

555 Timer RC Values Table

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
10	10	0.01	0.000	0.000	66.7%	33.3%	4800.00
10	10	0.022	0.000	0.000	66.7%	33.3%	2181.82
10	10	0.033	0.000	0.000	66.7%	33.3%	1454.55
10	10	0.047	0.001	0.000	66.7%	33.3%	1021.28
10	10	0.1	0.001	0.001	66.7%	33.3%	480.00
10	10	0.22	0.003	0.002	66.7%	33.3%	218.18
10	10	0.33	0.005	0.002	66.7%	33.3%	145.45
10	10	0.47	0.007	0.003	66.7%	33.3%	102.13
10	10	1	0.014	0.007	66.7%	33.3%	48.00
10	10	2.2	0.030	0.015	66.7%	33.3%	21.82
10	10	3.3	0.046	0.023	66.7%	33.3%	14.55
10	10	4.7	0.065	0.033	66.7%	33.3%	10.21
10	10	10	0.139	0.069	66.7%	33.3%	4.80
10	10	22	0.305	0.152	66.7%	33.3%	2.18
10	10	33	0.457	0.229	66.7%	33.3%	1.45
10	10	47	0.651	0.326	66.7%	33.3%	1.02
10	10	100	1.386	0.693	66.7%	33.3%	0.48
10	10	220	3.049	1.525	66.7%	33.3%	0.22
10	10	330	4.574	2.287	66.7%	33.3%	0.15
10	10	470	6.514	3.257	66.7%	33.3%	0.10

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
10	56	0.01	0.000	0.000	54.1%	45.9%	1180.33
10	56	0.022	0.001	0.001	54.1%	45.9%	536.51
10	56	0.033	0.002	0.001	54.1%	45.9%	357.68
10	56	0.047	0.002	0.002	54.1%	45.9%	251.13
10	56	0.1	0.005	0.004	54.1%	45.9%	118.03
10	56	0.22	0.010	0.009	54.1%	45.9%	53.65
10	56	0.33	0.015	0.013	54.1%	45.9%	35.77
10	56	0.47	0.021	0.018	54.1%	45.9%	25.11
10	56	1	0.046	0.039	54.1%	45.9%	11.80
10	56	2.2	0.101	0.085	54.1%	45.9%	5.37
10	56	3.3	0.151	0.128	54.1%	45.9%	3.58
10	56	4.7	0.215	0.182	54.1%	45.9%	2.51
10	56	10	0.457	0.388	54.1%	45.9%	1.18
10	56	22	1.006	0.854	54.1%	45.9%	0.54
10	56	33	1.509	1.281	54.1%	45.9%	0.36
10	56	47	2.150	1.824	54.1%	45.9%	0.25
10	56	100	4.574	3.881	54.1%	45.9%	0.12
10	56	220	10.062	8.538	54.1%	45.9%	0.05
10	56	330	15.094	12.807	54.1%	45.9%	0.04
10	56	470	21.497	18.240	54.1%	45.9%	0.03

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
10	22	0.01	0.000	0.000	59.3%	40.7%	2666.67
10	22	0.022	0.000	0.000	59.3%	40.7%	1212.12
10	22	0.033	0.001	0.001	59.3%	40.7%	808.08
10	22	0.047	0.001	0.001	59.3%	40.7%	567.38
10	22	0.1	0.002	0.002	59.3%	40.7%	266.67
10	22	0.22	0.005	0.003	59.3%	40.7%	121.21
10	22	0.33	0.007	0.005	59.3%	40.7%	80.81
10	22	0.47	0.010	0.007	59.3%	40.7%	56.74
10	22	1	0.022	0.015	59.3%	40.7%	26.67
10	22	2.2	0.049	0.034	59.3%	40.7%	12.12
10	22	3.3	0.073	0.050	59.3%	40.7%	8.08
10	22	4.7	0.104	0.072	59.3%	40.7%	5.67
10	22	10	0.222	0.152	59.3%	40.7%	2.67
10	22	22	0.488	0.335	59.3%	40.7%	1.21
10	22	33	0.732	0.503	59.3%	40.7%	0.81
10	22	47	1.042	0.717	59.3%	40.7%	0.57
10	22	100	2.218	1.525	59.3%	40.7%	0.27
10	22	220	4.879	3.354	59.3%	40.7%	0.12
10	22	330	7.318	5.031	59.3%	40.7%	0.08
10	22	470	10.423	7.166	59.3%	40.7%	0.06

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
10	68	0.01	0.001	0.000	53.4%	46.6%	986.30
10	68	0.022	0.001	0.001	53.4%	46.6%	448.32
10	68	0.033	0.002	0.002	53.4%	46.6%	298.88
10	68	0.047	0.003	0.002	53.4%	46.6%	209.85
10	68	0.1	0.005	0.005	53.4%	46.6%	98.63
10	68	0.22	0.012	0.010	53.4%	46.6%	44.83
10	68	0.33	0.018	0.016	53.4%	46.6%	29.89
10	68	0.47	0.025	0.022	53.4%	46.6%	20.99
10	68	1	0.054	0.047	53.4%	46.6%	9.86
10	68	2.2	0.119	0.104	53.4%	46.6%	4.48
10	68	3.3	0.178	0.156	53.4%	46.6%	2.99
10	68	4.7	0.254	0.221	53.4%	46.6%	2.10
10	68	10	0.541	0.471	53.4%	46.6%	0.99
10	68	22	1.189	1.037	53.4%	46.6%	0.45
10	68	33	1.784	1.555	53.4%	46.6%	0.30
10	68	47	2.541	2.215	53.4%	46.6%	0.21
10	68	100	5.405	4.712	53.4%	46.6%	0.10
10	68	220	11.892	10.367	53.4%	46.6%	0.04
10	68	330	17.838	15.551	53.4%	46.6%	0.03
10	68	470	25.405	22.148	53.4%	46.6%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
10	33	0.01	0.000	0.000	56.6%	43.4%	1894.74
10	33	0.022	0.001	0.001	56.6%	43.4%	861.24
10	33	0.033	0.001	0.001	56.6%	43.4%	574.16
10	33	0.047	0.001	0.001	56.6%	43.4%	403.14
10	33	0.1	0.003	0.002	56.6%	43.4%	189.47
10	33	0.22	0.007	0.005	56.6%	43.4%	86.12
10	33	0.33	0.010	0.008	56.6%	43.4%	57.42
10	33	0.47	0.014	0.011	56.6%	43.4%	40.31
10	33	1	0.030	0.023	56.6%	43.4%	18.95
10	33	2.2	0.066	0.050	56.6%	43.4%	8.61
10	33	3.3	0.098	0.075	56.6%	43.4%	5.74
10	33	4.7	0.140	0.107	56.6%	43.4%	4.03
10	33	10	0.298	0.229	56.6%	43.4%	1.89
10	33	22	0.656	0.503	56.6%	43.4%	0.86
10	33	33	0.983	0.755	56.6%	43.4%	0.57
10	33	47	1.401	1.075	56.6%	43.4%	0.40
10	33	100	2.980	2.287	56.6%	43.4%	0.19
10	33	220	6.556	5.031	56.6%	43.4%	0.09
10	33	330	9.834	7.547	56.6%	43.4%	0.06
10	33	470	14.006	10.748	56.6%	43.4%	0.04

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
10	82	0.01	0.001	0.001	52.9%	47.1%	827.59
10	82	0.022	0.001	0.001	52.9%	47.1%	376.18
10	82	0.033	0.002	0.002	52.9%	47.1%	250.78
10	82	0.047	0.003	0.003	52.9%	47.1%	176.08
10	82	0.1	0.006	0.006	52.9%	47.1%	82.76
10	82	0.22	0.014	0.013	52.9%	47.1%	37.62
10	82	0.33	0.021	0.019	52.9%	47.1%	25.08
10	82	0.47	0.030	0.027	52.9%	47.1%	17.61
10	82	1	0.064	0.057	52.9%	47.1%	8.28
10	82	2.2	0.140	0.125	52.9%	47.1%	3.76
10	82	3.3	0.210	0.188	52.9%	47.1%	2.51
10	82	4.7	0.300	0.267	52.9%	47.1%	1.76
10	82	10	0.638	0.568	52.9%	47.1%	0.83
10	82	22	1.403	1.250	52.9%	47.1%	0.38
10	82	33	2.104	1.875	52.9%	47.1%	0.25
10	82	47	2.997	2.671	52.9%	47.1%	0.18
10	82	100	6.376	5.683	52.9%	47.1%	0.08
10	82	220	14.026	12.502	52.9%	47.1%	0.04
10	82	330	21.039	18.753	52.9%	47.1%	0.03
10	82	470	29.965	26.708	52.9%	47.1%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
10	47	0.01	0.000	0.000	54.8%	45.2%	1384.62
10	47	0.022	0.001	0.001	54.8%	45.2%	629.37
10	47	0.033	0.001	0.001	54.8%	45.2%	419.58
10	47	0.047	0.002	0.002	54.8%	45.2%	294.60
10	47	0.1	0.004	0.003	54.8%	45.2%	138.46
10	47	0.22	0.009	0.007	54.8%	45.2%	62.94
10	47	0.33	0.013	0.011	54.8%	45.2%	41.96
10	47	0.47	0.019	0.015	54.8%	45.2%	29.46
10	47	1	0.040	0.033	54.8%	45.2%	13.85
10	47	2.2	0.087	0.072	54.8%	45.2%	6.29
10	47	3.3	0.130	0.107	54.8%	45.2%	4.20
10	47	4.7	0.186	0.153	54.8%	45.2%	2.95
10	47	10	0.395	0.326	54.8%	45.2%	1.38
10	47	22	0.869	0.717	54.8%	45.2%	0.63
10	47	33	1.304	1.075	54.8%	45.2%	0.42
10	47	47	1.857	1.531	54.8%	45.2%	0.29
10	47	100	3.950	3.257	54.8%	45.2%	0.14
10	47	220	8.690	7.166	54.8%	45.2%	0.06
10	47	330	13.035	10.748	54.8%	45.2%	0.04
10	47	470	18.565	15.308	54.8%	45.2%	0.03

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
10	100	0.01	0.001	0.001	52.4%	47.6%	685.71
10	100	0.022	0.002	0.002	52.4%	47.6%	311.69
10	100	0.033	0.003	0.002	52.4%	47.6%	207.79
10	100	0.047	0.004	0.003	52.4%	47.6%	145.90
10	100	0.1	0.008	0.007	52.4%	47.6%	68.57
10	100	0.22	0.017	0.015	52.4%	47.6%	31.17
10	100	0.33	0.025	0.023	52.4%	47.6%	20.78
10	100	0.47	0.036	0.033	52.4%	47.6%	14.59
10	100	1	0.076	0.069	52.4%</		

