

CLAIMS

1. An input device comprising:
 - a housing comprising a lower portion and an upper portion;
 - a depressible button provided in the upper portion;
 - a first magnetic component coupled to the depressible button and configured to move at least substantially along an axis when the depressible button is depressed;
 - a second magnetic component coupled to the lower portion at least substantially at the axis, wherein at least one of the first magnetic component and the second magnetic component comprises an electromagnet;
 - an interface configured to receive control information from a computing device external to the input device; and
 - a control circuit configured to control the electromagnet based on the control information.
2. The input device of claim 1,
 - wherein the control circuit is configured to control the electromagnet to adjust a click force of the depressible button.
3. The input device of claim 1,
 - wherein the control circuit is configured to control the electromagnet to adjust a rebound force of the depressible button.
4. The input device of claim 1,
 - wherein the control circuit is configured to control the electromagnet to provide a constant offset force to a click force of the depressible button.
5. The input device of claim 1,

wherein the control circuit is configured to control the electromagnet based on an activation of the depressible button.

6. The input device of claim 5,
wherein the control circuit is configured to active the electromagnet a pre-determined time after activation of the depressible button.

7. The input device of claim 5,
wherein the control circuit is configured to control the electromagnet to adjust a speed of returning of the depressible button to state before activation of the depressible button.

8. The input device of claim 1,
wherein the interface is further configured to communicate user input received at the input device to the computing device.

9. The input device of claim 1,
wherein the interface comprises at least one of universal serial bus or Bluetooth.

10. The input device of claim 1,
wherein the control information is user-definable in the computing device.

11. A method for controlling an input device, the input device comprising a housing comprising a lower portion and an upper portion, a depressible button provided in the upper portion, a first magnetic component coupled to the depressible button and configured to move at least substantially along an axis when the depressible button is depressed, and a second magnetic component coupled to the lower portion at least substantially at the axis, wherein at least one of the first magnetic component and the second magnetic component comprises an electromagnet; the method comprising:

receiving control information from a computing device external to the input device via an interface; and

controlling the electromagnet based on the control information.

12. The method of claim 11, further comprising:
controlling the electromagnet to adjust a click force of the depressible button.
13. The method of claim 11, further comprising:
controlling the electromagnet to adjust a rebound force of the depressible button.
14. The method of claim 11, further comprising:
controlling the electromagnet to provide a constant offset force to a click force of the depressible button.
15. The method of claim 11, further comprising:
controlling the electromagnet based on an activation of the depressible button.
16. The method of claim 15, further comprising:
activating the electromagnet a pre-determined time after activation of the depressible button.
17. The method of claim 15, further comprising:
controlling the electromagnet to adjust a speed of returning of the depressible button to state before activation of the depressible button.
18. The method of claim 11, further comprising:
communicating user input received at the input device to the computing device via the interface.
19. The method of claim 11,

wherein the interface comprises at least one of universal serial bus or Bluetooth.

20. The method of claim 11,

wherein the control information is user-definable in the computing device.

21. A computer readable medium comprising program instructions which when executed by a processor cause the processor to perform a method for controlling an input device, the input device comprising a housing comprising a lower portion and an upper portion, a depressible button provided in the upper portion, a first magnetic component coupled to the depressible button and configured to move at least substantially along an axis when the depressible button is depressed, and a second magnetic component coupled to the lower portion at least substantially at the axis, wherein at least one of the first magnetic component and the second magnetic component comprises an electromagnet; the method comprising:

receiving control information from a computing device external to the input device via an interface; and

controlling the electromagnet based on the control information.

22. The computer readable medium of claim 21, further comprising instructions which when executed by a processor cause the processor to perform:

controlling the electromagnet to adjust a click force of the depressible button.

23. The computer readable medium of claim 21, further comprising instructions which when executed by a processor cause the processor to perform:

controlling the electromagnet to adjust a rebound force of the depressible button.

24. The computer readable medium of claim 21, further comprising instructions which when executed by a processor cause the processor to perform:

controlling the electromagnet to provide a constant offset force to a click force of the depressible button.

25. The computer readable medium of claim 21, further comprising instructions which when executed by a processor cause the processor to perform:
controlling the electromagnet based on an activation of the depressible button.

26. The computer readable medium of claim 25, further comprising instructions which when executed by a processor cause the processor to perform:
activating the electromagnet a pre-determined time after activation of the depressible button.

27. The computer readable medium of claim 25, further comprising instructions which when executed by a processor cause the processor to perform:
controlling the electromagnet to adjust a speed of returning of the depressible button to state before activation of the depressible button.

28. The computer readable medium of claim 21, further comprising instructions which when executed by a processor cause the processor to perform:
communicating user input received at the input device to the computing device via the interface.

29. The computer readable medium of claim 21,
wherein the interface comprises at least one of universal serial bus or Bluetooth.

30. The computer readable medium of claim 21,
wherein the control information is user-definable in the computing device.