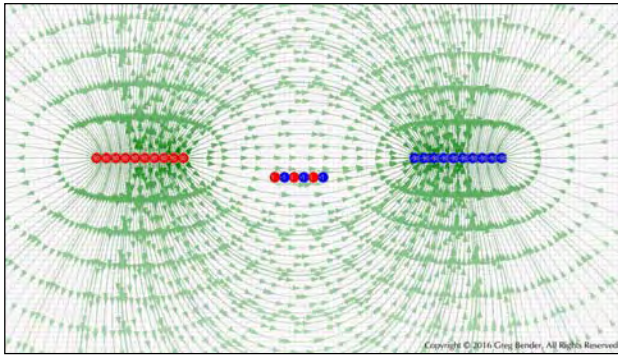


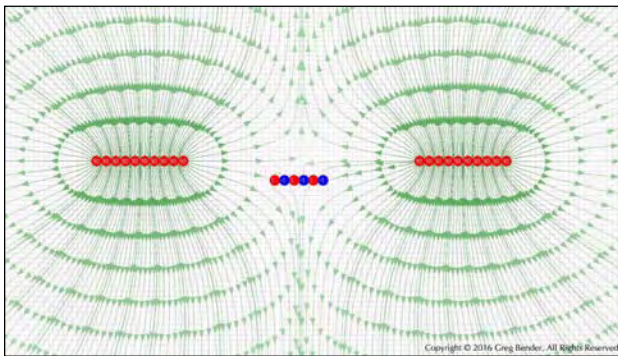


Dual Electrodes Can Reshape E-Fields During Abrupt Transitions.

By sequencing the pulses on two HV Dipole Electrodes, the electric field lines will transition between four dramatically different stages and polarities. These extreme and rapid changes between E-field shapes are likely to cause the most disorientation and un-natural shock to the shark's senses.

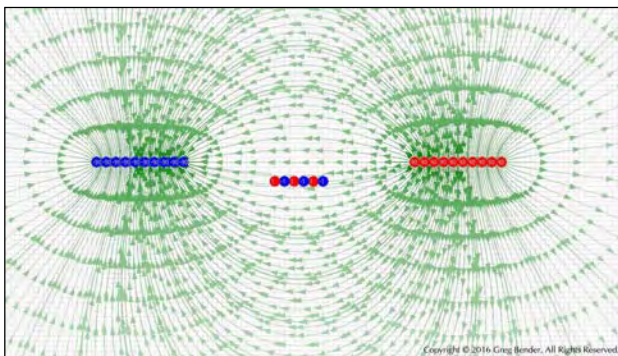


Stage 1. Dipole Electrodes start a Pulsed Transition toward positive.



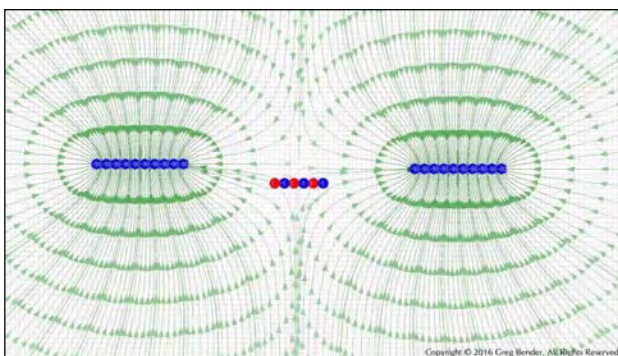
Stage 2. Both Electrodes are forced positive into a Monopole.

Once the transition is complete, both electrodes are brought to the same high voltage level and stay charged as a Monopole. This keeps a strong, constant DC E-field in the surrounding water as a stable deterrent. By using two electrodes spaced apart inside the surfboard, a stronger DC E-field can spread out farther in water and cover more area than a small group of magnets.



Stage 3. Dipole Electrodes start a Pulsed Transition toward negative.

Either by timer, the panic button, or large drops in the DC E-field, the control unit automatically fires in a microsecond and resets the E-field in the opposite polarity. This is something that cannot be done with solid magnets. Because these transitions are extremely fast, the electromagnetic pulses from the Main Radar Coil will propagate 1000's of times farther than the steady-state M-field of a permanent magnet.



Stage 4. Both Electrodes are forced negative into a Monopole.

It is important that sharks' senses never adapt to this high voltage E-field stimulus. By regularly changing polarities on the DC deterrent E-field, the shark's sensory array cannot "drift" towards an offset level and over time become numb or acclimated to a single DC bias voltage. Moreover, the harsh transition pulses are sure to scramble any level of calm & comfort.