INTERNATIONAL SPORT KITE
COMPULSORIES BOOK

Version 3.0

01-APRIL-2017

All Japan Sport Kite Association

American Kitefliers Association

Sport, Team and Competitive Kiting
European Conference

Change History

- Minor amendments to text for clarification
- Additional Definition: Synchronicity (see section II Y.)
- 3 Figures removed to Obsolete List (see section V A.)
- Additional figures (see section V B.)
- Change of entry and exit points in figure MI03 and MI13
- MI31 dimensions altered from published draft version

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CONTENTS

I. Introduction 6
II. Definitions 7
A. Wind Window 7
B. Center Window 7
C. Precision Grid 7
D. Position within the Precision Grid 7
E. Relative Placement of Components 7
F. Turns 7
G. Lines 8
H. Horizontal Line 8
I. Vertical Line 8
J. Parallel Lines 8
K. Launching 8
L. Landing 8
M. Leading-Edge Landing 8
N. Two-Point Landing 8
1. Snap Two-Point Landing 8
2. Stall Two-Point Landing 8
3. Spin Two-Point Landing 9
4. Belly Landing 9
O. Arc 9
P. Ground Pass 9
Q. Nose 9
R. Stall (Stop) 9
S. Push Stall 9
T. Snap Stall 9
U. Axel 9
V. Speed Control 10
W. Spacing 10
X. Circle 10
Y. Synchronicity 10

III. Multi-Line–Specific Definitions 11
AA. Diagonal Flight 11
BB. Inverted Flight 11
CC. Backward Flight 11
DD. Forward Flight 11
EE. Rotation (Spin) 11
FF. Slide 11
GG. Inverted Slide 11
IV. Scoring 12
A. Diagram 12
B. Shorthand Notation Used In Descriptions 12
V. Compulsory Figures 13
A. Obsoleted Compulsory Figures (since ISKCB Version 2.2.1) 13
B. New Compulsory Figures (since ISKCB Version 2.2.1) 13
C. Changes to Compulsory Figures (since ISKCB Version 2.2.1) 13
D. Present Compulsory Figures Information 13
E. Multi-Line Teams Compulsories 14
VI. Dual-line Individual Compulsory Figures 15
VII. Dual-line Pair Compulsory Figures 33
VIII. Dual-line Team Compulsory Figures 47
IX. Multi-line Individual Compulsory Figures 70
X. Multi-line Pair Compulsory Figures 100
XI. Multi-line Team Compulsory Figures 113
XII. Compulsory Figure Template 125

I. INTRODUCTION

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:

- 1 April, 2017 AJSKA (All Japan Sport Kite Association)
- 1 August, 2017 - AKA (American Kitefliers Association)
- 1 April 2017- STACK (Sport Team and Competitive Kiting Europe Conference)

II. DEFINITIONS

A. WIND WINDOW

The wind window is the area within the roughly semi-circular 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.

D. 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.

E. 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

F. 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.

G. Lines

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

H. Horizontal Line

A horizontal line is flown parallel to the horizon.

I. Vertical Line

A vertical line is flown perpendicular to the horizon.

J. 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.

K. 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.

L. 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.

M. 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.

N. 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.

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.

4. **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.

O. 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.

P. 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 ground pass is measured from the highest point traversed.

Q. NOSE
The nose is the forward most 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.

R. STALL (STOP)
The kite comes to an obvious momentary stop.

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

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

U. 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.

V. 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.

W. 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.

X. CIRCLE

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

Y. SYNCHRONICITY

For pair and team figures, synchronicity means that, where so drawn, all kites should execute manoeuvres at precisely the same time or should reach any given point within the figure at precisely the same time, executing manoeuvres together throughout so as to give the impression of one pilot controlling all the kites.

III. Multi-Line–Specific Definitions

AA. Diagonal Flight

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

BB. Inverted Flight

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

CC. 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.

DD. Forward Flight

The kite flies in the direction the nose is pointing.

EE. 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.

FF. 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).

GG. Inverted Slide

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

IV. 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.

A. 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 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.

B. 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.

V. Compulsory Figures

A. Obsoleted Compulsory Figures (since ISKCB Version 2.2.1)

- DT 14 - Have Fun
- DT15 - Solaris
- MP05 - Sticky Wicket
- MI18 - Roman Ten

B. New Compulsory Figures (since ISKCB Version 2.2.1)

- DI 20 - Boomerang
- DP 19 - Boomerang
- DT 17 - Boomerang
- MI 23 - Slide and Square (Intermediate)
- MI 24 - Basic Elevator (Novice)
- MI 25 - The Arch (Intermediate)
- MI 27 - Up, Down, Up (Intermediate)
- MI 28 - Square (Intermediate)
- MI 29 - Quadrato (Intermediate)
- MI 30 - Vertical Pivots (Experienced)
- MI 31 - Circle Over Clock (Experienced)
- MI 32 - All Slides (Experienced)
- MI 33 - Home Sweet Home (Master)
- MI 34 - Circle (Experienced)
- MI 35 - Two Rings (Master)
- MI 36 - Rise and Lap (Intermediate)
- MI 37 - Boomerang (Master)
- MP 14 - Boomerang
- MT 12 - Boomerang

C. Changes to Compulsory Figures (since ISKCB Version 2.2.1)

- MI 03 - Steps and Turns
- MI13 – Z Pass

D. Present Compulsory Figures Information

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.

E. 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.

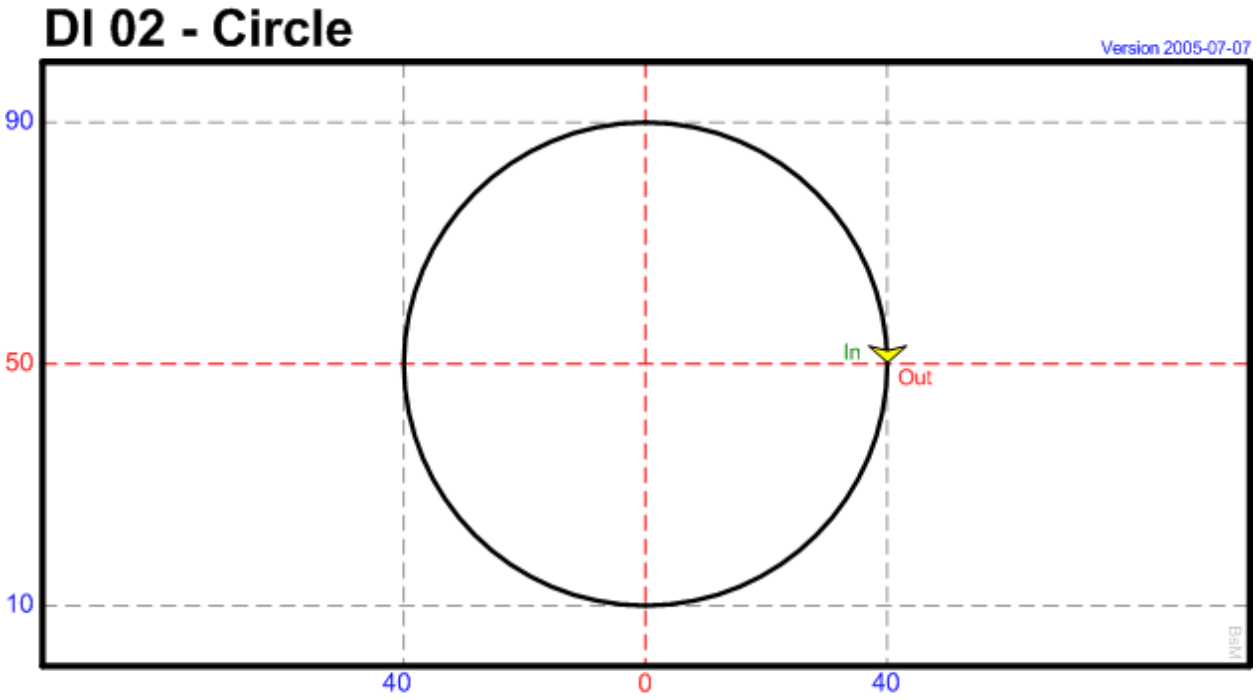
Evenly spaced and centered between the first and last kite, which means, using the positions of the first and last kites, evenly space the other kite or kites between them.

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.

VI. Dual-line Individual Compulsory Figures

- DI 02 - Circle
- DI 03 - Circle Over Diamond
- DI 05 - Lap and Snap
- DI 07 - Jump
- DI 08 - Pyramid
- DI 09 - Octagon
- DI 11 - Split Figure Eight
- DI 12 - Stops
- DI 13 - Steps
- DI 14 - Register
- DI 15 - LSI
- DI 16 - Two Squares and Stalls
- DI 17 - Wedge
- DI 18 - Square Cuts
- DI 19 - Launch, Circle, and Land 2P
- DI 20 - Boomerang - NEW



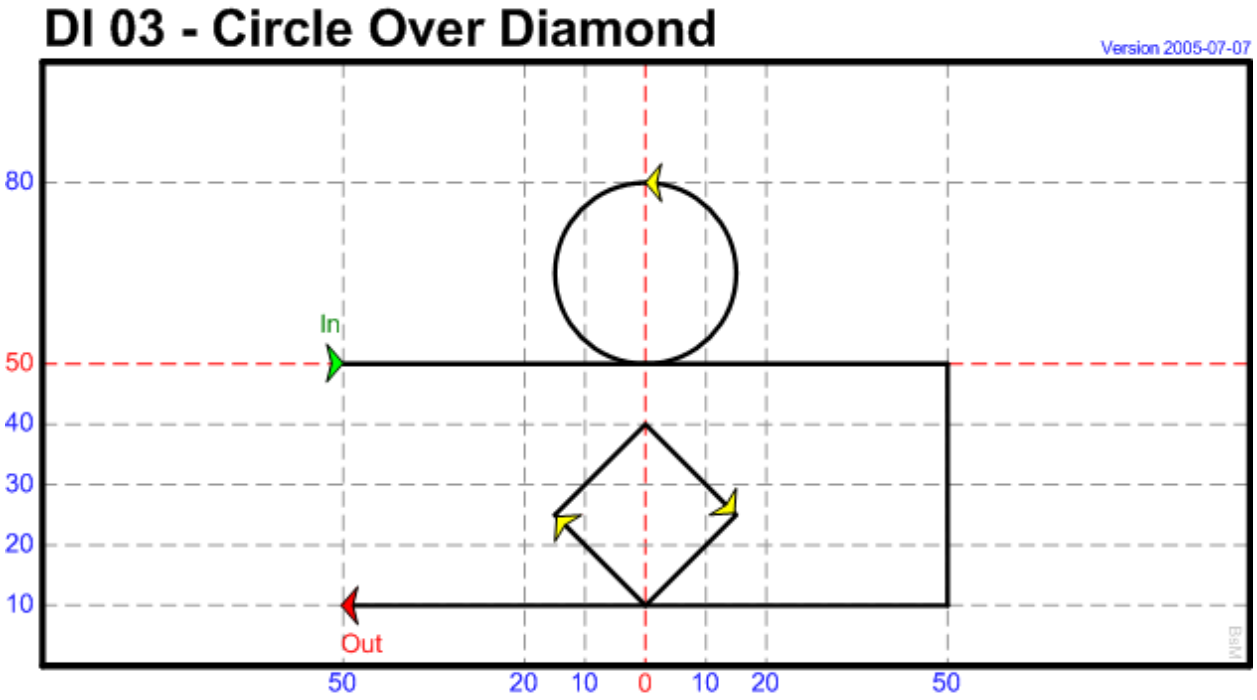
DI 02 – Circle

Version 2005-07-07

Judges will Particularly Consider

- Circle
- Speed control
- Position within the precision grid
- IN/OUT at same location

Explanation



DI 03 – Circle Over Diamond

Version 2005-09-09

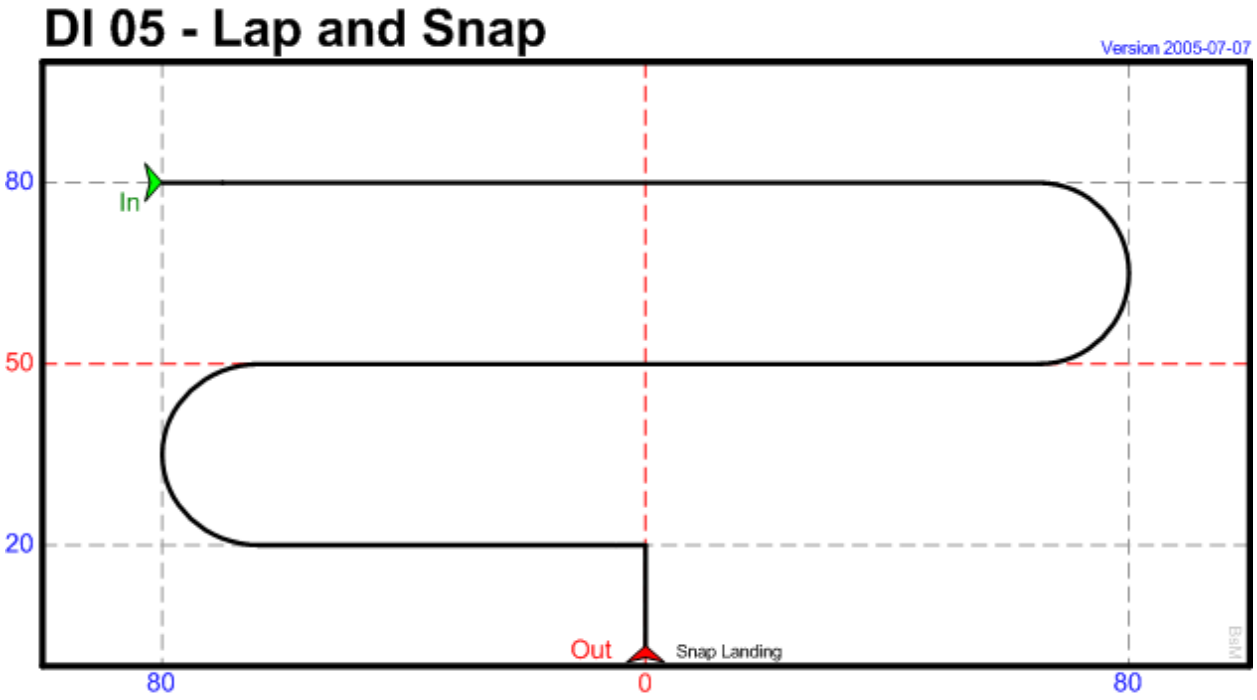
Judges will Particularly Consider

- Relative placement of components
- Relative size of components
- Parallel lines
- Angles
- Speed control

Explanation

The circle is directly above the diamond.

The diameter of the circle is the same as the width and height of the diamond.



DI 05 – Lap and Snap

Version 2005-07-07

Judges will Particularly Consider

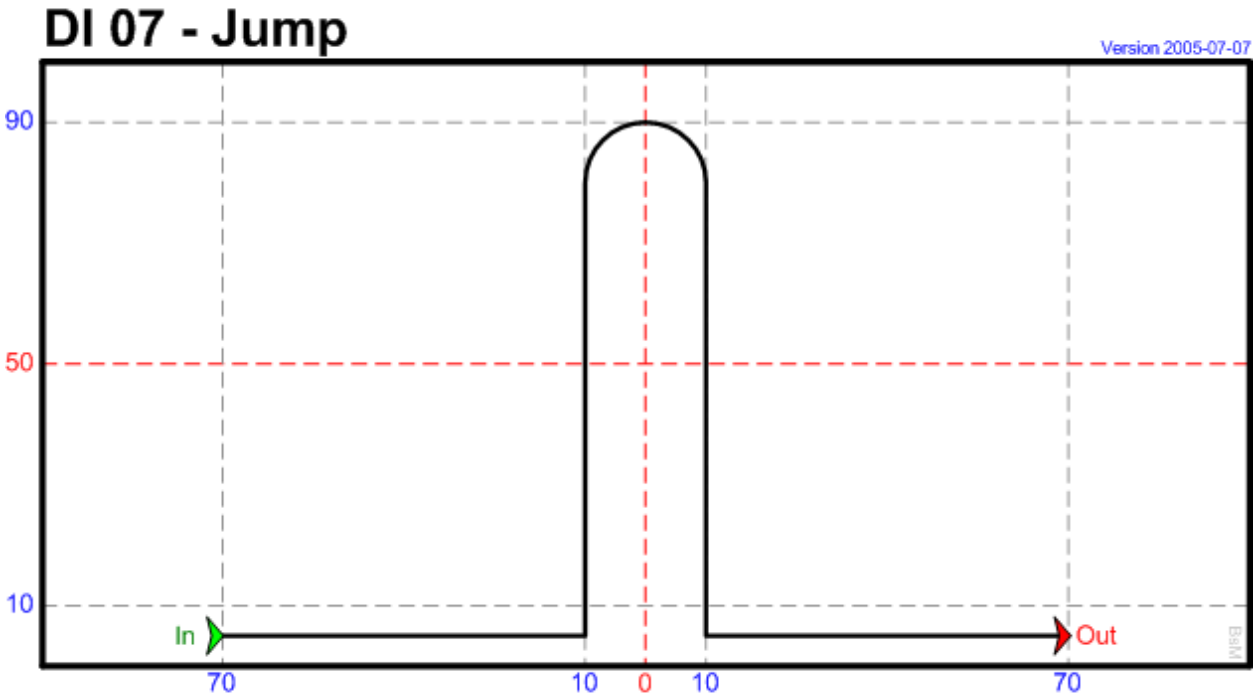
- Parallel lines
- Two-point landing
- Arcs
- Right angle
- Relative placement of components
- Relative size of components

Explanation

The landing is quick and executed close to the ground.

The downward arc on the left side of the window is directly under the IN.

The landing is in the center of the figure and the precision grid.



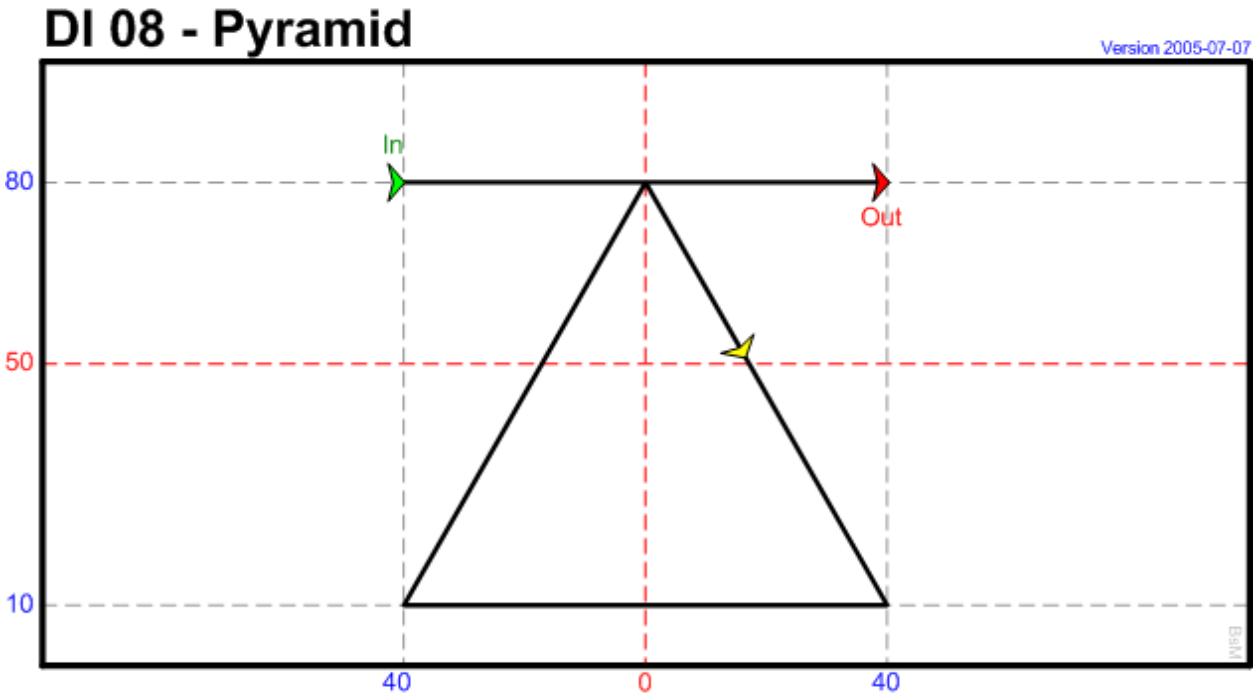
DI 07 – Jump

Version 2005-07-07

Judges will Particularly Consider

- Right angles
- Arc
- Straight lines
- Position within the precision grid
- Speed control

Explanation



DI 08 – Pyramid

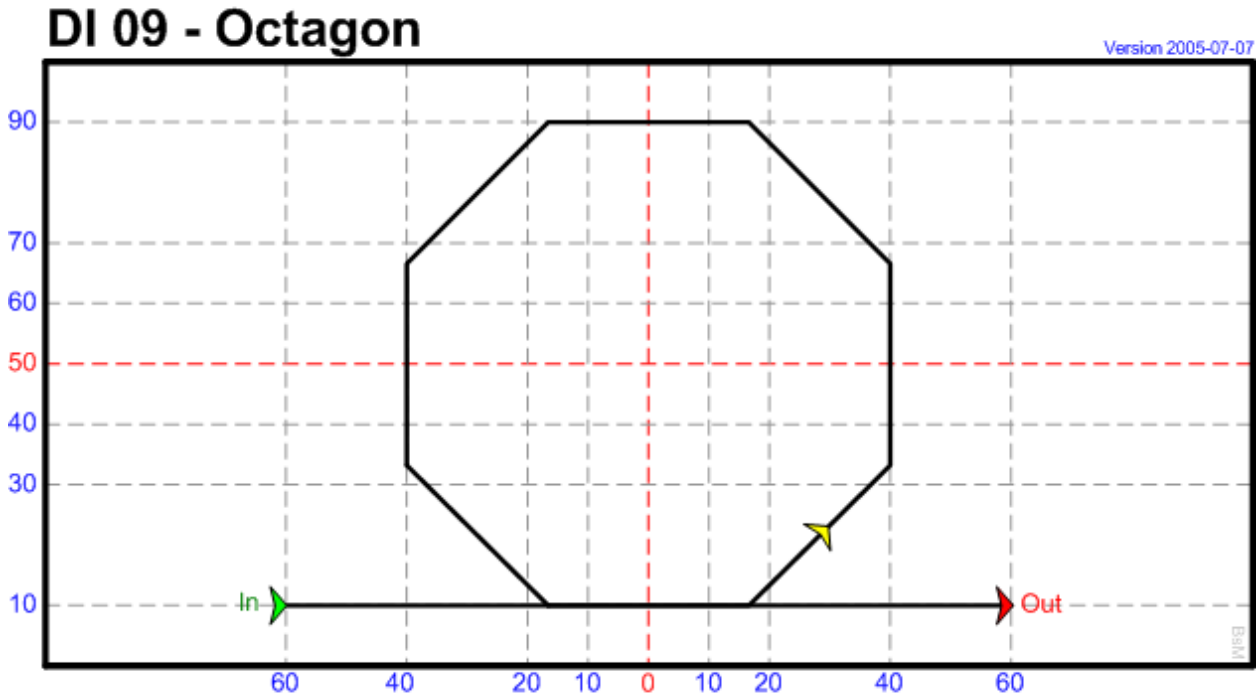
Version 2005-07-07

Judges will Particularly Consider

- Position within the precision grid
- Relative size of components
- Equal size of IN and OUT horizontal lines.
- Straight lines
- Speed control

Explanation

The base angles are equal.



