

# 3D Print NFC & RFID Tags

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## What is NFC?

Near field communication (NFC) is two-way wireless communication that's restricted to 4 centimeters. This allows users to wirelessly share data between two smartphones or between a smartphone and NFC tags.

## What is RFID?

Radio frequency identification (RFID) uses physical tags that are tracked and identified with electromagnetic fields. These tags can reach 25 meters and allow one-way communication from NFC tag to device. Active RFID tags, that contain their own power source, can reach up to 100 meters.

## 3D Printing

RFID and NFC tags can be made with a 3D printer by overprinting and embedding 3D prints. Custom 3D models are designed with voids that accept electrical components. These electrical components are added to the print when it's paused midway through printing, they are sealed inside the 3D print and are then activated wirelessly.