

INTERNATIONAL SPORT KITE COMPULSORIES BOOK

VERSION 2.2.1

5 DECEMBER 2011



All Japan Sport Kite Association



American Kitefliers Association



Sport Team and Competitive Kiting

Change History:**Version 1.0 – 1 August 2002**

Original

Version 1.1 – 11 September 2002

For changes, please refer to ISKCB V1.1 of 11 September 2002

Version 2.0 – 1 August 2005

For changes, please refer to ISKCB V2.0 of 1 August 2005

Version 2.01 – 1 October 2005

For changes, please refer to ISKCB V2.01 of 1 November 2005

Version 2.1 – 1 August 2006

For changes, please refer to ISKCB V2.1 of 1 August 2006

Version 2.2 – 6 August 2009

1. Eliminated description of key components and added broad description of scoring III.A.
2. Combined prior “Critical Components” and “Other Components” into an aggregate heading, “Judges will Particularly Consider,” for all figures. No changes to these components were made other than re-labeling.

Version 2.2.1 – 5 December 2011

1. Amendments to figure diagrams DT04 and DT16 (removal of speed control elements previously integral to lines of entry and exit).
2. Amendment of “Judges Will Particularly Consider” notations to coincide with the above.

The International Rule Book Committee - 2011

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Notice

Unless otherwise specified, this *Compulsories Book* is considered as a rule that may be amended by the sanctioning authority at the beginning of the competition season.

The Official adoption dates of this Compulsories Book, unless otherwise announced by the respective sanctioning authority, are:

01 January, 2012 - AJSKA (All Japan Sport Kite Association)

01 January, 2012 - AKA (American Kitefliers Association)

01 January, 2012 - STACK (Sport Team and Competitive Kiting)

I. WIND WINDOW AND PRECISION GRID DEFINITIONS

A. Wind Window

The wind window is the area within the roughly semicircular plane described by the greatest height a kite can reach at every angle in front of a stationary flier. The size of the window is limited by the ground, the length of the flying line, the speed of the wind, the skill of the flier, and the flight characteristics of the kite or kites.

B. Center Window

The center of the wind window is directly downwind from the flier (horizontal center) and halfway to the top of the wind window at that location (vertical center).

C. Precision Grid

The backdrop for each figure is a grid that is used as a reference for its correct size, shape, and location. The figures are drawn on a grid 100 units high and 200 units wide—100 units on either side of the horizontal center of the window. The size of a grid unit varies with the length of the flying line used. With 38-meter (125-foot) lines, a grid unit is about 0.3 meter (1 foot). Each 10-unit square on the grid with 38-meter (125-foot) lines would have roughly 3-meter (10-foot) sides. Grid lines at 10-unit intervals are shown in the diagrams, but only where they are necessary to locate the figure within the grid.

NB: In sub-optimal conditions, it may not be possible to fly to all sections of the precision grid unless the flier moves back during the figure. Said another way, some of the precision grid may be outside the wind window.

II. DIAGRAM

The compulsory figure diagram defines the size, shape, and location of each compulsory figure within the precision grid.

All text following in this item now applies only to Multi-Line Teams compulsories:

When there are fewer multi-line team members flying than there are kites shown in a diagram, the selection of kites will be one of the following:

- In numerical order, which means assign the kites flying to the kites in the diagram in 1-2-3 order.
- Evenly spaced and centered between the first and last kite, which means, using the positions of the first and last kites, evenly space the other kite or kites between them.

When there are more multi-line team members flying than there are kites shown in a diagram, the kites will be evenly spaced and centered. That means, using the center of all of the kites as shown in the diagram, arrange all the multi-line team's kites evenly around that center point.

The evenly spaced options are the default. When the numerical order is important, it will be specified in the explanation.

III. EXPLANATION

A. Scoring

Each compulsory is given a single score for the entire figure from the 'IN' call to the 'OUT' call. The score given reflects how closely the figure flown matches the diagram [and satisfies other judging criteria](#).

B. Explanation

If necessary, an explanation or clarification of the components will be provided. Additional remarks or comments about the compulsory and a list of additional components that the compulsory is meant to test may also be provided. This section is not meant to describe the compulsory figure in detail.

C. Shorthand Notation Used in Descriptions

- < as a prefix to a number, denotes a location to the left of the horizontal center of the precision grid.
- > as a prefix to a number, denotes a location to the right of the horizontal center of the precision grid.
- <0> denotes the horizontal center of the precision grid.
- ^ as a prefix to a number, denotes a location above the bottom of the precision grid.

IV. GLOSSARY OF TERMS

A. Position within the Precision Grid

Position within the precision grid is the location of the entire compulsory in the precision grid. All figures are intended to be flown and placed as shown in the diagrams.

B. Relative Placement of Components

Relative placement is the alignment of components within a figure. For any figure, all proportions, angles, traverses, turning points, etc should be executed and placed in relation to each other so that the flight path from "IN " to "OUT " traces the flight path as shown by the diagram

C. Turns

All turns are crisp changes of the flight direction. An adjective may be used with the word "turn" to emphasize some aspect of the turn. If a change of direction is not intended to be a turn, it will be described as an arc or curve.

D. Lines

All lines are straight unless otherwise noted. The term "straight line", while redundant, may be used for emphasis.

1. Horizontal Line

A horizontal line is flown parallel to the horizon.

2. Vertical Line

A vertical line is flown perpendicular to the horizon.

3. Parallel Lines

Parallel lines are an equal distance apart everywhere.

The qualifiers (horizontal, parallel, etc.) are used in the explanation sections to limit the focus to a particular line or lines.

E. Launching

A launch is the transition of a kite from a stationary position on the ground into flight. The control of the kite during the launch and the stability of the flight after the launch are the most important aspects of a launch.

F. Landing

A landing brings the kite to a controlled stop on the ground. A nose-first crash into the ground *is not* a landing. Unless otherwise indicated, no variety of landing is preferred over another.

1. Leading-Edge Landing

A leading-edge landing brings the kite to a controlled stop on the ground with all of one of the leading edges meeting the ground along its full length.

2. Two-Point Landing

For delta-shaped kites, a two-point landing brings the kite to a controlled stop on the ground resting on both wingtips at the same time. For kites with a single leading edge, a two-point landing brings the kite to a stop on the trailing edge.

a) Examples

(1) Snap Two-Point Landing

This is a combination of a snap stall and landing that happens as one movement.

(2) Stall Two-Point Landing

The kite is stalled close to the ground and then put down onto the ground directly.

(3) Spin Two-Point Landing

The kite is spun in a tight circle or part of a circle close to the ground and then put down onto the ground directly.

3. Belly Landing

A belly landing brings the kite to a controlled stop on its front (bridle side) with the nose pointing away from the pilot.

G. Arc

The change of the direction of flight that follows some part of the circumference of a circle. An arc is distinguished from a curve, which does not have a constant radius.

H. Ground Pass

A ground pass is horizontal flight close to the ground. For the purposes of the explanations herein, the maximum height of the lower wingtip off the ground is defined as half the distance between wingtips. Flying closer to the ground is not rewarded or penalised. When the ground is not horizontal, the height of a groundpass is measured from the highest point traversed.

I. Nose

The nose is the forwardmost part of the kite in forward flight. For delta-shaped kites, it is the junction of the leading edges. For kites with a single leading edge, it is that leading edge. The coordinate positions shown in the diagrams are given for the nose of the kite unless otherwise indicated.

J. Stall (Stop)

The kite comes to an obvious momentary stop.

1. Push Stall

A push stall stops the movement of the kite without changing the kite's orientation.

2. Snap Stall

A snap stall stops the movement of the kite and brings the kite into a nose-up orientation in one motion.

K. Axel

An axel is a 360° flat spin rotation of the kite with the front parallel to the ground. It starts and ends with the nose pointing toward the flier.

L. Speed Control

For individual figures, speed control means maintaining a constant speed throughout the figure.

For pair and team figures, speed control also refers to the relative change of velocity among the kites needed to open or close distances between them as demanded by some figures. Speed control is a consideration in all compulsory figures.

M. Spacing

For pair and team figures, spacing refers to the uniform distance maintained between kites. A change to the distance between kites may be necessary during a figure, but it is the uniformity of spacing that is important. Spacing is a consideration in all pair and team compulsory figures.

N. Circle

A circle is a continuous arc, ending at the same point as it began.

O. Multi-line–Specific Terms

1. Diagonal Flight

The kite flies in a straight diagonal line with the kite in a constant orientation.

2. Inverted Flight

The kite flies in any direction with the nose pointed down.

3. Backward Flight

The kite flies in the opposite direction from the direction the nose is pointing. Backward flight is also inverted flight if the nose is pointing down.

4. Forward Flight

The kite flies in the direction the nose is pointing.

5. Rotation (Spin)

The kite rotates with a designated part of the kite as the center of rotation. The most common points of rotation are the center of the kite or one of its wingtips. Unless otherwise specified, rotations are stationary. That is, the point of rotation does not move.

6. Slide

The kite moves horizontally across the window with the nose pointing up (horizontal slide) or vertically in the window with the nose pointing to the left or right (vertical slide).

7. Inverted Slide

The kite moves horizontally across the window with the nose pointing down.

V. COMPULSORY FIGURES

A. Obsoleted Compulsory Figures (since ISKCB Version 2.1)

None

B. New Compulsory Figures (since ISKCB Version 2.1)

None

C. Changes to Compulsory Figures (since ISKCB Version 2.1)

All text has been revised to combine the former “Critical Components” and “Other Components” under the new heading, “Judges will Particularly Consider.”

MI22 has been clarified to state the arcs are to be flown in a forward direction per the IRBC Bulletin of 1 August 2007.

D. Present Compulsory Figures Information

In the following items E, F, G, H, I and J are the presently approved compulsories for sanctioned competitions.

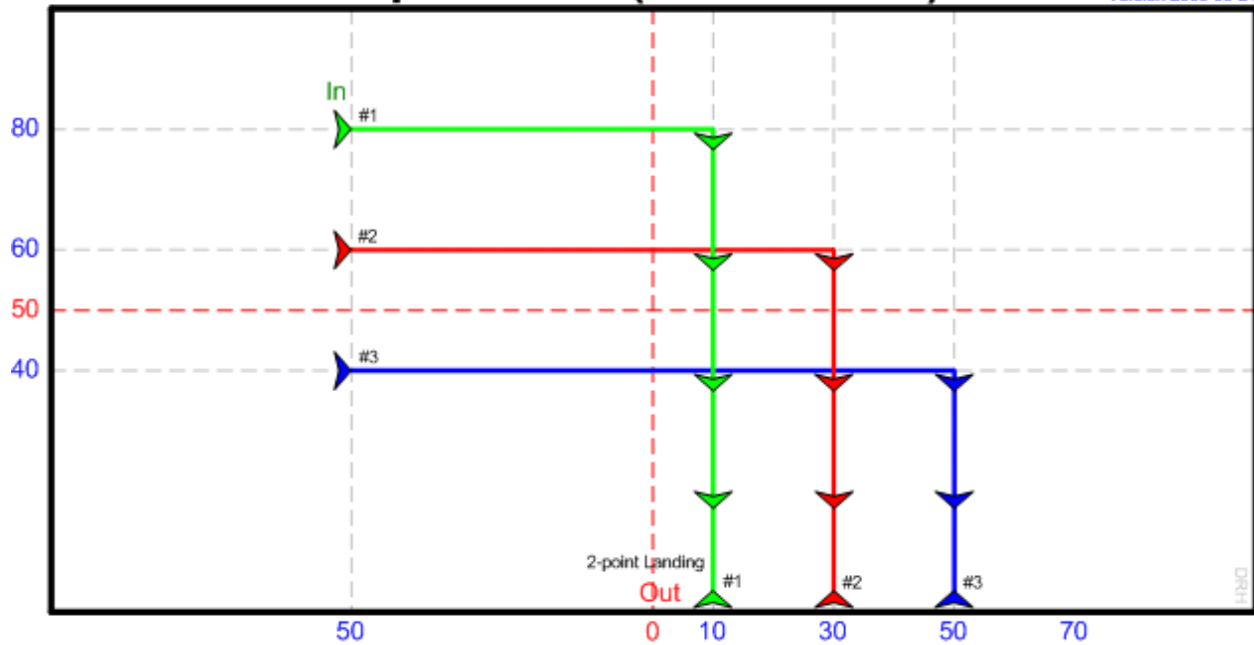
Any other compulsory figures used for sanctioned competitions must be approved by the IRBC and the respective sanctioning authority. This includes any text or graphical changes to present compulsory figures.