DI 09 – Octagon

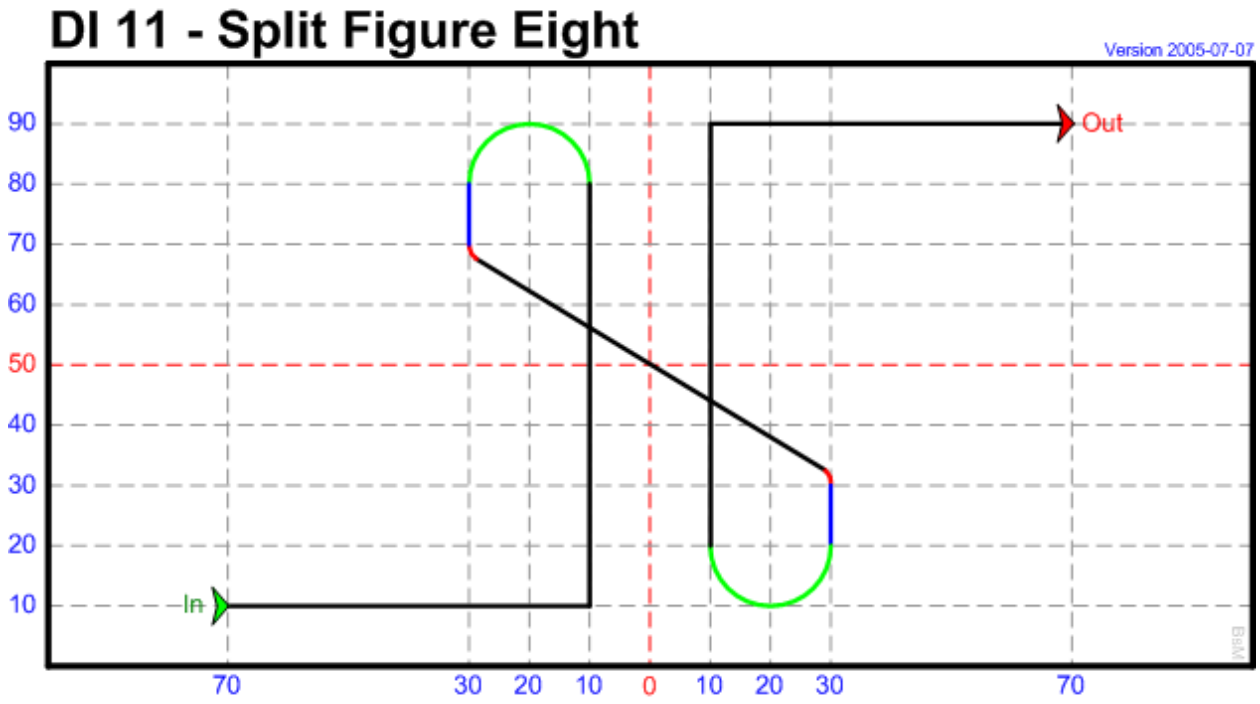
Version 2005-07-07

Judges will Particularly Consider

- Position within the precision grid
- Relative size of components
- Speed control
- Equal size of IN and OUT horizontal lines
- Parallel lines

Explanation

All angles of the octagon are equal.



DI 11 – Split Figure Eight

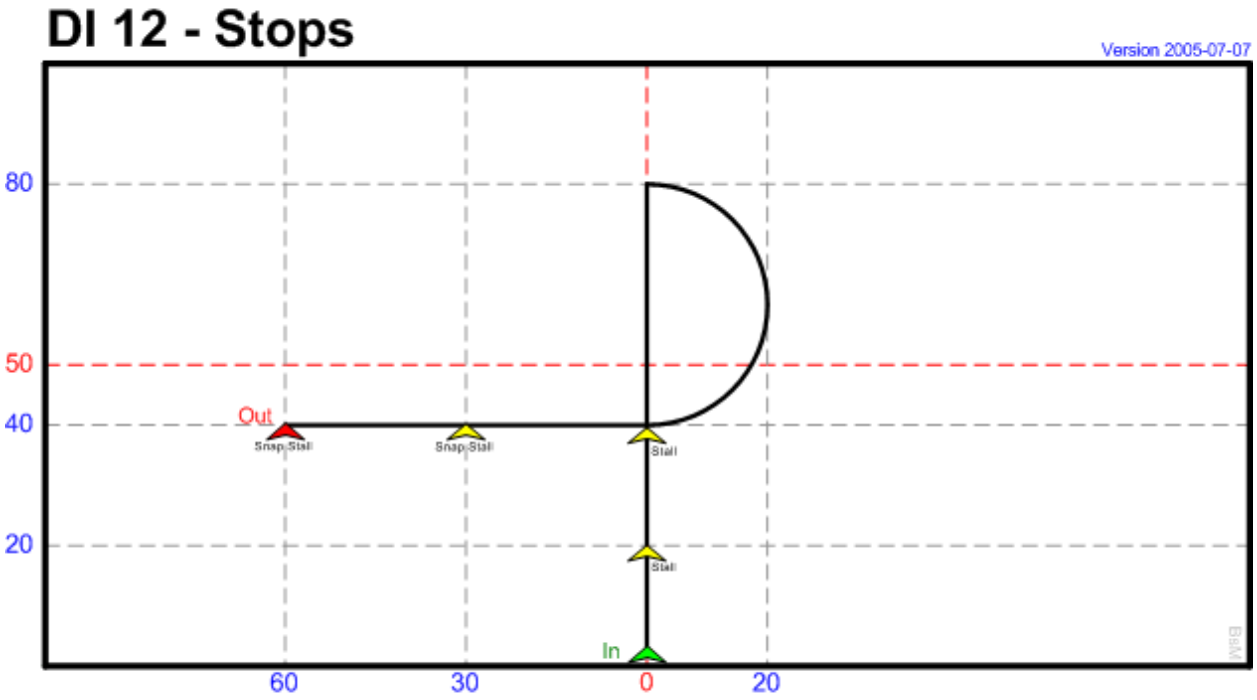
Version 2005-08-01

Judges will Particularly Consider

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

Explanation

The diagonal line is as shown.



DI 12 – Stops

Version 2005-07-07

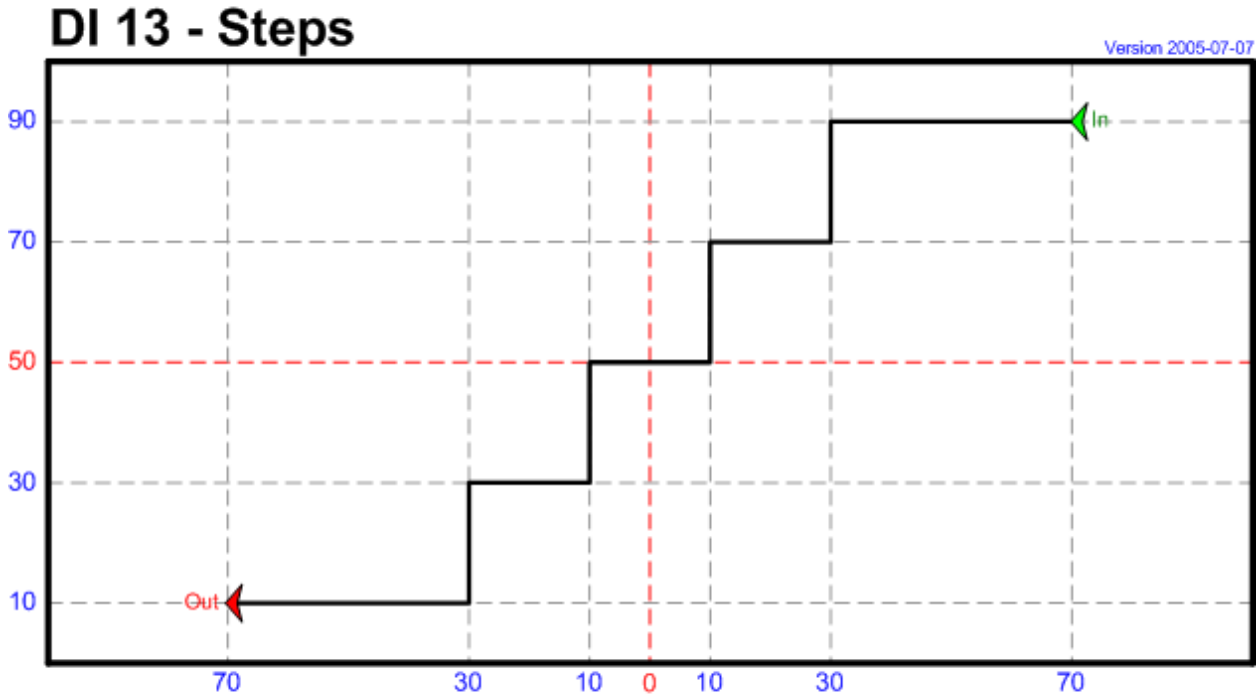
Judges will Particularly Consider

- Stall
- Speed control
- Launch
- Relative placement of components
- Straight lines
- Position within the precision grid

Explanation

2 push stalls are executed on the vertical line.

2 snap stalls are executed on the horizontal line.



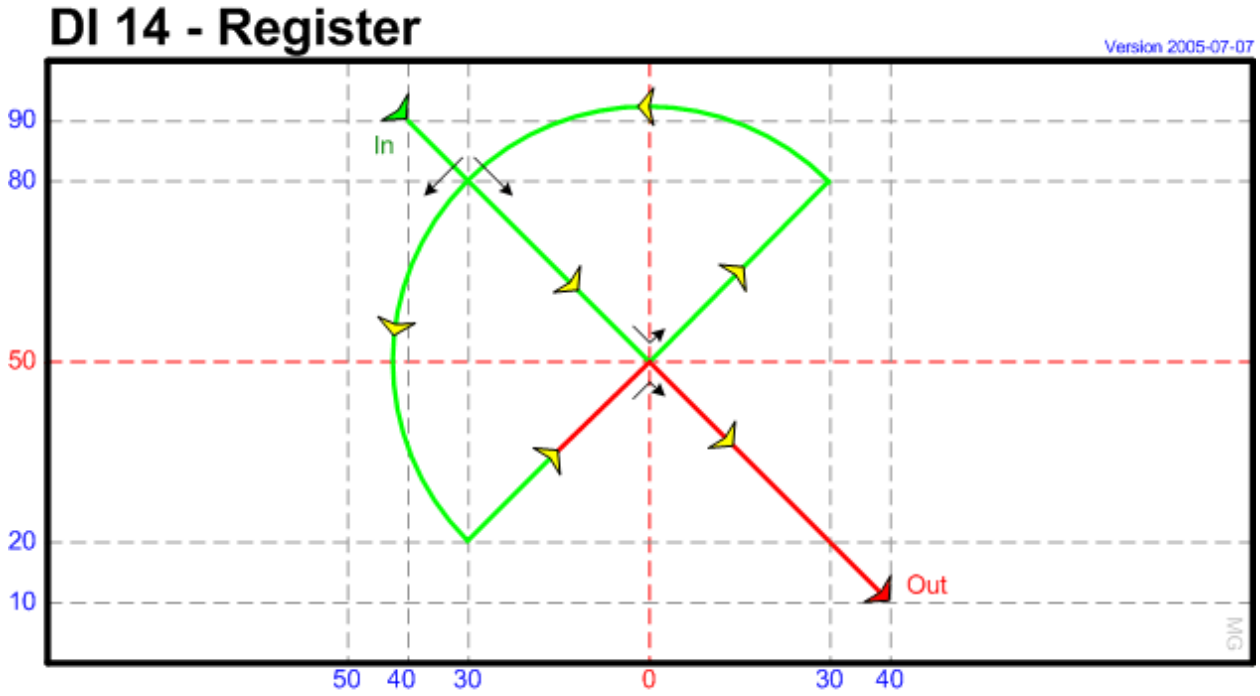
DI 13 – Steps

Version 2005-08-01

Judges will Particularly Consider

- Horizontal lines
- Vertical lines
- Position within the precision grid
- Relative size of components
- Speed control

Explanation



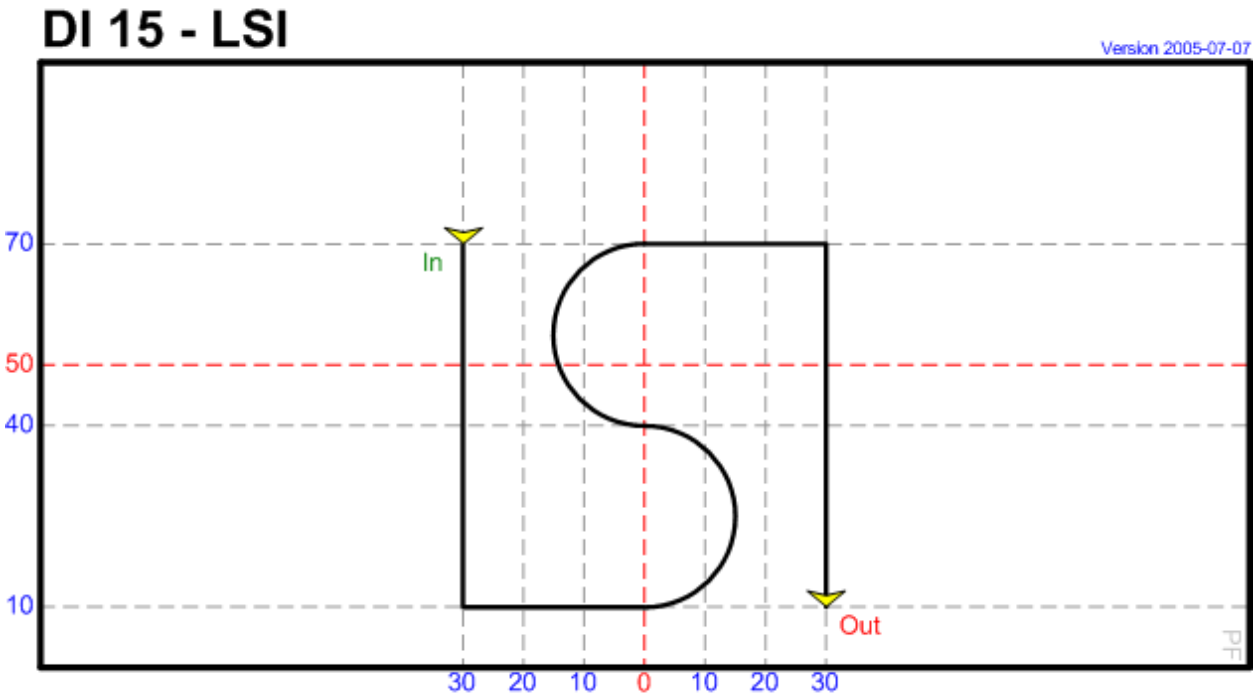
DI 14 - Register

Version 2005-07-07

Judges will Particularly Consider

- Relative placement of components
- Arc
- 90° turns
- Position within the precision grid

Explanation



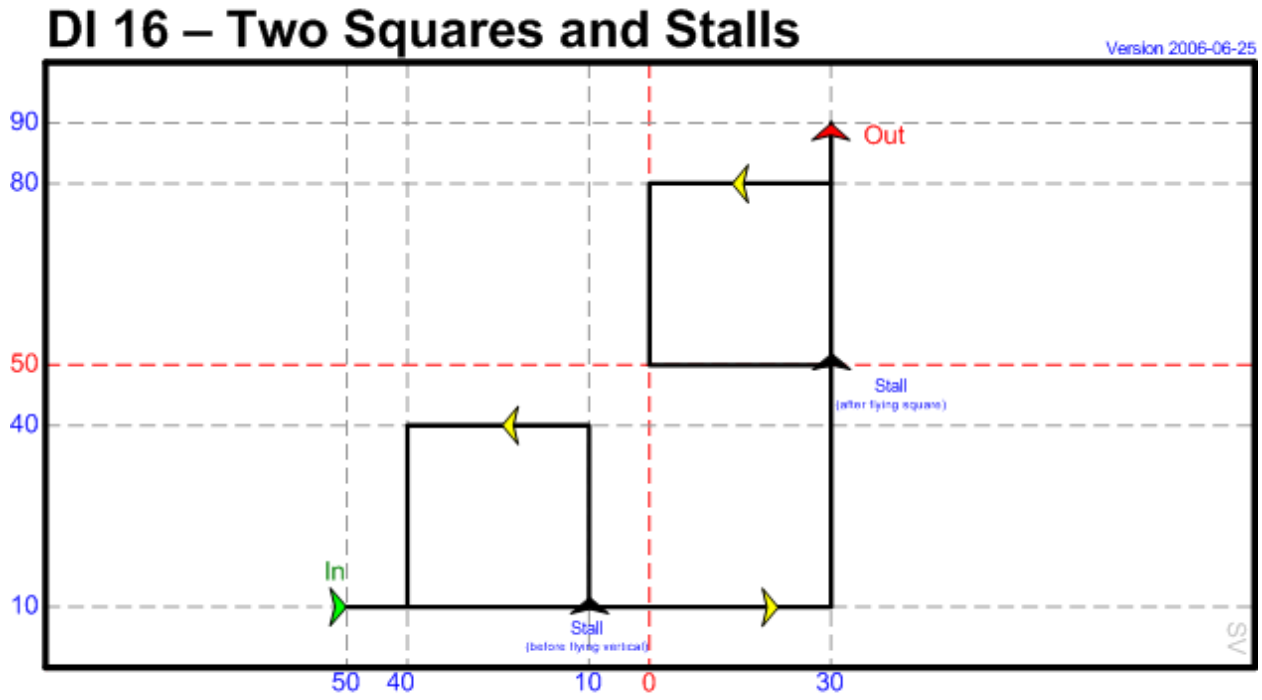
DI 15 - LSI

Version 2005-07-07

Judges will Particularly Consider

- Arcs
- Relative placement of components
- Lines
- 90° turns

Explanation



DI 16 – Two Squares and Stalls

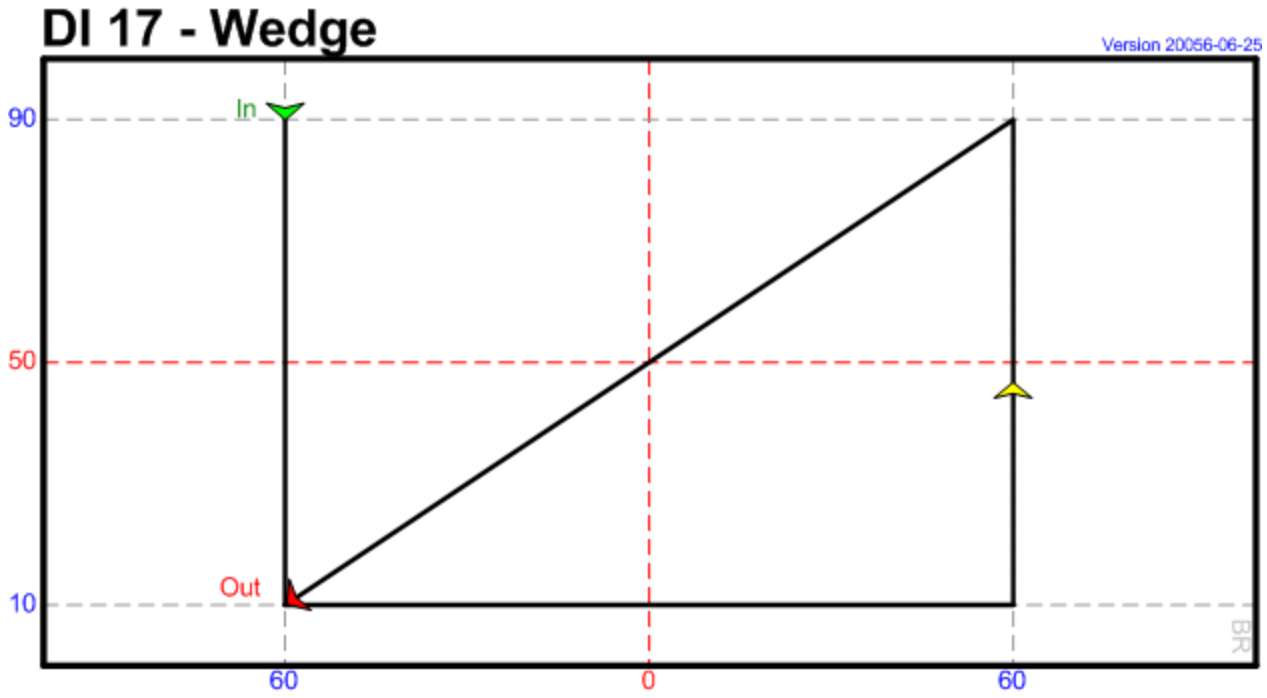
Version 2006-06-29

Judges will Particularly Consider

- Relative Placement of Components
- Stalls
- Turns
- Position in the Precision Grid