555 Timer RC Values Table

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
22	10	0.01	0.000	0.000	76.2%	23.8%	3428.57
22	10	0.022	0.000	0.000	76.2%	23.8%	1558.44
22	10	0.033	0.001	0.000	76.2%	23.8%	1038.96
22	10	0.047	0.001	0.000	76.2%	23.8%	729.48
22	10	0.1	0.002	0.001	76.2%	23.8%	342.86
22	10	0.22	0.005	0.002	76.2%	23.8%	155.84
22	10	0.33	0.007	0.002	76.2%	23.8%	103.90
22	10	0.47	0.010	0.003	76.2%	23.8%	72.95
22	10	1	0.022	0.007	76.2%	23.8%	34.29
22	10	2.2	0.049	0.015	76.2%	23.8%	15.58
22	10	3.3	0.073	0.023	76.2%	23.8%	10.39
22	10	4.7	0.104	0.033	76.2%	23.8%	7.29
22	10	10	0.222	0.069	76.2%	23.8%	3.43
22	10	22	0.488	0.152	76.2%	23.8%	1.56
22	10	33	0.732	0.229	76.2%	23.8%	1.04
22	10	47	1.042	0.326	76.2%	23.8%	0.73
22	10	100	2.218	0.693	76.2%	23.8%	0.34
22	10	220	4.879	1.525	76.2%	23.8%	0.16
22	10	330	7.318	2.287	76.2%	23.8%	0.10
22	10	470	10.423	3.257	76.2%	23.8%	0.07

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
22	56	0.01	0.001	0.000	58.2%	41.8%	1074.63
22	56	0.022	0.001	0.001	58.2%	41.8%	488.47
22	56	0.033	0.002	0.001	58.2%	41.8%	325.64
22	56	0.047	0.003	0.002	58.2%	41.8%	228.64
22	56	0.1	0.005	0.004	58.2%	41.8%	107.46
22	56	0.22	0.012	0.009	58.2%	41.8%	48.85
22	56	0.33	0.018	0.013	58.2%	41.8%	32.56
22	56	0.47	0.025	0.018	58.2%	41.8%	22.86
22	56	1	0.054	0.039	58.2%	41.8%	10.75
22	56	2.2	0.119	0.085	58.2%	41.8%	4.88
22	56	3.3	0.178	0.128	58.2%	41.8%	3.26
22	56	4.7	0.254	0.182	58.2%	41.8%	2.29
22	56	10	0.541	0.388	58.2%	41.8%	1.07
22	56	22	1.189	0.854	58.2%	41.8%	0.49
22	56	33	1.784	1.281	58.2%	41.8%	0.33
22	56	47	2.541	1.824	58.2%	41.8%	0.23
22	56	100	5.405	3.881	58.2%	41.8%	0.11
22	56	220	11.892	8.538	58.2%	41.8%	0.05
22	56	330	17.838	12.807	58.2%	41.8%	0.03
22	56	470	25.405	18.240	58.2%	41.8%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
22	22	0.01	0.000	0.000	66.7%	33.3%	2181.82
22	22	0.022	0.001	0.000	66.7%	33.3%	991.74
22	22	0.033	0.001	0.001	66.7%	33.3%	661.16
22	22	0.047	0.001	0.001	66.7%	33.3%	464.22
22	22	0.1	0.003	0.002	66.7%	33.3%	218.18
22	22	0.22	0.007	0.003	66.7%	33.3%	99.17
22	22	0.33	0.010	0.005	66.7%	33.3%	66.12
22	22	0.47	0.014	0.007	66.7%	33.3%	46.42
22	22	1	0.030	0.015	66.7%	33.3%	21.82
22	22	2.2	0.067	0.034	66.7%	33.3%	9.92
22	22	3.3	0.101	0.050	66.7%	33.3%	6.61
22	22	4.7	0.143	0.072	66.7%	33.3%	4.64
22	22	10	0.305	0.152	66.7%	33.3%	2.18
22	22	22	0.671	0.335	66.7%	33.3%	0.99
22	22	33	1.006	0.503	66.7%	33.3%	0.66
22	22	47	1.433	0.717	66.7%	33.3%	0.46
22	22	100	3.049	1.525	66.7%	33.3%	0.22
22	22	220	6.708	3.354	66.7%	33.3%	0.10
22	22	330	10.062	5.031	66.7%	33.3%	0.07
22	22	470	14.331	7.166	66.7%	33.3%	0.05

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
22	68	0.01	0.001	0.000	57.0%	43.0%	911.39
22	68	0.022	0.001	0.001	57.0%	43.0%	414.27
22	68	0.033	0.002	0.002	57.0%	43.0%	276.18
22	68	0.047	0.003	0.002	57.0%	43.0%	193.91
22	68	0.1	0.006	0.005	57.0%	43.0%	91.14
22	68	0.22	0.014	0.010	57.0%	43.0%	41.43
22	68	0.33	0.021	0.016	57.0%	43.0%	27.62
22	68	0.47	0.029	0.022	57.0%	43.0%	19.39
22	68	1	0.062	0.047	57.0%	43.0%	9.11
22	68	2.2	0.137	0.104	57.0%	43.0%	4.14
22	68	3.3	0.206	0.156	57.0%	43.0%	2.76
22	68	4.7	0.293	0.221	57.0%	43.0%	1.94
22	68	10	0.624	0.471	57.0%	43.0%	0.91
22	68	22	1.372	1.037	57.0%	43.0%	0.41
22	68	33	2.058	1.555	57.0%	43.0%	0.28
22	68	47	2.931	2.215	57.0%	43.0%	0.19
22	68	100	6.237	4.712	57.0%	43.0%	0.09
22	68	220	13.721	10.367	57.0%	43.0%	0.04
22	68	330	20.582	15.551	57.0%	43.0%	0.03
22	68	470	29.314	22.148	57.0%	43.0%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
22	33	0.01	0.000	0.000	62.5%	37.5%	1636.36
22	33	0.022	0.001	0.001	62.5%	37.5%	743.80
22	33	0.033	0.001	0.001	62.5%	37.5%	495.87
22	33	0.047	0.002	0.001	62.5%	37.5%	348.16
22	33	0.1	0.004	0.002	62.5%	37.5%	163.64
22	33	0.22	0.008	0.005	62.5%	37.5%	74.38
22	33	0.33	0.013	0.008	62.5%	37.5%	49.59
22	33	0.47	0.018	0.011	62.5%	37.5%	34.82
22	33	1	0.038	0.023	62.5%	37.5%	16.36
22	33	2.2	0.084	0.050	62.5%	37.5%	7.44
22	33	3.3	0.126	0.075	62.5%	37.5%	4.96
22	33	4.7	0.179	0.107	62.5%	37.5%	3.48
22	33	10	0.381	0.229	62.5%	37.5%	1.64
22	33	22	0.839	0.503	62.5%	37.5%	0.74
22	33	33	1.258	0.755	62.5%	37.5%	0.50
22	33	47	1.791	1.075	62.5%	37.5%	0.35
22	33	100	3.812	2.287	62.5%	37.5%	0.16
22	33	220	8.385	5.031	62.5%	37.5%	0.07
22	33	330	12.578	7.547	62.5%	37.5%	0.05
22	33	470	17.914	10.748	62.5%	37.5%	0.03

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
22	82	0.01	0.001	0.001	55.9%	44.1%	774.19
22	82	0.022	0.002	0.001	55.9%	44.1%	351.91
22	82	0.033	0.002	0.002	55.9%	44.1%	234.60
22	82	0.047	0.003	0.003	55.9%	44.1%	164.72
22	82	0.1	0.007	0.006	55.9%	44.1%	77.42
22	82	0.22	0.016	0.013	55.9%	44.1%	35.19
22	82	0.33	0.024	0.019	55.9%	44.1%	23.46
22	82	0.47	0.034	0.027	55.9%	44.1%	16.47
22	82	1	0.072	0.057	55.9%	44.1%	7.74
22	82	2.2	0.159	0.125	55.9%	44.1%	3.52
22	82	3.3	0.238	0.188	55.9%	44.1%	2.35
22	82	4.7	0.339	0.267	55.9%	44.1%	1.65
22	82	10	0.721	0.568	55.9%	44.1%	0.77
22	82	22	1.586	1.250	55.9%	44.1%	0.35
22	82	33	2.378	1.875	55.9%	44.1%	0.23
22	82	47	3.387	2.671	55.9%	44.1%	0.16
22	82	100	7.207	5.683	55.9%	44.1%	0.08
22	82	220	15.856	12.502	55.9%	44.1%	0.04
22	82	330	23.784	18.753	55.9%	44.1%	0.02
22	82	470	33.874	26.708	55.9%	44.1%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
22	47	0.01	0.000	0.000	59.5%	40.5%	1241.38
22	47	0.022	0.001	0.001	59.5%	40.5%	564.26
22	47	0.033	0.002	0.001	59.5%	40.5%	376.18
22	47	0.047	0.002	0.002	59.5%	40.5%	264.12
22	47	0.1	0.005	0.003	59.5%	40.5%	124.14
22	47	0.22	0.011	0.007	59.5%	40.5%	56.43
22	47	0.33	0.016	0.011	59.5%	40.5%	37.62
22	47	0.47	0.022	0.015	59.5%	40.5%	26.41
22	47	1	0.048	0.033	59.5%	40.5%	12.41
22	47	2.2	0.105	0.072	59.5%	40.5%	5.64
22	47	3.3	0.158	0.107	59.5%	40.5%	3.76
22	47	4.7	0.225	0.153	59.5%	40.5%	2.64
22	47	10	0.478	0.326	59.5%	40.5%	1.24
22	47	22	1.052	0.717	59.5%	40.5%	0.56
22	47	33	1.578	1.075	59.5%	40.5%	0.38
22	47	47	2.247	1.531	59.5%	40.5%	0.26
22	47	100	4.782	3.257	59.5%	40.5%	0.12
22	47	220	10.520	7.166	59.5%	40.5%	0.06
22	47	330	15.780	10.748	59.5%	40.5%	0.04
22	47	470	22.474	15.308	59.5%	40.5%	0.03

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
22	100	0.01	0.001	0.001	55.0%	45.0%	648.65
22	100	0.022	0.002	0.002	55.0%	45.0%	294.84
22	100	0.033	0.003	0.002	55.0%	45.0%	196.56
22	100	0.047	0.004	0.003	55.0%	45.0%	138.01
22	100	0.1	0.008	0.007	55.0%	45.0%	64.86
22	100	0.22	0.019	0.015	55.0%	45.0%	29.48
22	100	0.33	0.028	0.023	55.0%	45.0%	19.66
22	100	0.47	0.040	0.033	55.0%	45.0%	13.80
22	100	1	0.085	0.069	55.0%		