G. Dual-line Team Compulsory Figures

- **DT 02 - Pick-up Sticks** - 2005-07-07 - *text 2009-08-06*
- **DT 03 - Follow, Flank Up, and Square** - 2005-07-07 - *text 2009-08-06*
- **DT 04 – Team Hairpin** - 2011-12-05 - *text 2011-12-05*
- **DT 05 - Arch de Triomph** - 2005-07-07 - *text 2009-08-06*
- **DT 07 - Sorted Rectangle** - 2005-07-07 - *text 2009-08-06*
- **DT 08 - The Basket** - 2005-07-07 - *text 2009-08-06*
- **DT 10 - Team Diamonds** - 2005-07-07 - *text 2009-08-06*
- **DT 11 - Cascade** - 2005-07-07 - *text 2009-08-06*
- **DT 12 – Loops and Vertical Threads** - 2005-07-07 - *text 2009-08-06*
- **DT 14 - HaveFun** - 2005-07-07 - *text 2009-08-06*
- **DT 15 - Solaris** - 2005-07-29 - *text 2009-08-06*
- **DT 16 - Team Square Cuts** - 2011-12-05 - *text 2011-12-05*

DT 02 - Pick-up Sticks (3 man team)

Version 2006-06-21



DT 02 – Pick-up Sticks

Version 2006-06-30

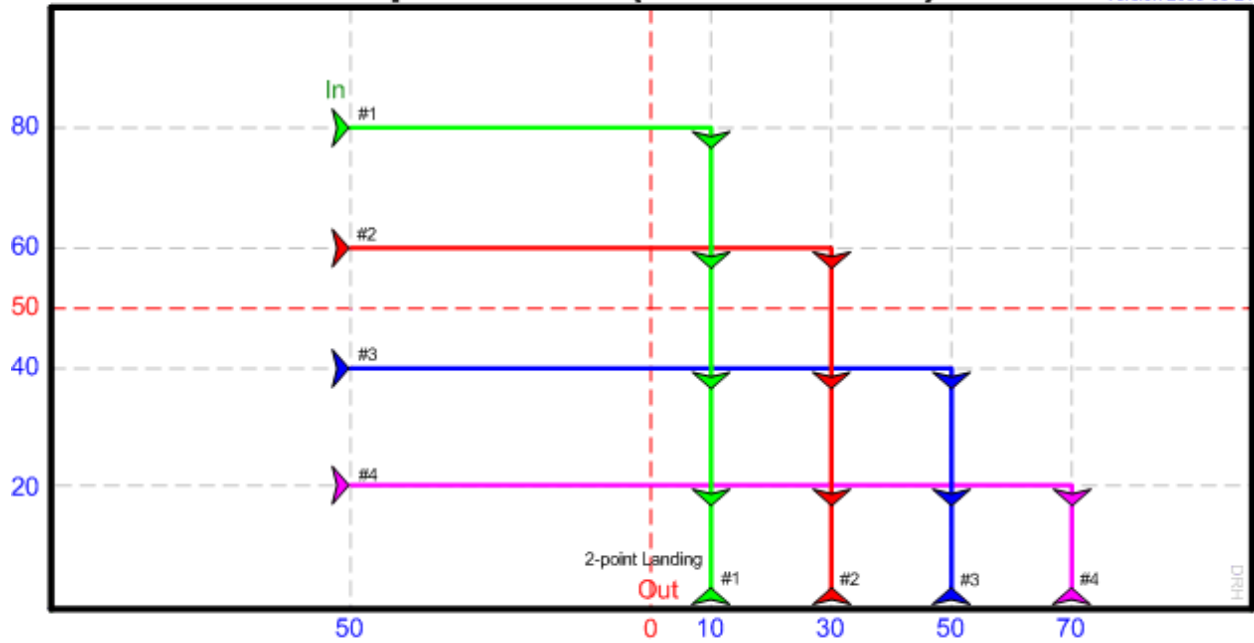
Judges will Particularly Consider

- Relative placement of components
- Speed control
- Straight lines
- Landing

Explanation

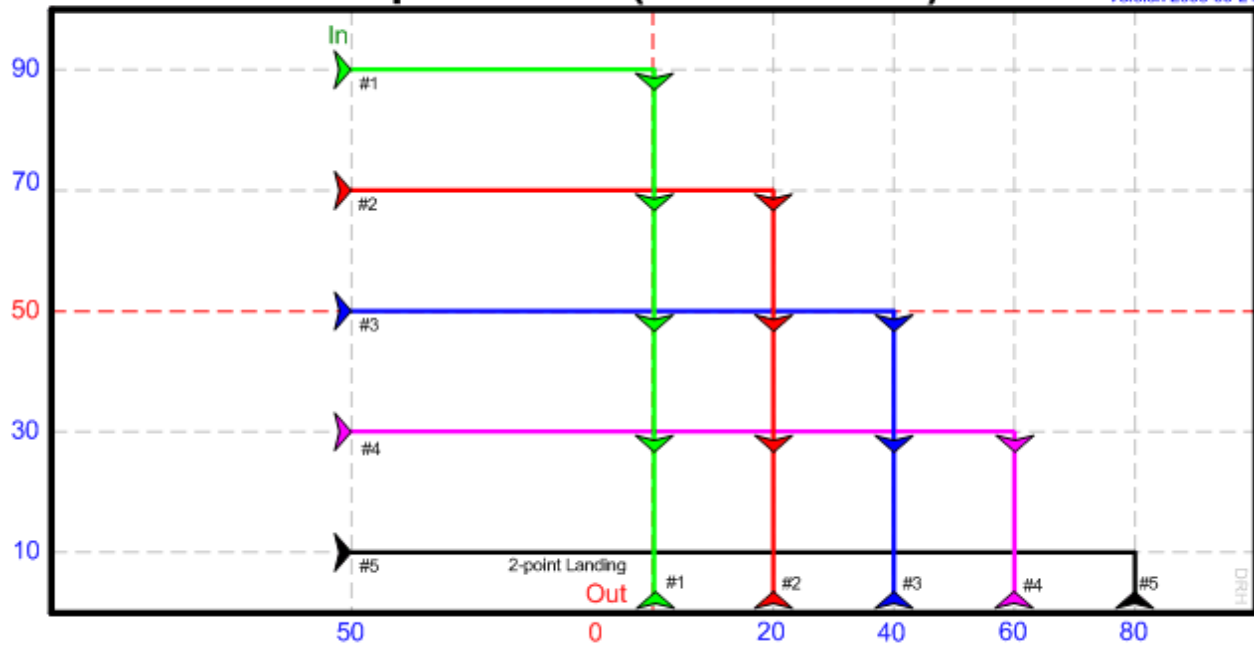
DT 02 - Pick-up Sticks (4 man team)

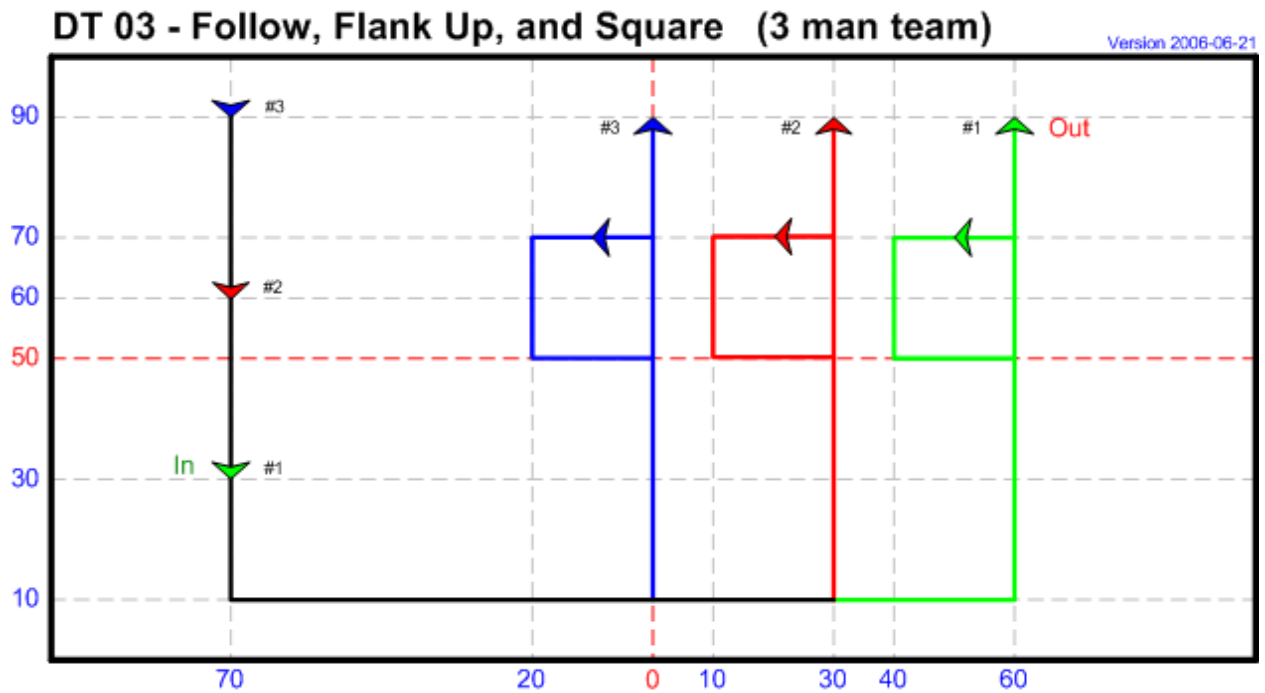
Version 2006-06-21



DT 02 - Pick-up Sticks (5 man team)

Version 2006-06-21





DT 03 – Follow, Flank Up, and Square

Version 2005-07-07

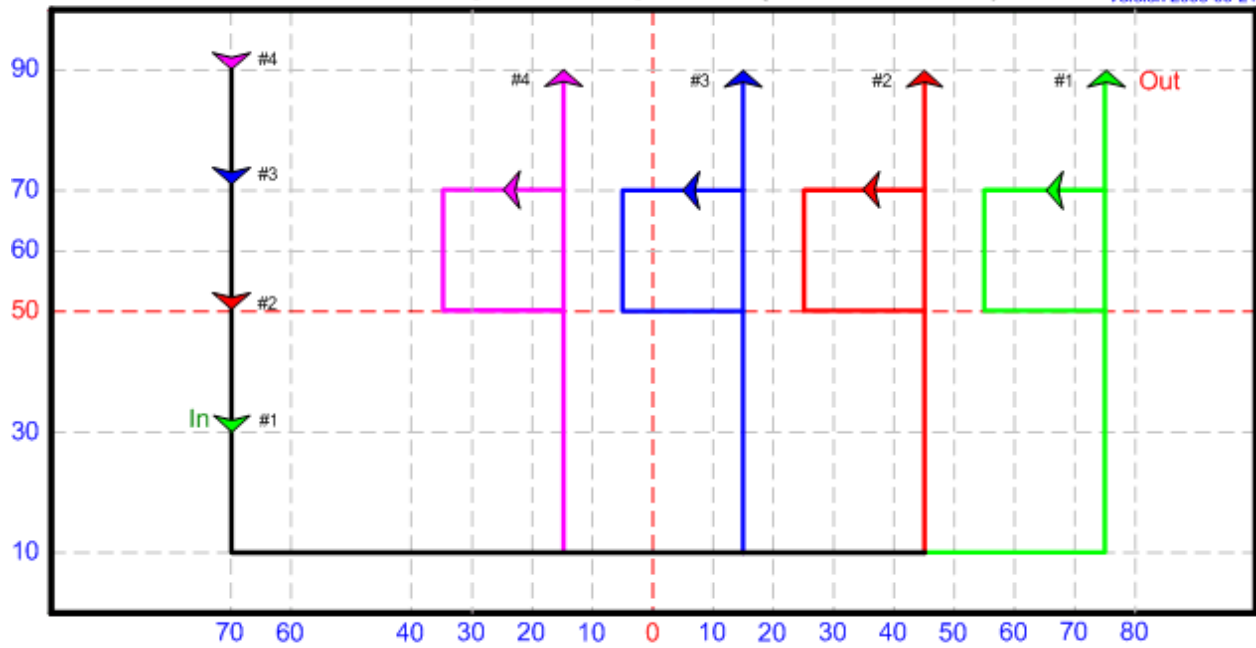
Judges will Particularly Consider

- Parallel lines
- Right angles
- Relative placement of components
- Timing

Explanation

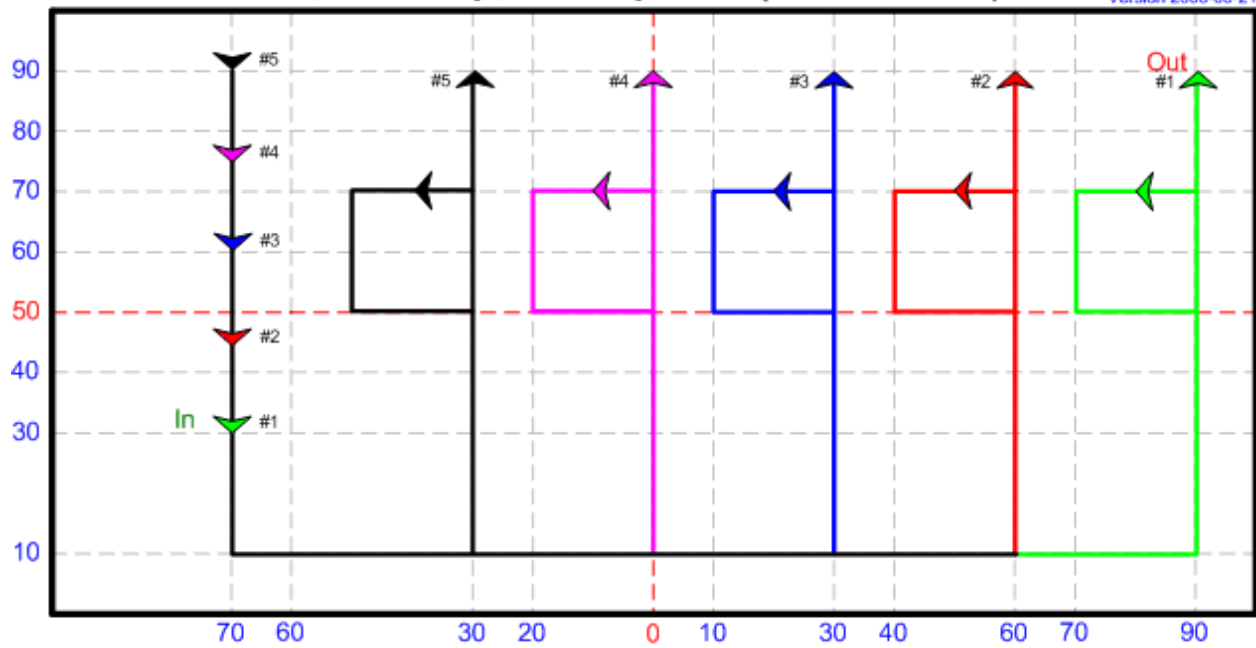
DT 03 - Follow, Flank Up, and Square (4 man team)