Explanation

IN at 50 left 10 vertical. Kite flies to 10 left and stalls. Kite files a square box 30x30 counter clockwise and continues horizontally to 30 right, turning up and flying to 80 vertical. Kite flies three sides of a square box 30x30 counter clockwise and stalls at 30 right 50 vertical. Kite flies up to 90 vertical. OUT



DI 17 - Wedge

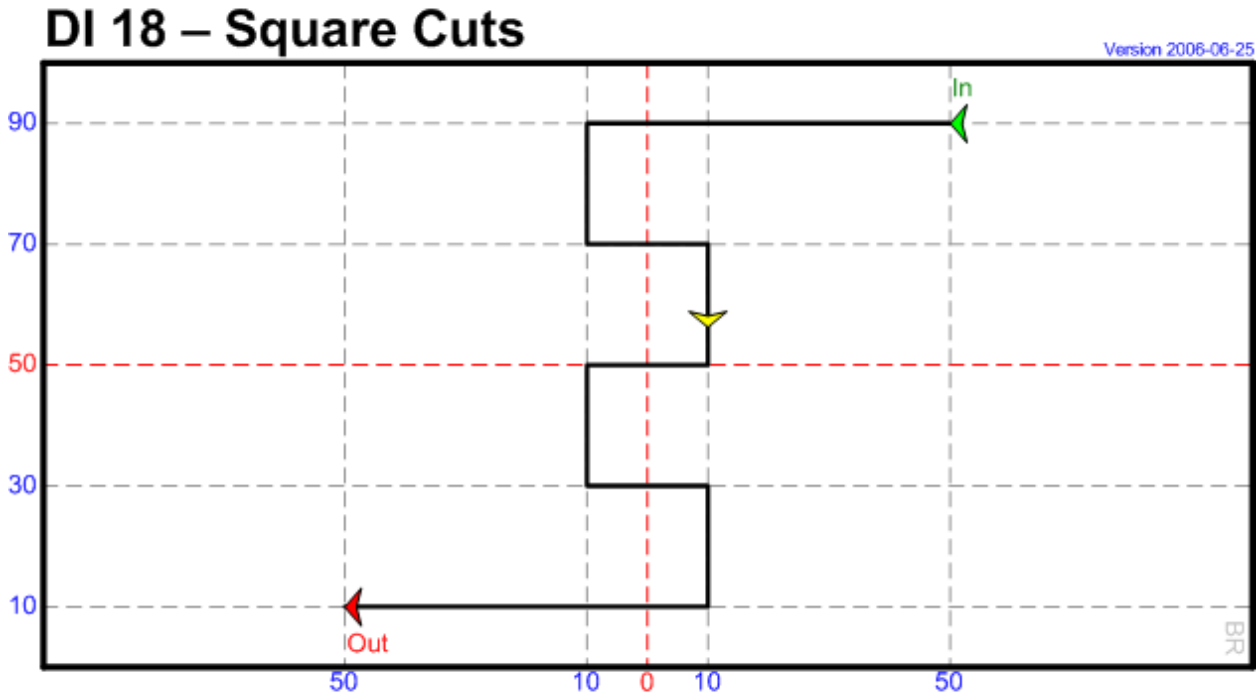
Version 2006-06-29

Judges will Particularly Consider

- Position within the Precision Grid
- Relative Placement of Components
- Speed control
- Turns

Explanation

The place where the kite is when the flyer calls out must be the same point where the first right angle was made.



DI 18 – Square Cuts

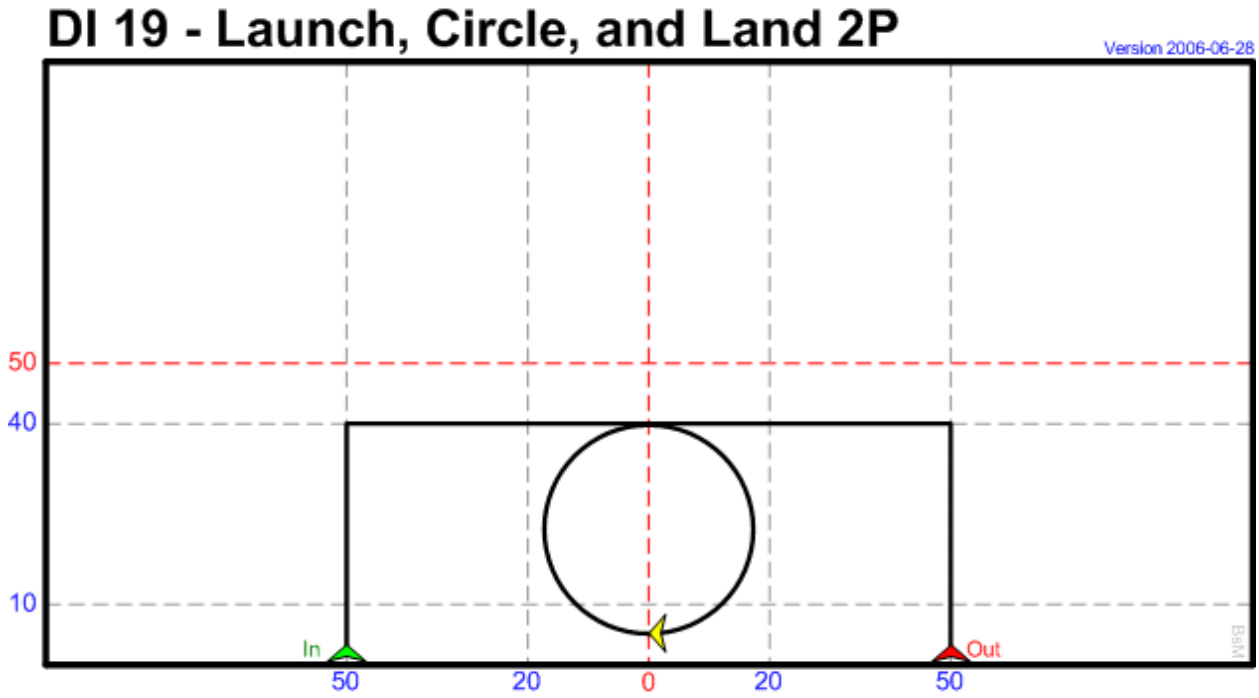
Version 2006-06-29

Judges will Particularly Consider

- Turns
- Relative Placement of Components
- Speed Control
- Position within the Precision Grid

Explanation

Each square cut equals 20% of the vertical and horizontal window.
Turns are closely space.



DI 19 – Launch, Circle, and Land 2P

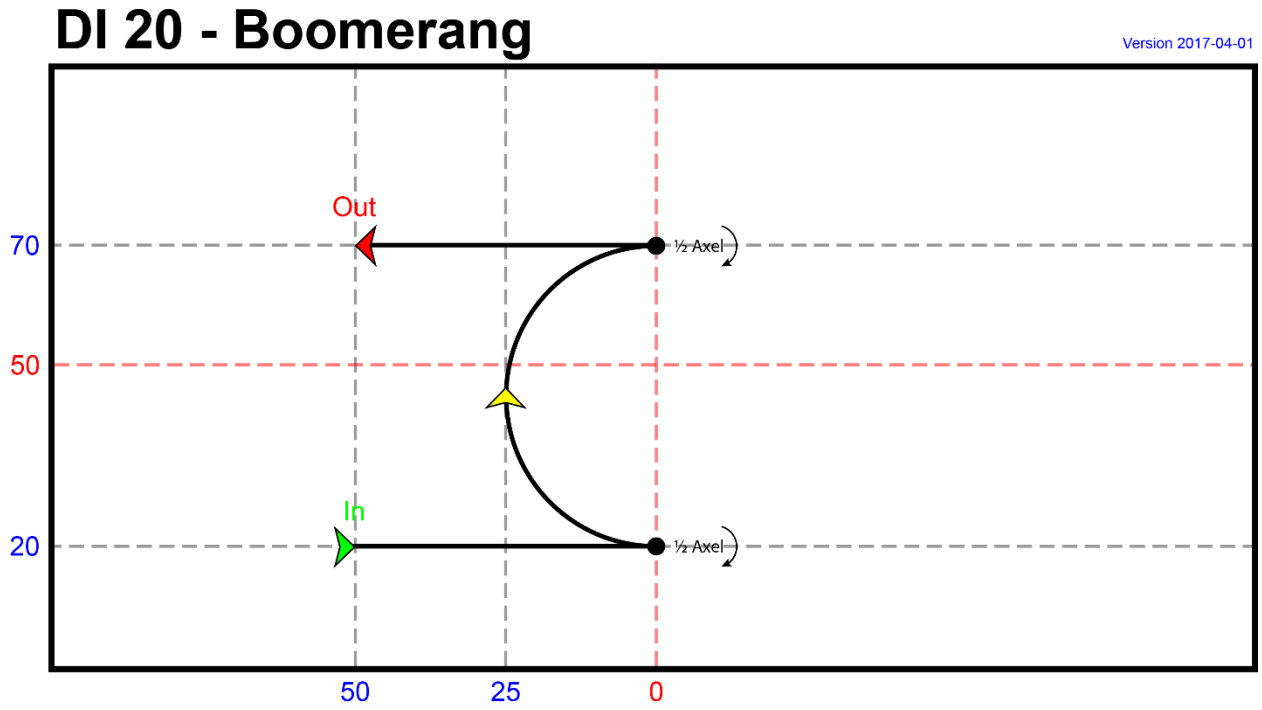
Version 2006-06-29

Judges will Particularly Consider

- Straight lines
- Two-Point landing
- Turns
- Speed Control
- Circle
- Position within the precision grid

Explanation

Launch, right flank at 40% vertical, circle, flank down at 50% horizontal to a Two-Point Landing.



DI 20 – Boomerang

Version 2017-04-01

Judges will Particularly Consider

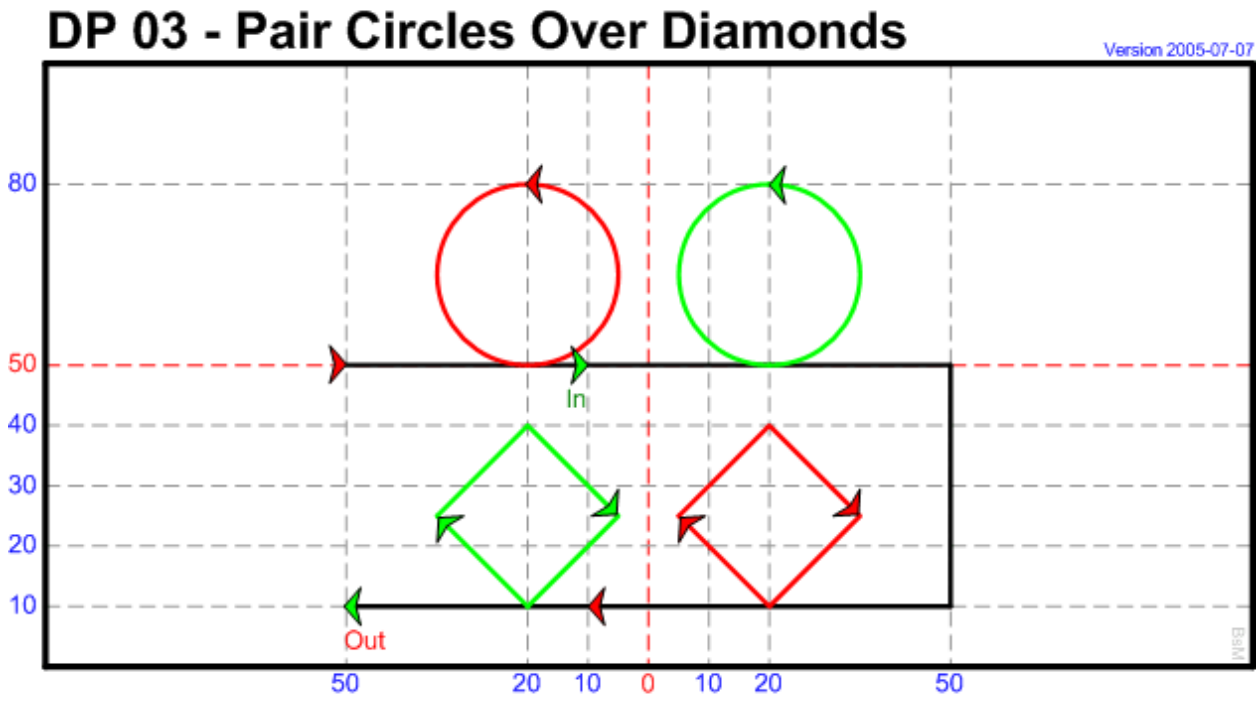
- Parallel lines
- Arc
- ½ Axels
- Placement of elements within the precision grid

Explanation

Enter at 20^, execute a ½ axel at centre of window and continue into arc. At 70^ execute a second ½ Axel immediately above where first ½ axel was placed and continue into level flight, parallel to original line of entry. Call out immediately above the point where IN was called.

VII. Dual-line Pair Compulsory Figures

- DP 03 - Pair Circles Over Diamonds
- DP 06 - Inverted Eight with Landing
- DP 07 - H
- DP 08 - Twist
- DP 09 - The Cliff
- DP 11 - Meet Again
- DP 12 - Pair Stops
- DP 14 - 2 Squares
- DP 15 - Thread and Roll
- DP 16 - Pair Square Cuts and Land
- DP 17 - Pair Jump with Rolls
- DP 18 - Pair Launch, Circle, and Land 2P
- DP 19 - Boomerang – **NEW**



DP 03 – Pair Circles Over Diamonds

Version 2005-09-09

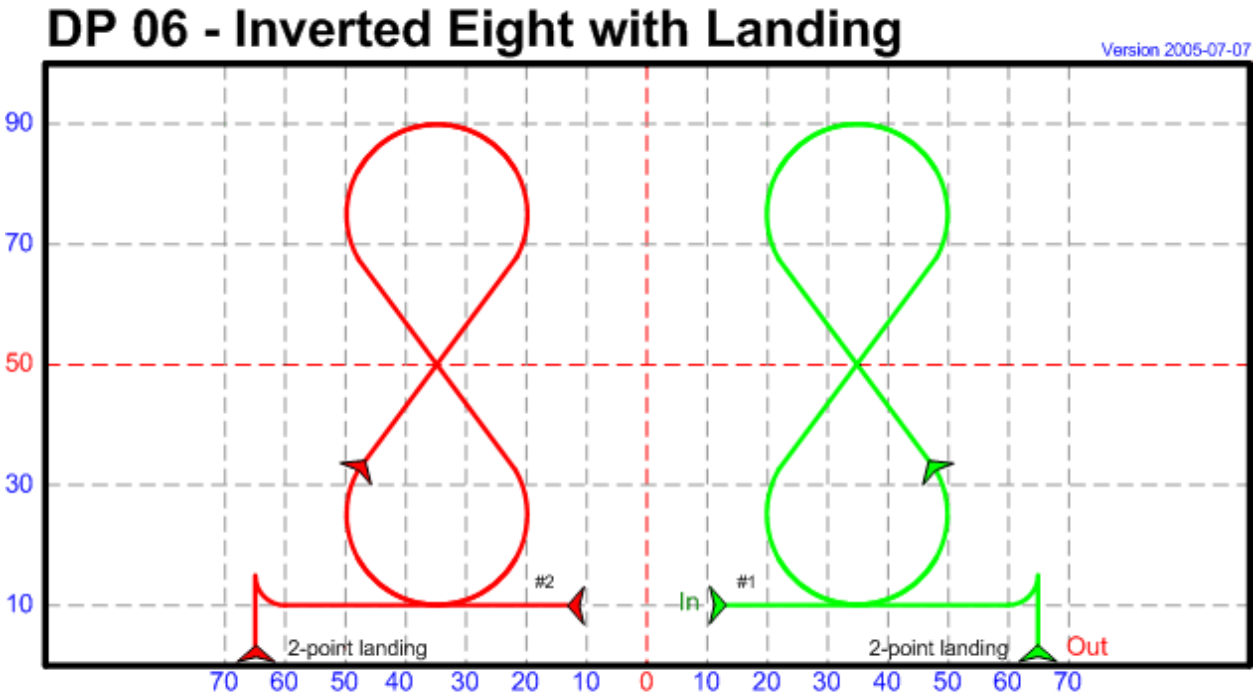
Judges will Particularly Consider

- Relative placement of components
- Relative size of components
- Parallel lines
- Angles
- Speed control

Explanation

The circles are directly above the diamonds.

The diameters of the circles are the same as the width and height of the diamonds.



