We can transmit command by two ways.

First is using a RC controller which we are used to see with almost every remote controlled vehicle.

**HPI TF-45**: It is a rc controller. It is a bit cheap but it avoids interference by FHSS.

<https://www.oyuncakhobi.com/yedek-parca-ve-ekipmanlar/hpi-racing/hpi-tf-45-2.4ghz-transmitter-(3ch)-(alici-yoksadece-kumanda)?gclid=EAIaIQobChMI8sWh_LrU3gIVRYjVCh2rzAPHEAQYAiABEgKFaPD_BwE>

Second is using transceiver modules which can transmit and receiver datas.

There is some modules.

**Modified nrf24L01:** It’s quite cheap and easy to use with many microcontroller but the range is not that far. But there is also some receipts to increase the range to enough value for us. Here is video links.

<https://www.youtube.com/watch?v=bVpYhTBsOOE>

**LoRar:** LoRa is another modüle which is generally used for long range communication applications.

<https://www.youtube.com/watch?v=hMOwbNUpDQA&t=849s>

<https://www.youtube.com/watch?v=W23TEjzMBP4&t=585s>

<https://www.youtube.com/watch?v=MaYD88bq5eU>

<https://www.youtube.com/watch?v=AAsjdImAkr4>

Important video comparing nrf24l01, LoRa, generic <https://www.youtube.com/watch?v=nP6YuwNVoPU>

Important news source explaining LoRa and how it works:

<https://medium.com/bytes-io/lora-vs-wifi-3-questions-d9c93137fca>

**FlySky FS-i6 2.4G 6CH AFHDS RC Transmitter With FS-iA6 Receiver:**

Works in the frequency range of 2.405 to 2.475GHz.This band has been divided into 142 independent channels,each radio system uses 16 different channels and 160 different types of hopping algorithm.  
 Each transmitter has a unique ID,when binding with a receiver,the receiver saves that unique ID and can accepts only data from the unique transmitter.this avoids picking another transmitter signal and dramatically increase interference immunity and safety.

Buy: <https://www.banggood.com/FlySky-FS-i6-2_4G-6CH-AFHDS-RC-Transmitter-With-FS-iA6-Receiver-p-922606.html?ID=42482&cur_warehouse=CN>

FlySky FS-i6 2.3km range test - no mods: <https://www.youtube.com/watch?v=KZaE1qEnIWs>

**APC220 Wireless Data Communication Module:**

This APC220 is a highly versatile, low power radio solution that is easy to setup and

integrate into any project requiring a wireless RF link.

https://www.dfrobot.com/wiki/index.php/APC220\_Radio\_Data\_Module(SKU:TEL0005)

**Specification**

Working frequency: 431 MHz to 478 MHz

Power: 3.3-5.5V

Current: <25-35mA

Working temperature: -20℃～+70℃

Range: 1200m line of sight (1200 bps)

Interface: UART/TTL

Baud rate: 1200-19200 bps

Baud rate (air): 1200-19200 bps

Receive Buffer: 256 bytes

Size: 37mm × 17 mm × 6.6mm

Weight: 30g

Buy: <https://www.banggood.com/APC220-Wireless-Data-Communication-Module-USB-Adapter-Kit-For-Arduino-p-939407.html?cur_warehouse=CN>

Wireless Arduino to Arduino with APC220 RF Modules : <https://www.youtube.com/watch?v=ukbKR1QwNHI>

Arduino - Wireless SNES controller using APC220's:

<https://www.youtube.com/watch?v=iVpX8H6MdY8>