Version 2006-06-21



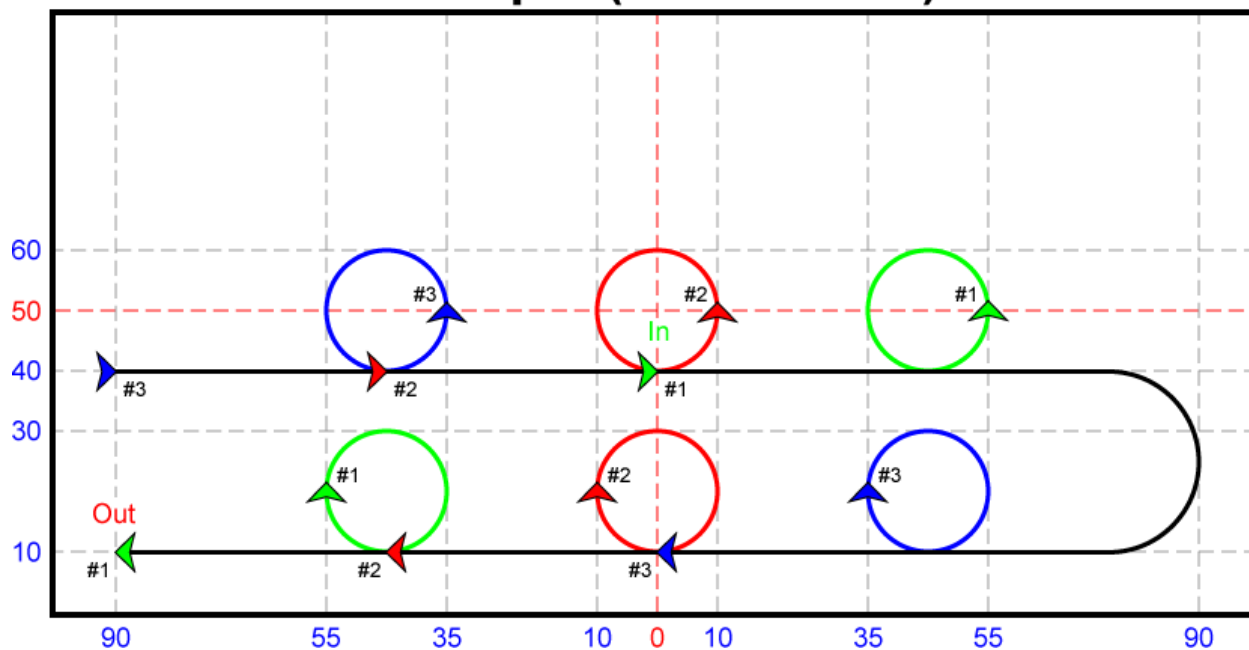
DT 03 - Follow, Flank Up, and Square (5 man team)

Version 2006-06-21



DT 04 - Team Hairpin (3 man team)

Version 2011-12-05



DT 04 – Team Hairpin

Version 2011-12-05

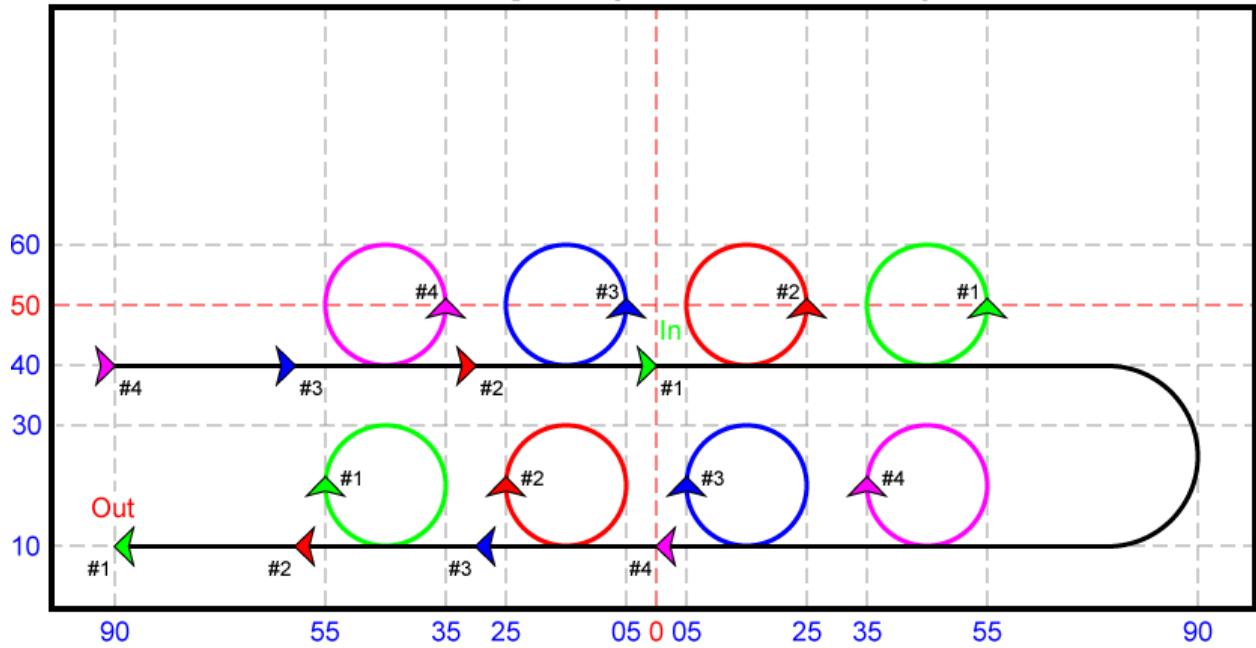
Judges will Particularly Consider

- Matching size of circles
- Matching placement of kites within their respective circles
- Even spacing throughout
- Position within the precision grid
- Relative placement of components

Explanation

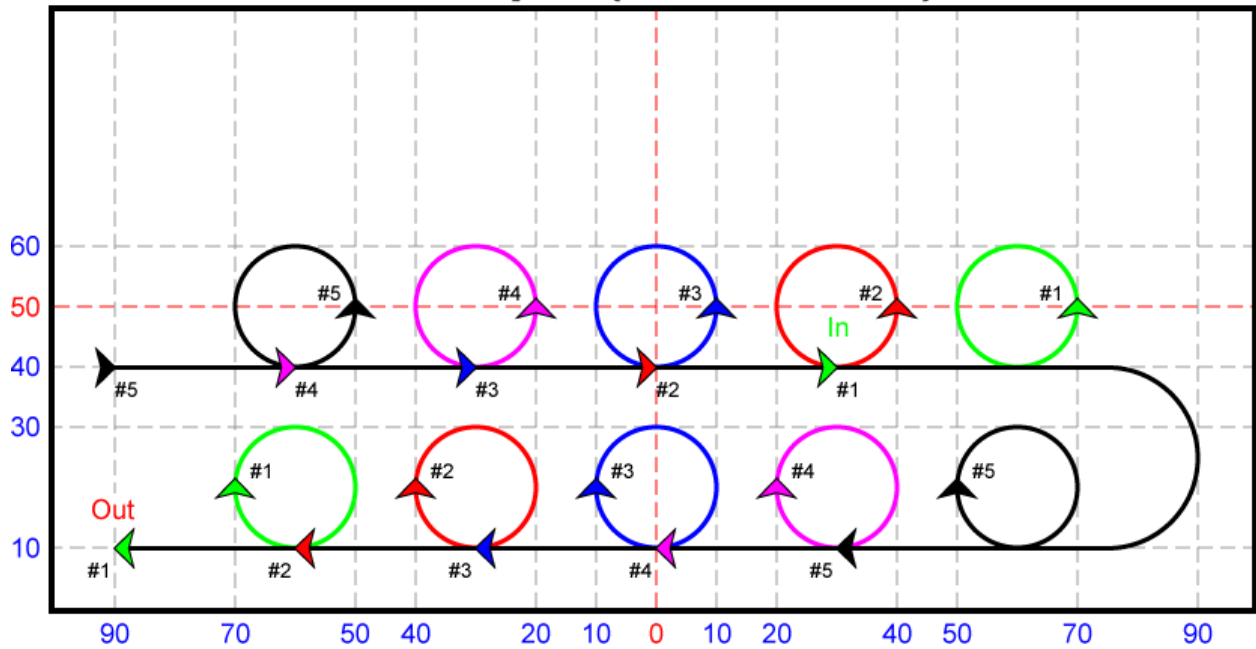
DT 04 - Team Hairpin (4 man team)

Version 2011-12-05



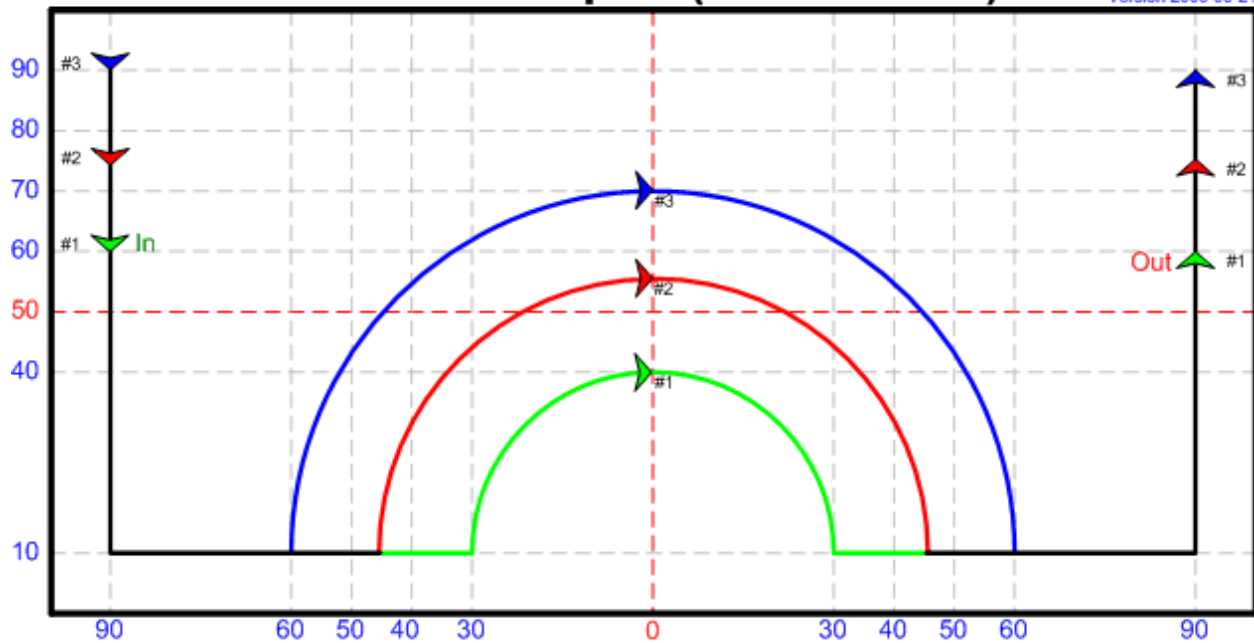
DT 04 - Team Hairpin (5 man team)

Version 2011-12-05



DT 05 - Arch de Triomph (3 man team)

Version 2006-06-21



DT 05 – Arch de Triomph

Version 2005-07-07

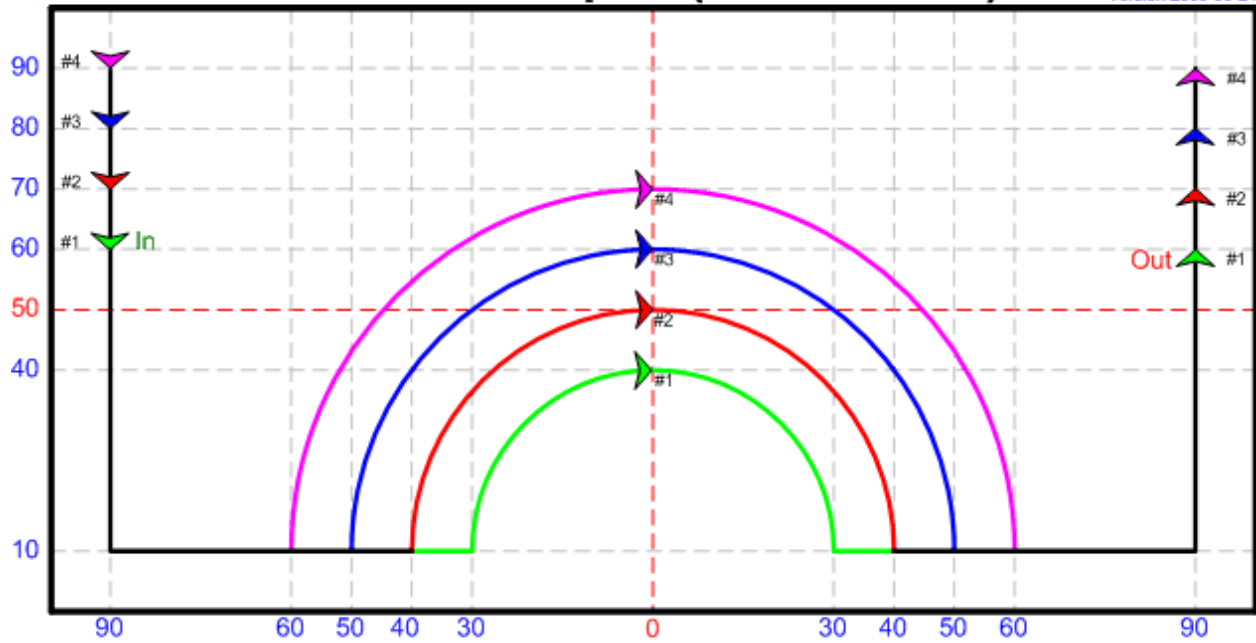
Judges will Particularly Consider

- Speed control
- Arcs
- Relative placement of components
- Position within the precision grid
- Timing