DP 06 – Inverted Eight with Landing

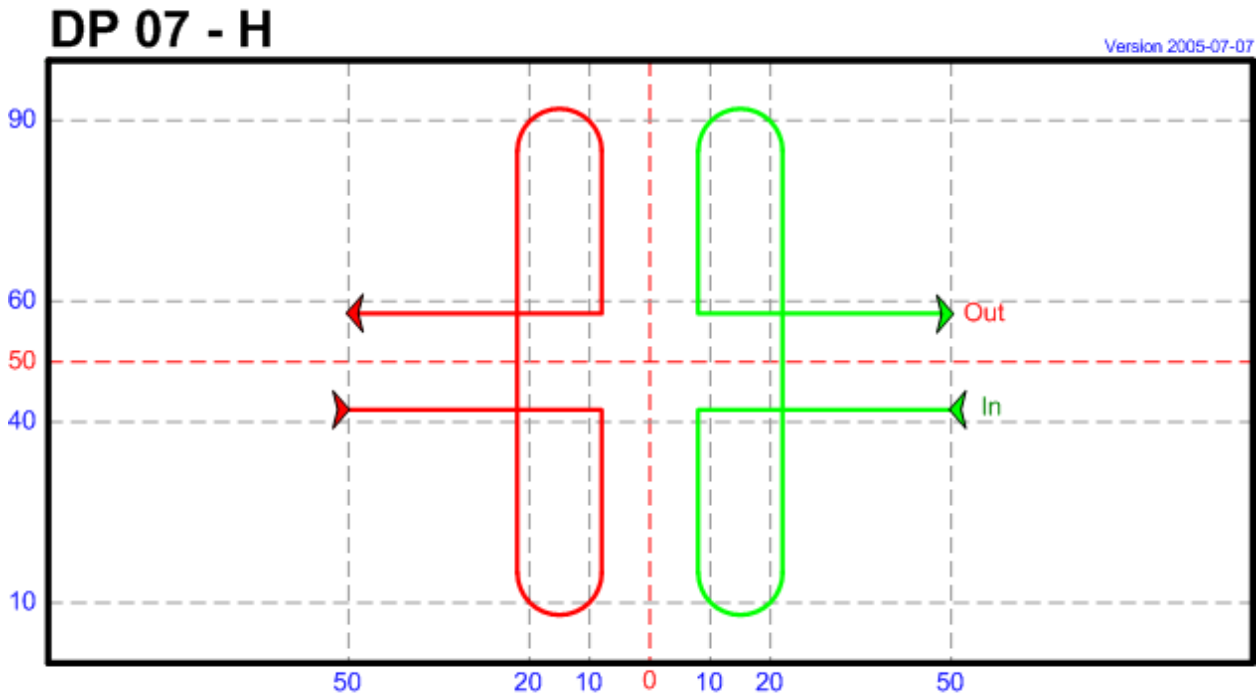
Version 2005-09-09

Judges will Particularly Consider

- Relative placement of components
- Landing
- Position within the precision grid
- Parallel lines
- Straight lines

Explanation

Two-Point landing



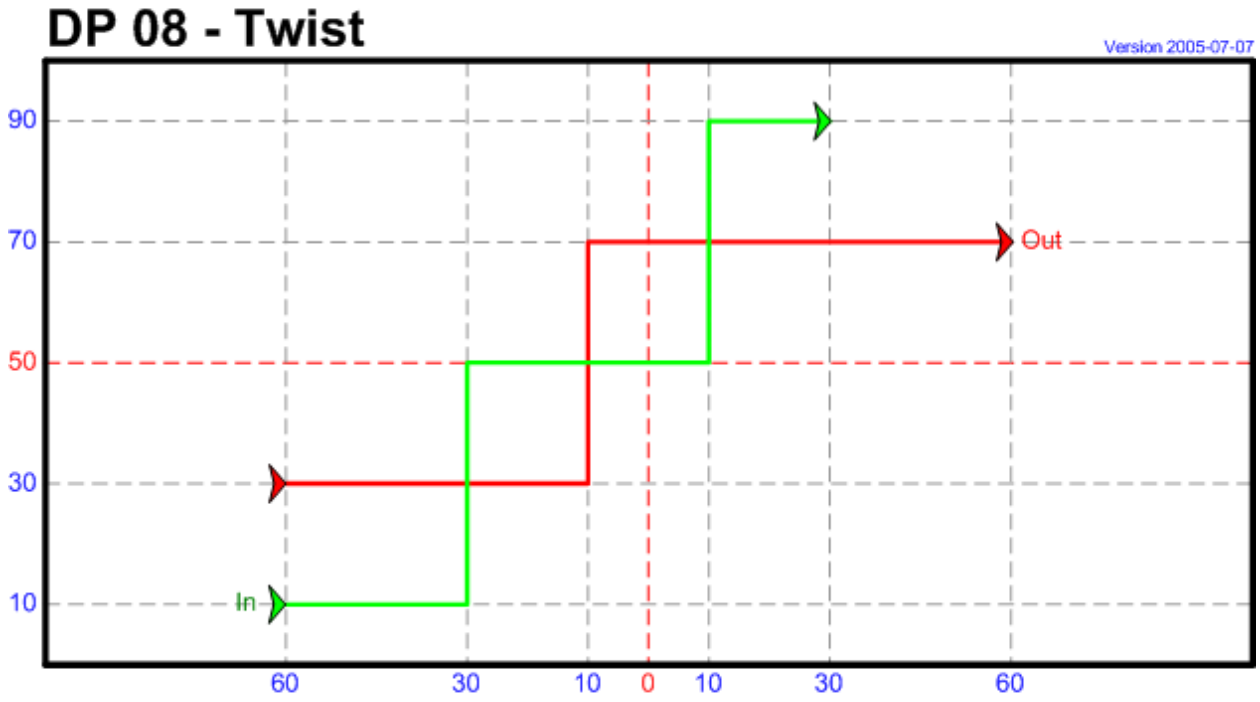
DP 07 – H

Version 2005-07-07

Judges will Particularly Consider

- Parallel lines
- Relative placement of components
- Spacing
- Position within the precision grid
- Arcs

Explanation



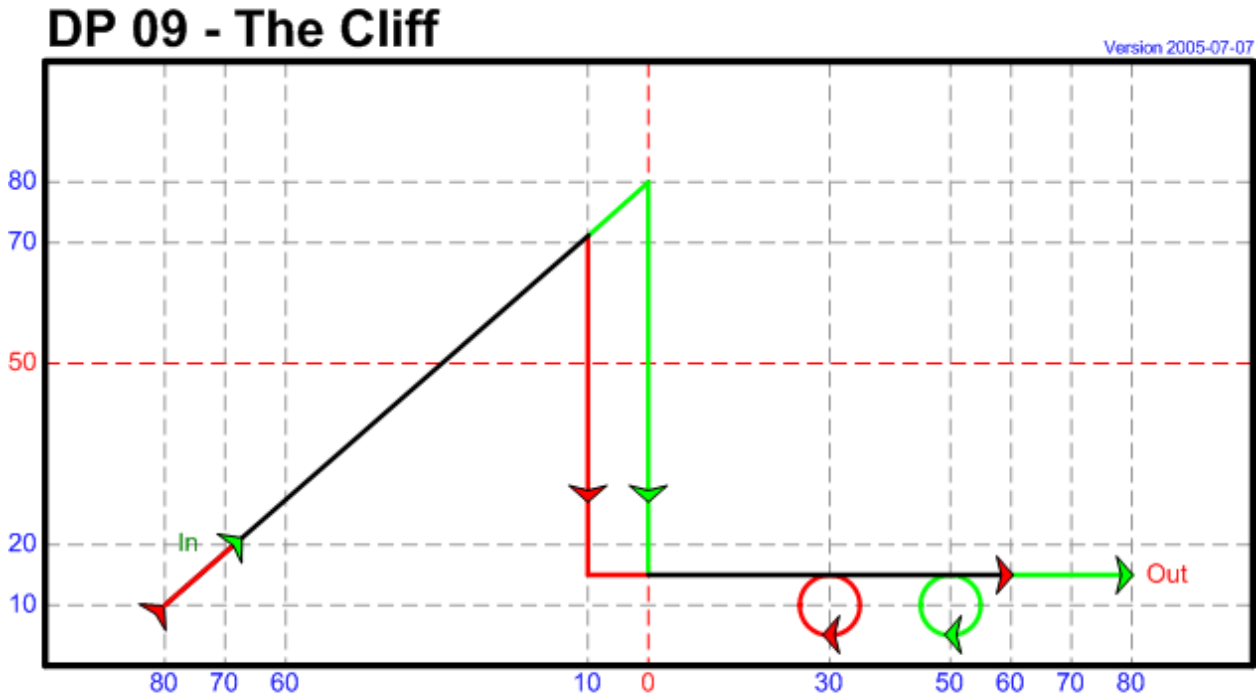
DP 08 – Twist

Version 2005-07-07

Judges will Particularly Consider

- Timing
- Parallel lines
- Speed control
- Right angles

Explanation



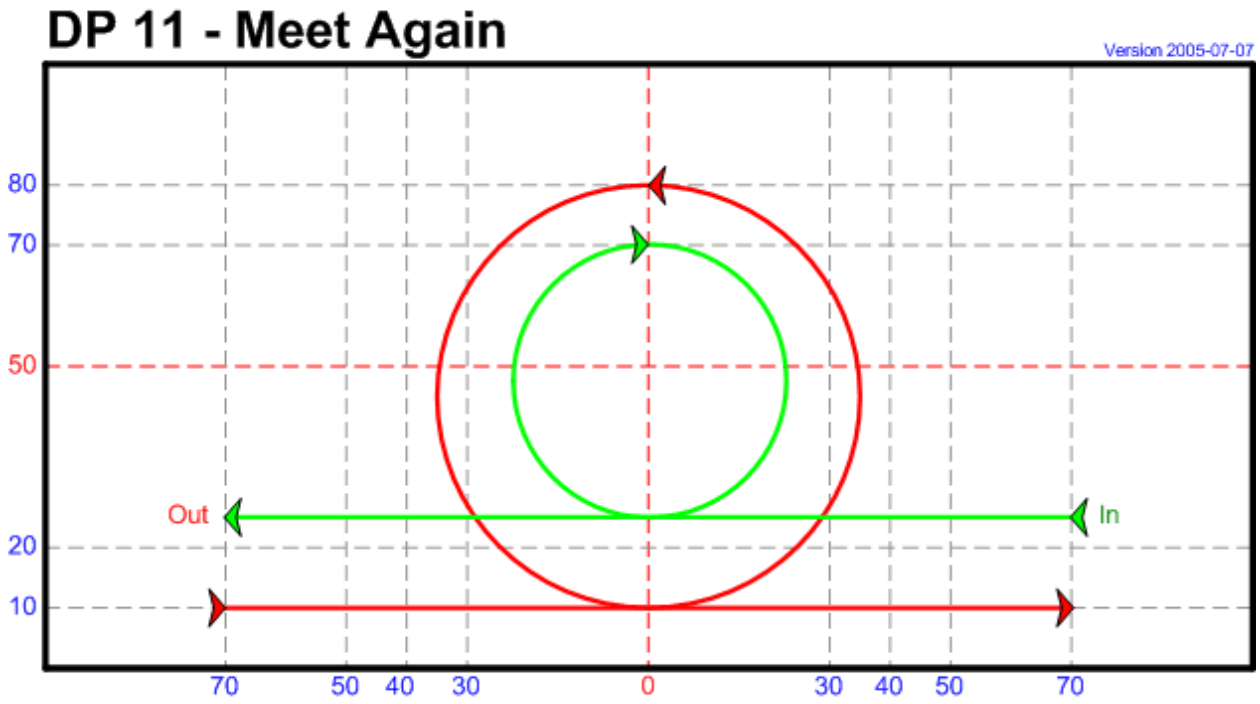
DP 09 – The Cliff

Version 2005-07-07

Judges will Particularly Consider

- Speed control
- Spacing
- Timing
- Circles
- Straight lines
- Angles

Explanation



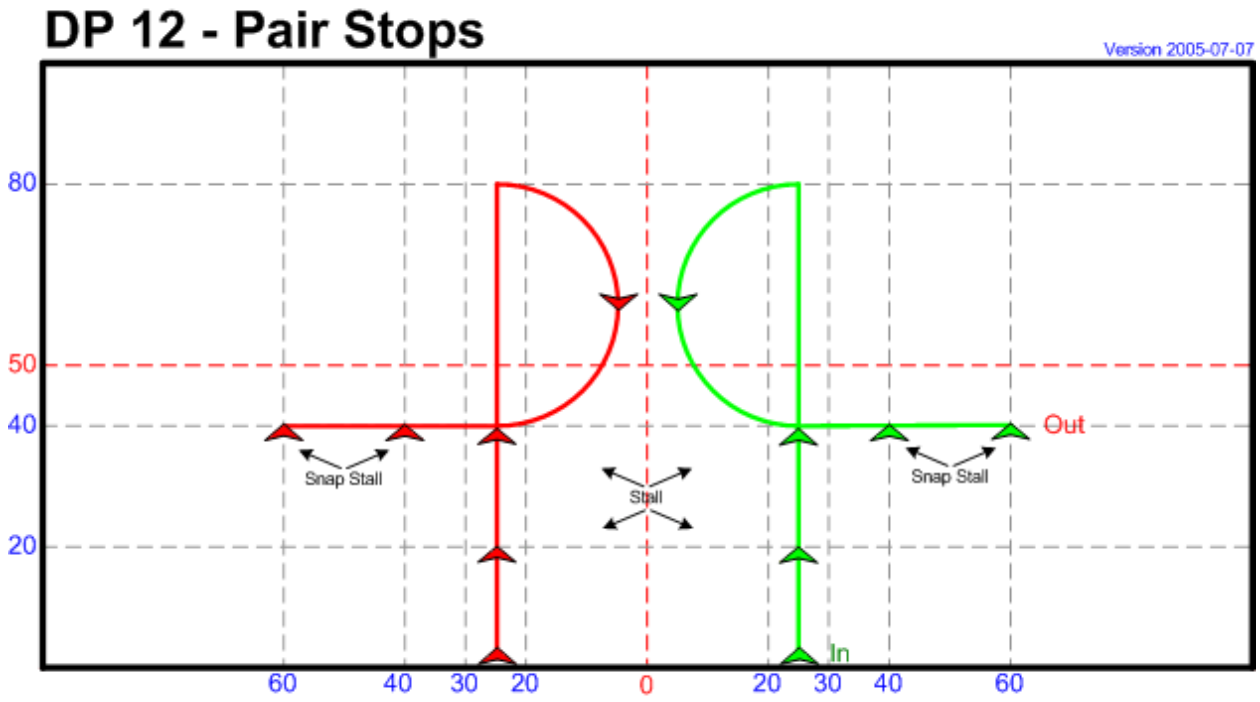
DP 11 – Meet Again

Version 2005-07-07

Judges will Particularly Consider

- Circles
- Speed control
- Timing
- Relative placement of components

Explanation



DP 12 – Pair Stops

Version 2005-07-07

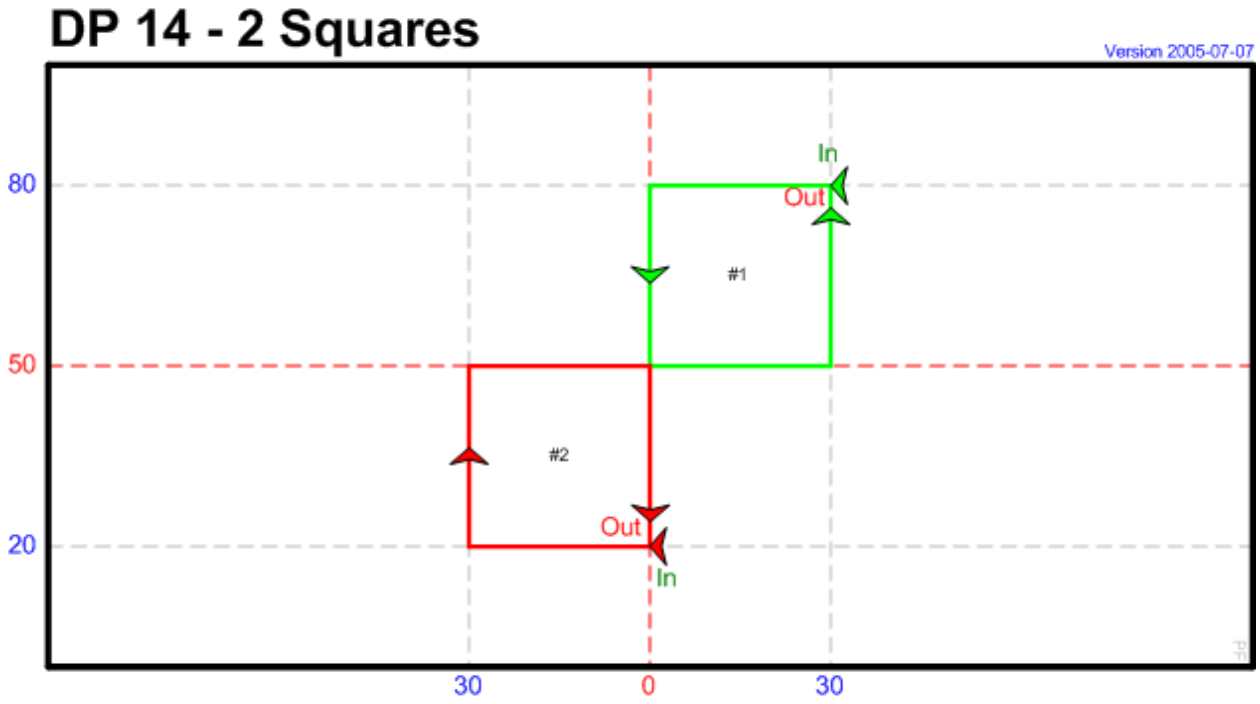
Judges will Particularly Consider

- Stall
- Speed control
- Launch
- Relative placement of components
- Straight lines
- Position within the precision grid

Explanation

2 push stalls are executed on the vertical line.

2 snap stalls are executed on the horizontal line.



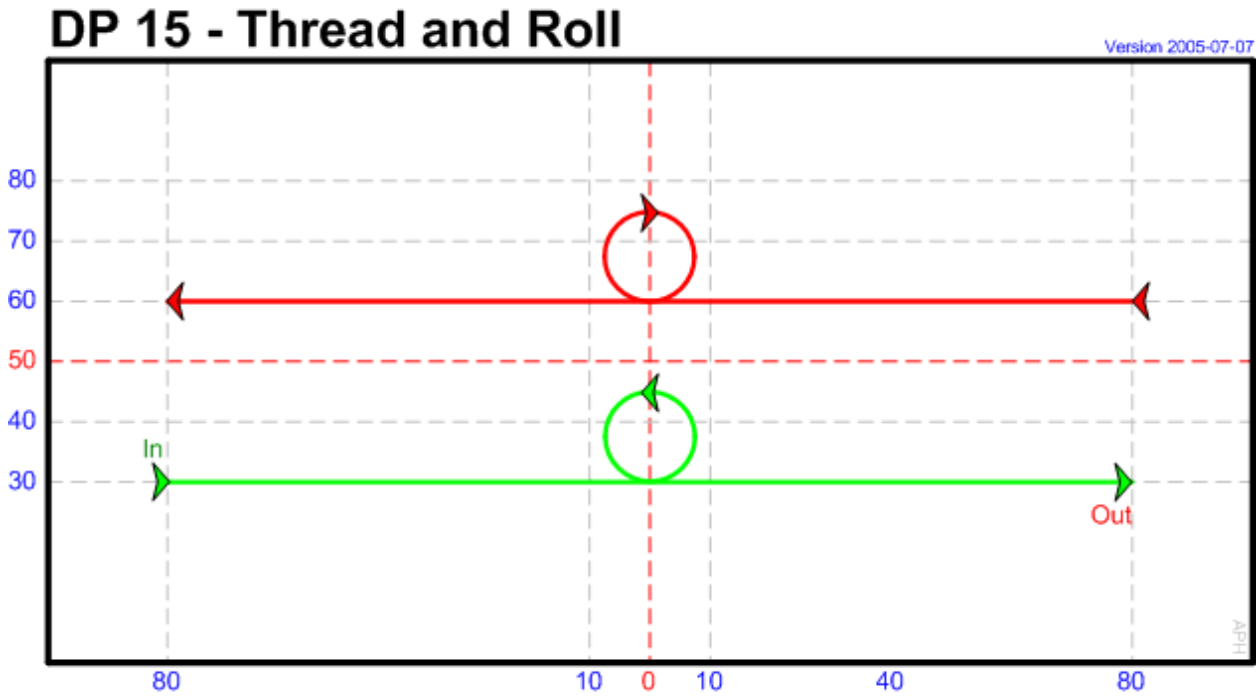
DP 14 – 2 Squares

Version 2005-07-07

Judges will Particularly Consider

- Turns
- Timing
- Relative size of components
- Straight lines

Explanation



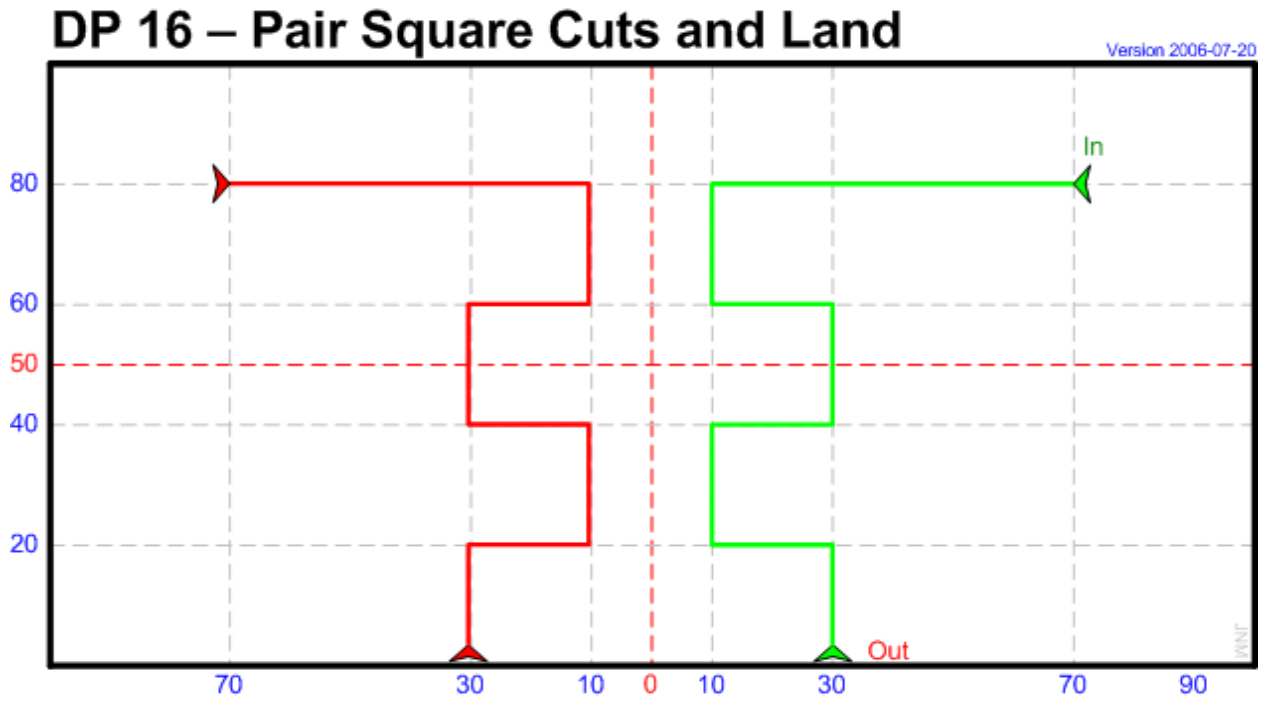
DP 15 – Thread and Roll

Version 2005-07-07

Judges will Particularly Consider

- Lines
- Relative placement of components
- Timing
- Position within the precision grid

