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CHINA'S RIFLE-SIZE ELECTROMAGNETIC RAIL GUN

Chinese PLA Shows Rifle-size Electromagnetic Railgun Weapon.

1. A Chinese soldier test-fires a Small Synchronous Induction Coilgun prototype, which is essentially a rifle-sized electromagnetic railgun, in a shooting range (Picture source: screenshot from js7tv.cn via Global Times).



2. The Chinese People's Liberation Army (PLA) revealed a miniaturized electromagnetic railgun based pistol-and-rifle-sized synchronous induction coilgun prototypes. The weapons are in prototype stage.
3. Developed by the PLA Army Logistics University, the weapons, named Small Synchronous Induction Coilguns have: pistol-sized; rifle-sized; and land robot-mounted variants:-

- (a) The coilguns use bullets stored in reloadable magazines just like a conventional gun, and they also handle like one.
 - (b) The coilguns can easily penetrate multiple wood plates and thin steel plates at a relatively close distance.
 - (c) They can be used by single foot soldiers.
 - (d) To deal with complicated battlefield situations, they can also be mounted on small land robots and conduct armed reconnaissance missions.
4. Unlike a conventional firearm that uses the ignition of gunpowder to push a bullet slug out of a gun barrel at high velocity, ***a coilgun or railgun uses electromagnetic force to accelerate a projectile as it travels along the gun barrel before leaving it at an even higher velocity.***
5. In PLA demonstration, the coilguns have shown a high penetration capability and did not make much sound, making them ***good choices for special operations like behind-enemy-line infiltration missions.***
6. **A limiting factor** in electromagnetic handguns is electrical power needed to propel the bullet. The Chinese electromagnetic handguns work on battery power and a capacitor discharge to store and release energy.
7. It is obvious that these weapons are still in the prototype stage, as their range and impact are not optimum, very likely due to the guns' limited battery or capacitor capacity to store and release energy. But once this technical problem is solved, the coilguns could become much more powerful and could replace the firearms of today.
8. China is also developing full-sized electromagnetic railguns, as prototypes have been seen on tanks and warships.

[https://www.defenseworld.net/news/27301/Chinese PLA Shows Rifle size Electromagnetic Railgun Weapon#.XwKN02ozbVo](https://www.defenseworld.net/news/27301/Chinese_PLA_Shows_Rifle_size_Electromagnetic_Railgun_Weapon#.XwKN02ozbVo)

<https://www.globaltimes.cn/content/1192841.shtml>