Fixed Wing Planes Specifications

Ready-made fixed wing drones

1. Parrot DiscoFPV ($999-$1200)
   - Payload: 0.2-0.4kg
   - Flight time: 45mins
   - Range: Up to 20km with modifications
   - Video: 1080p streaming, needs range extender for 20km
   - Pros: Plug and play, good stabilization
   - Cons: Limited payload, closed system

2. Foxtech Ranger 2000 ($2500-$3000)
   - Payload: 2-3kg
   - Flight time: 90-120mins
   - Range: 30km+
   - Video: HD digital link supported
   - Pros: Professional build, reliable
   - Cons: Expensive, needs ground station setup

3. Event 38 E384 ($4000-$4500)
   - Payload: 2-3kg
   - Flight time: 90-120mins
   - Range: 40km+
   - Video: Multi link options
   - Pros: Industry standard reliability
   - Cons: Very Expensive, complex system

DIY Options

1. Skywalker X8 DIY Build ($600-900)
   - Airframe: $150
   - Electronics and motors: $300
   - Radio System: $150-200
   - Video System: $150-250
     Components needed

- Flight Controller: Pixhawk/Matek H743
- Motors: Sunnysky X2216 880KV
- ESC: 40A
- Servos: MG996R
- Radio: DragonLink/Crossfire
- Video: DJI O3/HDZero system
- Payload: 1-2kg
- Flight time: 45-60mins
- Pros: Customizable, repairable
- Cons: Assembly required, tuning needed

2. Mini Talon DIY ($400-700)
   - Airframe: $100
   - Electronics and motors: $200-300
   - Radio System: $200-300
   - Video System: $200-300

     Components needed
   - Flight Controller: Pixhawk/Matek H743
   - Motors: Sunnysky X2216 880KV
   - ESC: 40A
   - Servos: MG996R
   - Radio: DragonLink/Crossfire
   - Video: DJI O3/HDZero system
   - Payload: 0.5-1kg
   - Flight time: 60-90mins
   - Pros: Efficient design, good community support
   - Cons: smaller payload capacity

Cost Comparison (Total System)

Ready-Made:

- Entry level: $1000-1500
- Professional: $2500-4500

DIY:

- Basic build: $600-900
- Advanced build: $1200-1800

Key considerations:

1. DIY Advantages:
    - 40-50% cost savings
    - Customizable
    - Easier repairs
    - Better understanding of system
2. Ready-made Advantages:
    - Immediate deployment
    - Professional support
    - Tested reliability
    - Less technical knowledge required