Explanation



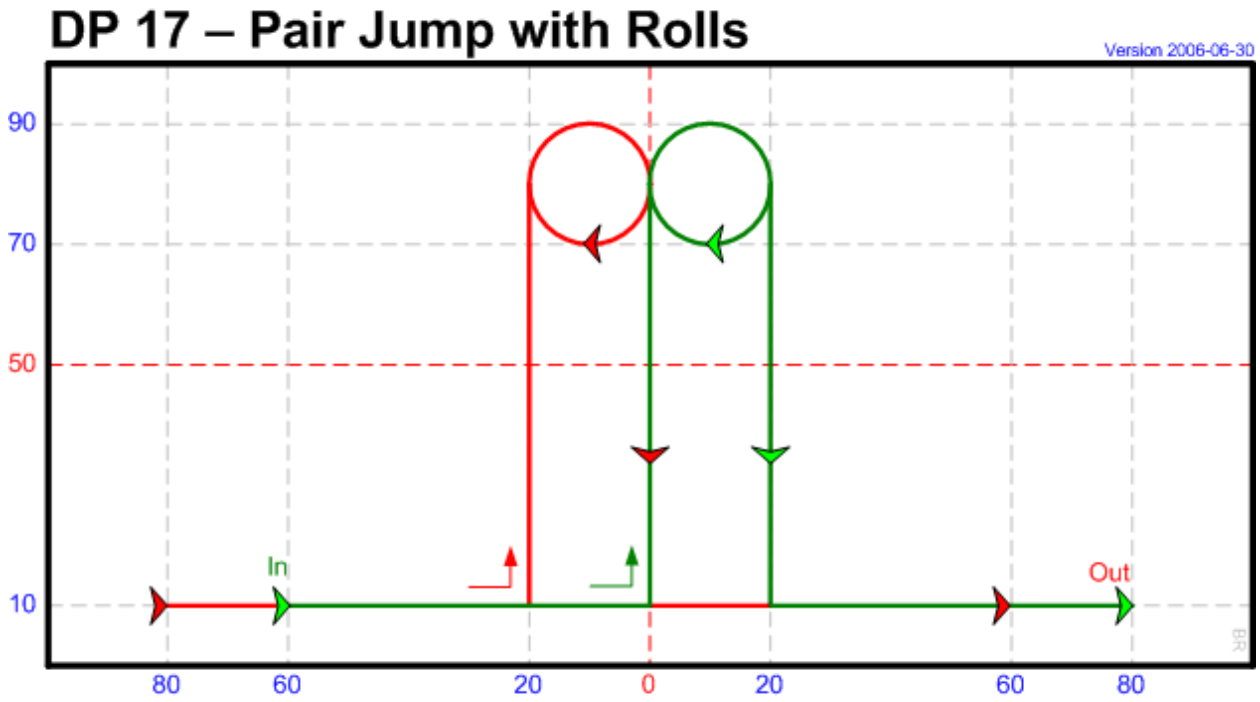
DP 16 – Pair Square Cuts and Land *Version 2006-06-30*

Judges will Particularly Consider

- Turns
- Two-Point Landing
- Relative size of components
- Position within the Precision Grid
- Speed Control

Explanation

Each square cut equals 20% of the vertical and horizontal window.
Turns are closely spaced.



DP 17 – Pair Jump with Rolls

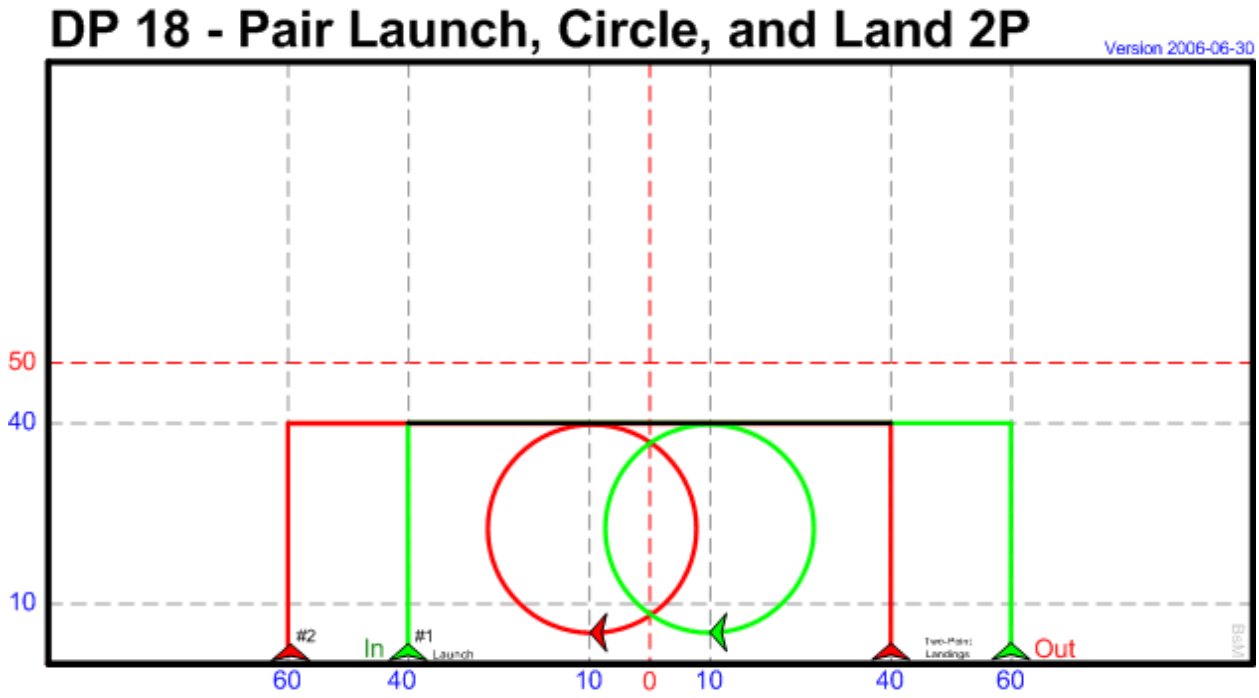
Version 2006-06-30

Judges will Particularly Consider

- Circles
- Speed Control
- Parallel lines
- Turns
- Position within the precision grid

Explanation

Circles must be the same size and the exit of the circle from the left kite must be on the same line as the entrance of the circle from the right kite.



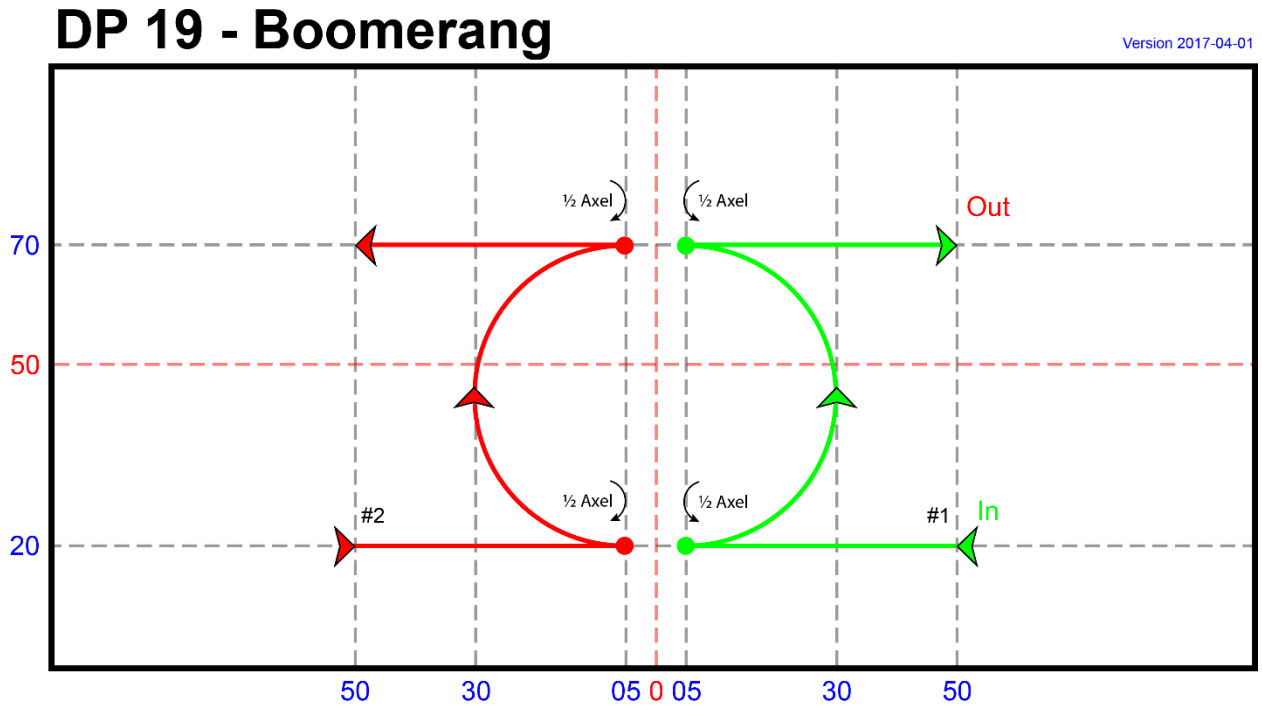
DP 18 – Pair Launch, Circle, and Land 2P *Version 2006-06-30*

Judges will Particularly Consider

- Straight lines
- Two-Point Landings
- Turns
- Speed Control
- Circles
- Position within the precision grid

Explanation

Launch, right flank at 40% vertical, circle, flank down respectively at 60 and 40% horizontal to a Two-Point Landings.



DP 19 – Boomerang

Version 2017-04-01

Judges will Particularly Consider

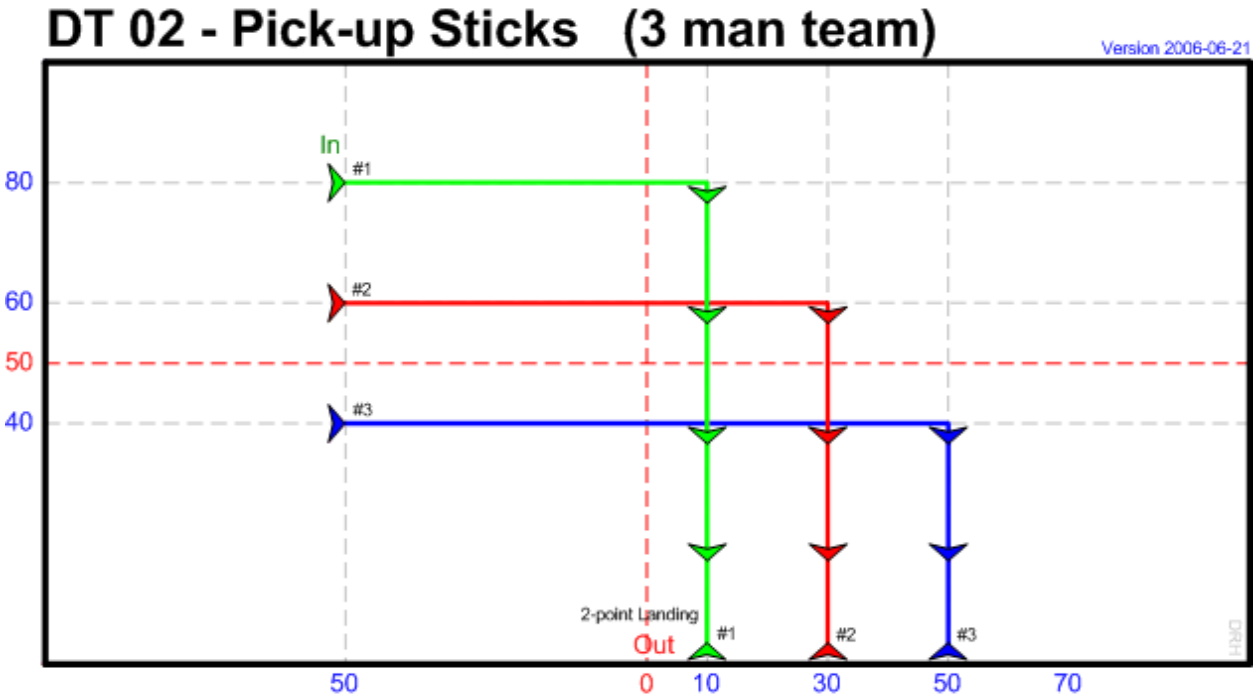
- Parallel lines
- ½ Axels
- Arcs
- Correct placement of elements within the precision grid
- Mirroring of kites throughout the figure
- Synchronicity of execution

Explanation

Each kite enters at 20^ from opposite sides of the wind window, executes a ½ axel at centre of window and continues into an arc. At 70^ each kite executes a second ½ axel immediately above where first ½ axel was placed and continues without pause into level flight, parallel to original line of entry. Leader calls out immediately above the point where IN was called.

VIII. DUAL-LINE TEAM COMPULSORY FIGURES

- DT 02 - Pick-up Sticks
- DT 03 - Follow, Flank Up, and Square
- DT 04 - Team Hairpin
- DT 05 - Arch de Triomph
- DT 07 - Sorted Rectangle
- DT 08 - The Basket
- DT 10 - Team Diamonds
- DT 11 - Cascade
- DT 12 - Loops and Vertical Threads
- ~~DT 14 - HaveFun~~
- ~~DT 15 - Solaris~~
- DT 16 - Team Square Cuts
- DT 17 - Boomerang - **NEW**



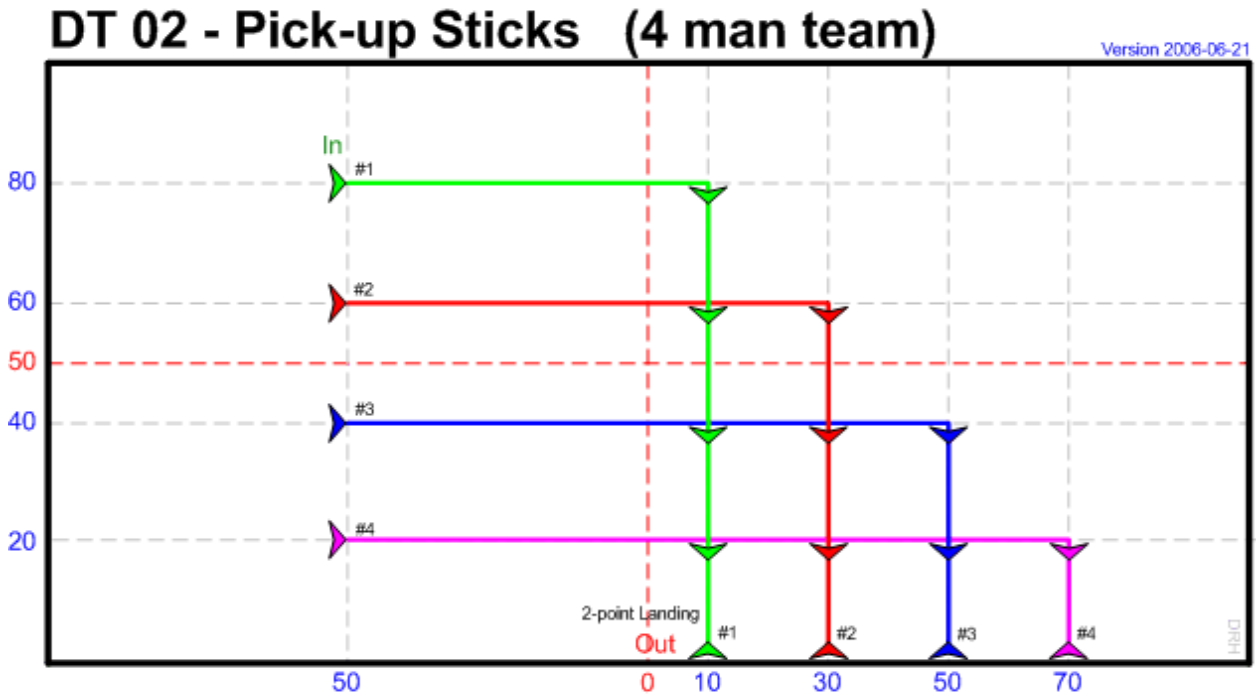
DT 02 – Pick-up Sticks

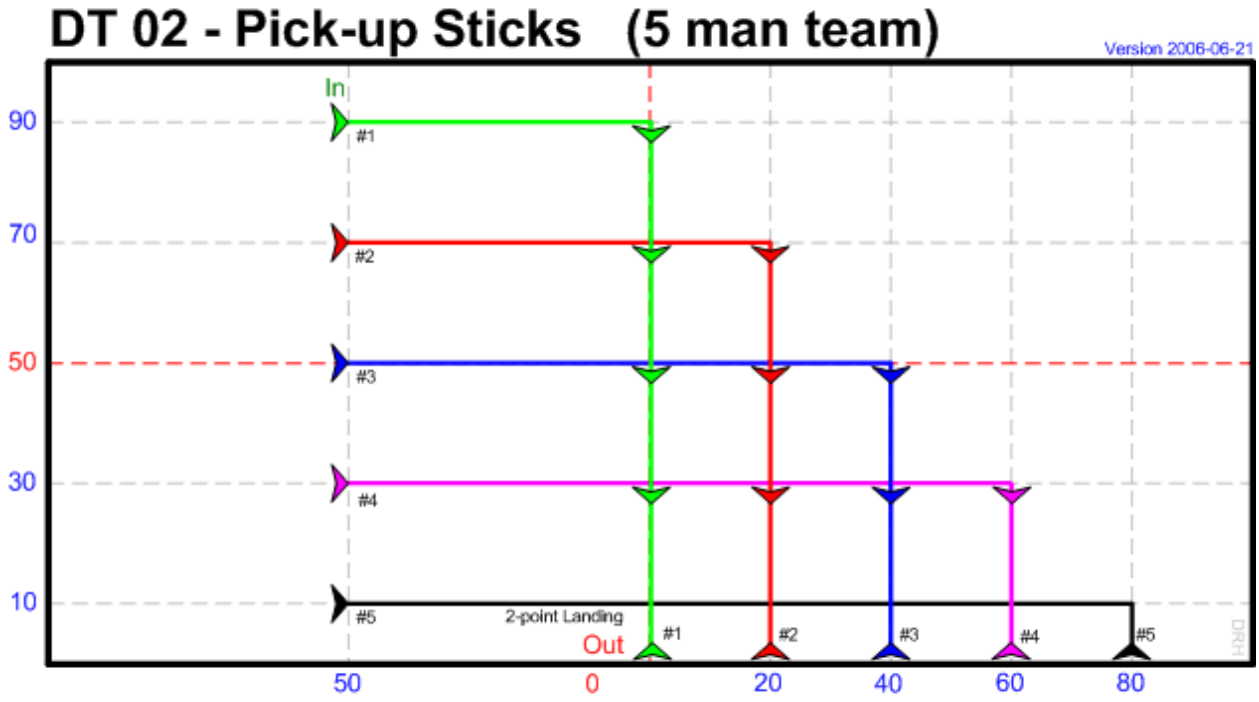
Version 2006-06-30

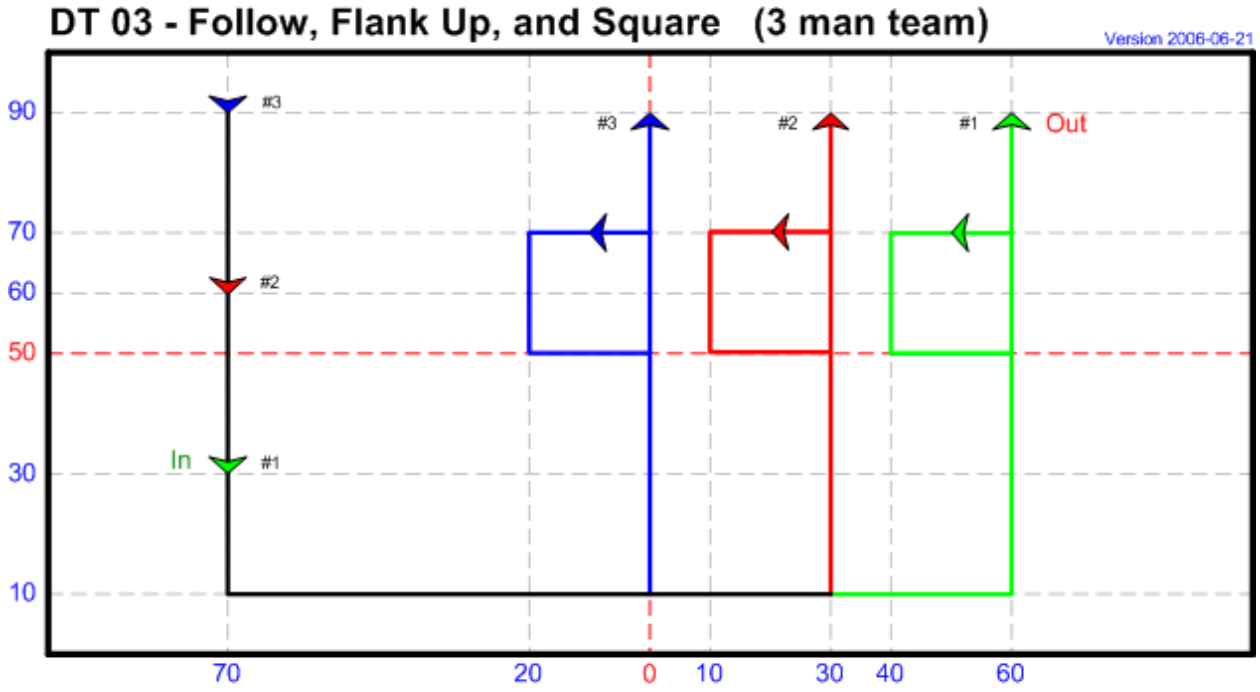
Judges will Particularly Consider

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

Explanation


DT 02 - Pick-up Sticks (4 man team)
Version 2006-06-21
In
#1
#2
#3
#4
80
60
50
40
20
2-point Landing
Out
#1
#2
#3
#4
50
0
10
30
50
70
DRH


