

What Is AirDrop? How Does It Work?

From Lifewire
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August 21, 2018

What Is AirDrop?

- AirDrop is a feature that lets Macs and iOS mobile devices share files wirelessly with a minimum of effort.
 - iPads going back to iPad 4 and iPad Mini; iOS7 +.
 - Current iPhones going back to the iPhone 5
 - iPod Touch 5th generation or later.
 - Also supported on Macs with OS X Lion.
 - Macs earlier than 2010 may not be supported.
- Extremely useful, but it is one of those features most people don't know about.
- Not because it is hard to use (it isn't).
- Most people don't think to look for it.

When To Use AirDrop

- To share a photo with someone.
- AirDrop isn't just for photos.
- To transfer almost anything that want to share.
- For example,
 - AirDrop a website from your iPad to your friend's phone.
 - Or a grocery list?
 - Notes to someone else's iPad or iPhone.
 - A location you've pinned in Apple Maps.
 - Your contact information, etc.

AirDrop it.

How Does AirDrop Work?

- AirDrop utilizes both **Bluetooth and WiFi**.
- Bluetooth creates a peer-to-peer network between devices within about 30 feet .
- Each device creates a firewall around the connection and files are sent encrypted, which actually makes it safer than transferring via email.
- AirDrop automatically detects all available devices close enough to establish a good connection, making it possible to share files across several rooms.
- Transfer uses WiFi hotspot created by the sender

Technical Answer

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AirDrop uses Bluetooth Low Energy to establish a low-power, low-bandwidth network with nearby devices. Each device on this network uses its Bonjour—i.e., multicast DNS—daemon (mDNSResponder or, briefly, discovery) to advertise its presence.

it usually creates a much faster peer-to-peer Wi-Fi Direct link between the two devices to transmit the actual file. All recent Apple Wi-Fi chipsets can quickly switch between two networks; AirDrop uses this to make sure that transmitting a file doesn't disrupt your connection to the Internet.

Because it uses all of these different things, AirDrop doesn't work when Bluetooth is off, when Wi-Fi is off, or when your Wi-Fi chipset is too old to support the fast switching feature.

AirDrop Advantage

- One advantage to AirDrop is the use of Wi-Fi to make the connection.
- Some systems provide a similar file sharing capability using Bluetooth – much slower.
- Some Android devices use a combination of Near Field - Communications (NFC) and Bluetooth to share files.
- But both Bluetooth and NFC are relatively slow compared Wi-Fi, which makes sharing larger files using AirDrop much faster and more convenient.

Enabling AirDrop

- iOS: Settings, General, AirDrop
Select Everyone or Contacts Only
- MacOS: