Histogram

Description automatically generated with medium confidence0 conductance across the electrical synapse of b1\_middle and b2\_middle. As the stimulus is delivered at the b1\_first compartment (this is always the case for simulations below), no action potential is expected to be observed in the b2 branch.

0.002 nS of conductance across the electrical synapse of b1\_middle and b2\_middle. As the gap junction conductance is insignificant, Graphical user interface, histogram

Description automatically generatedonly the first spike propagated from b1\_middle to b2\_middle and then to both ends of the b2 branch.

Graphical user interface, histogram

Description automatically generated

0.02 nS conductance across the electrical synapse of b1\_middle and b2\_middle. This time the gap junction conductance is of intermediate magnitude, and all three spikes propagate to both ends of b1 and b2.

Histogram

Description automatically generated with medium confidence

0.06 nS conductance across the electrical synapse of b1\_middle and b2\_middle. The gap junction conductance is so large that b1\_middle and b2\_middle become isoelectric, which gives rise to a sizeable depolarizing current from b1\_middle to b2\_middle, thus causing no action potential propagating to the end of the b1 branch.