555 Timer RC Values Table

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
33	10	0.01	0.000	0.000	81.1%	18.9%	2716.98
33	10	0.022	0.001	0.000	81.1%	18.9%	1234.99
33	10	0.033	0.001	0.000	81.1%	18.9%	823.33
33	10	0.047	0.001	0.000	81.1%	18.9%	578.08
33	10	0.1	0.003	0.001	81.1%	18.9%	271.70
33	10	0.22	0.007	0.002	81.1%	18.9%	123.50
33	10	0.33	0.010	0.002	81.1%	18.9%	82.33
33	10	0.47	0.014	0.003	81.1%	18.9%	57.81
33	10	1	0.030	0.007	81.1%	18.9%	27.17
33	10	2.2	0.066	0.015	81.1%	18.9%	12.35
33	10	3.3	0.098	0.023	81.1%	18.9%	8.23
33	10	4.7	0.140	0.033	81.1%	18.9%	5.78
33	10	10	0.298	0.069	81.1%	18.9%	2.72
33	10	22	0.656	0.152	81.1%	18.9%	1.23
33	10	33	0.983	0.229	81.1%	18.9%	0.82
33	10	47	1.401	0.326	81.1%	18.9%	0.58
33	10	100	2.980	0.693	81.1%	18.9%	0.27
33	10	220	6.556	1.525	81.1%	18.9%	0.12
33	10	330	9.834	2.287	81.1%	18.9%	0.08
33	10	470	14.006	3.257	81.1%	18.9%	0.06

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
33	56	0.01	0.001	0.000	61.4%	38.6%	993.10
33	56	0.022	0.001	0.001	61.4%	38.6%	451.41
33	56	0.033	0.002	0.001	61.4%	38.6%	300.94
33	56	0.047	0.003	0.002	61.4%	38.6%	211.30
33	56	0.1	0.006	0.004	61.4%	38.6%	99.31
33	56	0.22	0.014	0.009	61.4%	38.6%	45.14
33	56	0.33	0.020	0.013	61.4%	38.6%	30.09
33	56	0.47	0.029	0.018	61.4%	38.6%	21.13
33	56	1	0.062	0.039	61.4%	38.6%	9.93
33	56	2.2	0.136	0.085	61.4%	38.6%	4.51
33	56	3.3	0.204	0.128	61.4%	38.6%	3.01
33	56	4.7	0.290	0.182	61.4%	38.6%	2.11
33	56	10	0.617	0.388	61.4%	38.6%	0.99
33	56	22	1.357	0.854	61.4%	38.6%	0.45
33	56	33	2.035	1.281	61.4%	38.6%	0.30
33	56	47	2.899	1.824	61.4%	38.6%	0.21
33	56	100	6.168	3.881	61.4%	38.6%	0.10
33	56	220	13.569	8.538	61.4%	38.6%	0.05
33	56	330	20.353	12.807	61.4%	38.6%	0.03
33	56	470	28.988	18.240	61.4%	38.6%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
33	22	0.01	0.000	0.000	71.4%	28.6%	1870.13
33	22	0.022	0.001	0.000	71.4%	28.6%	850.06
33	22	0.033	0.001	0.001	71.4%	28.6%	566.71
33	22	0.047	0.002	0.001	71.4%	28.6%	397.90
33	22	0.1	0.004	0.002	71.4%	28.6%	187.01
33	22	0.22	0.008	0.003	71.4%	28.6%	85.01
33	22	0.33	0.013	0.005	71.4%	28.6%	56.67
33	22	0.47	0.018	0.007	71.4%	28.6%	39.79
33	22	1	0.038	0.015	71.4%	28.6%	18.70
33	22	2.2	0.084	0.034	71.4%	28.6%	8.50
33	22	3.3	0.126	0.050	71.4%	28.6%	5.67
33	22	4.7	0.179	0.072	71.4%	28.6%	3.98
33	22	10	0.381	0.152	71.4%	28.6%	1.87
33	22	22	0.839	0.335	71.4%	28.6%	0.85
33	22	33	1.258	0.503	71.4%	28.6%	0.57
33	22	47	1.791	0.717	71.4%	28.6%	0.40
33	22	100	3.812	1.525	71.4%	28.6%	0.19
33	22	220	8.385	3.354	71.4%	28.6%	0.09
33	22	330	12.578	5.031	71.4%	28.6%	0.06
33	22	470	17.914	7.166	71.4%	28.6%	0.04

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
33	68	0.01	0.001	0.000	59.8%	40.2%	852.07
33	68	0.022	0.002	0.001	59.8%	40.2%	387.31
33	68	0.033	0.002	0.002	59.8%	40.2%	258.20
33	68	0.047	0.003	0.002	59.8%	40.2%	181.29
33	68	0.1	0.007	0.005	59.8%	40.2%	85.21
33	68	0.22	0.015	0.010	59.8%	40.2%	38.73
33	68	0.33	0.023	0.016	59.8%	40.2%	25.82
33	68	0.47	0.033	0.022	59.8%	40.2%	18.13
33	68	1	0.070	0.047	59.8%	40.2%	8.52
33	68	2.2	0.154	0.104	59.8%	40.2%	3.87
33	68	3.3	0.231	0.156	59.8%	40.2%	2.58
33	68	4.7	0.329	0.221	59.8%	40.2%	1.81
33	68	10	0.700	0.471	59.8%	40.2%	0.85
33	68	22	1.540	1.037	59.8%	40.2%	0.39
33	68	33	2.310	1.555	59.8%	40.2%	0.26
33	68	47	3.290	2.215	59.8%	40.2%	0.18
33	68	100	6.999	4.712	59.8%	40.2%	0.09
33	68	220	15.398	10.367	59.8%	40.2%	0.04
33	68	330	23.098	15.551	59.8%	40.2%	0.03
33	68	470	32.897	22.148	59.8%	40.2%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
33	33	0.01	0.000	0.000	66.7%	33.3%	1454.55
33	33	0.022	0.001	0.001	66.7%	33.3%	661.16
33	33	0.033	0.002	0.001	66.7%	33.3%	440.77
33	33	0.047	0.002	0.001	66.7%	33.3%	309.48
33	33	0.1	0.005	0.002	66.7%	33.3%	145.45
33	33	0.22	0.010	0.005	66.7%	33.3%	66.12
33	33	0.33	0.015	0.008	66.7%	33.3%	44.08
33	33	0.47	0.021	0.011	66.7%	33.3%	30.95
33	33	1	0.046	0.023	66.7%	33.3%	14.55
33	33	2.2	0.101	0.050	66.7%	33.3%	6.61
33	33	3.3	0.151	0.075	66.7%	33.3%	4.41
33	33	4.7	0.215	0.107	66.7%	33.3%	3.09
33	33	10	0.457	0.229	66.7%	33.3%	1.45
33	33	22	1.006	0.503	66.7%	33.3%	0.66
33	33	33	1.509	0.755	66.7%	33.3%	0.44
33	33	47	2.150	1.075	66.7%	33.3%	0.31
33	33	100	4.574	2.287	66.7%	33.3%	0.15
33	33	220	10.062	5.031	66.7%	33.3%	0.07
33	33	330	15.094	7.547	66.7%	33.3%	0.04
33	33	470	21.497	10.748	66.7%	33.3%	0.03

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
33	82	0.01	0.001	0.001	58.4%	41.6%	730.96
33	82	0.022	0.002	0.001	58.4%	41.6%	332.26
33	82	0.033	0.003	0.002	58.4%	41.6%	221.50
33	82	0.047	0.004	0.003	58.4%	41.6%	155.52
33	82	0.1	0.008	0.006	58.4%	41.6%	73.10
33	82	0.22	0.018	0.013	58.4%	41.6%	33.23
33	82	0.33	0.026	0.019	58.4%	41.6%	22.15
33	82	0.47	0.037	0.027	58.4%	41.6%	15.55
33	82	1	0.080	0.057	58.4%	41.6%	7.31
33	82	2.2	0.175	0.125	58.4%	41.6%	3.32
33	82	3.3	0.263	0.188	58.4%	41.6%	2.22
33	82	4.7	0.375	0.267	58.4%	41.6%	1.56
33	82	10	0.797	0.568	58.4%	41.6%	0.73
33	82	22	1.753	1.250	58.4%	41.6%	0.33
33	82	33	2.630	1.875	58.4%	41.6%	0.22
33	82	47	3.746	2.671	58.4%	41.6%	0.16
33	82	100	7.970	5.683	58.4%	41.6%	0.07
33	82	220	17.533	12.502	58.4%	41.6%	0.03
33	82	330	26.299	18.753	58.4%	41.6%	0.02
33	82	470	37.457	26.708	58.4%	41.6%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
33	47	0.01	0.001	0.000	63.0%	37.0%	1133.86
33	47	0.022	0.001	0.001	63.0%	37.0%	515.39
33	47	0.033	0.002	0.001	63.0%	37.0%	343.59
33	47	0.047	0.003	0.002	63.0%	37.0%	241.25
33	47	0.1	0.006	0.003	63.0%	37.0%	113.39
33	47	0.22	0.012	0.007	63.0%	37.0%	51.54
33	47	0.33	0.018	0.011	63.0%	37.0%	34.36
33	47	0.47	0.026	0.015	63.0%	37.0%	24.12
33	47	1	0.055	0.033	63.0%	37.0%	11.34
33	47	2.2	0.122	0.072	63.0%	37.0%	5.15
33	47	3.3	0.183	0.107	63.0%	37.0%	3.44
33	47	4.7	0.261	0.153	63.0%	37.0%	2.41
33	47	10	0.554	0.326	63.0%	37.0%	1.13
33	47	22	1.220	0.717	63.0%	37.0%	0.52
33	47	33	1.830	1.075	63.0%	37.0%	0.34
33	47	47	2.606	1.531	63.0%	37.0%	0.24
33	47	100	5.544	3.257	63.0%	37.0%	0.11
33	47	220	12.197	7.166	63.0%	37.0%	0.05
33	47	330	18.295	10.748	63.0%	37.0%	0.03
33	47	470	26.057	15.308	63.0%	37.0%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
33	100	0.01	0.001	0.001	57.1%	42.9%	618.03
33	100	0.022	0.002	0.002	57.1%	42.9%	280.92
33	100	0.033	0.003	0.002	57.1%	42.9%	187.28
33	100	0.047	0.004	0.003	57.1%	42.9%	131.49
33	100	0.1	0.009	0.007	57.1%	42.9%	61.80
33	100	0.22	0.020	0.015	57.1%	42.9%	28.09
33	100	0.33	0.030	0.023	57.1%	42.9%	18.73
33	100	0.47	0.043	0.033	57.1%	42.9%	13.15
33	100	1	0.092	0.069	57.1%	42.	