DT 02 - Pick-up Sticks (5 man team)
Version 2006-06-21
In
#1
#2
#3
#4
#5
90
70
50
30
10
2-point Landing
Out
#1
#2
#3
#4
#5
50
0
20
40
60
80
DRH



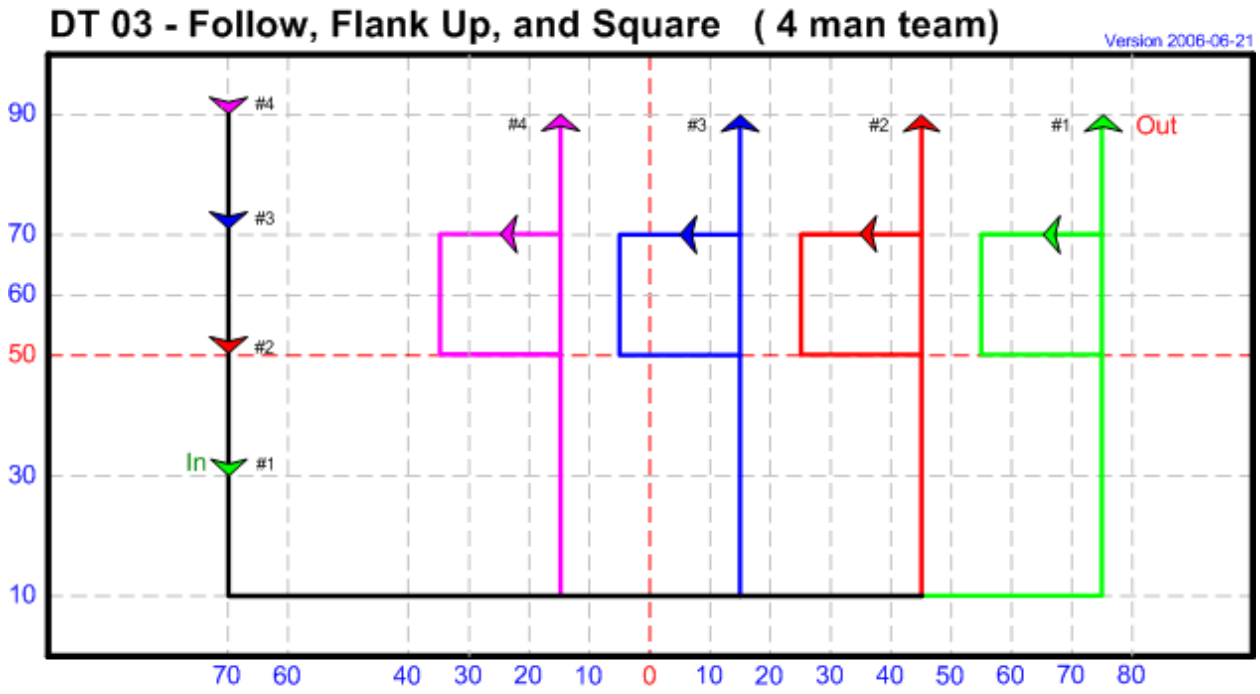
DT 03 – Follow, Flank Up, and Square

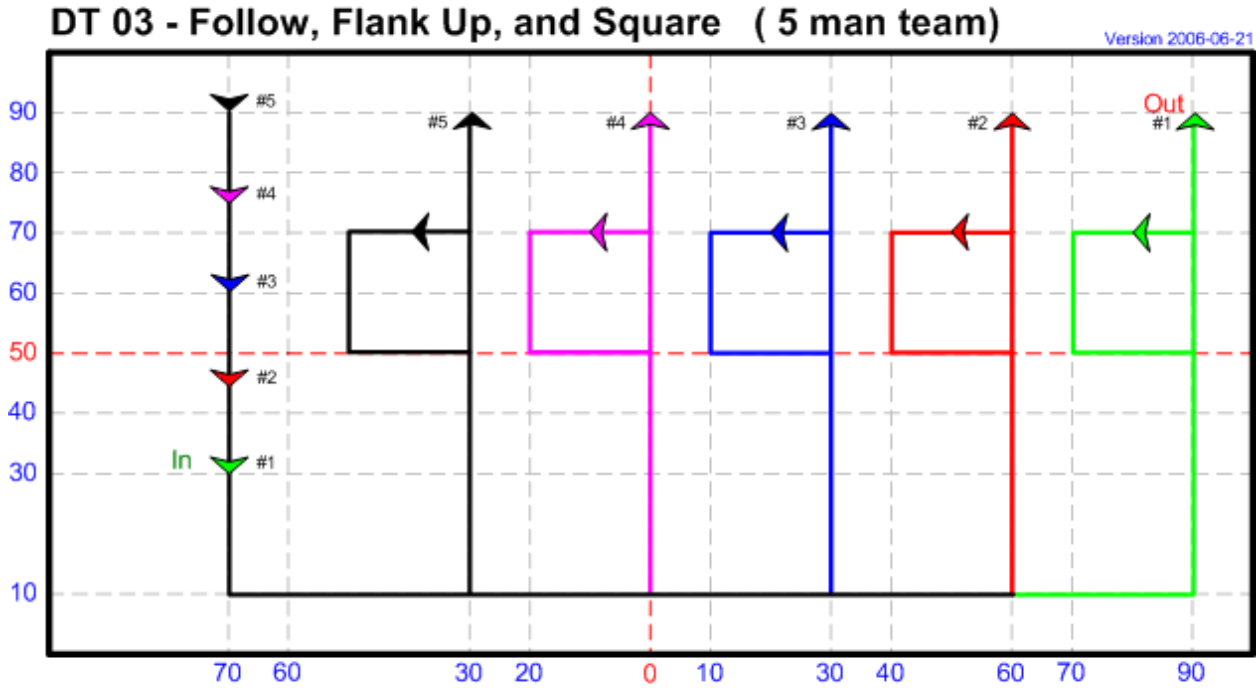
Version 2005-07-07

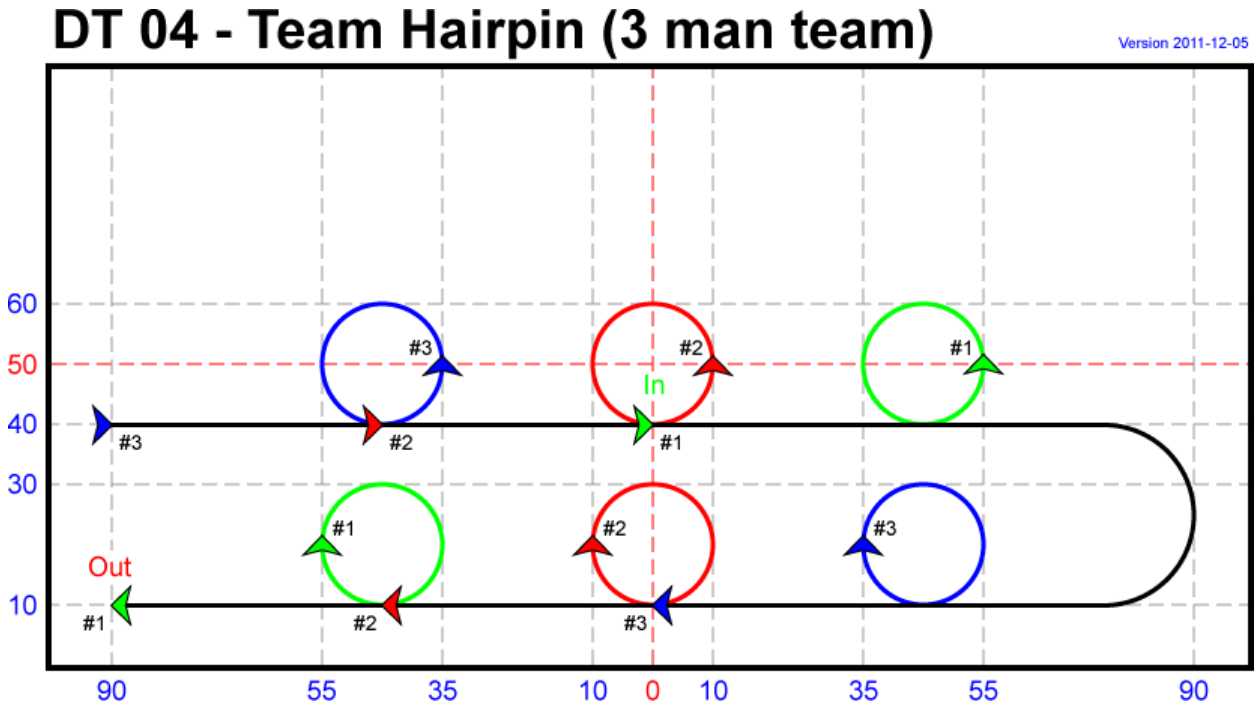
Judges will Particularly Consider

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

Explanation


DT 03 - Follow, Flank Up, and Square (4 man team)
Version 2006-06-21
90
70
60
50
30
10
#4
#3
#2
In
#1
#4
#3
#2
#1
Out
70 60 40 30 20 10 0 10 20 30 40 50 60 70 80


DT 03 - Follow, Flank Up, and Square (5 man team)
Version 2006-06-21
90
80
70
60
50
40
30
10
#5
#4
#3
#2
In
#1
#5
#4
#3
#2
Out
#1
70 60 30 20 0 10 30 40 60 70 90



DT 04 – Team Hairpin

Version 2011-12-05

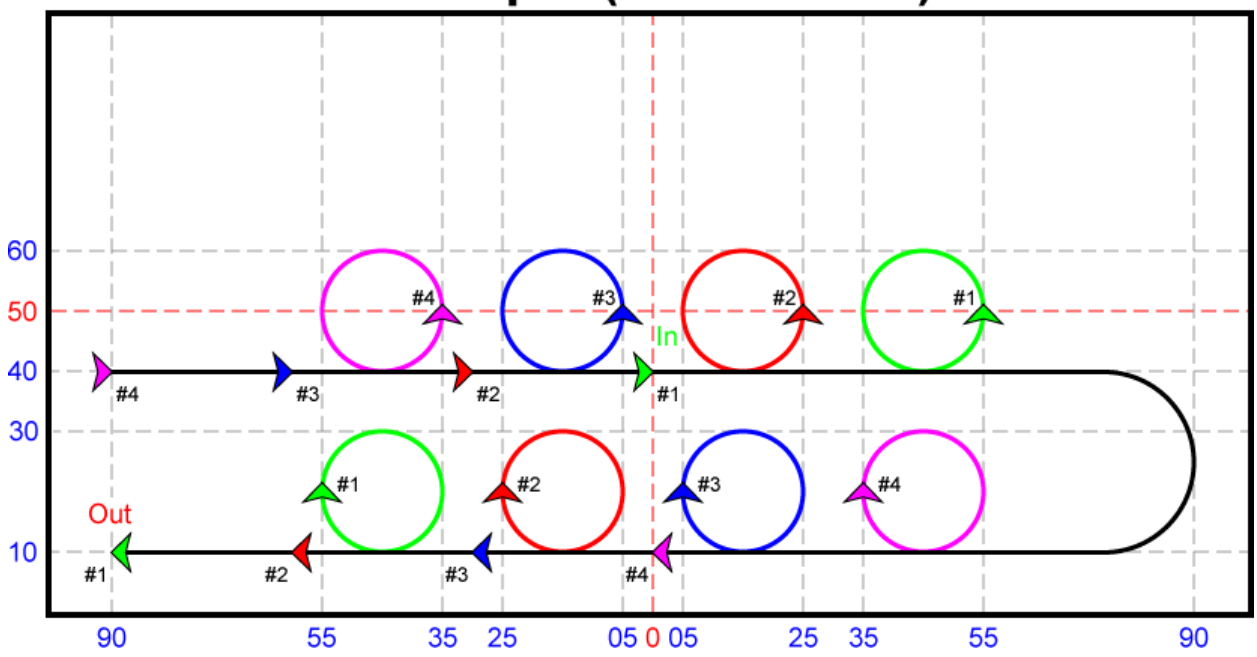
Judges will Particularly Consider

- 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

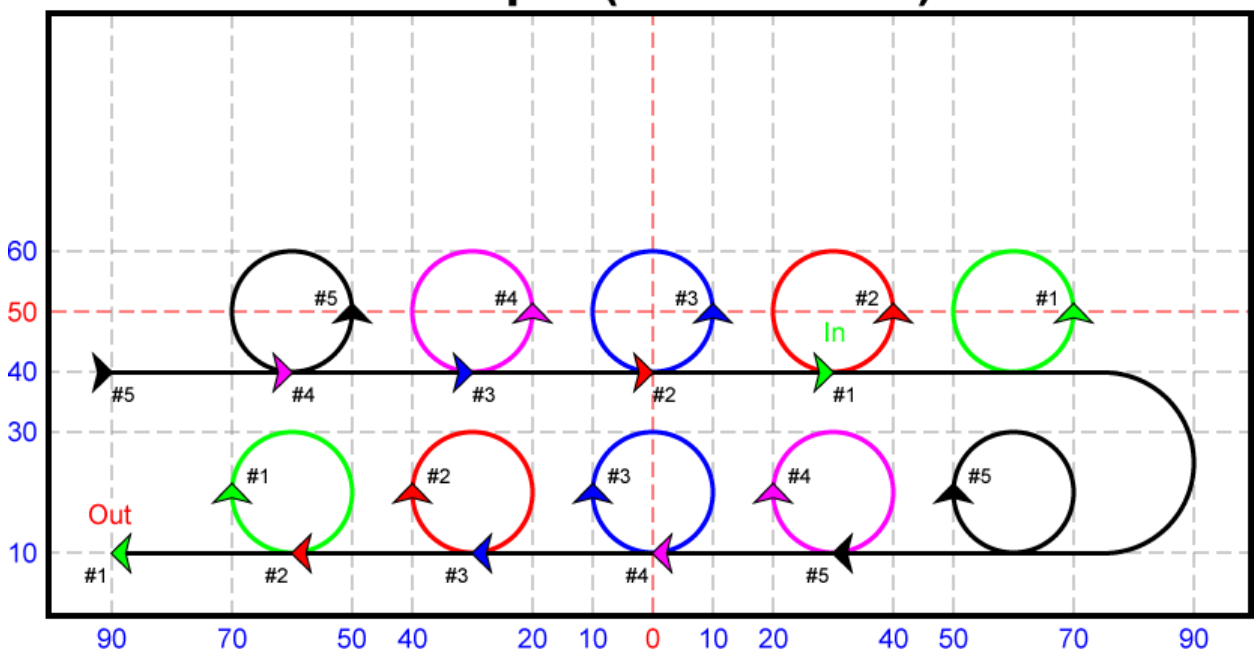
DT 04 - Team Hairpin (4 man team)

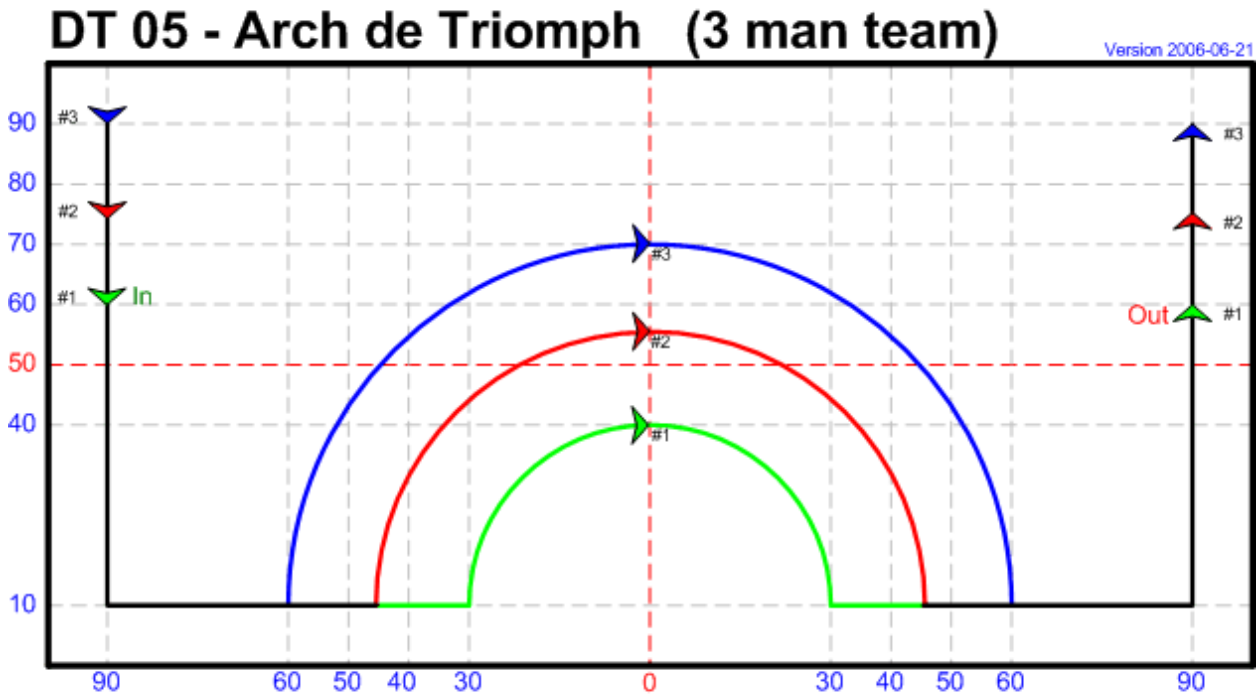
Version 2011-12-05



DT 04 - Team Hairpin (5 man team)

