AC characteristic:
Measure Electrical Field
(1)

Filter and amplification:
Measure amplified/filtered signal
(2)

Mains Cable

Electrostatic Field

Pad

Amplifier & Filter

(5) Measure DC operating point

Virtual Ground VGND

(3) Measure VGND
Expected: 1.5V

Electromagnetic Field

Coil or Hall-Sensor

Amplifier & Filter

(6) Measure DC operating point

(2)
AC characteristic:
Measure Electromagnetic Field

(4)
Filter and amplification:
Measure amplified/filtered signal

Optional measurement and demonstration:

Measure input voltage
expected: 5V
(7)

(8) Measure input signal from button

5V power supply

Micro-USB Power Input

On/Off push-button circuit

3V power supply circuit

(9) Measure output voltage
expected: 3V

Pressing push-button
over 3 seconds

MCU

Software reads button and turns off power supply

Disables 3V power supply