555 Timer RC Values Table

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
47	10	0.01	0.000	0.000	85.1%	14.9%	2149.25
47	10	0.022	0.001	0.000	85.1%	14.9%	976.93
47	10	0.033	0.001	0.000	85.1%	14.9%	651.29
47	10	0.047	0.002	0.000	85.1%	14.9%	457.29
47	10	0.1	0.004	0.001	85.1%	14.9%	214.93
47	10	0.22	0.009	0.002	85.1%	14.9%	97.69
47	10	0.33	0.013	0.002	85.1%	14.9%	65.13
47	10	0.47	0.019	0.003	85.1%	14.9%	45.73
47	10	1	0.040	0.007	85.1%	14.9%	21.49
47	10	2.2	0.087	0.015	85.1%	14.9%	9.77
47	10	3.3	0.130	0.023	85.1%	14.9%	6.51
47	10	4.7	0.186	0.033	85.1%	14.9%	4.57
47	10	10	0.395	0.069	85.1%	14.9%	2.15
47	10	22	0.869	0.152	85.1%	14.9%	0.98
47	10	33	1.304	0.229	85.1%	14.9%	0.65
47	10	47	1.857	0.326	85.1%	14.9%	0.46
47	10	100	3.950	0.693	85.1%	14.9%	0.21
47	10	220	8.690	1.525	85.1%	14.9%	0.10
47	10	330	13.035	2.287	85.1%	14.9%	0.07
47	10	470	18.565	3.257	85.1%	14.9%	0.05

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
47	56	0.01	0.001	0.000	64.8%	35.2%	905.66
47	56	0.022	0.002	0.001	64.8%	35.2%	411.66
47	56	0.033	0.002	0.001	64.8%	35.2%	274.44
47	56	0.047	0.003	0.002	64.8%	35.2%	192.69
47	56	0.1	0.007	0.004	64.8%	35.2%	90.57
47	56	0.22	0.016	0.009	64.8%	35.2%	41.17
47	56	0.33	0.024	0.013	64.8%	35.2%	27.44
47	56	0.47	0.034	0.018	64.8%	35.2%	19.27
47	56	1	0.071	0.039	64.8%	35.2%	9.06
47	56	2.2	0.157	0.085	64.8%	35.2%	4.12
47	56	3.3	0.236	0.128	64.8%	35.2%	2.74
47	56	4.7	0.335	0.182	64.8%	35.2%	1.93
47	56	10	0.714	0.388	64.8%	35.2%	0.91
47	56	22	1.570	0.854	64.8%	35.2%	0.41
47	56	33	2.356	1.281	64.8%	35.2%	0.27
47	56	47	3.355	1.824	64.8%	35.2%	0.19
47	56	100	7.138	3.881	64.8%	35.2%	0.09
47	56	220	15.703	8.538	64.8%	35.2%	0.04
47	56	330	23.555	12.807	64.8%	35.2%	0.03
47	56	470	33.548	18.240	64.8%	35.2%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
47	22	0.01	0.000	0.000	75.8%	24.2%	1582.42
47	22	0.022	0.001	0.000	75.8%	24.2%	719.28
47	22	0.033	0.002	0.001	75.8%	24.2%	479.52
47	22	0.047	0.002	0.001	75.8%	24.2%	336.68
47	22	0.1	0.005	0.002	75.8%	24.2%	158.24
47	22	0.22	0.011	0.003	75.8%	24.2%	71.93
47	22	0.33	0.016	0.005	75.8%	24.2%	47.95
47	22	0.47	0.022	0.007	75.8%	24.2%	33.67
47	22	1	0.048	0.015	75.8%	24.2%	15.82
47	22	2.2	0.105	0.034	75.8%	24.2%	7.19
47	22	3.3	0.158	0.050	75.8%	24.2%	4.80
47	22	4.7	0.225	0.072	75.8%	24.2%	3.37
47	22	10	0.478	0.152	75.8%	24.2%	1.58
47	22	22	1.052	0.335	75.8%	24.2%	0.72
47	22	33	1.578	0.503	75.8%	24.2%	0.48
47	22	47	2.247	0.717	75.8%	24.2%	0.34
47	22	100	4.782	1.525	75.8%	24.2%	0.16
47	22	220	10.520	3.354	75.8%	24.2%	0.07
47	22	330	15.780	5.031	75.8%	24.2%	0.05
47	22	470	22.474	7.166	75.8%	24.2%	0.03

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
47	68	0.01	0.001	0.000	62.8%	37.2%	786.89
47	68	0.022	0.002	0.001	62.8%	37.2%	357.68
47	68	0.033	0.003	0.002	62.8%	37.2%	238.45
47	68	0.047	0.004	0.002	62.8%	37.2%	167.42
47	68	0.1	0.008	0.005	62.8%	37.2%	78.69
47	68	0.22	0.018	0.010	62.8%	37.2%	35.77
47	68	0.33	0.026	0.016	62.8%	37.2%	23.85
47	68	0.47	0.037	0.022	62.8%	37.2%	16.74
47	68	1	0.080	0.047	62.8%	37.2%	7.87
47	68	2.2	0.175	0.104	62.8%	37.2%	3.58
47	68	3.3	0.263	0.156	62.8%	37.2%	2.38
47	68	4.7	0.375	0.221	62.8%	37.2%	1.67
47	68	10	0.797	0.471	62.8%	37.2%	0.79
47	68	22	1.753	1.037	62.8%	37.2%	0.36
47	68	33	2.630	1.555	62.8%	37.2%	0.24
47	68	47	3.746	2.215	62.8%	37.2%	0.17
47	68	100	7.970	4.712	62.8%	37.2%	0.08
47	68	220	17.533	10.367	62.8%	37.2%	0.04
47	68	330	26.299	15.551	62.8%	37.2%	0.02
47	68	470	37.457	22.148	62.8%	37.2%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
47	33	0.01	0.001	0.000	70.8%	29.2%	1274.34
47	33	0.022	0.001	0.001	70.8%	29.2%	579.24
47	33	0.033	0.002	0.001	70.8%	29.2%	386.16
47	33	0.047	0.003	0.001	70.8%	29.2%	271.14
47	33	0.1	0.006	0.002	70.8%	29.2%	127.43
47	33	0.22	0.012	0.005	70.8%	29.2%	57.92
47	33	0.33	0.018	0.008	70.8%	29.2%	38.62
47	33	0.47	0.026	0.011	70.8%	29.2%	27.11
47	33	1	0.055	0.023	70.8%	29.2%	12.74
47	33	2.2	0.122	0.050	70.8%	29.2%	5.79
47	33	3.3	0.183	0.075	70.8%	29.2%	3.86
47	33	4.7	0.261	0.107	70.8%	29.2%	2.71
47	33	10	0.554	0.229	70.8%	29.2%	1.27
47	33	22	1.220	0.503	70.8%	29.2%	0.58
47	33	33	1.830	0.755	70.8%	29.2%	0.39
47	33	47	2.606	1.075	70.8%	29.2%	0.27
47	33	100	5.544	2.287	70.8%	29.2%	0.13
47	33	220	12.197	5.031	70.8%	29.2%	0.06
47	33	330	18.295	7.547	70.8%	29.2%	0.04
47	33	470	26.057	10.748	70.8%	29.2%	0.03

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
47	82	0.01	0.001	0.001	61.1%	38.9%	682.46
47	82	0.022	0.002	0.001	61.1%	38.9%	310.21
47	82	0.033	0.003	0.002	61.1%	38.9%	206.81
47	82	0.047	0.004	0.003	61.1%	38.9%	145.21
47	82	0.1	0.009	0.006	61.1%	38.9%	68.25
47	82	0.22	0.020	0.013	61.1%	38.9%	31.02
47	82	0.33	0.030	0.019	61.1%	38.9%	20.68
47	82	0.47	0.042	0.027	61.1%	38.9%	14.52
47	82	1	0.089	0.057	61.1%	38.9%	6.82
47	82	2.2	0.197	0.125	61.1%	38.9%	3.10
47	82	3.3	0.295	0.188	61.1%	38.9%	2.07
47	82	4.7	0.420	0.267	61.1%	38.9%	1.45
47	82	10	0.894	0.568	61.1%	38.9%	0.68
47	82	22	1.967	1.250	61.1%	38.9%	0.31
47	82	33	2.950	1.875	61.1%	38.9%	0.21
47	82	47	4.202	2.671	61.1%	38.9%	0.15
47	82	100	8.940	5.683	61.1%	38.9%	0.07
47	82	220	19.667	12.502	61.1%	38.9%	0.03
47	82	330	29.501	18.753	61.1%	38.9%	0.02
47	82	470	42.017	26.708	61.1%	38.9%	0.01

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
47	47	0.01	0.001	0.000	66.7%	33.3%	1021.28
47	47	0.022	0.001	0.001	66.7%	33.3%	464.22
47	47	0.033	0.002	0.001	66.7%	33.3%	309.48
47	47	0.047	0.003	0.002	66.7%	33.3%	217.29
47	47	0.1	0.007	0.003	66.7%	33.3%	102.13
47	47	0.22	0.014	0.007	66.7%	33.3%	46.42
47	47	0.33	0.021	0.011	66.7%	33.3%	30.95
47	47	0.47	0.031	0.015	66.7%	33.3%	21.73
47	47	1	0.065	0.033	66.7%	33.3%	10.21
47	47	2.2	0.143	0.072	66.7%	33.3%	4.64
47	47	3.3	0.215	0.107	66.7%	33.3%	3.09
47	47	4.7	0.306	0.153	66.7%	33.3%	2.17
47	47	10	0.651	0.326	66.7%	33.3%	1.02
47	47	22	1.433	0.717	66.7%	33.3%	0.46
47	47	33	2.150	1.075	66.7%	33.3%	0.31
47	47	47	3.062	1.531	66.7%	33.3%	0.22
47	47	100	6.514	3.257	66.7%	33.3%	0.10
47	47	220	14.331	7.166	66.7%	33.3%	0.05
47	47	330	21.497	10.748	66.7%	33.3%	0.03
47	47	470	30.617	15.308	66.7%	33.3%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
47	100	0.01	0.001	0.001	59.5%	40.5%	583.00
47	100	0.022	0.002	0.002	59.5%	40.5%	265.00
47	100	0.033	0.003	0.002	59.5%	40.5%	176.67
47	100	0.047	0.005	0.003	59.5%	40.5%	124.04
47	100	0.1	0.010	0.007	59.5%	40.5%	58.30
47	100	0.22	0.022	0.015	59.5%	40.5%	26.50
47	100	0.33	0.034	0.023	59.5%	40.5%	17.67
47	100	0.47	0.048	0.033	59.5%	40.5%	12.40
47	100	1	0.102	0.069	59.5%	40.5	

