



## 3D King of Freestyle Score Sheet

Judge:

Each segment will be judged from zero (0) to ten (10) in 0.5 increments

Pilot	Flight Envelope (30K)	Originality and Complexity (30K)	Precision (20K)	Presentation (20K)	Freestyle and Flow (20K)	Bonus (25K)

**Freestyle** portion is **4 minutes**, **bonus portion** will be **2 minutes**. If a pilot happens to crash or have a mishap during the bonus portion they will keep all points earned during the freestyle portion **AND** any points accumulated during the bonus portion. **IF** they have a mechanical failure during the freestyle anything over 3:30 of the 4 minutes will be considered a full flight. Anything less than 4 minutes will be scored by  $[(\text{min/sec flown}) / 4 \text{ minutes} * \text{normalized score}]$  they will however forfeit the bonus round on that given flight.

### Flight Envelope (30K)

The pilot should make full use of the spectator area (lower performances including touching the ground will be awarded with higher scores). Pilots should position maneuvers to help judges and spectators observe all aspects of the flight sequence. Pilots should use a combination of fast, high-energy maneuvers as well as slow maneuvers using a large footprint to demonstrate a wide range of flight skills to be entertaining and exciting. Wow factor is expected.

### Originality and Complexity (30K)

Pilots should perform a wide variety of 3D and XA maneuvers. Judges should award the highest scores to pilots that demonstrate a wide variety of complex maneuvers. Pilots should demonstrate complexity using all the aerodynamic and gyroscopic forces available, including stalled flight, inertia, and prop torque.

### Precision (20K)

All maneuvers should demonstrate the precision and intent. Rolls should stop at the normal points (e.g.,  $1/8$ ,  $1/4$ ,  $1/2$ , full). Point rolls should have a constant rhythm. Lines should be straight, and horizontal, vertical, or 45 degrees. Arcs and turns should have constant, continuous radius. Changes in altitude during a maneuver should be consistent with the maneuver and demonstrate the pilot's ability to control the aircraft at all times.

### Presentation (20K)

The music should establish a mood, and the movement of the airplane should match that mood. The rhythm of maneuvers should follow the music. Changes in the music should be reflected by changes in the flight.

### Freestyle and Flow (20K)

Pilots should demonstrate a smooth transition of one maneuver to another without long pauses between maneuvers. Random maneuvers flowing to the mood of the music.

### Bonus (25K)

Props will be staged on the far side of the runway for use and exhibition during the bonus portions; Dunk Pool, Hover wall, and 15' diameter Rotating Hoop will all be available as obstacles or tools to be used for exhibition of stunts. Use of a variety of props used is encouraged.



## 3D King of Freestyle Score Sheet - Night

Judge:

Each segment will be judged from zero (0) to ten (10) in 0.5 increments

Pilot	Flight Envelope (37.5K)	Originality and Complexity (37.5K)	Precision (25K)	Presentation (25K)	Freestyle and Flow (25K)	Bonus (31.5K)

**Freestyle** portion is **4 minutes**, **bonus portion** will be **2 minutes**. If a pilot happens to crash or have a mishap during the bonus portion they will keep all points earned during the freestyle portion **AND** any points accumulated during the bonus portion. **IF** they have a mechanical failure during the freestyle anything over 3:30 of the 4 minutes will be considered a full flight. Anything less than 4 minutes will be scored by [(min/sec flown) / 4 minutes \* normalized score] they will however forfeit the bonus round on that given flight.

### Flight Envelope (37.5K)

The pilot should make full use of the spectator area (lower performances including touching the ground will be awarded with higher scores). Pilots should position maneuvers to help judges and spectators observe all aspects of the flight sequence. Pilots should use a combination of fast, high-energy maneuvers as well as slow maneuvers using a large footprint to demonstrate a wide range of flight skills to be entertaining and exciting. Wow factor is expected.

### Originality and Complexity (37.5K)

Pilots should perform a wide variety of 3D and XA maneuvers. Judges should award the highest scores to pilots that demonstrate a wide variety of complex maneuvers. Pilots should demonstrate complexity using all the aerodynamic and gyroscopic forces available, including stalled flight, inertia, and prop torque.

### Precision (25K)

All maneuvers should demonstrate the precision and intent. Rolls should stop at the normal points (e.g., 1/8, ¼, ½, full). Point rolls should have a constant rhythm. Lines should be straight, and horizontal, vertical, or 45 degrees. Arcs and turns should have constant, continuous radius. Changes in altitude during a maneuver should be consistent with the maneuver and demonstrate the pilot's ability to control the aircraft at all times.

### Presentation (25K)

The music should establish a mood, and the movement of the airplane should match that mood. The rhythm of maneuvers should follow the music. Changes in the music should be reflected by changes in the flight.

### Freestyle and Flow (25K)

Pilots should demonstrate a smooth transition of one maneuver to another without long pauses between maneuvers. Random maneuvers flowing to the mood of the music.

### Bonus (31.5K)

Props will be staged on the far side of the runway for use and exhibition during the bonus portions; Dunk Pool, Hover wall, and 15' diameter Rotating Hoop will all be available as obstacles or tools to be used for exhibition of stunts. Use of a variety of props used is encouraged.