The invention claimed is:

1. An assembly comprising:

an outer surface bounded by at least a first edge portion and a second edge portion,

a plurality of coils arranged at least substantially along a first curve at the outer surface, the first curve having a first length and extending between a first point and a second point on the outer surface, the first point being positioned within a first distance of 20% of the first length or less from the first edge portion and the second point being positioned within a second distance of 20% of the first length or less from the second edge portion,

a controller connected to the plurality of coils,

wherein the plurality of coils have symmetry axes at least substantially parallel to a plane of the outer surface,

wherein the controller is configured to sequentially feed a time-varying signal to one or more coils of the plurality of coils so that different coils of the plurality of coils receive different parts of the time-varying signal.

2. An assembly according to claim 1, wherein the controller is configured to short circuit one or more coils of the plurality of coils and output a signal to one or more other coils of the plurality of coils.

3. An assembly according to claim 1, wherein each coil of the plurality of coils has two end conductors and wherein the controller is configured to output the same signal to the end conductors of a coil.

4. An assembly according to claim 1, wherein the controller is configured to output a signal to a plurality of neighboring coils.

5. An assembly according to claim 1, further comprising at least one sensor configured to detect a presence of a metallic and/or magnetic element, the controller being connected to the sensor.

6. An assembly according to claim 5, further comprising a plurality of second

coils arranged at least substantially along a second curve at the outer surface, the second curve having a second length and extending between a third point and a fourth point on the outer surface, the third point being positioned within a first distance of 25% of the second length or less from the first edge portion and the fourth point being positioned within a second distance of 25% of the second length or less from the second edge portion, the second coils connected to the controller and wherein the at least one sensor is positioned between the first curve and the second curve.

7. An assembly according to claim 5, comprising a plurality of sensors positioned in one or more groups of sensors positioned at individual positions at the outer surface, wherein one sensor from each group is connected in series and to the controller.

8. A method of operating the assembly according to claim 1, the method comprising sequentially feeding a time-varying signal to one or more coils of the plurality of coils so that different coils of the plurality of coils receive different parts of the time-varying signal.

9. A method according to claim 8, further comprising short circuiting one or more of the coils not fed by the time-varying signal.

10. A method according to claim 8, wherein

each coil has two conductor ends, and

the method includes feeding a common signal to the two conductor ends of a coil.

11. A method according to claim 8, wherein the feeding includes simultaneously feeding the time-varying signal to a plurality of neighboring coils.

12. A method according to claim 11, wherein the feeding includes

stopping feeding of the time-varying signal to one or more but not all coils fed by the time-varying signal,

continuing feeding one or more coils with the time-varying signal, and

initiating feeding the time-varying signal to one or more coils neighboring to each other and/or the one or more fed coils.

13. A method according to claim 8, further comprising determining a position, direction and/or velocity of a metallic, magnetic and/or reader element and controlling the feeding of the time-varying signal to feed the time-varying signal to coils at or in a vicinity of the metallic, magnetic and/or reader element.

14. A method according to claim 13, wherein

the determining includes determining a position of a reader element, and

the feeding includes feeding the time-varying signal to at least one coil having a particular positional relationship with the determined position.

15. A method according to claim 14, wherein the feeding includes selecting the plurality of coils to include the at least one coil.

16. A method according to claim 15, wherein the feeding includes selecting a set of coils of the plurality of coils, a centre of which is at the determined position.

17. A method according to claim 15, wherein the feeding includes selecting a set of coils of the plurality of coils of which an extreme coil is at the determined position.

18. A method according to claim 8, wherein the feeding includes:

initially determining a signal to feed to the plurality of coils and determining a first position of the reader element and feeding a first part of the signal to at least one coil having a first positional relationship with the first position with a signal and

subsequently determining a second position of the reader element and feeding the signal with an inverse phase to at least one coil having a second positional relationship with the second position.

19. A method according to claim 8, further comprising: converting a magnetic field sense by a reader head into an electric signal.

20. A method according to claim 8, further comprising:

selecting a plurality of neighboring coils and a pattern according to which coils of a first group of the plurality of neighboring coils are fed the time-varying signal and any remaining coils of the plurality of neighboring coils are not fed the time-varying signal,

wherein the sequentially feeding includes repeatedly:

feeding the time-varying signal to the coils of the first group of the plurality of neighboring coils in accordance with the pattern, and

subsequently selecting next neighboring coils, a quantity of next neighboring coils being a particular quantity, the next neighboring coils being offset from the plurality of neighboring coils.