555 Timer RC Values Table

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
56	10	0.01	0.000	0.000	86.8%	13.2%	1894.74
56	10	0.022	0.001	0.000	86.8%	13.2%	861.24
56	10	0.033	0.002	0.000	86.8%	13.2%	574.16
56	10	0.047	0.002	0.000	86.8%	13.2%	403.14
56	10	0.1	0.005	0.001	86.8%	13.2%	189.47
56	10	0.22	0.010	0.002	86.8%	13.2%	86.12
56	10	0.33	0.015	0.002	86.8%	13.2%	57.42
56	10	0.47	0.021	0.003	86.8%	13.2%	40.31
56	10	1	0.046	0.007	86.8%	13.2%	18.95
56	10	2.2	0.101	0.015	86.8%	13.2%	8.61
56	10	3.3	0.151	0.023	86.8%	13.2%	5.74
56	10	4.7	0.215	0.033	86.8%	13.2%	4.03
56	10	10	0.457	0.069	86.8%	13.2%	1.89
56	10	22	1.006	0.152	86.8%	13.2%	0.86
56	10	33	1.509	0.229	86.8%	13.2%	0.57
56	10	47	2.150	0.326	86.8%	13.2%	0.40
56	10	100	4.574	0.693	86.8%	13.2%	0.19
56	10	220	10.062	1.525	86.8%	13.2%	0.09
56	10	330	15.094	2.287	86.8%	13.2%	0.06
56	10	470	21.497	3.257	86.8%	13.2%	0.04

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
56	56	0.01	0.001	0.000	66.7%	33.3%	857.14
56	56	0.022	0.002	0.001	66.7%	33.3%	389.61
56	56	0.033	0.003	0.001	66.7%	33.3%	259.74
56	56	0.047	0.004	0.002	66.7%	33.3%	182.37
56	56	0.1	0.008	0.004	66.7%	33.3%	85.71
56	56	0.22	0.017	0.009	66.7%	33.3%	38.96
56	56	0.33	0.026	0.013	66.7%	33.3%	25.97
56	56	0.47	0.036	0.018	66.7%	33.3%	18.24
56	56	1	0.078	0.039	66.7%	33.3%	8.57
56	56	2.2	0.171	0.085	66.7%	33.3%	3.90
56	56	3.3	0.256	0.128	66.7%	33.3%	2.60
56	56	4.7	0.365	0.182	66.7%	33.3%	1.82
56	56	10	0.776	0.388	66.7%	33.3%	0.86
56	56	22	1.708	0.854	66.7%	33.3%	0.39
56	56	33	2.561	1.281	66.7%	33.3%	0.26
56	56	47	3.648	1.824	66.7%	33.3%	0.18
56	56	100	7.762	3.881	66.7%	33.3%	0.09
56	56	220	17.076	8.538	66.7%	33.3%	0.04
56	56	330	25.613	12.807	66.7%	33.3%	0.03
56	56	470	36.480	18.240	66.7%	33.3%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
56	22	0.01	0.001	0.000	78.0%	22.0%	1440.00
56	22	0.022	0.001	0.000	78.0%	22.0%	654.55
56	22	0.033	0.002	0.001	78.0%	22.0%	436.36
56	22	0.047	0.003	0.001	78.0%	22.0%	306.38
56	22	0.1	0.005	0.002	78.0%	22.0%	144.00
56	22	0.22	0.012	0.003	78.0%	22.0%	65.45
56	22	0.33	0.018	0.005	78.0%	22.0%	43.64
56	22	0.47	0.025	0.007	78.0%	22.0%	30.64
56	22	1	0.054	0.015	78.0%	22.0%	14.40
56	22	2.2	0.119	0.034	78.0%	22.0%	6.55
56	22	3.3	0.178	0.050	78.0%	22.0%	4.36
56	22	4.7	0.254	0.072	78.0%	22.0%	3.06
56	22	10	0.541	0.152	78.0%	22.0%	1.44
56	22	22	1.189	0.335	78.0%	22.0%	0.65
56	22	33	1.784	0.503	78.0%	22.0%	0.44
56	22	47	2.541	0.717	78.0%	22.0%	0.31
56	22	100	5.405	1.525	78.0%	22.0%	0.14
56	22	220	11.892	3.354	78.0%	22.0%	0.07
56	22	330	17.838	5.031	78.0%	22.0%	0.04
56	22	470	25.405	7.166	78.0%	22.0%	0.03

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
56	68	0.01	0.001	0.000	64.6%	35.4%	750.00
56	68	0.022	0.002	0.001	64.6%	35.4%	340.91
56	68	0.033	0.003	0.002	64.6%	35.4%	227.27
56	68	0.047	0.004	0.002	64.6%	35.4%	159.57
56	68	0.1	0.009	0.005	64.6%	35.4%	75.00
56	68	0.22	0.019	0.010	64.6%	35.4%	34.09
56	68	0.33	0.028	0.016	64.6%	35.4%	22.73
56	68	0.47	0.040	0.022	64.6%	35.4%	15.96
56	68	1	0.086	0.047	64.6%	35.4%	7.50
56	68	2.2	0.189	0.104	64.6%	35.4%	3.41
56	68	3.3	0.284	0.156	64.6%	35.4%	2.27
56	68	4.7	0.404	0.221	64.6%	35.4%	1.60
56	68	10	0.859	0.471	64.6%	35.4%	0.75
56	68	22	1.891	1.037	64.6%	35.4%	0.34
56	68	33	2.836	1.555	64.6%	35.4%	0.23
56	68	47	4.039	2.215	64.6%	35.4%	0.16
56	68	100	8.593	4.712	64.6%	35.4%	0.08
56	68	220	18.905	10.367	64.6%	35.4%	0.03
56	68	330	28.358	15.551	64.6%	35.4%	0.02
56	68	470	40.388	22.148	64.6%	35.4%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
56	33	0.01	0.001	0.000	73.0%	27.0%	1180.33
56	33	0.022	0.001	0.001	73.0%	27.0%	536.51
56	33	0.033	0.002	0.001	73.0%	27.0%	357.68
56	33	0.047	0.003	0.001	73.0%	27.0%	251.13
56	33	0.1	0.006	0.002	73.0%	27.0%	118.03
56	33	0.22	0.014	0.005	73.0%	27.0%	53.65
56	33	0.33	0.020	0.008	73.0%	27.0%	35.77
56	33	0.47	0.029	0.011	73.0%	27.0%	25.11
56	33	1	0.062	0.023	73.0%	27.0%	11.80
56	33	2.2	0.136	0.050	73.0%	27.0%	5.37
56	33	3.3	0.204	0.075	73.0%	27.0%	3.58
56	33	4.7	0.290	0.107	73.0%	27.0%	2.51
56	33	10	0.617	0.229	73.0%	27.0%	1.18
56	33	22	1.357	0.503	73.0%	27.0%	0.54
56	33	33	2.035	0.755	73.0%	27.0%	0.36
56	33	47	2.899	1.075	73.0%	27.0%	0.25
56	33	100	6.168	2.287	73.0%	27.0%	0.12
56	33	220	13.569	5.031	73.0%	27.0%	0.05
56	33	330	20.353	7.547	73.0%	27.0%	0.04
56	33	470	28.988	10.748	73.0%	27.0%	0.03

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
56	82	0.01	0.001	0.001	62.7%	37.3%	654.55
56	82	0.022	0.002	0.001	62.7%	37.3%	297.52
56	82	0.033	0.003	0.002	62.7%	37.3%	198.35
56	82	0.047	0.004	0.003	62.7%	37.3%	139.26
56	82	0.1	0.010	0.006	62.7%	37.3%	65.45
56	82	0.22	0.021	0.013	62.7%	37.3%	29.75
56	82	0.33	0.032	0.019	62.7%	37.3%	19.83
56	82	0.47	0.045	0.027	62.7%	37.3%	13.93
56	82	1	0.096	0.057	62.7%	37.3%	6.55
56	82	2.2	0.210	0.125	62.7%	37.3%	2.98
56	82	3.3	0.316	0.188	62.7%	37.3%	1.98
56	82	4.7	0.449	0.267	62.7%	37.3%	1.39
56	82	10	0.956	0.568	62.7%	37.3%	0.65
56	82	22	2.104	1.250	62.7%	37.3%	0.30
56	82	33	3.156	1.875	62.7%	37.3%	0.20
56	82	47	4.495	2.671	62.7%	37.3%	0.14
56	82	100	9.563	5.683	62.7%	37.3%	0.07
56	82	220	21.039	12.502	62.7%	37.3%	0.03
56	82	330	31.559	18.753	62.7%	37.3%	0.02
56	82	470	44.948	26.708	62.7%	37.3%	0.01

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
56	47	0.01	0.001	0.000	68.7%	31.3%	960.00
56	47	0.022	0.002	0.001	68.7%	31.3%	436.36
56	47	0.033	0.002	0.001	68.7%	31.3%	290.91
56	47	0.047	0.003	0.002	68.7%	31.3%	204.26
56	47	0.1	0.007	0.003	68.7%	31.3%	96.00
56	47	0.22	0.016	0.007	68.7%	31.3%	43.64
56	47	0.33	0.024	0.011	68.7%	31.3%	29.09
56	47	0.47	0.034	0.015	68.7%	31.3%	20.43
56	47	1	0.071	0.033	68.7%	31.3%	9.60
56	47	2.2	0.157	0.072	68.7%	31.3%	4.36
56	47	3.3	0.236	0.107	68.7%	31.3%	2.91
56	47	4.7	0.335	0.153	68.7%	31.3%	2.04
56	47	10	0.714	0.326	68.7%	31.3%	0.96
56	47	22	1.570	0.717	68.7%	31.3%	0.44
56	47	33	2.356	1.075	68.7%	31.3%	0.29
56	47	47	3.355	1.531	68.7%	31.3%	0.20
56	47	100	7.138	3.257	68.7%	31.3%	0.10
56	47	220	15.703	7.166	68.7%	31.3%	0.04
56	47	330	23.555	10.748	68.7%	31.3%	0.03
56	47	470	33.548	15.308	68.7%	31.3%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
56	100	0.01	0.001	0.001	60.9%	39.1%	562.50
56	100	0.022	0.002	0.002	60.9%	39.1%	255.68
56	100	0.033	0.004	0.002	60.9%	39.1%	170.45
56	100	0.047	0.005	0.003	60.9%	39.1%	119.68
56	100	0.1	0.011	0.007	60.9%	39.1%	56.25
56	100	0.22	0.024	0.015	60.9%	39.1%	25.57
56	100	0.33	0.036	0.023	60.9%	39.1%	17.05
56	100	0.47	0.051	0.033	60.9%	39.1%	11.97
56	100	1	0.108	0.069	60.9%	39.1%	

