8	**-4.9**	**-3**
9	**-4.9**	**-4**
10	**-4.9**	**-5**



Result: Breakdown Voltage of Zener Diode is at around 5.9V