Version 2011-12-05





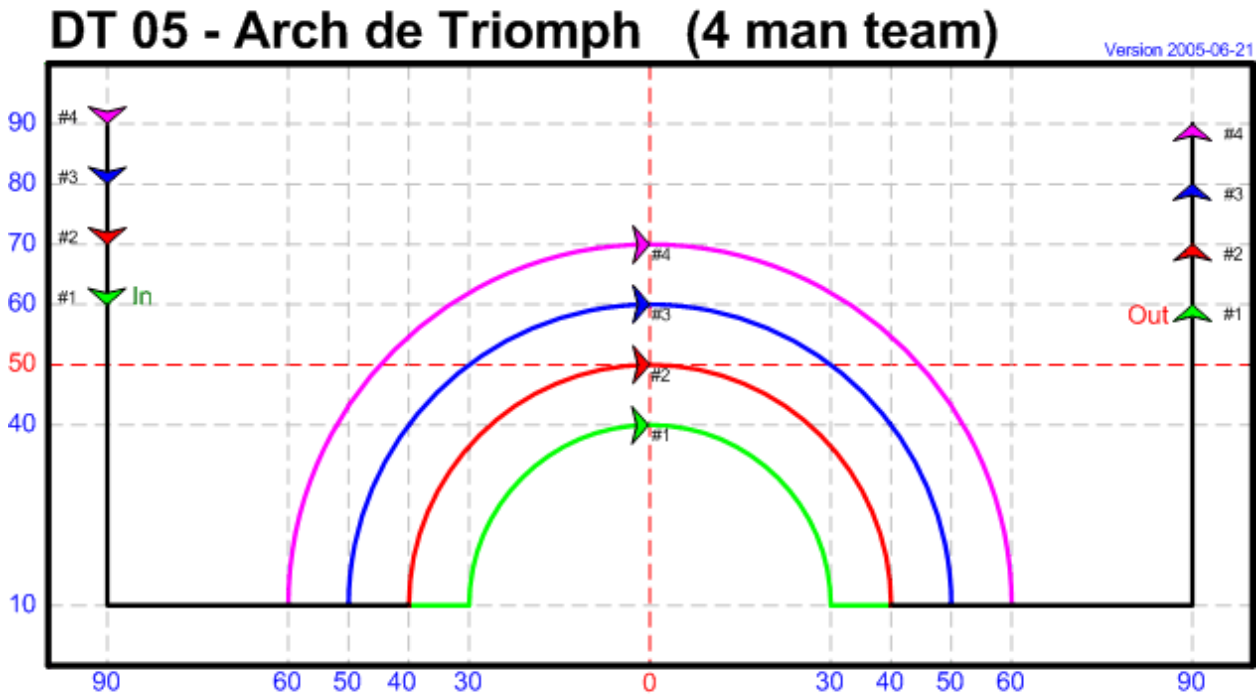
DT 05 – Arch de Triomph

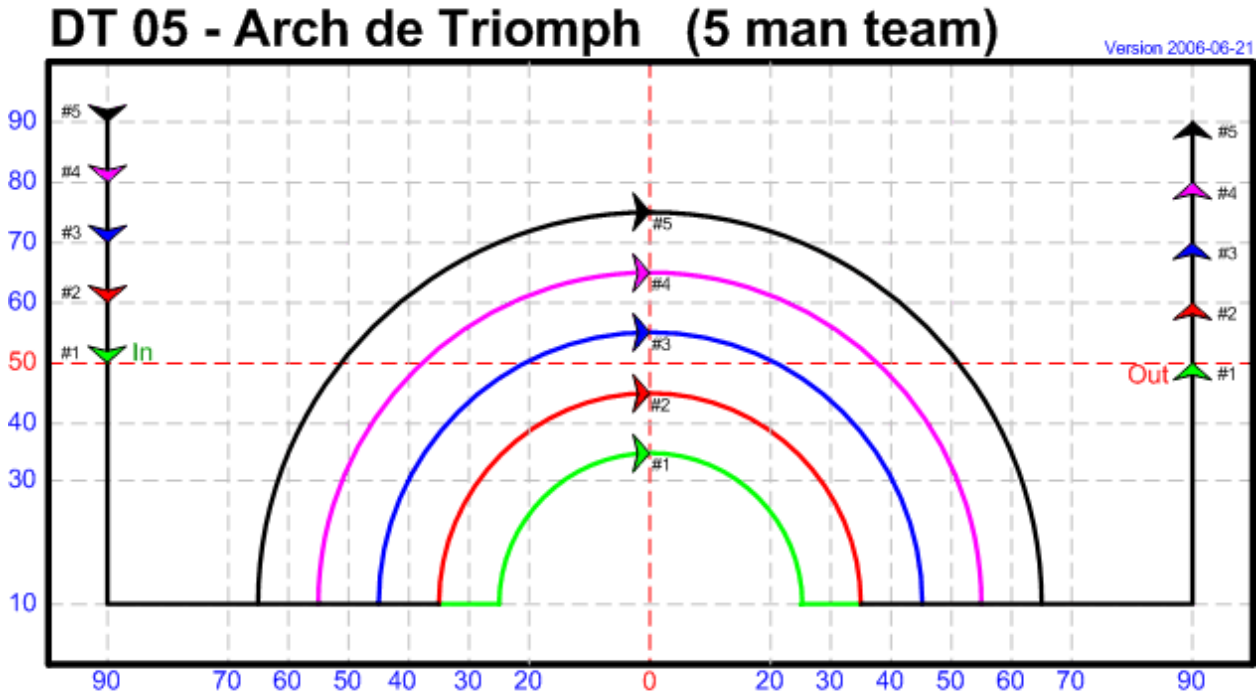
Version 2005-07-07

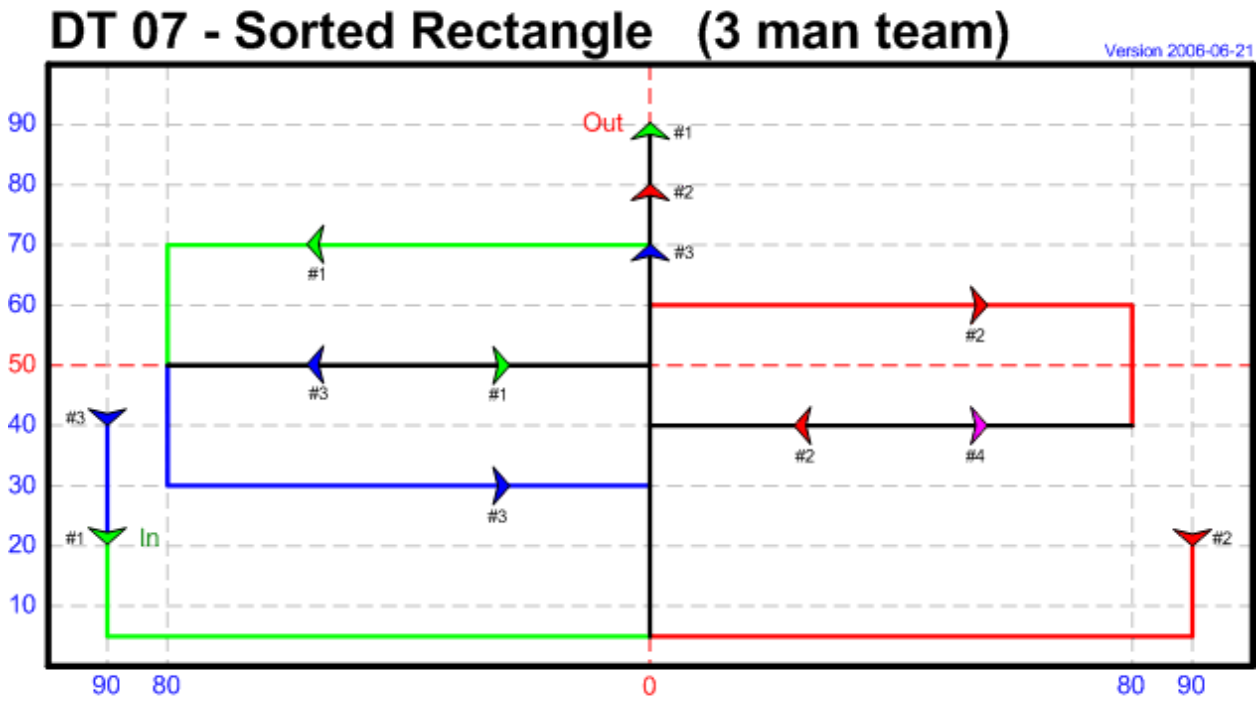
Judges will Particularly Consider

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

Explanation


DT 05 - Arch de Triomph (4 man team)
Version 2005-06-21
90
80
70
60
50
40
10
#4
#3
#2
#1
In
Out
90 60 50 40 30 0 30 40 50 60 90


DT 05 - Arch de Triomph (5 man team)
Version 2006-06-21
90
80
70
60
50
40
30
10
#5
#4
#3
#2
#1
In
Out
90 70 60 50 40 30 20 0 20 30 40 50 60 70 90



DT 07 – Sorted Rectangle

Version 2006-06-30

Judges will Particularly Consider

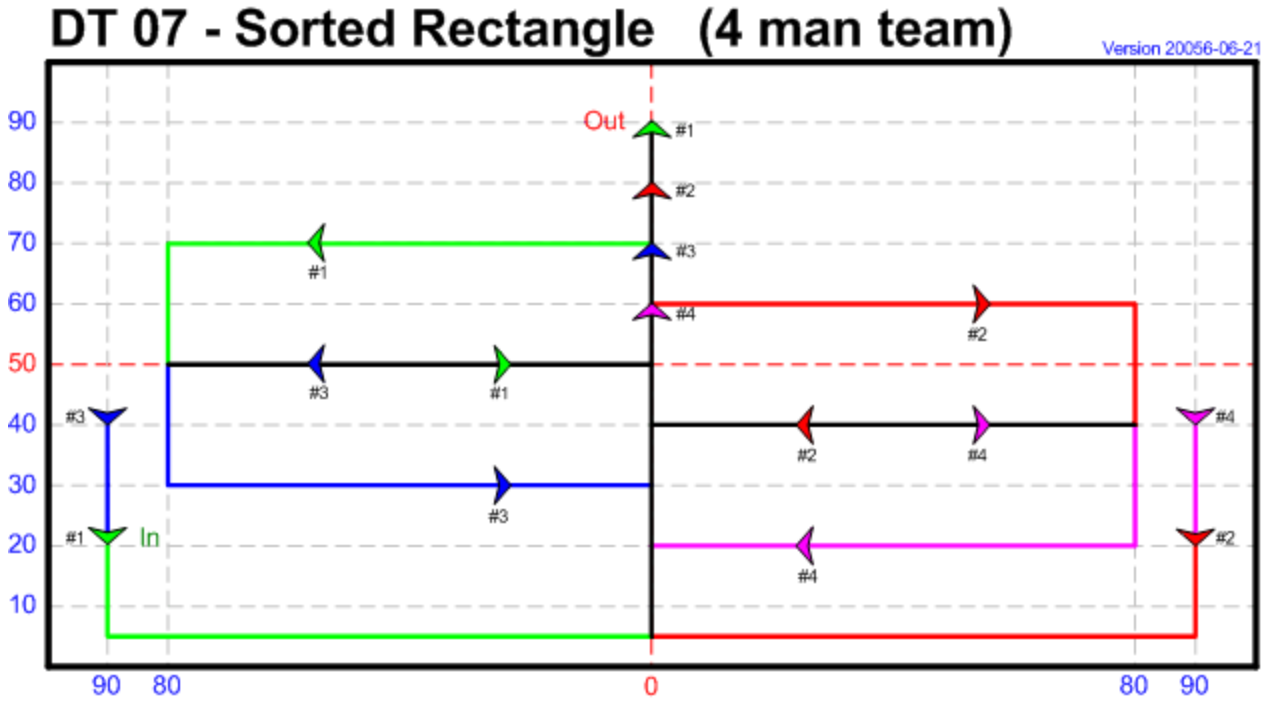
- Timing
- Relative placement of components
- Ground pass
- Parallel lines

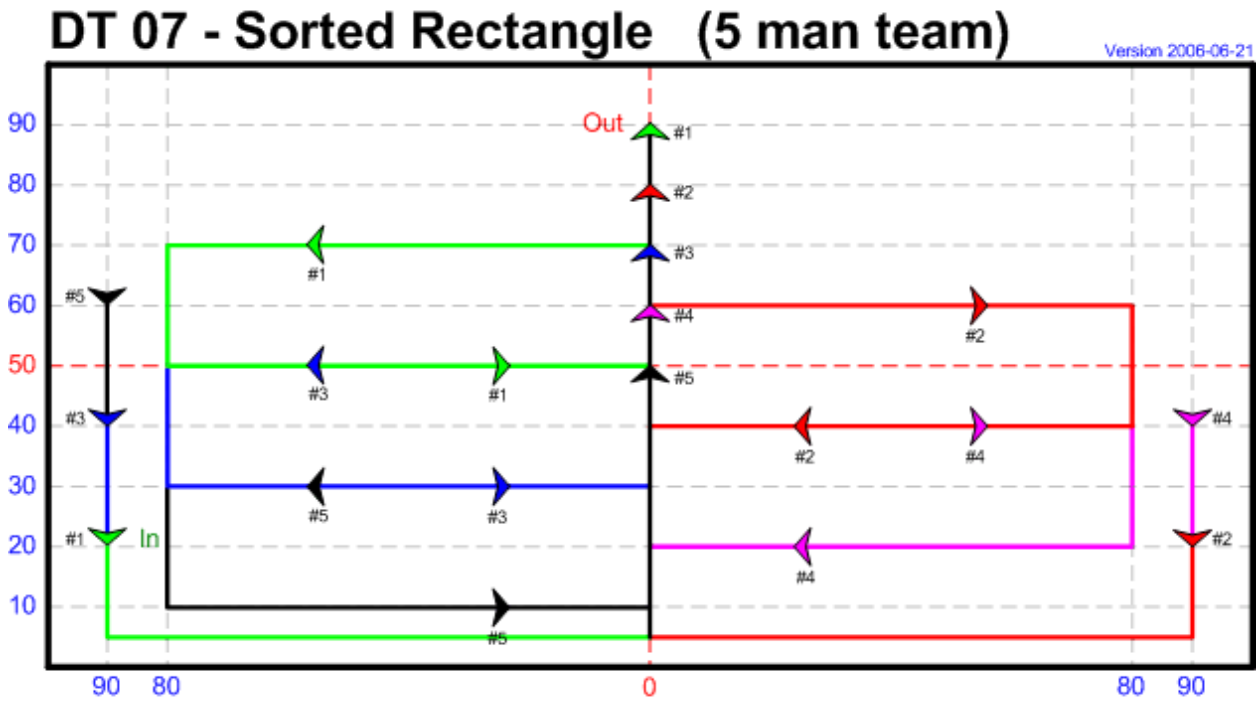
Explanation

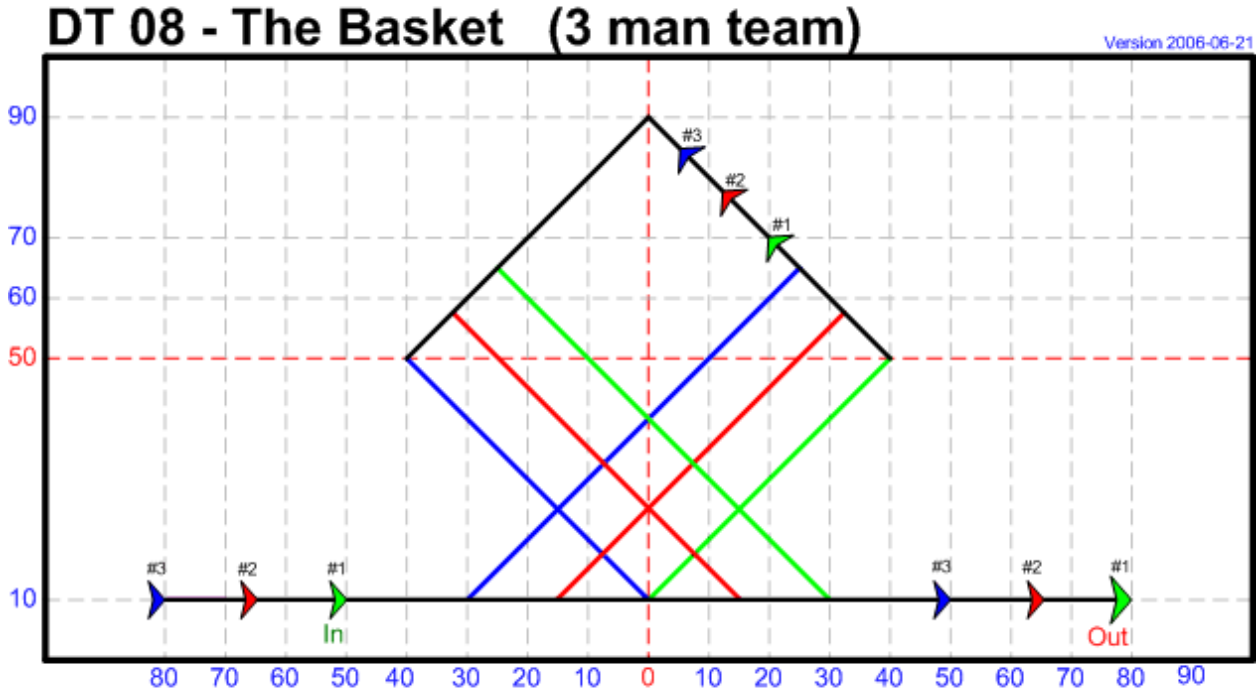
Kites come down from the outside of the window and turn toward the center into a ground pass.

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
Out
In
90
80
70
60
50
40
30
20
10
90 80 0 80 90


DT 07 - Sorted Rectangle (5 man team)
Version 2006-06-21
Out
In
90
80
70
60
50
40
30
20
10
90 80 0 80 90



