CLAIMS

1. A combined type toy top separated through induction control, comprising: a main top, an auxiliary top and an elastic part, wherein when the combined type toy top is in a first state, the main top is limited and fixed, by the auxiliary top, above the auxiliary top, and meanwhile the main top compresses the elastic part so that the elastic part is compressed; the combined type toy top is characterized in that a sensing mechanism is arranged in the auxiliary top, the sensing mechanism can controllably relieve limiting fixation of the main top from the auxiliary top under a second state through induction control, the main top pops up under an elasticity action of the elastic part, and accordingly the main top and the auxiliary top rotate independently.

2. The combined type toy top separated through induction control according to claim 1, characterized in that the limiting fixation means that the main top rotates and is connected to the auxiliary top.

3. The combined type toy top separated through induction control according to claim 2, characterized in that the auxiliary top further comprises a connecting piece used to clamp and connect with the main top, in the second state, the sensing mechanism is triggered by induction to drive the connecting piece to rotate, and the main top relieves the clamping and connecting status after the rotation of the connecting piece.

4. The combined type toy top separated through induction control according to claim 3, characterized in that the sensing mechanism comprises an inductor inducting an outside inductive source, a motor driving the connecting piece to rotate and a power source supplying power for the motor; circuits of the motor and of the power source are interconnected when the inductor receives an induction from the outside inductive source, at the moment the motor works and drives the connecting piece to rotate, and further relives the clamping connection of the main top so that the main top pops up under the elasticity action of the elastic part, and accordingly the main top and the auxiliary top rotate independently.

5. The combined type toy top separated through induction control according to claim 4, characterized in that the inductor is an inductive switch electrically connected with the motor and the power source, the inductive switch is switched on when it receives the induction from the outside inductive source, the circuits of the motor and of the power source are interconnected, and the power source supplies power for the motor to make it work.

6. The combined type toy top separated through induction control according to claim 4, characterized in that the inductor is an inductive circuit connected with an electric control switch electrically connected with the motor and the power source, when the inductive circuit receives the induction from the outside inductive source, the inductive circuit sends a signal to switch on the electric control switch, the circuits of the motor and of the power source are interconnected, so that the power source supplies power for the motor to make it work.

7. The combined type toy top separated through induction control according to claim 6, characterized in that the inductive circuit and the circuits of the motor and of the power source are integrated on a circuit board, the circuit board is mounted at an edge-adjoining position inside the auxiliary top, the motor is mounted in a middle position inside the auxiliary top, and the power source is mounted aside the motor.

8. The combined type toy top separated through induction control according to claim 6, characterized in that the inductive circuit is a photosensitive inductive circuit, a magnetic control inductive circuit, a heat-sensitive inductive circuit or a sound control inductive circuit, the one or more different inductive circuits and the circuits of the motor and of the power source are integrated on the same circuit board, and when multiple inductive circuits are integrated on the circuit board, each of the inductive circuits may separately control the motor to work.

9. The combined type toy top separated through induction control according to claim 6, characterized in that the inductor is a magnetic control inductive circuit, and the magnetic control inductive circuit comprises an IC chip and a magnetic control switch, when the magnetic control switch receives a magnetic induction from the outside inductive source, the magnetic control switch is switched on to make the circuits be interconnected, and when it is detected that the magnetic control switch is switched on, the IC chip sends a control signal to control the motor to work.

10. The combined type toy top separated through induction control according to claim 4, characterized in that the inductor is a photosensitive inductor, a magnetic control inductor, a heat-sensitive inductor or a sound control inductor.

11. The combined type toy top separated through induction control according to claim 4, characterized in that the motor is arranged below the connecting piece in an accumbent manner, an end of a rotating shaft of the motor is connected with a toggle piece, when the motor is working, the rotating shaft rotates and drives the toggle piece to rotate, and the toggle piece rotates and drives the connecting piece to rotate to relieve the clamping connection of the main top.

12. The combined type toy top separated through induction control according to claim 11, characterized in that the toggle piece is a cylinder, either of two symmetrical sides of the cylinder is provided with a lug, a convex edge is disposed in a position, at a bottom edge of the connecting piece, corresponding to the toggle piece; driven by the rotating shaft of the motor, the lug of the toggle piece rotates to the convex edge of the connecting piece, and toggles the convex edge to drive the connecting piece to rotate to relieve the clamping connection of the main top.