Explanation

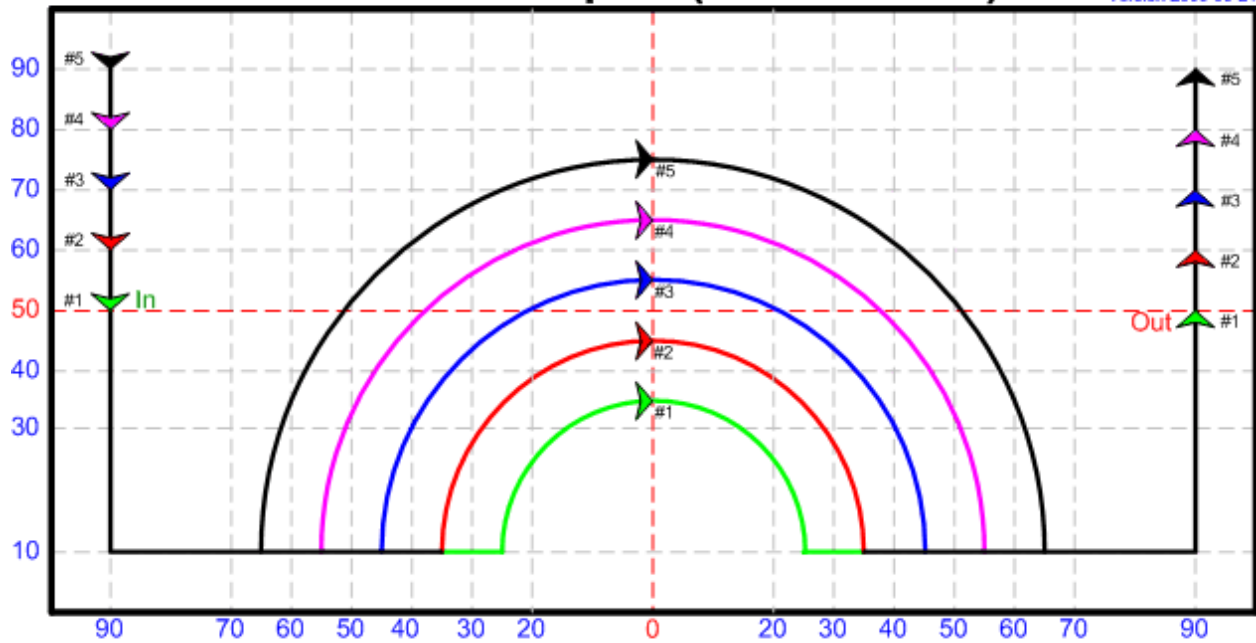
DT 05 - Arch de Triomphe (4 man team)

Version 2005-06-21



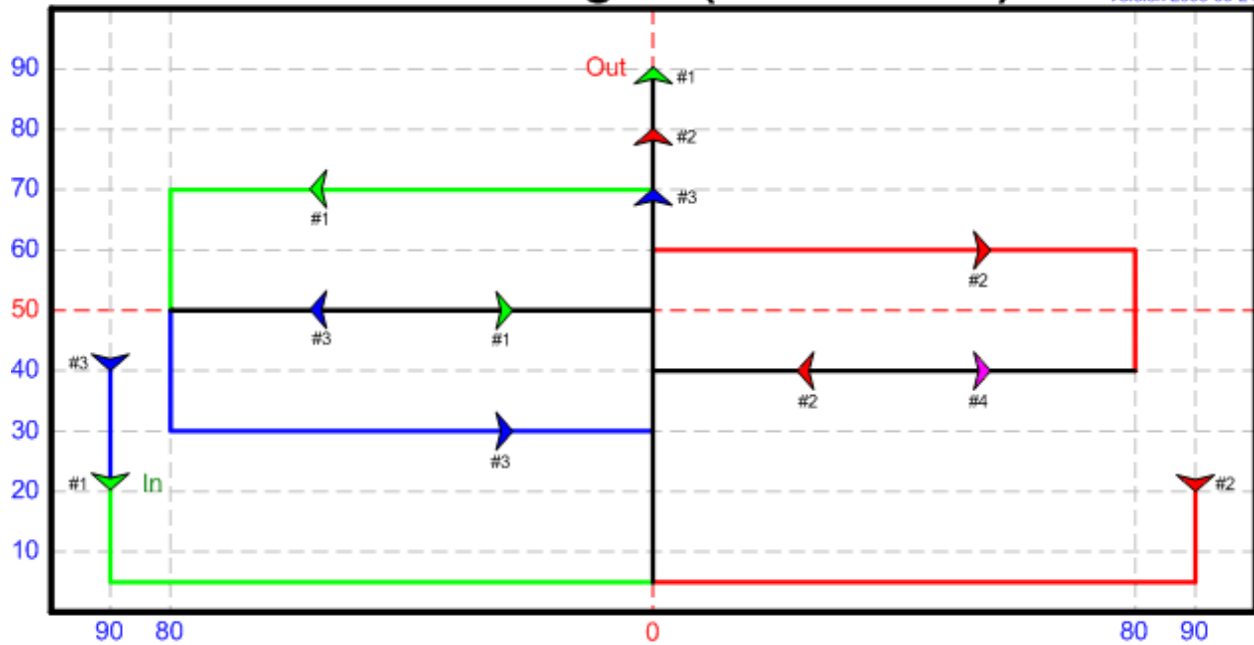
DT 05 - Arch de Triomphe (5 man team)

Version 2006-06-21



DT 07 - Sorted Rectangle (3 man team)

Version 2006-06-21



DT 07 – Sorted Rectangle

Version 2006-06-30

Judges will Particularly Consider

- Timing
- Relative placement of components
- Ground pass
- Parallel lines

Explanation

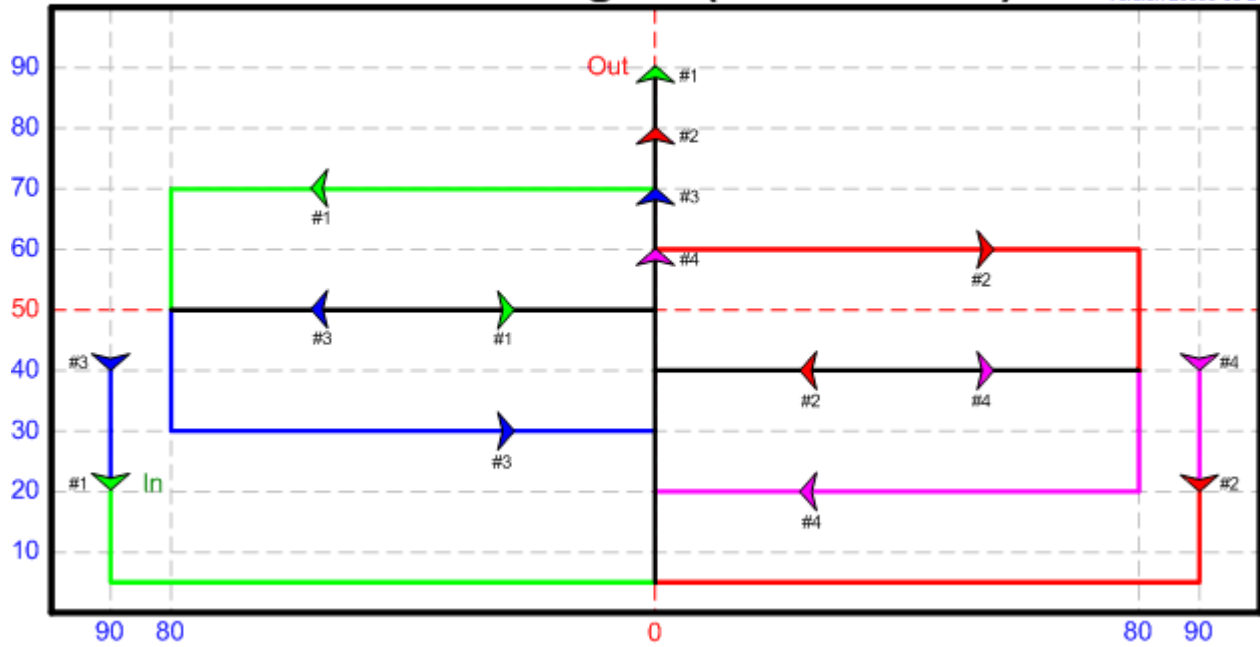
Kites come down from the outside of the window and turn toward the center into a ground pass.

A zipper-merge is performed as the kites turn to go up the center of the window.

Kites alternate going left and right into rectangles that meet back at center window.

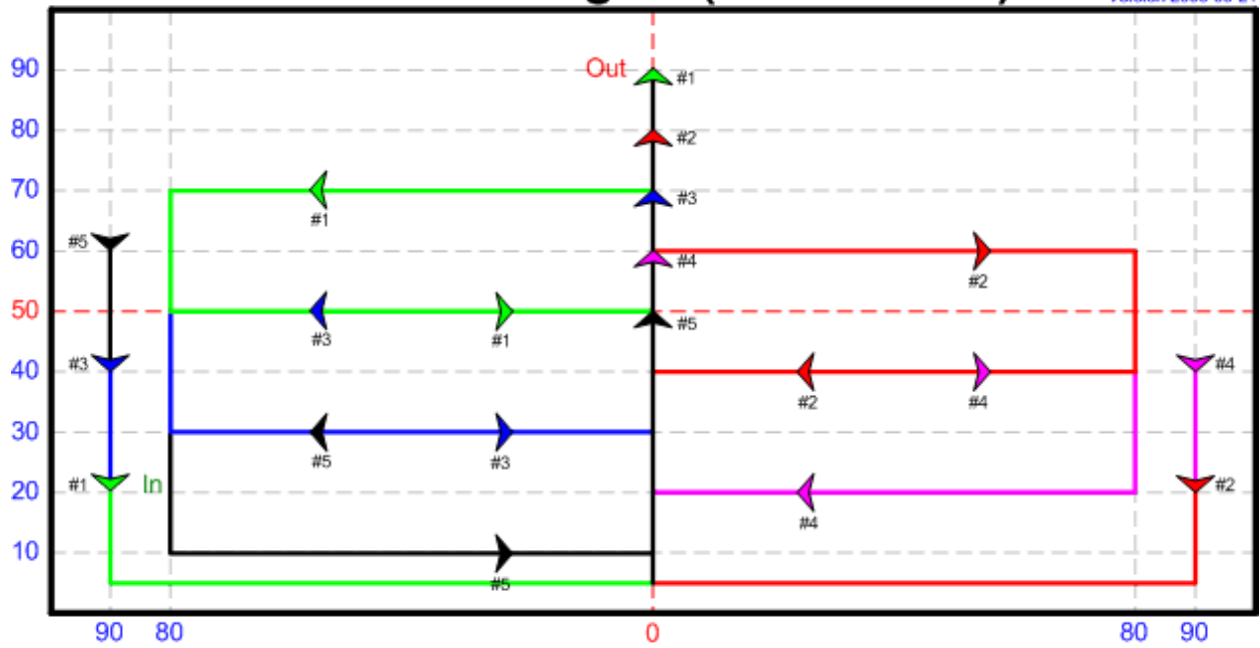
DT 07 - Sorted Rectangle (4 man team)

Version 20056-06-21



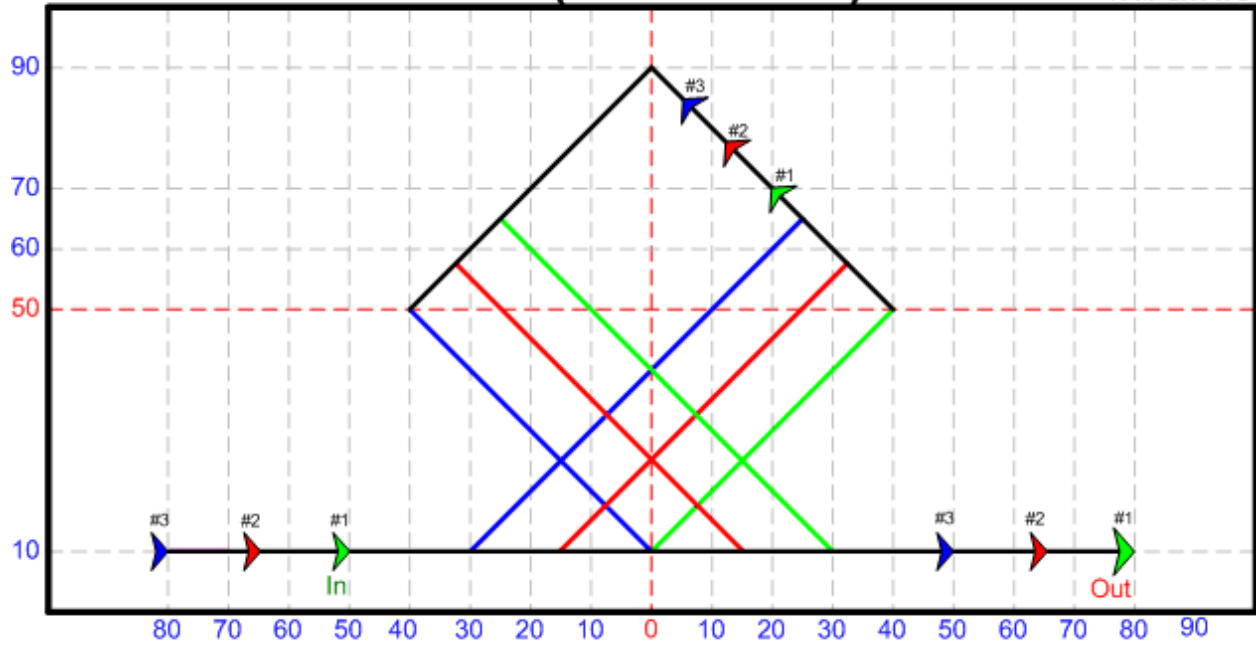
DT 07 - Sorted Rectangle (5 man team)

