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Teaching in 3D

How 3D printing can be used in teaching physics







Loudspeaker

- Whole loudspeaker is just a single piece with a coil wrapped on it
- Produces audible sound when a magnet is brough near the coil
- Can be used to play music!

DC motor

- Designed to allow students to experience the motor effect
- Follows examples given in textbook/exams
- Several iterations were made during development to ensure reliable operation
- Uses several non-printable components
- Some damage appeared later due to overheating





Particle scattering model

- Model designed by CERN to demonstrate the principles behind scattering experiments
- Target can be hidden with a cover to provide a mystery to solve
- Large objects and multiple parts, so printing took many hours

Magnet holder

- Special holder to create a uniform magnetic field for measurement of magnetic force
- Size was chosen so that different magnet types can be used
- The same holder was later reused to create a magnetic swing









Other examples

Questions?