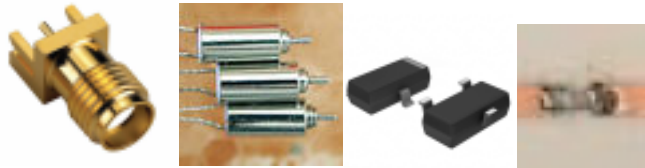


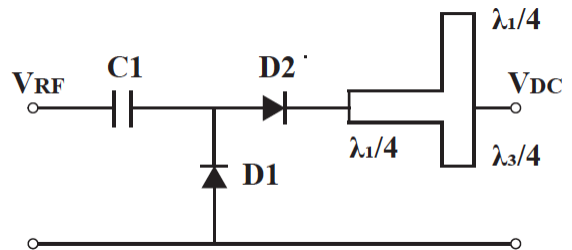
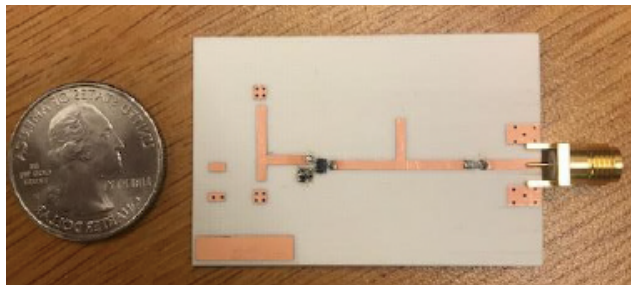
WaveRacer Part Kits

Below is a parts list for your WaveRacer’s microwave energy conversion circuit kit. The kit is provided as a courtesy, providing a functional (but not necessarily optimal) energy-conversion solution for your project. In your final design, you may choose to use all, some, or none of these components.

Item	Vendor	Quantity	Part Number/Spec
RF Capacitor(~2pF)	Kemet	1	CBR02C209B3GAC
RF Schottky Diode	Skyworks	1	SMS7630-005LF
SMA Connector	Digikey	1	EMPCB.SMAFSTJ.B.HT
DC Motor	Motorhouse	1	DC 3V 70000RPM
Charge Circuit PCB	Rogers	1	Custom



A picture of the final populated circuit is shown below.



To the right is the circuit schematic for the RF-to-DC converter. The circuit is based on a simple full-wave rectifier that also reflects high-order harmonics back into the device to increase conversion efficiency. Note that there is no over-voltage protection incorporated into this circuit.