Version 2006-06-21



DT 08 - The Basket (3 man team)

Version 2006-06-21



DT 08 – The Basket

Version 2005-07-07

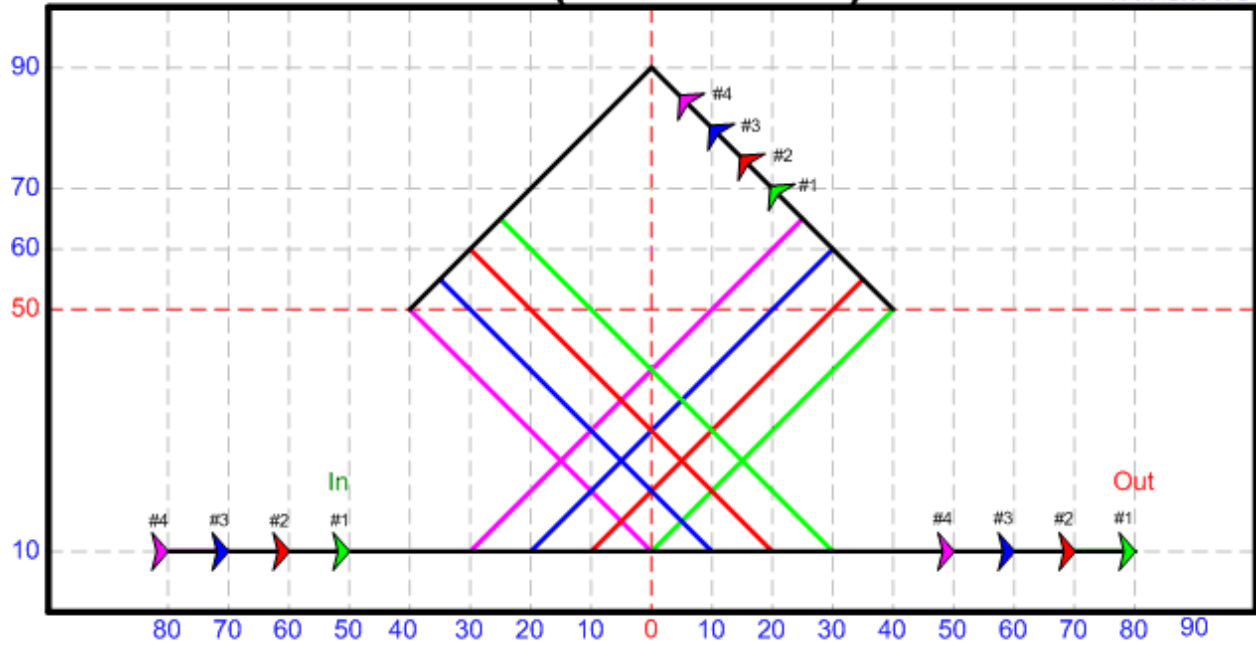
Judges will Particularly Consider

- Speed control
- Spacing
- Timing
- Right angles
- Parallel lines

Explanation

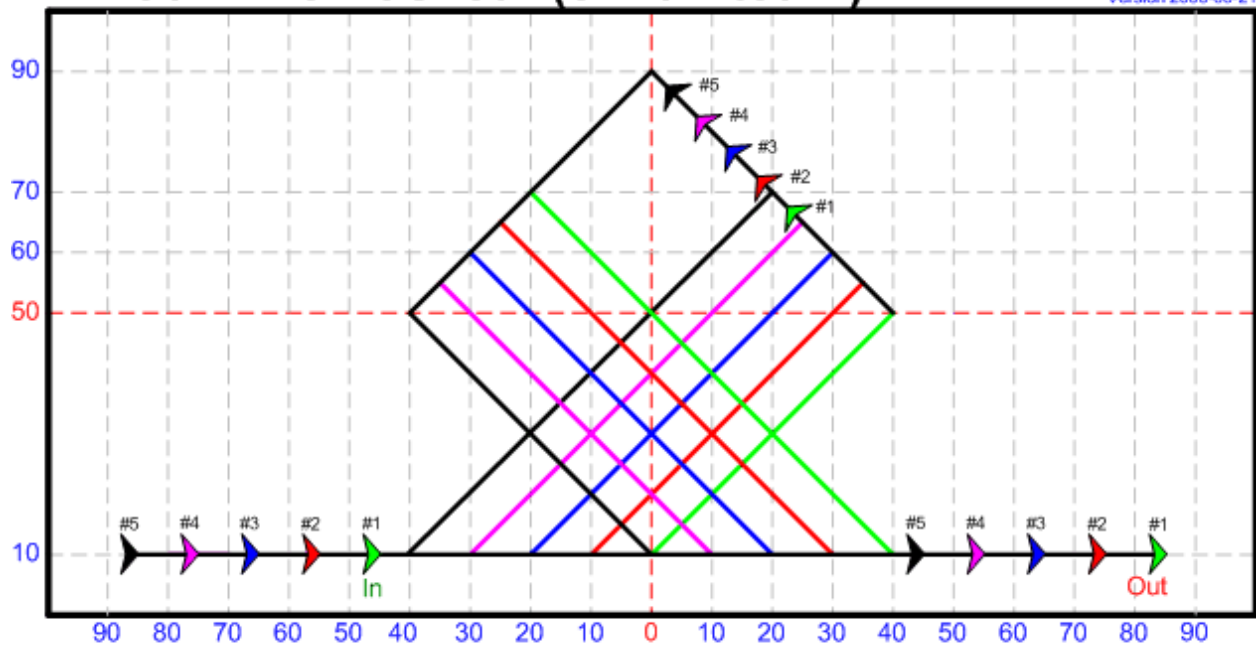
DT 08 - The Basket (4 man team)

Version 2006-06-21



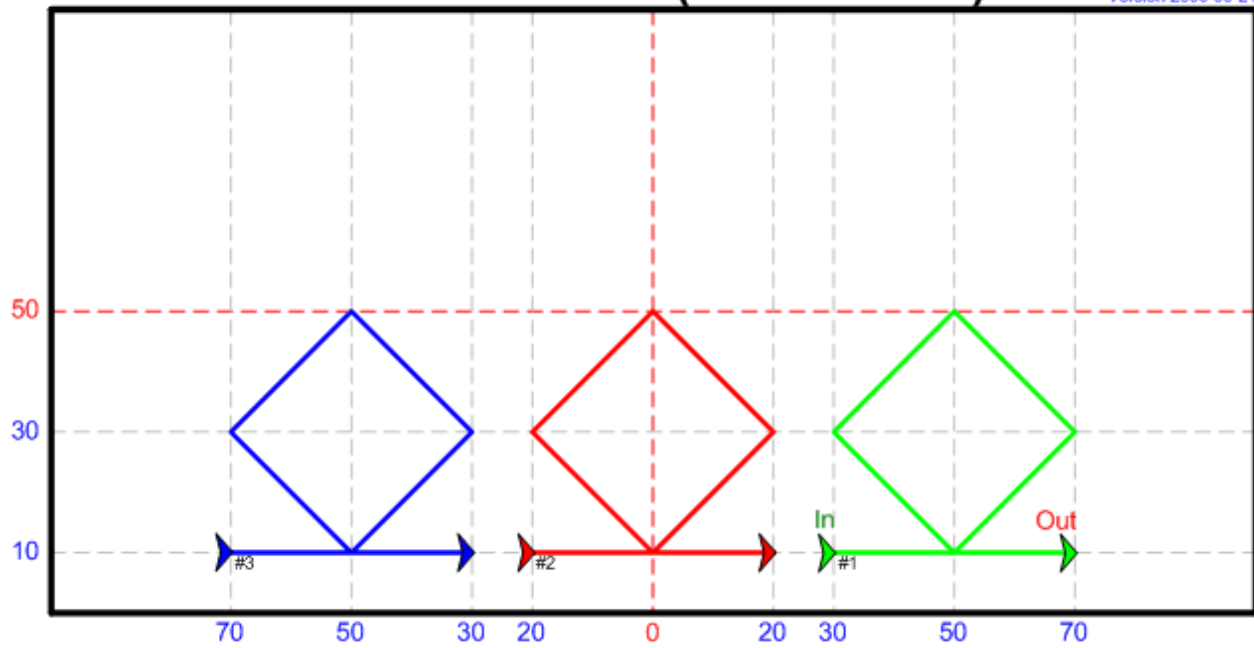
DT 08 - The Basket (5 man team)

Version 2006-06-21



DT 10 - Team Diamonds (3 man team)

Version 2006-06-21



DT 10 – Team Diamonds

Version 2006-06-30

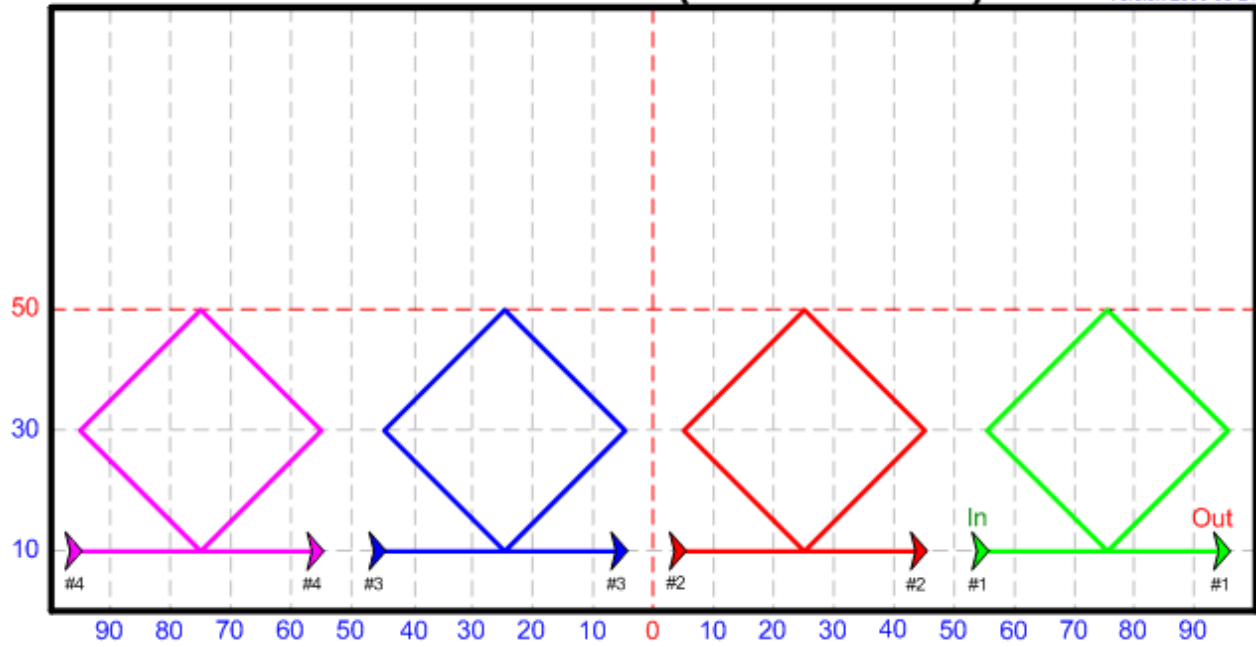
Judges will Particularly Consider

- Timing
- Relative placement of components
- Spacing
- Right angles

Explanation

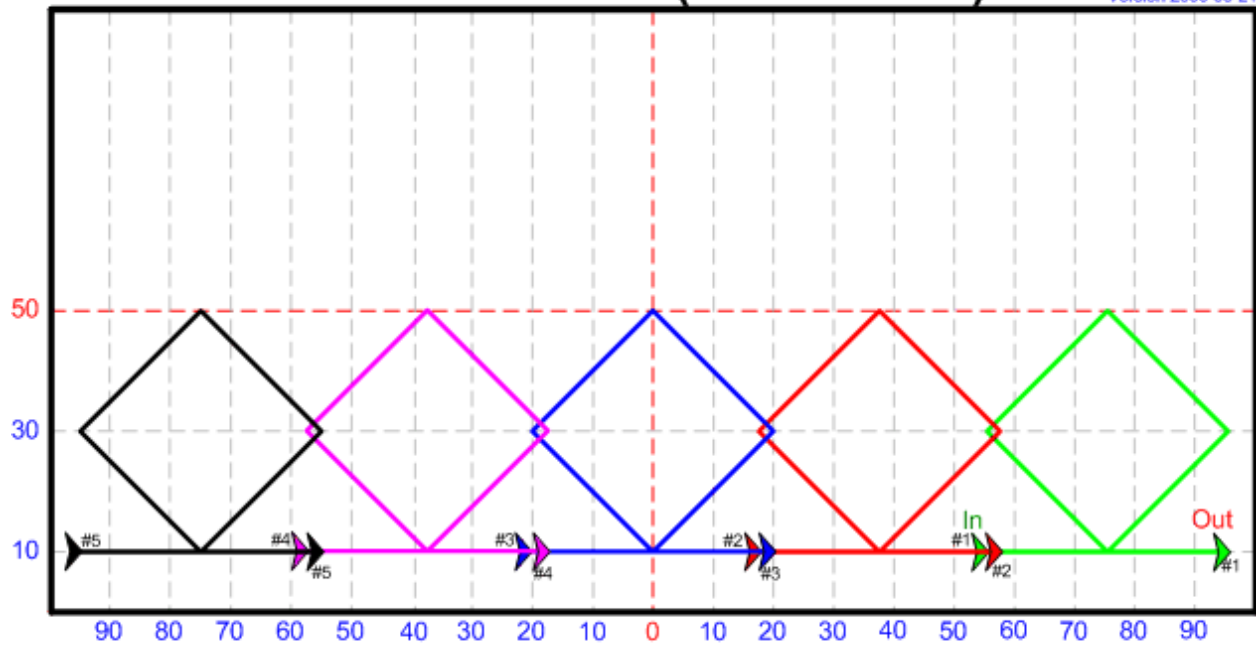
DT 10 - Team Diamonds (4 man team)