555 Timer RC Values Table

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
68	10	0.01	0.001	0.000	88.6%	11.4%	1636.36
68	10	0.022	0.001	0.000	88.6%	11.4%	743.80
68	10	0.033	0.002	0.000	88.6%	11.4%	495.87
68	10	0.047	0.003	0.000	88.6%	11.4%	348.16
68	10	0.1	0.005	0.001	88.6%	11.4%	163.64
68	10	0.22	0.012	0.002	88.6%	11.4%	74.38
68	10	0.33	0.018	0.002	88.6%	11.4%	49.59
68	10	0.47	0.025	0.003	88.6%	11.4%	34.82
68	10	1	0.054	0.007	88.6%	11.4%	16.36
68	10	2.2	0.119	0.015	88.6%	11.4%	7.44
68	10	3.3	0.178	0.023	88.6%	11.4%	4.96
68	10	4.7	0.254	0.033	88.6%	11.4%	3.48
68	10	10	0.541	0.069	88.6%	11.4%	1.64
68	10	22	1.189	0.152	88.6%	11.4%	0.74
68	10	33	1.784	0.229	88.6%	11.4%	0.50
68	10	47	2.541	0.326	88.6%	11.4%	0.35
68	10	100	5.405	0.693	88.6%	11.4%	0.16
68	10	220	11.892	1.525	88.6%	11.4%	0.07
68	10	330	17.838	2.287	88.6%	11.4%	0.05
68	10	470	25.405	3.257	88.6%	11.4%	0.03

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
68	56	0.01	0.001	0.000	68.9%	31.1%	800.00
68	56	0.022	0.002	0.001	68.9%	31.1%	363.64
68	56	0.033	0.003	0.001	68.9%	31.1%	242.42
68	56	0.047	0.004	0.002	68.9%	31.1%	170.21
68	56	0.1	0.009	0.004	68.9%	31.1%	80.00
68	56	0.22	0.019	0.009	68.9%	31.1%	36.36
68	56	0.33	0.028	0.013	68.9%	31.1%	24.24
68	56	0.47	0.040	0.018	68.9%	31.1%	17.02
68	56	1	0.086	0.039	68.9%	31.1%	8.00
68	56	2.2	0.189	0.085	68.9%	31.1%	3.64
68	56	3.3	0.284	0.128	68.9%	31.1%	2.42
68	56	4.7	0.404	0.182	68.9%	31.1%	1.70
68	56	10	0.859	0.388	68.9%	31.1%	0.80
68	56	22	1.891	0.854	68.9%	31.1%	0.36
68	56	33	2.836	1.281	68.9%	31.1%	0.24
68	56	47	4.039	1.824	68.9%	31.1%	0.17
68	56	100	8.593	3.881	68.9%	31.1%	0.08
68	56	220	18.905	8.538	68.9%	31.1%	0.04
68	56	330	28.358	12.807	68.9%	31.1%	0.02
68	56	470	40.388	18.240	68.9%	31.1%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
68	22	0.01	0.001	0.000	80.4%	19.6%	1285.71
68	22	0.022	0.001	0.000	80.4%	19.6%	584.42
68	22	0.033	0.002	0.001	80.4%	19.6%	389.61
68	22	0.047	0.003	0.001	80.4%	19.6%	273.56
68	22	0.1	0.006	0.002	80.4%	19.6%	128.57
68	22	0.22	0.014	0.003	80.4%	19.6%	58.44
68	22	0.33	0.021	0.005	80.4%	19.6%	38.96
68	22	0.47	0.029	0.007	80.4%	19.6%	27.36
68	22	1	0.062	0.015	80.4%	19.6%	12.86
68	22	2.2	0.137	0.034	80.4%	19.6%	5.84
68	22	3.3	0.206	0.050	80.4%	19.6%	3.90
68	22	4.7	0.293	0.072	80.4%	19.6%	2.74
68	22	10	0.624	0.152	80.4%	19.6%	1.29
68	22	22	1.372	0.335	80.4%	19.6%	0.58
68	22	33	2.058	0.503	80.4%	19.6%	0.39
68	22	47	2.931	0.717	80.4%	19.6%	0.27
68	22	100	6.237	1.525	80.4%	19.6%	0.13
68	22	220	13.721	3.354	80.4%	19.6%	0.06
68	22	330	20.582	5.031	80.4%	19.6%	0.04
68	22	470	29.314	7.166	80.4%	19.6%	0.03

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
68	68	0.01	0.001	0.000	66.7%	33.3%	705.88
68	68	0.022	0.002	0.001	66.7%	33.3%	320.86
68	68	0.033	0.003	0.002	66.7%	33.3%	213.90
68	68	0.047	0.004	0.002	66.7%	33.3%	150.19
68	68	0.1	0.009	0.005	66.7%	33.3%	70.59
68	68	0.22	0.021	0.010	66.7%	33.3%	32.09
68	68	0.33	0.031	0.016	66.7%	33.3%	21.39
68	68	0.47	0.044	0.022	66.7%	33.3%	15.02
68	68	1	0.094	0.047	66.7%	33.3%	7.06
68	68	2.2	0.207	0.104	66.7%	33.3%	3.21
68	68	3.3	0.311	0.156	66.7%	33.3%	2.14
68	68	4.7	0.443	0.221	66.7%	33.3%	1.50
68	68	10	0.942	0.471	66.7%	33.3%	0.71
68	68	22	2.073	1.037	66.7%	33.3%	0.32
68	68	33	3.110	1.555	66.7%	33.3%	0.21
68	68	47	4.430	2.215	66.7%	33.3%	0.15
68	68	100	9.425	4.712	66.7%	33.3%	0.07
68	68	220	20.735	10.367	66.7%	33.3%	0.03
68	68	330	31.102	15.551	66.7%	33.3%	0.02
68	68	470	44.297	22.148	66.7%	33.3%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
68	33	0.01	0.001	0.000	75.4%	24.6%	1074.63
68	33	0.022	0.002	0.001	75.4%	24.6%	488.47
68	33	0.033	0.002	0.001	75.4%	24.6%	325.64
68	33	0.047	0.003	0.001	75.4%	24.6%	228.64
68	33	0.1	0.007	0.002	75.4%	24.6%	107.46
68	33	0.22	0.015	0.005	75.4%	24.6%	48.85
68	33	0.33	0.023	0.008	75.4%	24.6%	32.56
68	33	0.47	0.033	0.011	75.4%	24.6%	22.86
68	33	1	0.070	0.023	75.4%	24.6%	10.75
68	33	2.2	0.154	0.050	75.4%	24.6%	4.88
68	33	3.3	0.231	0.075	75.4%	24.6%	3.26
68	33	4.7	0.329	0.107	75.4%	24.6%	2.29
68	33	10	0.700	0.229	75.4%	24.6%	1.07
68	33	22	1.540	0.503	75.4%	24.6%	0.49
68	33	33	2.310	0.755	75.4%	24.6%	0.33
68	33	47	3.290	1.075	75.4%	24.6%	0.23
68	33	100	6.999	2.287	75.4%	24.6%	0.11
68	33	220	15.398	5.031	75.4%	24.6%	0.05
68	33	330	23.098	7.547	75.4%	24.6%	0.03
68	33	470	32.897	10.748	75.4%	24.6%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
68	82	0.01	0.001	0.001	64.7%	35.3%	620.69
68	82	0.022	0.002	0.001	64.7%	35.3%	282.13
68	82	0.033	0.003	0.002	64.7%	35.3%	188.09
68	82	0.047	0.005	0.003	64.7%	35.3%	132.06
68	82	0.1	0.010	0.006	64.7%	35.3%	62.07
68	82	0.22	0.023	0.013	64.7%	35.3%	28.21
68	82	0.33	0.034	0.019	64.7%	35.3%	18.81
68	82	0.47	0.049	0.027	64.7%	35.3%	13.21
68	82	1	0.104	0.057	64.7%	35.3%	6.21
68	82	2.2	0.229	0.125	64.7%	35.3%	2.82
68	82	3.3	0.343	0.188	64.7%	35.3%	1.88
68	82	4.7	0.489	0.267	64.7%	35.3%	1.32
68	82	10	1.040	0.568	64.7%	35.3%	0.62
68	82	22	2.287	1.250	64.7%	35.3%	0.28
68	82	33	3.430	1.875	64.7%	35.3%	0.19
68	82	47	4.886	2.671	64.7%	35.3%	0.13
68	82	100	10.395	5.683	64.7%	35.3%	0.06
68	82	220	22.869	12.502	64.7%	35.3%	0.03
68	82	330	34.304	18.753	64.7%	35.3%	0.02
68	82	470	48.857	26.708	64.7%	35.3%	0.01

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
68	47	0.01	0.001	0.000	71.0%	29.0%	888.89
68	47	0.022	0.002	0.001	71.0%	29.0%	404.04
68	47	0.033	0.003	0.001	71.0%	29.0%	269.36
68	47	0.047	0.004	0.002	71.0%	29.0%	189.13
68	47	0.1	0.008	0.003	71.0%	29.0%	88.89
68	47	0.22	0.018	0.007	71.0%	29.0%	40.40
68	47	0.33	0.026	0.011	71.0%	29.0%	26.94
68	47	0.47	0.037	0.015	71.0%	29.0%	18.91
68	47	1	0.080	0.033	71.0%	29.0%	8.89
68	47	2.2	0.175	0.072	71.0%	29.0%	4.04
68	47	3.3	0.263	0.107	71.0%	29.0%	2.69
68	47	4.7	0.375	0.153	71.0%	29.0%	1.89
68	47	10	0.797	0.326	71.0%	29.0%	0.89
68	47	22	1.753	0.717	71.0%	29.0%	0.40
68	47	33	2.630	1.075	71.0%	29.0%	0.27
68	47	47	3.746	1.531	71.0%	29.0%	0.19
68	47	100	7.970	3.257	71.0%	29.0%	0.09
68	47	220	17.533	7.166	71.0%	29.0%	0.04
68	47	330	26.299	10.748	71.0%	29.0%	0.03
68	47	470	37.457	15.308	71.0%	29.0%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
68	100	0.01	0.001	0.001	62.7%	37.3%	537.31
68	100	0.022	0.003	0.002	62.7%	37.3%	244.23
68	100	0.033	0.004	0.002	62.7%	37.3%	162.82
68	100	0.047	0.005	0.003	62.7%	37.3%	114.32
68	100	0.1	0.012	0.007	62.7%	37.3%	53.73
68	100	0.22	0.026	0.015	62.7%	37.3%	24.42
68	100	0.33	0.038	0.023	62.7%	37.3%	16.28
68	100	0.47	0.055	0.033	62.7%	37.3%	11.43
68	100	1	0.116	0.069	62.7%	37.3%</	

