

## Bluetooth technology advantages:

1. **Wireless:** Bluetooth technology enables wireless communication between devices over short distances, making it more convenient for consumers.
2. **Low power consumption:** Bluetooth technology is made to use relatively little power, making it a reliable method of wireless communication between devices without quickly emptying the battery.
3. **Widely used:** Bluetooth technology is widely used and supported by a huge variety of devices, including mobile phones, tablets, laptops, headphones, and other consumer electronics, indicating that it is compatible with a large number of products on the market.
4. **Easy to use:** The majority of people can access Bluetooth technology since it is comparatively simple to use and set up.

## Drawbacks to Bluetooth technology

1. **Limited range:** Bluetooth technology has a range of 10 meters or less, thus devices must be close to one another in order to communicate.
2. **Interference:** Other wireless transmissions, like Wi-Fi, can interfere with Bluetooth signals, which can lead to connectivity problems.
3. **Security:** Bluetooth technology has historically had some security flaws that could endanger user data and equipment.
4. **Audio quality:** Due to compression and latency difficulties, Bluetooth audio quality cannot be as excellent as traditional connections.

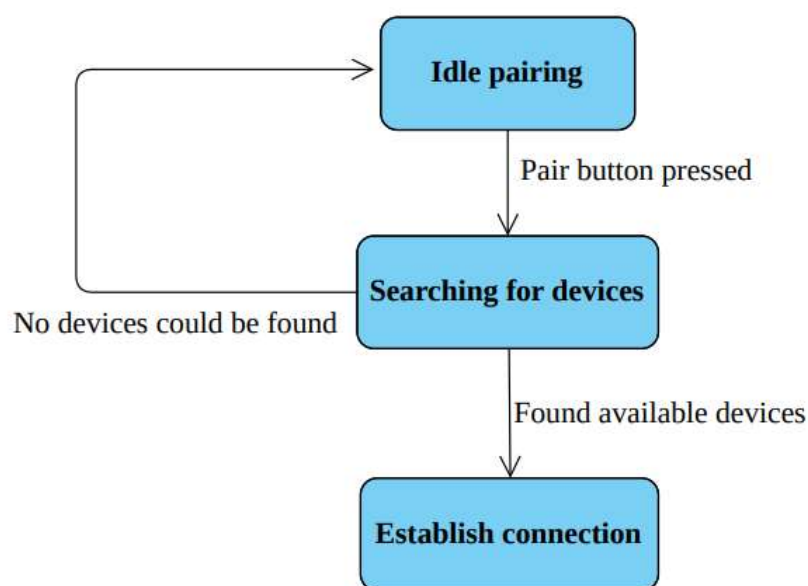


Figure 1. State machine diagram

## References

- [1] Bisdikian, C., “An overview of the Bluetooth wireless technology,” *IEEE Commun. Mag.*, vol. 39, no. 12, pp. 86–94, 2001.