Version 2006-06-21



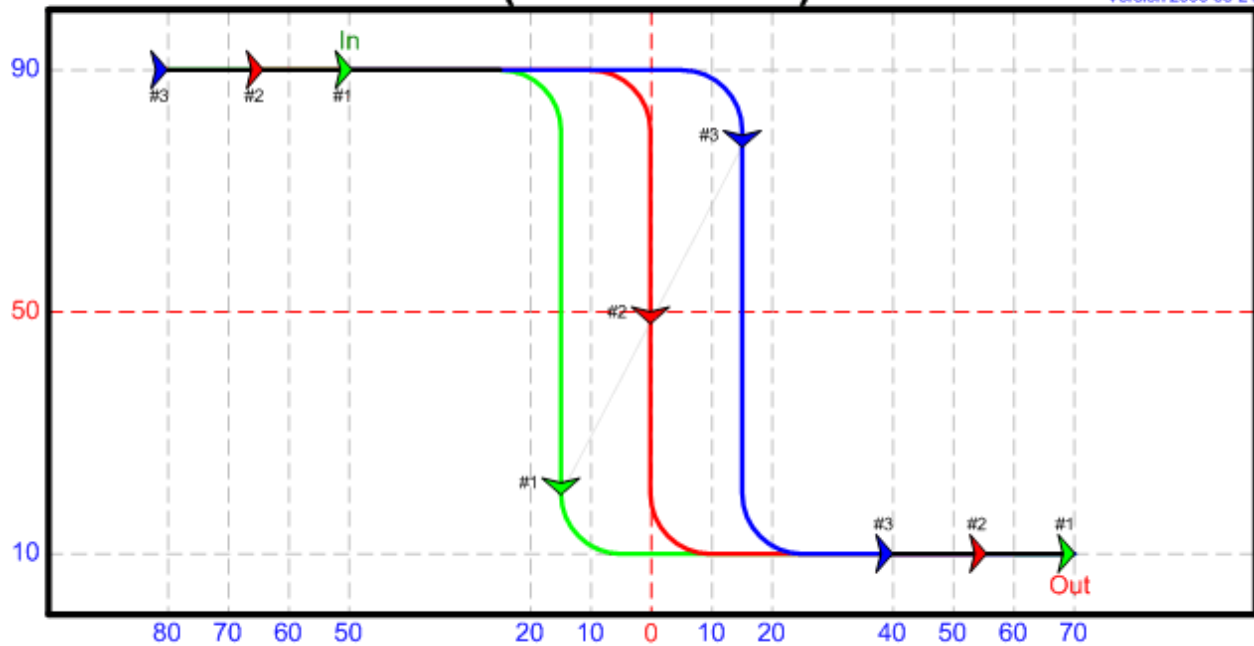
DT 10 - Team Diamonds (5 man team)

Version 2006-06-21



DT 11 – Cascade (3 man team)

Version 2006-06-21



DT 11 – Cascade

Version 2006-06-30

Judges will Particularly Consider

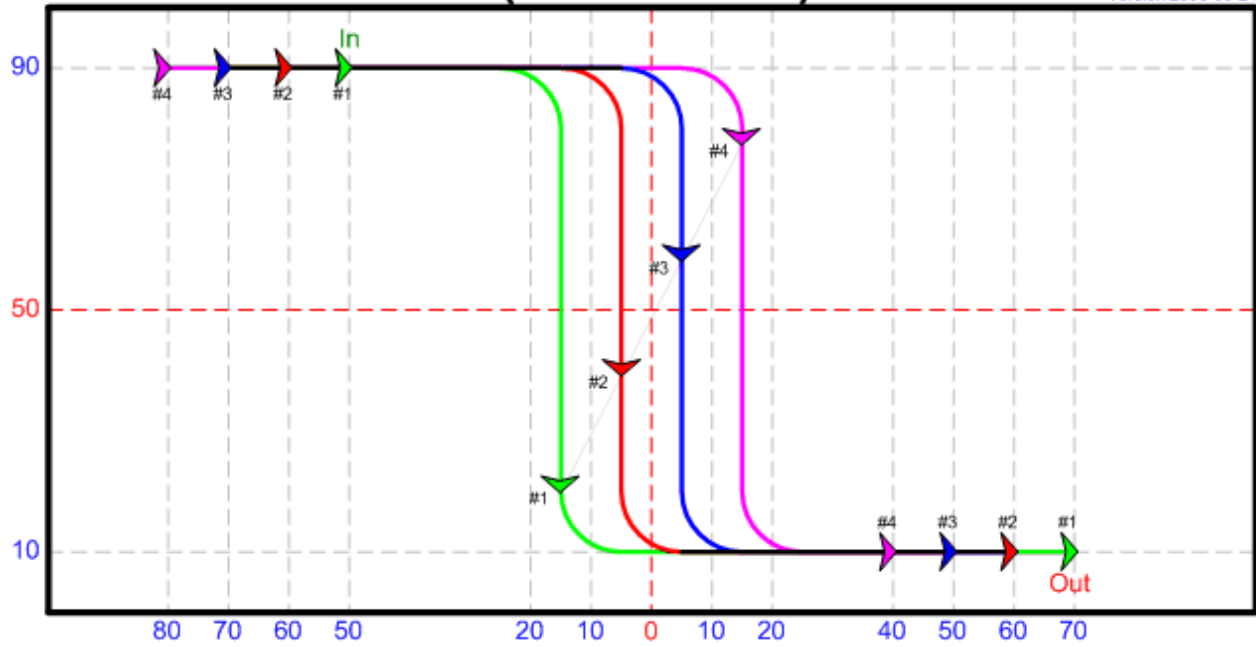
- Speed control
- Position within the precision grid
- Spacing
- Parallel lines

Explanation

Smooth transitions from horizontal to vertical and again to horizontal. All kites when flying down should be on the same diagonal line just before the first kite flies out and after the the last kite has already flown into the down flight.

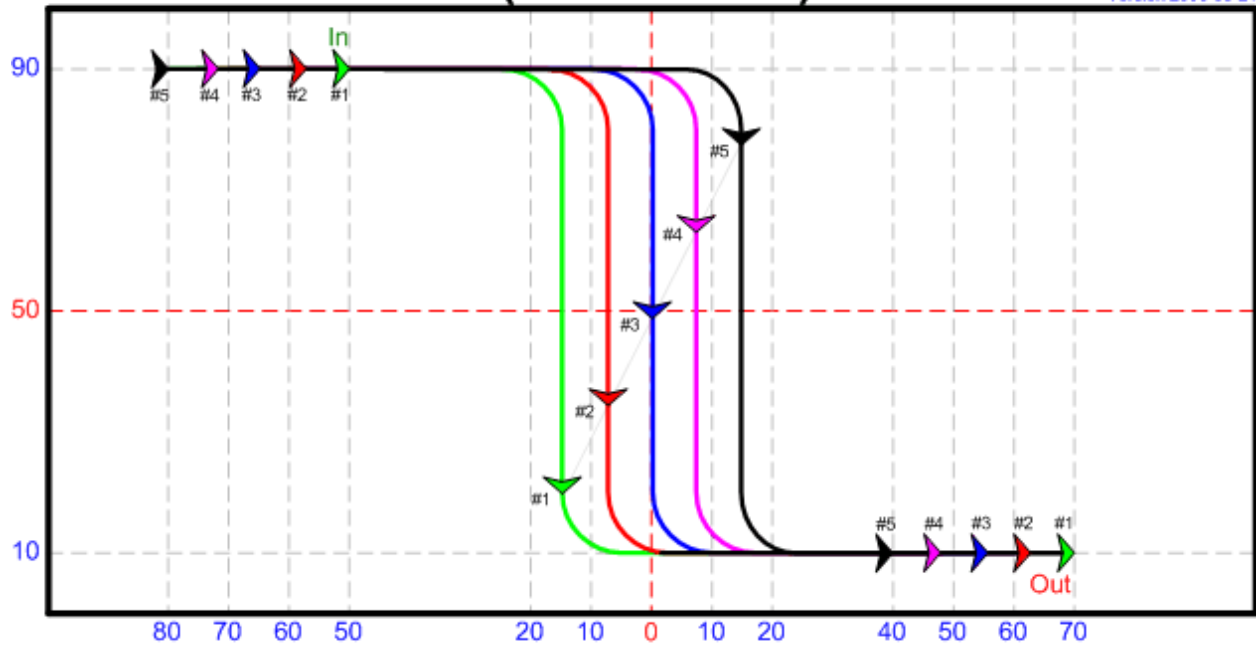
DT 11 – Cascade (4 man team)

Version 2006-06-21



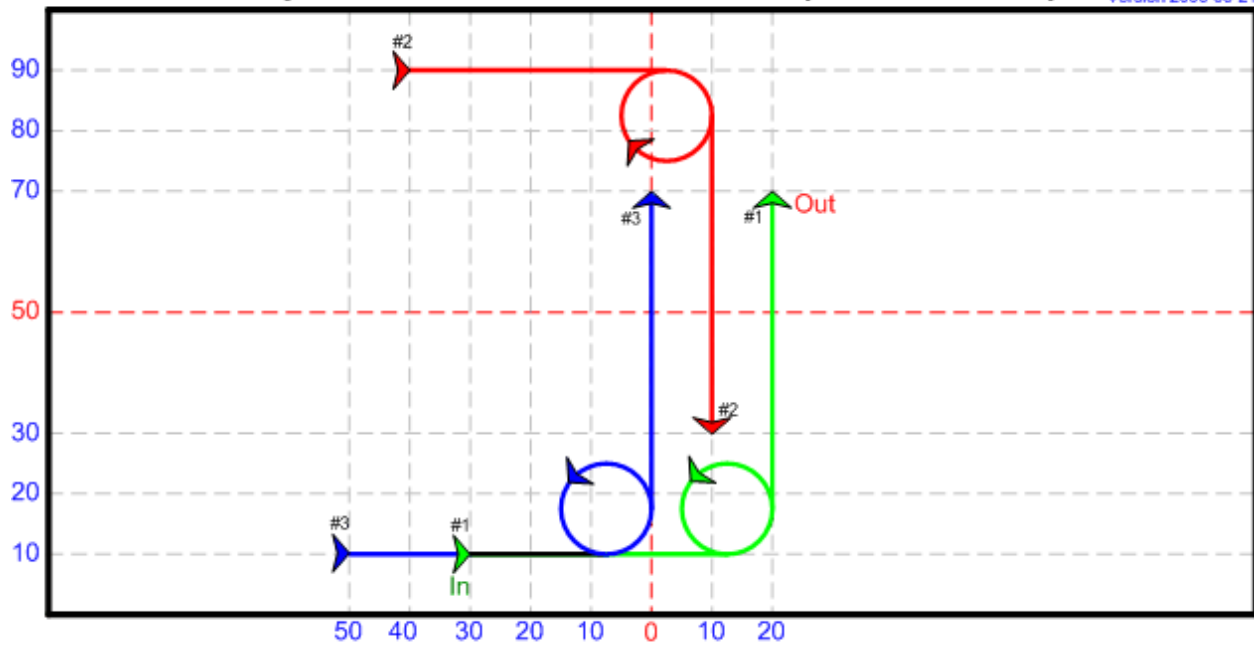
DT 11 – Cascade (5 man team)

Version 2006-06-21



DT 12 - Loops and Vertical Threads (3 man team)