555 Timer RC Values Table

R1, K?	R2, K?	C, $\mu$ F	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
82	10	0.01	0.001	0.000	90.2%	9.8%	1411.76
82	10	0.022	0.001	0.000	90.2%	9.8%	641.71
82	10	0.033	0.002	0.000	90.2%	9.8%	427.81
82	10	0.047	0.003	0.000	90.2%	9.8%	300.38
82	10	0.1	0.006	0.001	90.2%	9.8%	141.18
82	10	0.22	0.014	0.002	90.2%	9.8%	64.17
82	10	0.33	0.021	0.002	90.2%	9.8%	42.78
82	10	0.47	0.030	0.003	90.2%	9.8%	30.04
82	10	1	0.064	0.007	90.2%	9.8%	14.12
82	10	2.2	0.140	0.015	90.2%	9.8%	6.42
82	10	3.3	0.210	0.023	90.2%	9.8%	4.28
82	10	4.7	0.300	0.033	90.2%	9.8%	3.00
82	10	10	0.638	0.069	90.2%	9.8%	1.41
82	10	22	1.403	0.152	90.2%	9.8%	0.64
82	10	33	2.104	0.229	90.2%	9.8%	0.43
82	10	47	2.997	0.326	90.2%	9.8%	0.30
82	10	100	6.376	0.693	90.2%	9.8%	0.14
82	10	220	14.026	1.525	90.2%	9.8%	0.06
82	10	330	21.039	2.287	90.2%	9.8%	0.04
82	10	470	29.965	3.257	90.2%	9.8%	0.03

R1, K?	R2, K?	C, $\mu$ F	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
82	22	0.01	0.001	0.000	82.5%	17.5%	1142.86
82	22	0.022	0.002	0.000	82.5%	17.5%	519.48
82	22	0.033	0.002	0.001	82.5%	17.5%	346.32
82	22	0.047	0.003	0.001	82.5%	17.5%	243.16
82	22	0.1	0.007	0.002	82.5%	17.5%	114.29
82	22	0.22	0.016	0.003	82.5%	17.5%	51.95
82	22	0.33	0.024	0.005	82.5%	17.5%	34.63
82	22	0.47	0.034	0.007	82.5%	17.5%	24.32
82	22	1	0.072	0.015	82.5%	17.5%	11.43
82	22	2.2	0.159	0.034	82.5%	17.5%	5.19
82	22	3.3	0.238	0.050	82.5%	17.5%	3.46
82	22	4.7	0.339	0.072	82.5%	17.5%	2.43
82	22	10	0.721	0.152	82.5%	17.5%	1.14
82	22	22	1.586	0.335	82.5%	17.5%	0.52
82	22	33	2.378	0.503	82.5%	17.5%	0.35
82	22	47	3.387	0.717	82.5%	17.5%	0.24
82	22	100	7.207	1.525	82.5%	17.5%	0.11
82	22	220	15.856	3.354	82.5%	17.5%	0.05
82	22	330	23.784	5.031	82.5%	17.5%	0.03
82	22	470	33.874	7.166	82.5%	17.5%	0.02

R1, K?	R2, K?	C, $\mu$ F	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
82	33	0.01	0.001	0.000	77.7%	22.3%	972.97
82	33	0.022	0.002	0.001	77.7%	22.3%	442.26
82	33	0.033	0.003	0.001	77.7%	22.3%	294.84
82	33	0.047	0.004	0.001	77.7%	22.3%	207.02
82	33	0.1	0.008	0.002	77.7%	22.3%	97.30
82	33	0.22	0.018	0.005	77.7%	22.3%	44.23
82	33	0.33	0.026	0.008	77.7%	22.3%	29.48
82	33	0.47	0.037	0.011	77.7%	22.3%	20.70
82	33	1	0.080	0.023	77.7%	22.3%	9.73
82	33	2.2	0.175	0.050	77.7%	22.3%	4.42
82	33	3.3	0.263	0.075	77.7%	22.3%	2.95
82	33	4.7	0.375	0.107	77.7%	22.3%	2.07
82	33	10	0.797	0.229	77.7%	22.3%	0.97
82	33	22	1.753	0.503	77.7%	22.3%	0.44
82	33	33	2.630	0.755	77.7%	22.3%	0.29
82	33	47	3.746	1.075	77.7%	22.3%	0.21
82	33	100	7.970	2.287	77.7%	22.3%	0.10
82	33	220	17.533	5.031	77.7%	22.3%	0.04
82	33	330	26.299	7.547	77.7%	22.3%	0.03
82	33	470	37.457	10.748	77.7%	22.3%	0.02

R1, K?	R2, K?	C, $\mu$ F	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
82	47	0.01	0.001	0.000	73.3%	26.7%	818.18
82	47	0.022	0.002	0.001	73.3%	26.7%	371.90
82	47	0.033	0.003	0.001	73.3%	26.7%	247.93
82	47	0.047	0.004	0.002	73.3%	26.7%	174.08
82	47	0.1	0.009	0.003	73.3%	26.7%	81.82
82	47	0.22	0.020	0.007	73.3%	26.7%	37.19
82	47	0.33	0.030	0.011	73.3%	26.7%	24.79
82	47	0.47	0.042	0.015	73.3%	26.7%	17.41
82	47	1	0.089	0.033	73.3%	26.7%	8.18
82	47	2.2	0.197	0.072	73.3%	26.7%	3.72
82	47	3.3	0.295	0.107	73.3%	26.7%	2.48
82	47	4.7	0.420	0.153	73.3%	26.7%	1.74
82	47	10	0.894	0.326	73.3%	26.7%	0.82
82	47	22	1.967	0.717	73.3%	26.7%	0.37
82	47	33	2.950	1.075	73.3%	26.7%	0.25
82	47	47	4.202	1.531	73.3%	26.7%	0.17
82	47	100	8.940	3.257	73.3%	26.7%	0.08
82	47	220	19.667	7.166	73.3%	26.7%	0.04
82	47	330	29.501	10.748	73.3%	26.7%	0.02
82	47	470	42.017	15.308	73.3%	26.7%	0.02

R1, K?	R2, K?	C, $\mu$ F	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
82	56	0.01	0.001	0.000	71.1%	28.9%	742.27
82	56	0.022	0.002	0.001	71.1%	28.9%	337.39
82	56	0.033	0.003	0.001	71.1%	28.9%	224.93
82	56	0.047	0.004	0.002	71.1%	28.9%	157.93
82	56	0.1	0.010	0.004	71.1%	28.9%	74.23
82	56	0.22	0.021	0.009	71.1%	28.9%	33.74
82	56	0.33	0.032	0.013	71.1%	28.9%	22.49
82	56	0.47	0.045	0.018	71.1%	28.9%	15.79
82	56	1	0.096	0.039	71.1%	28.9%	7.42
82	56	2.2	0.210	0.085	71.1%	28.9%	3.37
82	56	3.3	0.316	0.128	71.1%	28.9%	2.25
82	56	4.7	0.449	0.182	71.1%	28.9%	1.58
82	56	10	0.956	0.388	71.1%	28.9%	0.74
82	56	22	2.104	0.854	71.1%	28.9%	0.34
82	56	33	3.156	1.281	71.1%	28.9%	0.22
82	56	47	4.495	1.824	71.1%	28.9%	0.16
82	56	100	9.563	3.881	71.1%	28.9%	0.07
82	56	220	21.039	8.538	71.1%	28.9%	0.03
82	56	330	31.559	12.807	71.1%	28.9%	0.02
82	56	470	44.948	18.240	71.1%	28.9%	0.02

R1, K?	R2, K?	C, $\mu$ F	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
82	68	0.01	0.001	0.000	68.8%	31.2%	660.55
82	68	0.022	0.002	0.001	68.8%	31.2%	300.25
82	68	0.033	0.003	0.002	68.8%	31.2%	200.17
82	68	0.047	0.005	0.002	68.8%	31.2%	140.54
82	68	0.1	0.010	0.005	68.8%	31.2%	66.06
82	68	0.22	0.023	0.010	68.8%	31.2%	30.03
82	68	0.33	0.034	0.016	68.8%	31.2%	20.02
82	68	0.47	0.049	0.022	68.8%	31.2%	14.05
82	68	1	0.104	0.047	68.8%	31.2%	6.61
82	68	2.2	0.229	0.104	68.8%	31.2%	3.00
82	68	3.3	0.343	0.156	68.8%	31.2%	2.00
82	68	4.7	0.489	0.221	68.8%	31.2%	1.41
82	68	10	1.040	0.471	68.8%	31.2%	0.66
82	68	22	2.287	1.037	68.8%	31.2%	0.30
82	68	33	3.430	1.555	68.8%	31.2%	0.20
82	68	47	4.886	2.215	68.8%	31.2%	0.14
82	68	100	10.395	4.712	68.8%	31.2%	0.07
82	68	220	22.869	10.367	68.8%	31.2%	0.03
82	68	330	34.304	15.551	68.8%	31.2%	0.02
82	68	470	48.857	22.148	68.8%	31.2%	0.01

R1, K?	R2, K?	C, $\mu$ F	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
82	82	0.01	0.001	0.001	66.7%	33.3%	585.37
82	82	0.022	0.003	0.001	66.7%	33.3%	266.08
82	82	0.033	0.004	0.002	66.7%	33.3%	177.38
82	82	0.047	0.005	0.003	66.7%	33.3%	124.55
82	82	0.1	0.011	0.006	66.7%	33.3%	58.54
82	82	0.22	0.025	0.013	66.7%	33.3%	26.61
82	82	0.33	0.038	0.019	66.7%	33.3%	17.74
82	82	0.47	0.053	0.027	66.7%	33.3%	12.45
82	82	1	0.114	0.057	66.7%	33.3%	5.85
82	82	2.2	0.250	0.125	66.7%	33.3%	2.66
82	82	3.3	0.375	0.188	66.7%	33.3%	1.77
82	82	4.7	0.534	0.267	66.7%	33.3%	1.25
82	82	10	1.137	0.568	66.7%	33.3%	0.59
82	82	22	2.500	1.250	66.7%	33.3%	0.27
82	82	33	3.751	1.875	66.7%	33.3%	0.18
82	82	47	5.342	2.671	66.7%	33.3%	0.12
82	82	100	11.365	5.683	66.7%	33.3%	0.06
82	82	220	25.003	12.502	66.7%	33.3%	0.03
82	82	330	37.505	18.753	66.7%	33.3%	0.02
82	82	470	53.416	26.708	66.7%	33.3%	0.01

R1, K?	R2, K?	C, $\mu$ F	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
82	100	0.01	0.001	0.001	64.5%	35.5%	510.64
82	100	0.022	0.003	0.002	64.5%	35.5%	232.11
82	100	0.033	0.004	0.002	64.5%	35.5%	154.74
82	100	0.047	0.006	0.003	64.5%	35.5%	108.65
82	100	0.1	0.013	0.007	64.5%	35.5%	51.06
82	100	0.22	0.028	0.015	64.5%	35.5%	23.21
82	100	0.33	0.042	0.023	64.5%	35.5%	15.47
82	100	0.47	0.059	0.033	64.5%	35.5%	10.86
82	100	1	0.126	0.069</			