13. The combined type toy top separated through induction control according to claim 11, characterized in that between the motor and the toggle piece there is provided with a planetary gear, one end of the planetary gear is connected with the rotating shaft of the motor, and the other end is connected with the toggle piece.

14. The combined type toy top separated through induction control according to claim 3, characterized in that the sensing mechanism is an inductive moving part that can move after being induced by an outside inductive source, the inductive moving part is clamped and connected with the connecting piece, after receiving the induction of the outside inductive source, the inductive moving part moves and relieves the clamping connection of the connecting piece to make the connecting piece move and relieve the clamping connection of the main top so that the main top pops up under the elasticity action of the elastic part, and accordingly the main top and the auxiliary top rotate independently.

15. The combined type toy top separated through induction control according to claim 1, characterized in that the limiting fixation means that a shotpin is inserted into the main top so that the main top is fixed above the auxiliary top.

16. The combined type toy top separated through induction control according to claim 15, characterized in that the auxiliary top further comprises a solenoid valve used to drive the shotpin to move, in the second state, the sensing mechanism is triggered by induction so that the solenoid valve drives the shotpin to move, and the main top relieves the limiting fixation after the shotpin moves.

17. The combined type toy top separated through induction control according to claim 1, characterized in that the auxiliary top is further provided with an automatic stop detection device, in the second state, when it is detected that the limiting fixation of the main top by the auxiliary top is relieved, the automatic stop detection device controls the sensing mechanism to disconnect the induction control.

18. The combined type toy top separated through induction control according to claim 1, characterized in that the elastic part is disposed in the auxiliary top, the elastic part comprises a spring and a pop-up seat, the spring is sleeved outside the connecting piece, the pop-up seat is mounted above the spring, when the main top is clamped and connected with the connecting piece, the spring and the pop-up seat are squeezed down, and when the main top is relieved from the clamping and connecting status after the connecting piece rotates, the pop-up seat moves up under the elasticity action of the spring, and meanwhile the main top is popped out.

19. The combined type toy top separated through induction control according to claim 18, characterized in that the auxiliary top comprises a top top and a top top holder, a lower top holder, an upper top holder, a top slice and a mounting base, the sensing mechanism is mounted and fixed inside the mounting base, the mounting base is fixed between the lower top holder and the upper top holder, the pop-up seat may be mounted, in a manner of moving up and down, between the upper top holder and the mounting base, the pop-up seat may move up to stretch out of the upper top holder and is limited by the upper top holder lest the pop-up seat should break away from the auxiliary top, and the top slice is sleeved between the upper top holder and the mounting base.

20. The combined type toy top separated through induction control according to claim 19, characterized in that an upper surface of the upper top holder is provided with a socket recess, a bottom of a top holder of the main top is correspondingly provided with a docking ring, a position of the docking ring corresponding to the socket recess is provided with a socket convex that mates with the socket recess, when the main top is clamped and connected with the auxiliary top, the socket convex of the docking ring is socketed into the socket recess of the upper top holder; in this way, it is implemented that driven by the motor, the connecting piece may rotate relative to the main top to relieve the clamping connection of the main top.

21. The combined type toy top separated through induction control according to claim 20, characterized in that the connecting piece may be rotatably mounted in the middle of the mounting base of the auxiliary top, a middle of the connecting piece is provided with a splined clamping and connecting hole, a side wall at an upper edge of the clamping and

connecting hole is provided with an incised bevel edge, the connecting piece is provided with a return spring to make the connecting piece reverse to return after a rotation, a top top holder of the main top is correspondingly provided with a splined clamping lug; when the socket convex is aligned to the socket recess and a malposition exists between the clamping lug and the clamping and connecting hole, the main top is downward inserted into the auxiliary top, in this process, the clamping lug squeezes the incised bevel edge and generates a component force to make the connecting piece rotate so that the clamping lug is clamped into the clamping and connecting hole, after which, under the action of the return spring, the connecting piece reverses to return so that the clamping lug is clamped into the clamping and connecting hole, in this way, the main top and the auxiliary top are combined into a whole.