Version 2006-06-21



DT 12 – Loops and Vertical Threads

Version 2006-06-30

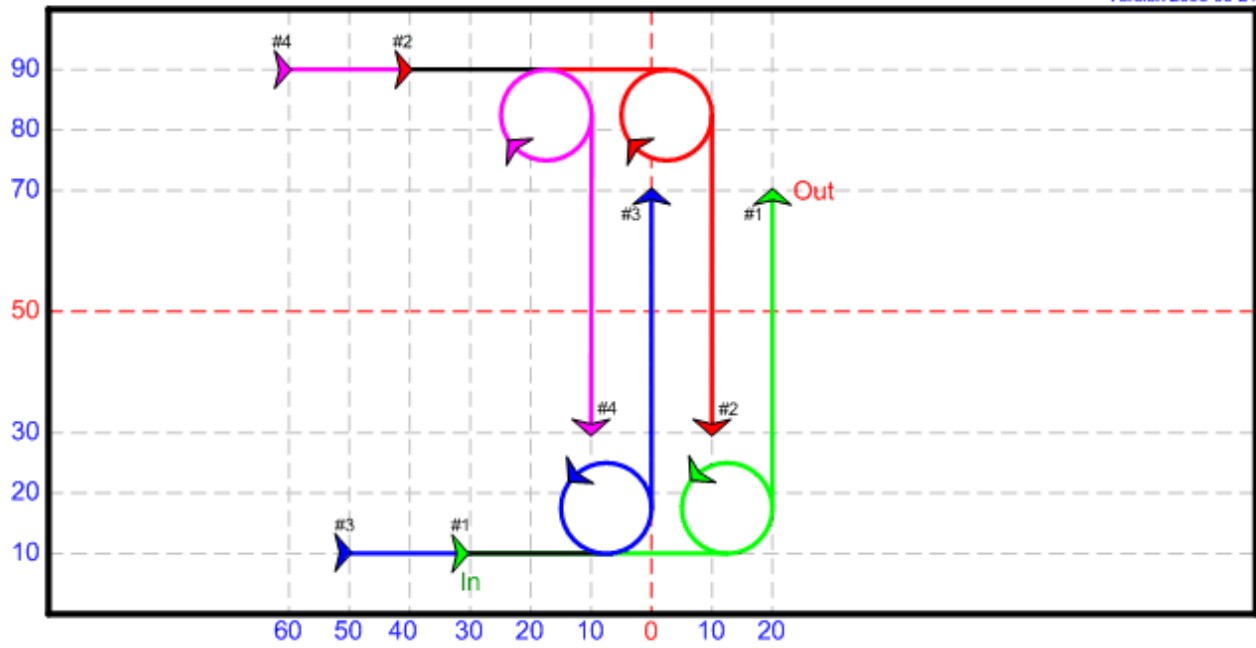
Judges will Particularly Consider

- Circles
- Relative placement of components
- Speed control
- Position within the precision grid
- Parallel lines

Explanation

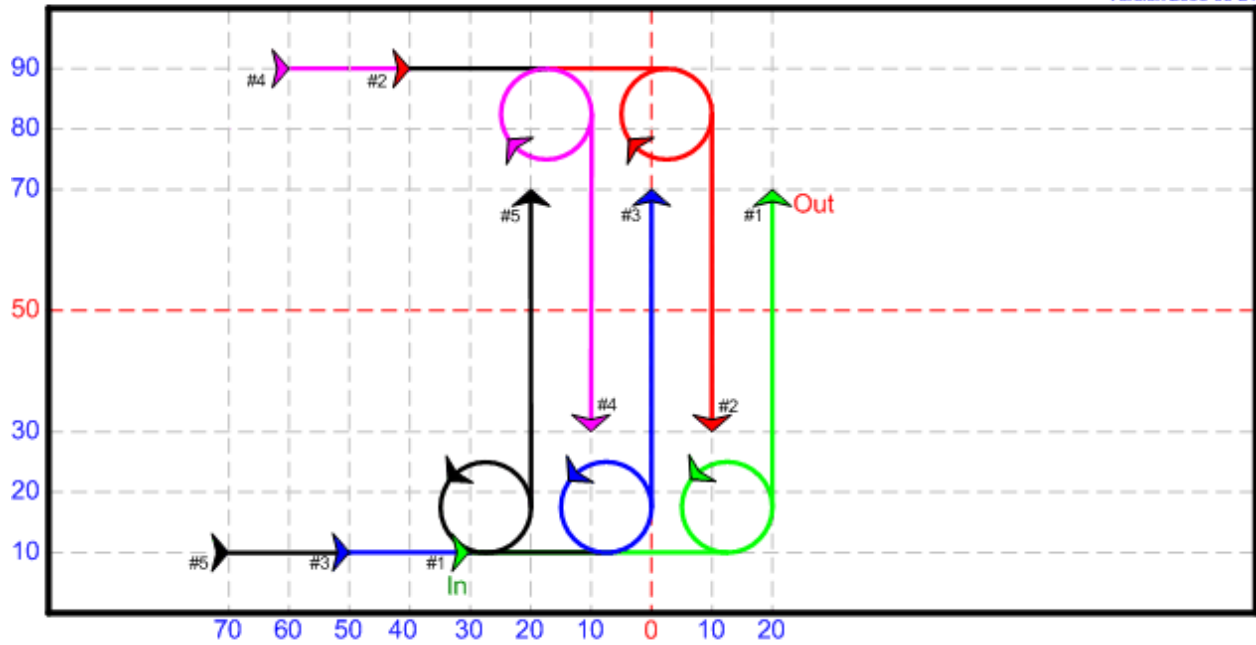
DT 12 - Loops and Vertical Threads (4 man team)

Version 2006-06-21



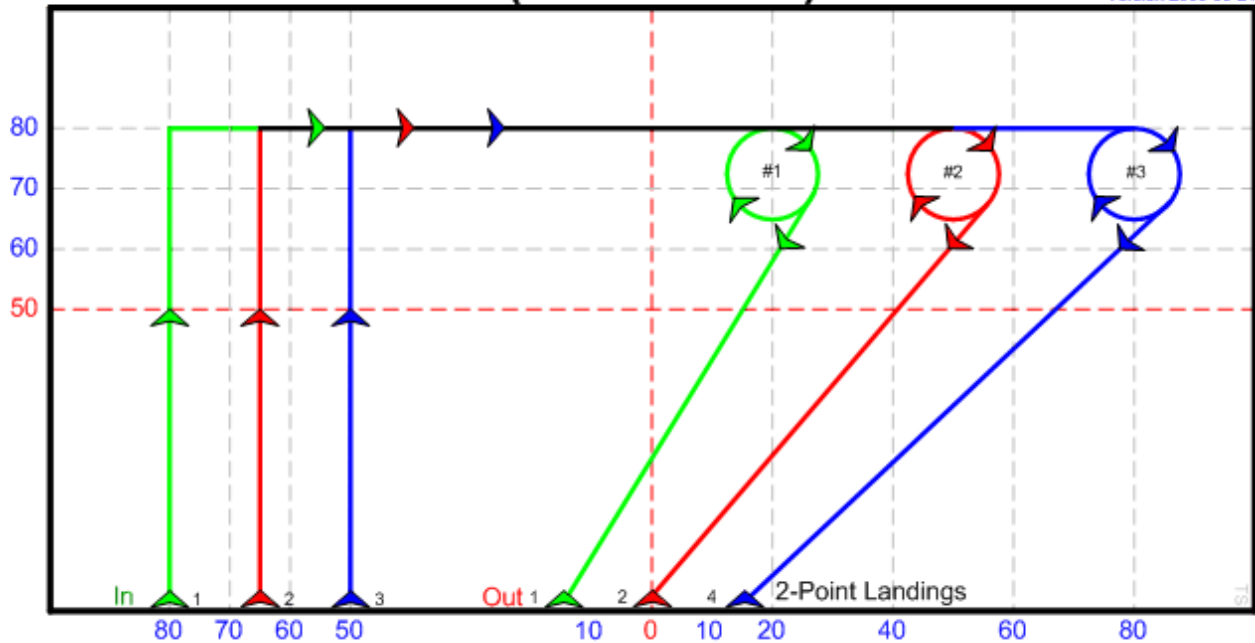
DT 12 - Loops and Vertical Threads (5 man team)

Version 2006-06-21



DT 14 – HaveFun (3 man team)

Version 2006-06-21



DT 14 - HaveFun

Version 2005-08-01

Judges will Particularly Consider

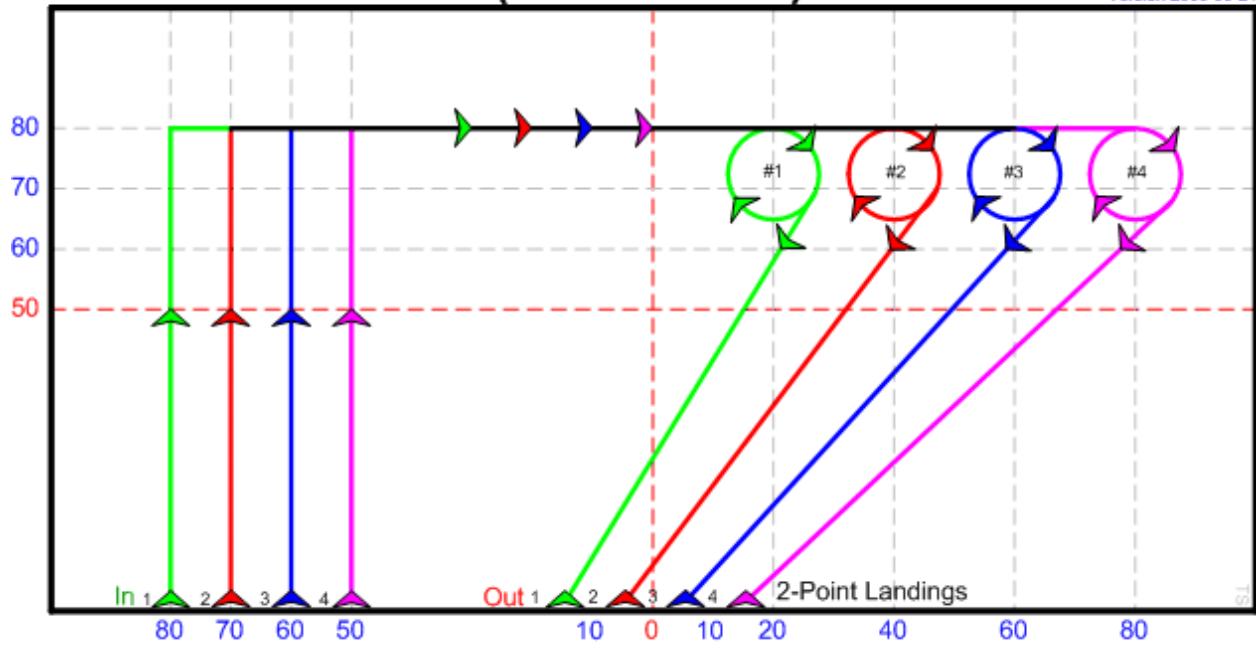
- Timing
- Landing
- Lines
- Turns
- Arcs

Explanation

Kites are to be horizontal to each other through the entire maneuver. Landing is to be 2-point; entry will be from a clockwise direction.

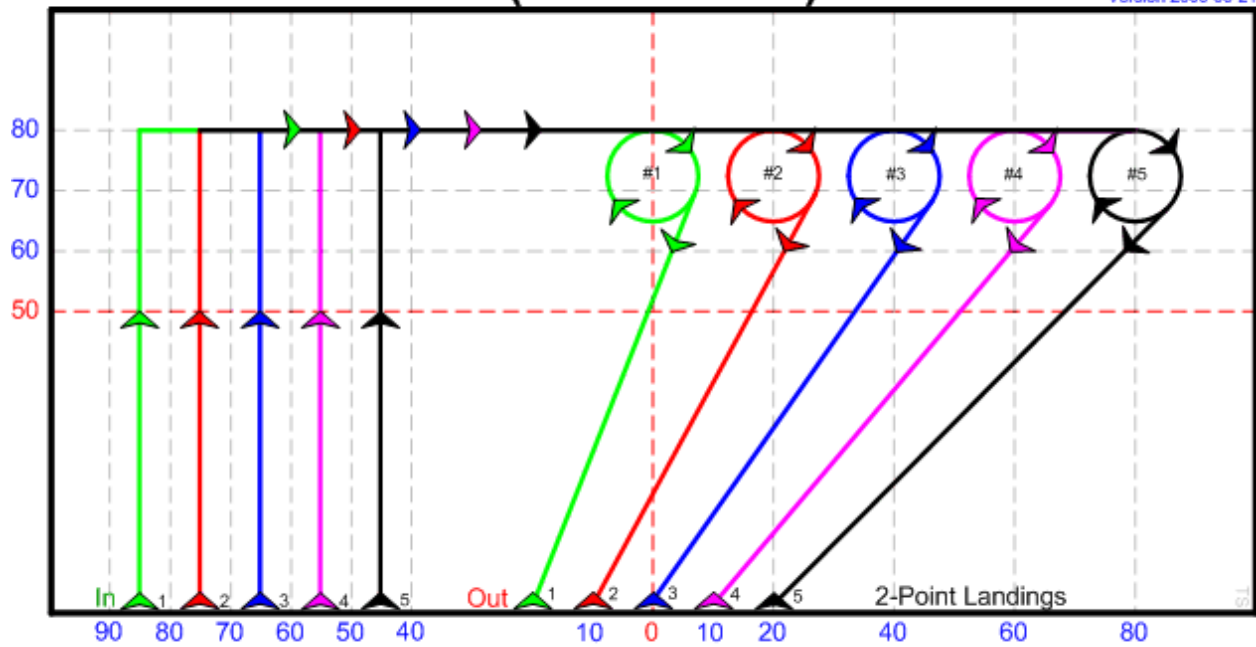
DT 14 – HaveFun (4 man team)