555 Timer RC Values Table

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
100	10	0.01	0.001	0.000	91.7%	8.3%	1200.00
100	10	0.022	0.002	0.000	91.7%	8.3%	545.45
100	10	0.033	0.003	0.000	91.7%	8.3%	363.64
100	10	0.047	0.004	0.000	91.7%	8.3%	255.32
100	10	0.1	0.008	0.001	91.7%	8.3%	120.00
100	10	0.22	0.017	0.002	91.7%	8.3%	54.55
100	10	0.33	0.025	0.002	91.7%	8.3%	36.36
100	10	0.47	0.036	0.003	91.7%	8.3%	25.53
100	10	1	0.076	0.007	91.7%	8.3%	12.00
100	10	2.2	0.168	0.015	91.7%	8.3%	5.45
100	10	3.3	0.252	0.023	91.7%	8.3%	3.64
100	10	4.7	0.358	0.033	91.7%	8.3%	2.55
100	10	10	0.762	0.069	91.7%	8.3%	1.20
100	10	22	1.677	0.152	91.7%	8.3%	0.55
100	10	33	2.516	0.229	91.7%	8.3%	0.36
100	10	47	3.583	0.326	91.7%	8.3%	0.26
100	10	100	7.623	0.693	91.7%	8.3%	0.12
100	10	220	16.771	1.525	91.7%	8.3%	0.05
100	10	330	25.156	2.287	91.7%	8.3%	0.04
100	10	470	35.828	3.257	91.7%	8.3%	0.03

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
100	22	0.01	0.001	0.000	84.7%	15.3%	1000.00
100	22	0.022	0.002	0.000	84.7%	15.3%	454.55
100	22	0.033	0.003	0.001	84.7%	15.3%	303.03
100	22	0.047	0.004	0.001	84.7%	15.3%	212.77
100	22	0.1	0.008	0.002	84.7%	15.3%	100.00
100	22	0.22	0.019	0.003	84.7%	15.3%	45.45
100	22	0.33	0.028	0.005	84.7%	15.3%	30.30
100	22	0.47	0.040	0.007	84.7%	15.3%	21.28
100	22	1	0.085	0.015	84.7%	15.3%	10.00
100	22	2.2	0.186	0.034	84.7%	15.3%	4.55
100	22	3.3	0.279	0.050	84.7%	15.3%	3.03
100	22	4.7	0.397	0.072	84.7%	15.3%	2.13
100	22	10	0.845	0.152	84.7%	15.3%	1.00
100	22	22	1.860	0.335	84.7%	15.3%	0.45
100	22	33	2.790	0.503	84.7%	15.3%	0.30
100	22	47	3.974	0.717	84.7%	15.3%	0.21
100	22	100	8.455	1.525	84.7%	15.3%	0.10
100	22	220	18.600	3.354	84.7%	15.3%	0.05
100	22	330	27.900	5.031	84.7%	15.3%	0.03
100	22	470	39.737	7.166	84.7%	15.3%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
100	33	0.01	0.001	0.000	80.1%	19.9%	867.47
100	33	0.022	0.002	0.001	80.1%	19.9%	394.30
100	33	0.033	0.003	0.001	80.1%	19.9%	262.87
100	33	0.047	0.004	0.001	80.1%	19.9%	184.57
100	33	0.1	0.009	0.002	80.1%	19.9%	86.75
100	33	0.22	0.020	0.005	80.1%	19.9%	39.43
100	33	0.33	0.030	0.008	80.1%	19.9%	26.29
100	33	0.47	0.043	0.011	80.1%	19.9%	18.46
100	33	1	0.092	0.023	80.1%	19.9%	8.67
100	33	2.2	0.203	0.050	80.1%	19.9%	3.94
100	33	3.3	0.304	0.075	80.1%	19.9%	2.63
100	33	4.7	0.433	0.107	80.1%	19.9%	1.85
100	33	10	0.922	0.229	80.1%	19.9%	0.87
100	33	22	2.028	0.503	80.1%	19.9%	0.39
100	33	33	3.042	0.755	80.1%	19.9%	0.26
100	33	47	4.332	1.075	80.1%	19.9%	0.18
100	33	100	9.217	2.287	80.1%	19.9%	0.09
100	33	220	20.277	5.031	80.1%	19.9%	0.04
100	33	330	30.416	7.547	80.1%	19.9%	0.03
100	33	470	43.319	10.748	80.1%	19.9%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
100	47	0.01	0.001	0.000	75.8%	24.2%	742.27
100	47	0.022	0.002	0.001	75.8%	24.2%	337.39
100	47	0.033	0.003	0.001	75.8%	24.2%	224.93
100	47	0.047	0.005	0.002	75.8%	24.2%	157.93
100	47	0.1	0.010	0.003	75.8%	24.2%	74.23
100	47	0.22	0.022	0.007	75.8%	24.2%	33.74
100	47	0.33	0.034	0.011	75.8%	24.2%	22.49
100	47	0.47	0.048	0.015	75.8%	24.2%	15.79
100	47	1	0.102	0.033	75.8%	24.2%	7.42
100	47	2.2	0.224	0.072	75.8%	24.2%	3.37
100	47	3.3	0.336	0.107	75.8%	24.2%	2.25
100	47	4.7	0.479	0.153	75.8%	24.2%	1.58
100	47	10	1.019	0.326	75.8%	24.2%	0.74
100	47	22	2.241	0.717	75.8%	24.2%	0.34
100	47	33	3.362	1.075	75.8%	24.2%	0.22
100	47	47	4.788	1.531	75.8%	24.2%	0.16
100	47	100	10.187	3.257	75.8%	24.2%	0.07
100	47	220	22.412	7.166	75.8%	24.2%	0.03
100	47	330	33.617	10.748	75.8%	24.2%	0.02
100	47	470	47.879	15.308	75.8%	24.2%	0.02

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
100	56	0.01	0.001	0.000	73.6%	26.4%	679.25
100	56	0.022	0.002	0.001	73.6%	26.4%	308.75
100	56	0.033	0.004	0.001	73.6%	26.4%	205.83
100	56	0.047	0.005	0.002	73.6%	26.4%	144.52
100	56	0.1	0.011	0.004	73.6%	26.4%	67.92
100	56	0.22	0.024	0.009	73.6%	26.4%	30.87
100	56	0.33	0.036	0.013	73.6%	26.4%	20.58
100	56	0.47	0.051	0.018	73.6%	26.4%	14.45
100	56	1	0.108	0.039	73.6%	26.4%	6.79
100	56	2.2	0.238	0.085	73.6%	26.4%	3.09
100	56	3.3	0.357	0.128	73.6%	26.4%	2.06
100	56	4.7	0.508	0.182	73.6%	26.4%	1.45
100	56	10	1.081	0.388	73.6%	26.4%	0.68
100	56	22	2.378	0.854	73.6%	26.4%	0.31
100	56	33	3.568	1.281	73.6%	26.4%	0.21
100	56	47	5.081	1.824	73.6%	26.4%	0.14
100	56	100	10.811	3.881	73.6%	26.4%	0.07
100	56	220	23.784	8.538	73.6%	26.4%	0.03
100	56	330	35.676	12.807	73.6%	26.4%	0.02
100	56	470	50.811	18.240	73.6%	26.4%	0.01

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
100	68	0.01	0.001	0.000	71.2%	28.8%	610.17
100	68	0.022	0.003	0.001	71.2%	28.8%	277.35
100	68	0.033	0.004	0.002	71.2%	28.8%	184.90
100	68	0.047	0.005	0.002	71.2%	28.8%	129.82
100	68	0.1	0.012	0.005	71.2%	28.8%	61.02
100	68	0.22	0.026	0.010	71.2%	28.8%	27.73
100	68	0.33	0.038	0.016	71.2%	28.8%	18.49
100	68	0.47	0.055	0.022	71.2%	28.8%	12.98
100	68	1	0.116	0.047	71.2%	28.8%	6.10
100	68	2.2	0.256	0.104	71.2%	28.8%	2.77
100	68	3.3	0.384	0.156	71.2%	28.8%	1.85
100	68	4.7	0.547	0.221	71.2%	28.8%	1.30
100	68	10	1.164	0.471	71.2%	28.8%	0.61
100	68	22	2.561	1.037	71.2%	28.8%	0.28
100	68	33	3.842	1.555	71.2%	28.8%	0.18
100	68	47	5.472	2.215	71.2%	28.8%	0.13
100	68	100	11.642	4.712	71.2%	28.8%	0.06
100	68	220	25.613	10.367	71.2%	28.8%	0.03
100	68	330	38.420	15.551	71.2%	28.8%	0.02
100	68	470	54.719	22.148	71.2%	28.8%	0.01

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
100	82	0.01	0.001	0.001	68.9%	31.1%	545.45
100	82	0.022	0.003	0.001	68.9%	31.1%	247.93
100	82	0.033	0.004	0.002	68.9%	31.1%	165.29
100	82	0.047	0.006	0.003	68.9%	31.1%	116.05
100	82	0.1	0.013	0.006	68.9%	31.1%	54.55
100	82	0.22	0.028	0.013	68.9%	31.1%	24.79
100	82	0.33	0.042	0.019	68.9%	31.1%	16.53
100	82	0.47	0.059	0.027	68.9%	31.1%	11.61
100	82	1	0.126	0.057	68.9%	31.1%	5.45
100	82	2.2	0.277	0.125	68.9%	31.1%	2.48
100	82	3.3	0.416	0.188	68.9%	31.1%	1.65
100	82	4.7	0.593	0.267	68.9%	31.1%	1.16
100	82	10	1.261	0.568	68.9%	31.1%	0.55
100	82	22	2.775	1.250	68.9%	31.1%	0.25
100	82	33	4.162	1.875	68.9%	31.1%	0.17
100	82	47	5.928	2.671	68.9%	31.1%	0.12
100	82	100	12.613	5.683	68.9%	31.1%	0.05
100	82	220	27.748	12.502	68.9%	31.1%	0.02
100	82	330	41.622	18.753	68.9%	31.1%	0.02
100	82	470	59.279	26.708	68.9%	31.1%	0.01

R1, K?	R2, K?	C, µF	T <sub>On</sub>	T <sub>Off</sub>	D <sub>On</sub>	D <sub>Off</sub>	F, Hz
100	100	0.01	0.001	0.001	66.7%	33.3%	480.00
100	100	0.022	0.003	0.002	66.7%	33.3%	218.18
100	100	0.033	0.005	0.002	66.7%	33.3%	145.45
100	100	0.047	0.007	0.003	66.7%	33.3%	102.13
100	100	0.1	0.014	0.007	66.7%	33.3%	48.00
100	100	0.22	0.030	0.015	66.7%	33.3%	21.82
100	100	0.33	0.046	0.023	66.7%	33.3%	14.55
100							