Version 2006-06-21



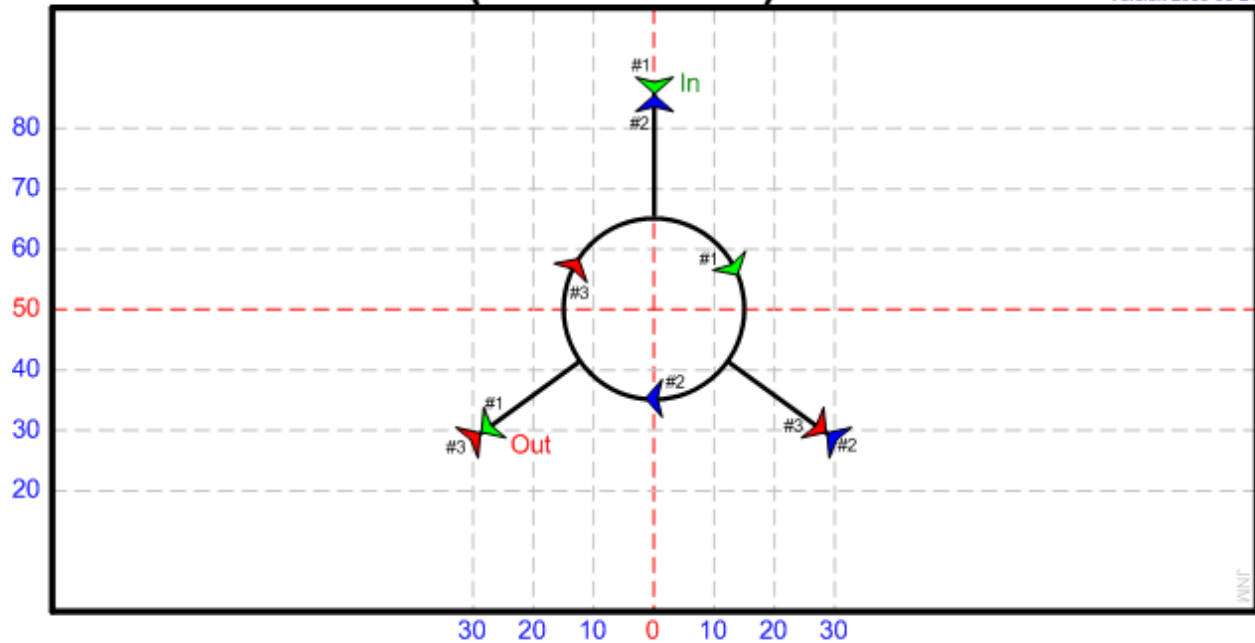
DT 14 – HaveFun (5 man team)

Version 2006-06-21



DT 15 - Solaris (3 man team)

Version 2006-06-21



DT 15 – Solaris

Version 2006-06-30

Judges will Particularly Consider

- Speed control
- Timing
- Circle

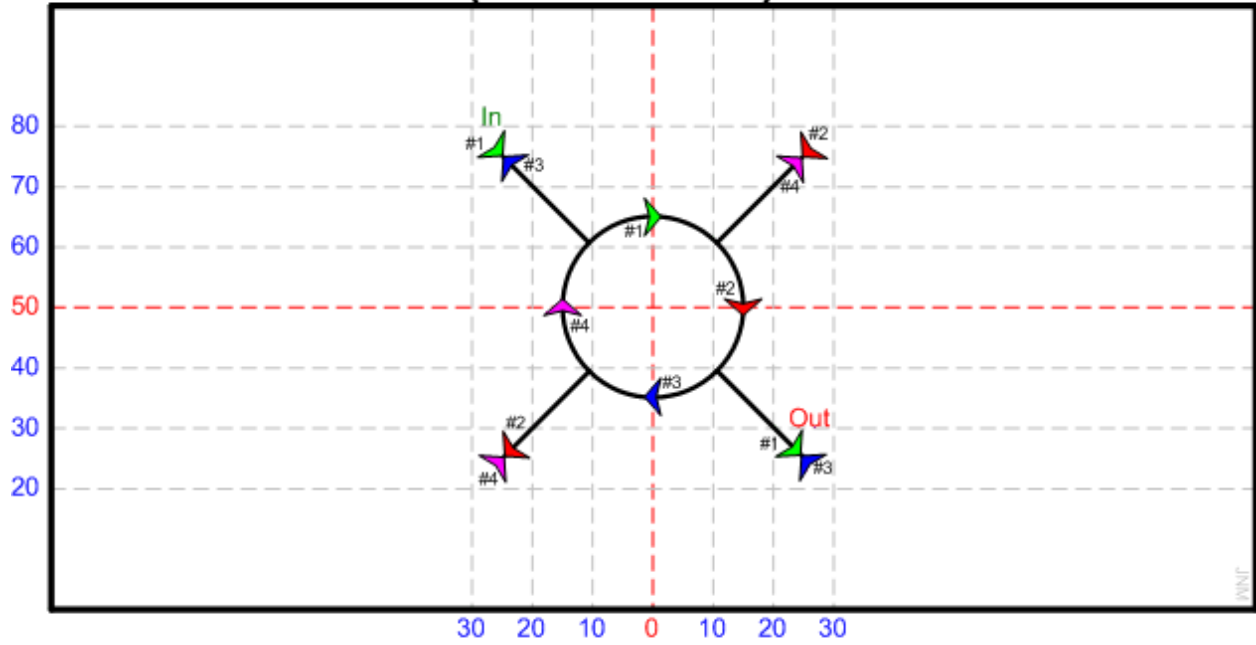
Explanation

No matter how many kites are flown:

- A kite flying IN will fly OUT where the third kite clockwise has flown IN.
- Their IN segments meeting with the circle must be equally spaced from each other.

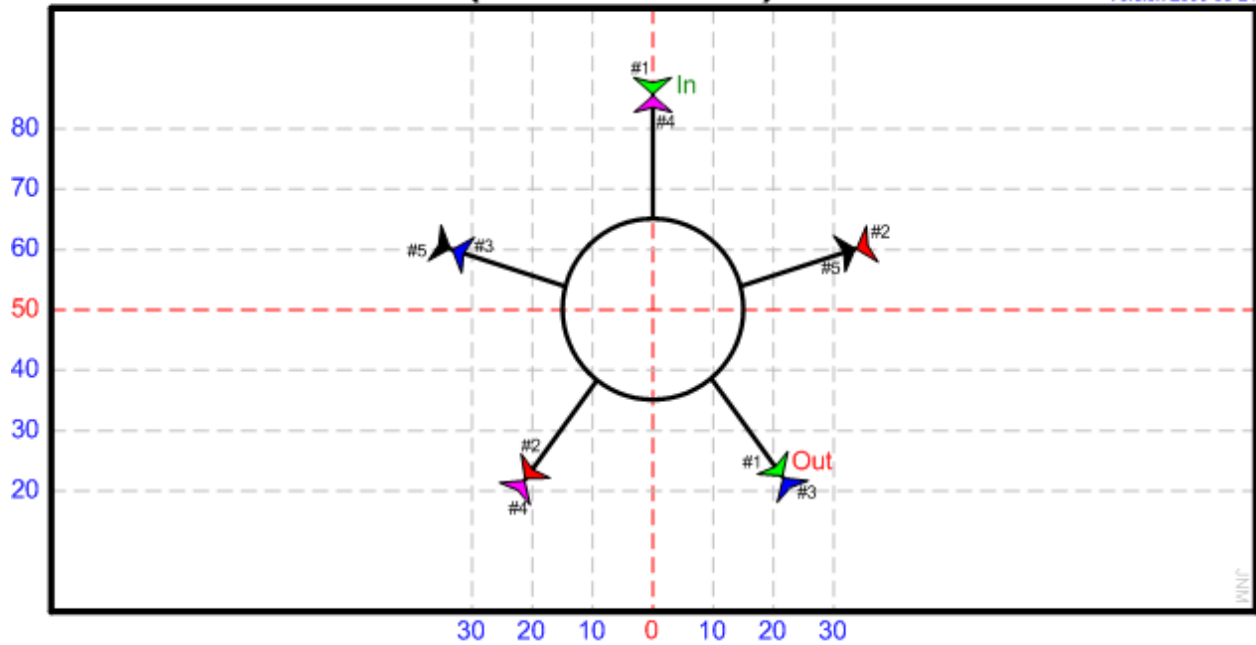
DT 15 - Solaris (4 man team)

Version 2006-06-21



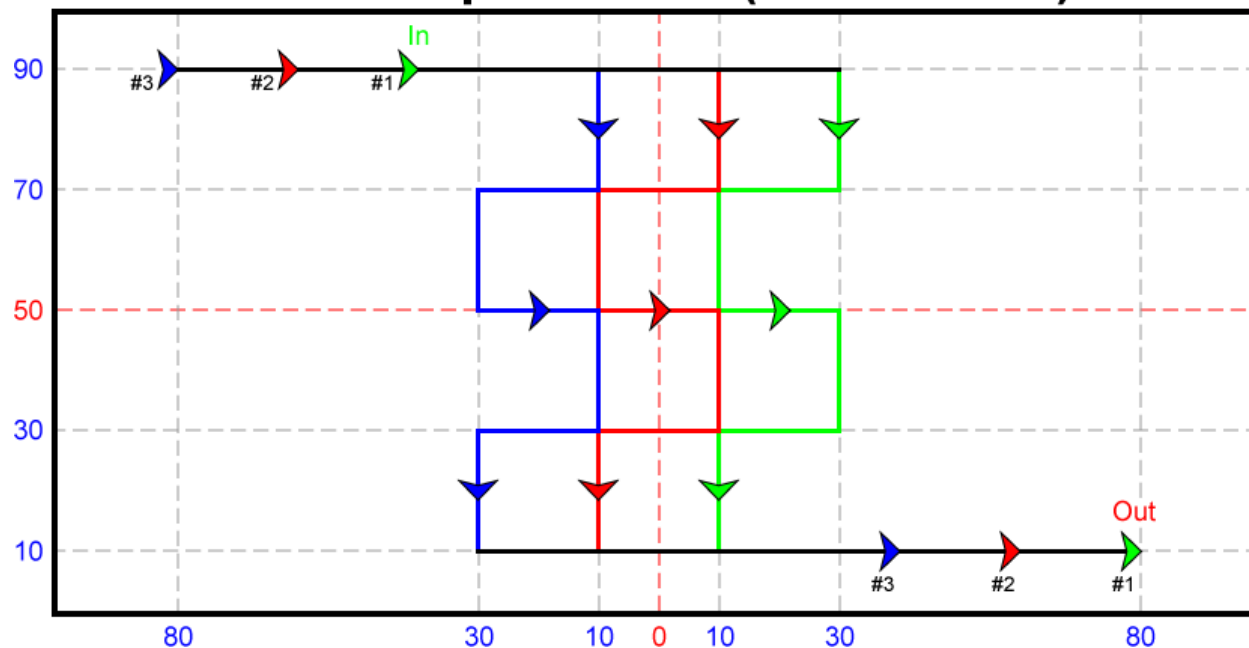
DT 15 - Solaris (5 man team)

Version 2006-06-21



DT 16 - Team Square Cuts (3 man team)

Version 2011-12-05



DT 16 – Team Square Cuts

Version 2011-12-05

Judges will Particularly Consider

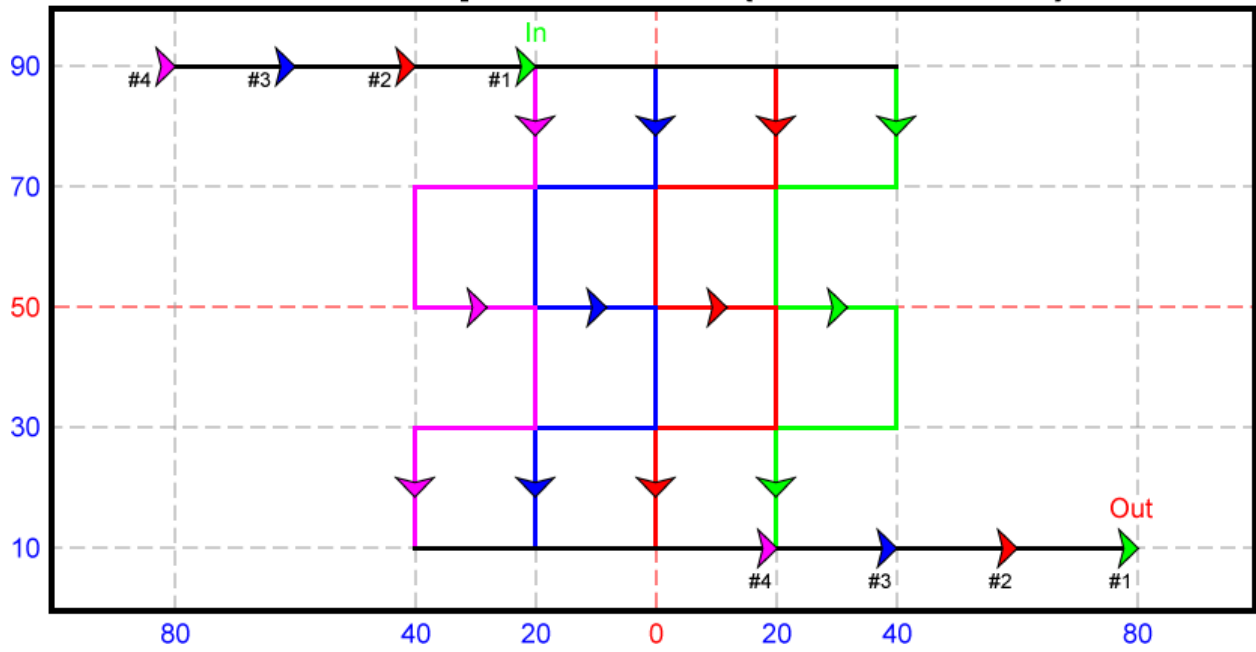
- Synchronicity of turns
- Position within the precision grid
- Relative placement of the components

Explanation

Each square cut equals 20% of the vertical and horizontal window, turns are closely spaced. When flying down, all kites should be in a horizontal line. Kites should maintain even spacing throughout.

DT 16 - Team Square Cuts (4 man team)

Version 2011-12-05



DT 16 - Team Square Cuts (5 man team)

Version 2011-12-05