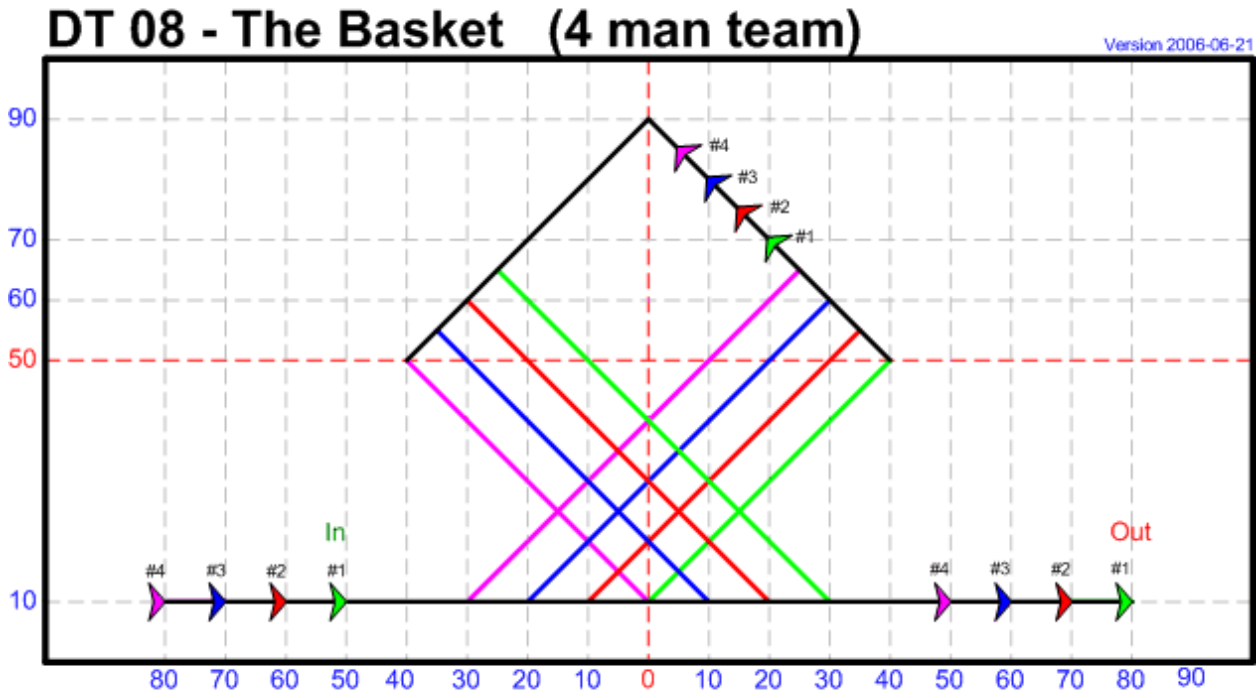
DT 08 – The Basket

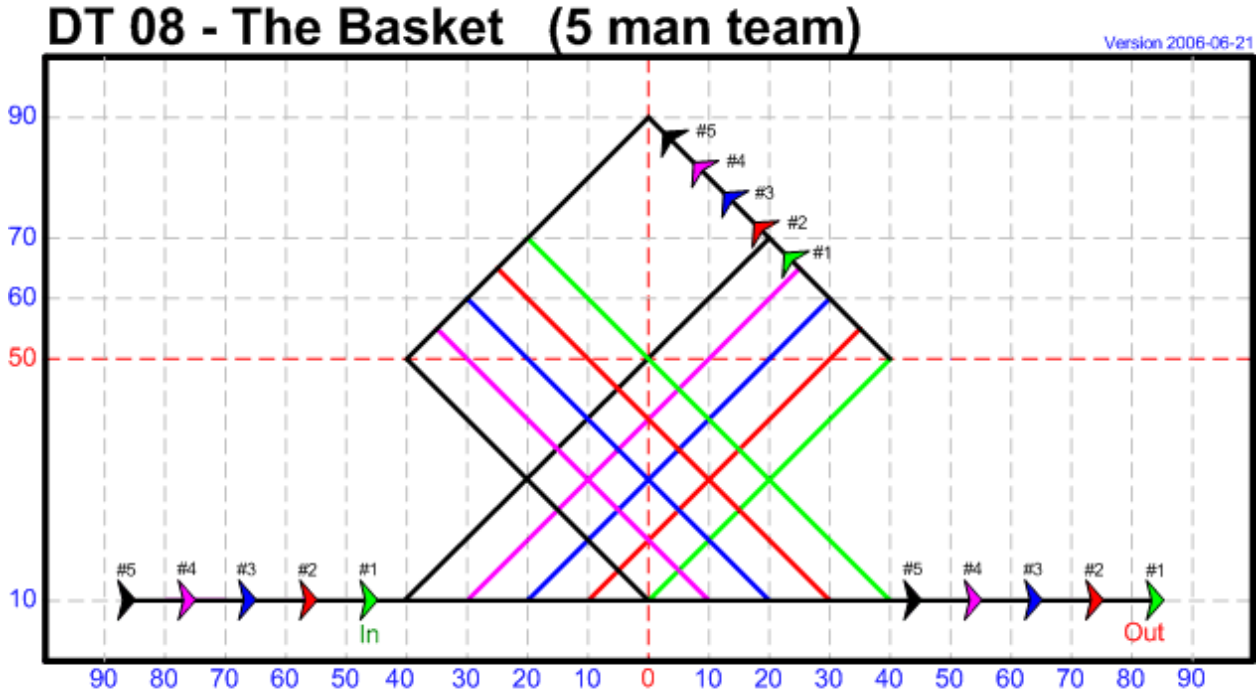
Version 2005-07-07

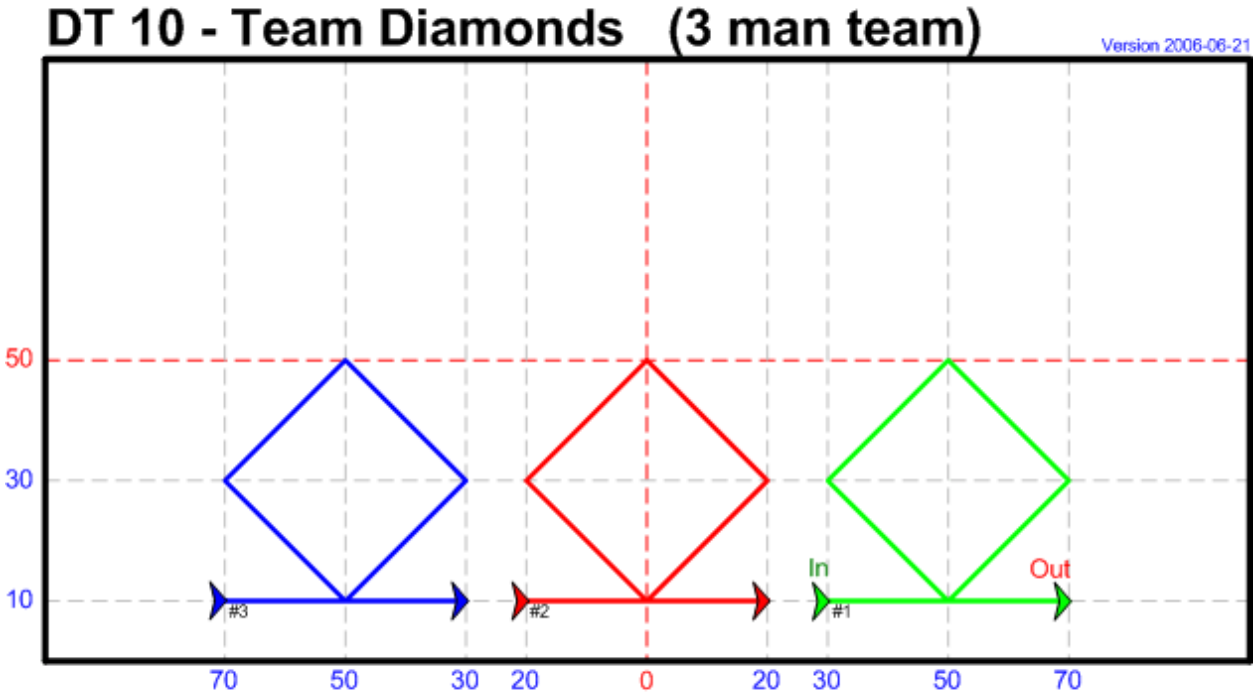
Judges will Particularly Consider

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

Explanation


DT 08 - The Basket (4 man team)
Version 2006-06-21
90
70
60
50
10
#4
#3
#2
#1
In
Out
80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90


DT 08 - The Basket (5 man team)
Version 2006-06-21
90
70
60
50
10
#5
#4
#3
#2
#1
In
Out
90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90



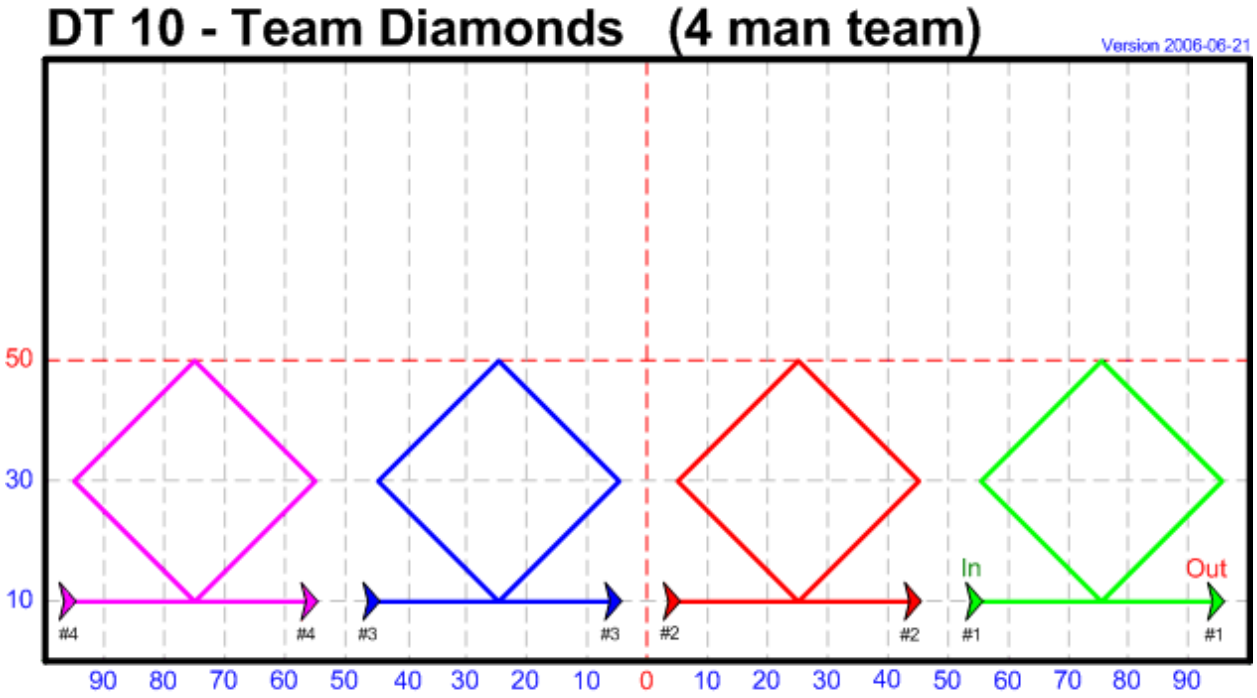
DT 10 – Team Diamonds

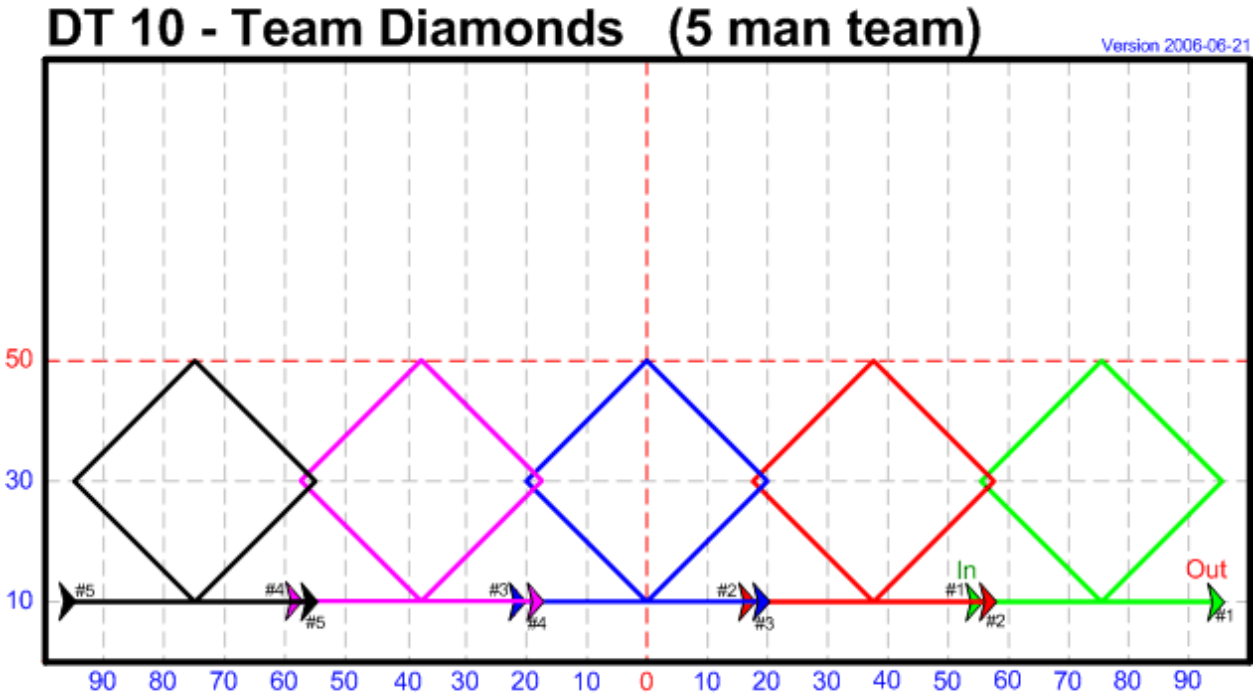
Version 2006-06-30

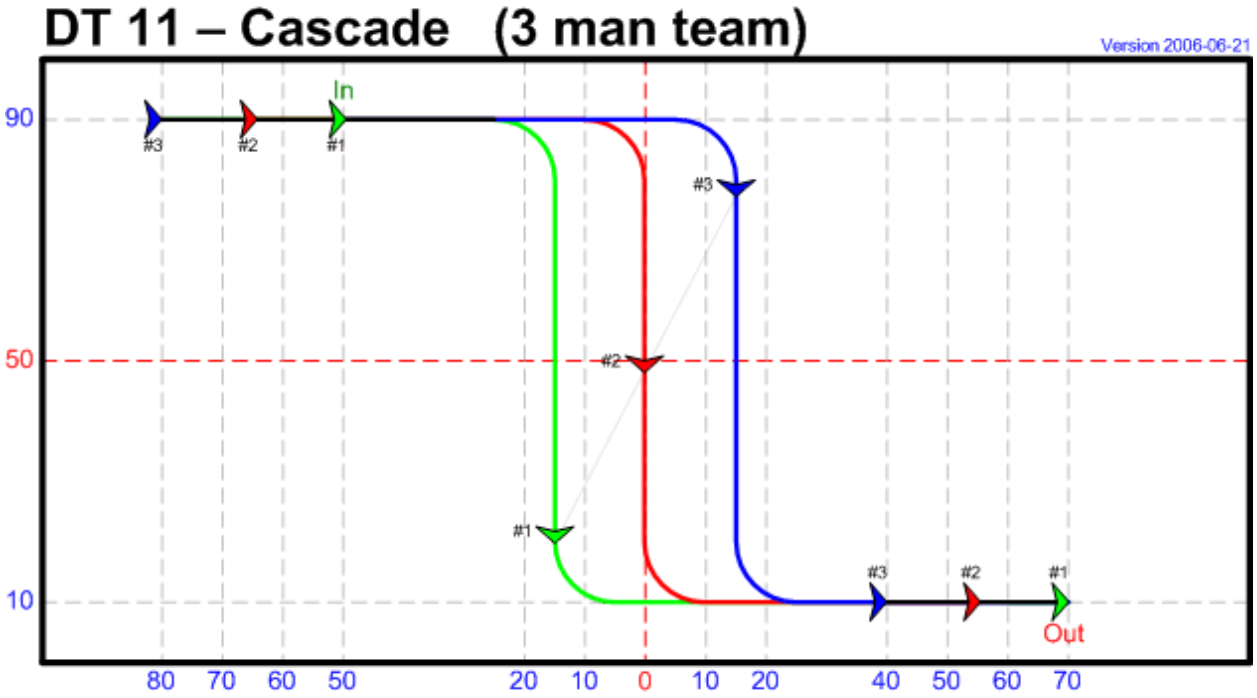
Judges will Particularly Consider

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

Explanation


DT 10 - Team Diamonds (4 man team)
Version 2006-06-21
50
30
10
In
Out
#4
#3
#2
#1
90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90


DT 10 - Team Diamonds (5 man team)
Version 2006-06-21
50
30
10
In
Out
#5
#4
#3
#2
#1
90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90



DT 11 – Cascade

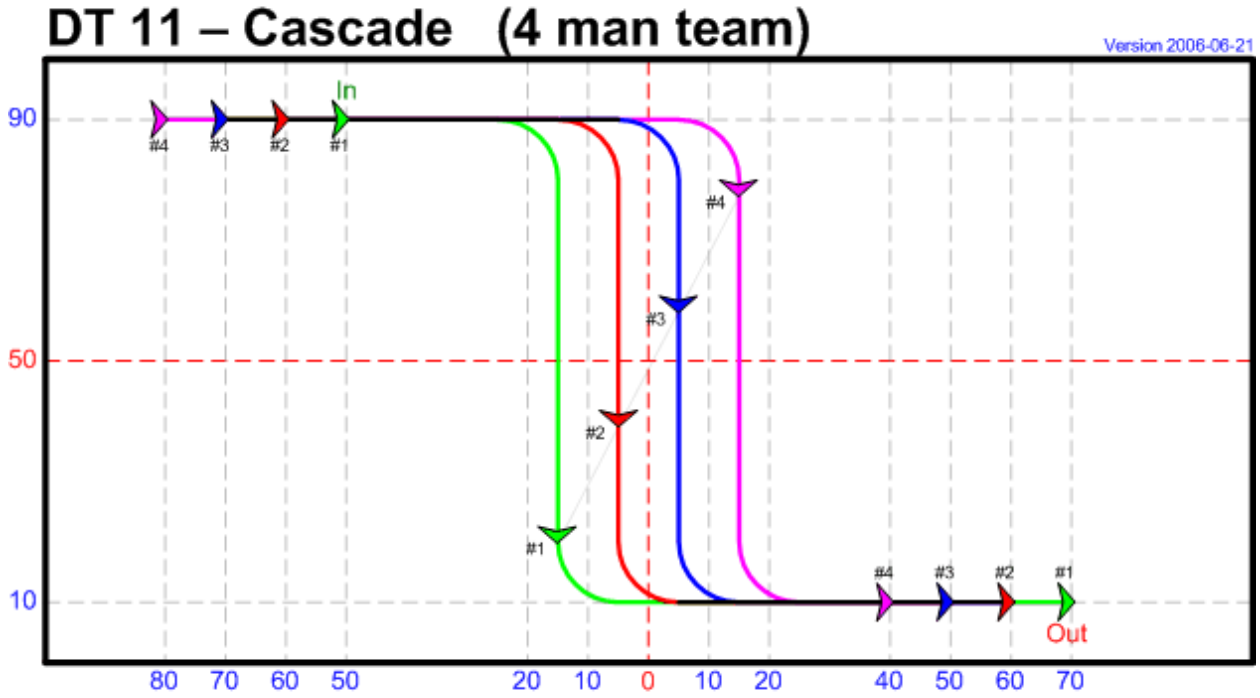
Version 2006-06-30

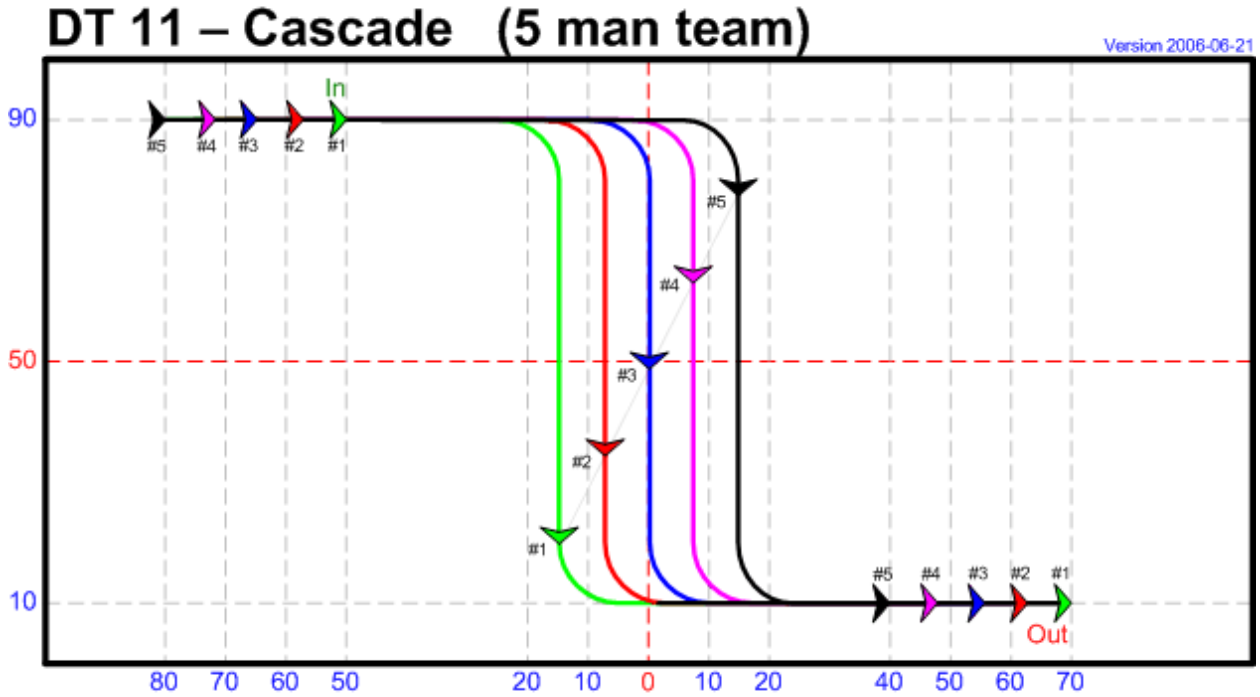
Judges will Particularly Consider

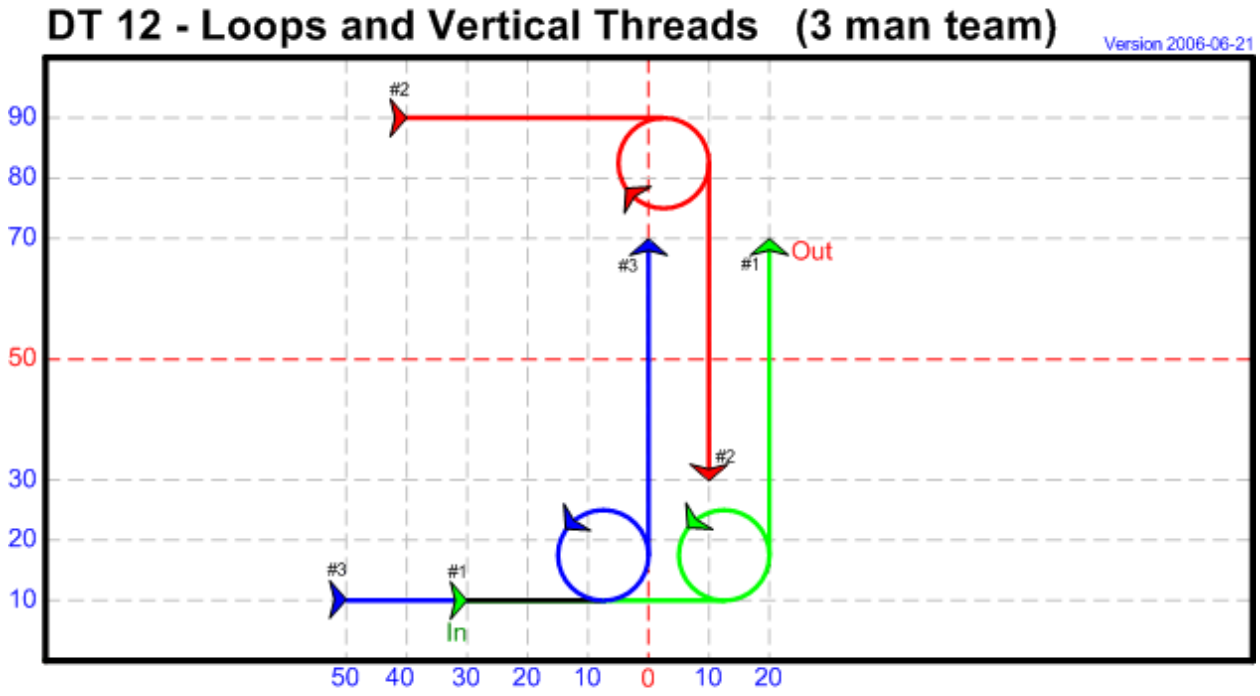
- Speed control
- Position within the precision grid
- Spacing
- Parallel lines

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 last kite has already flown into the down flight.


DT 11 – Cascade (4 man team)
Version 2006-06-21
In
#4
#3
#2
#1
90
50
10
Out
80 70 60 50 20 10 0 10 20 40 50 60 70


DT 11 – Cascade (5 man team)
Version 2006-06-21
In
#5
#4
#3
#2
#1
90
50
10
Out
80 70 60 50 20 10 0 10 20 40 50 60 70



DT 12 – Loops and Vertical Threads

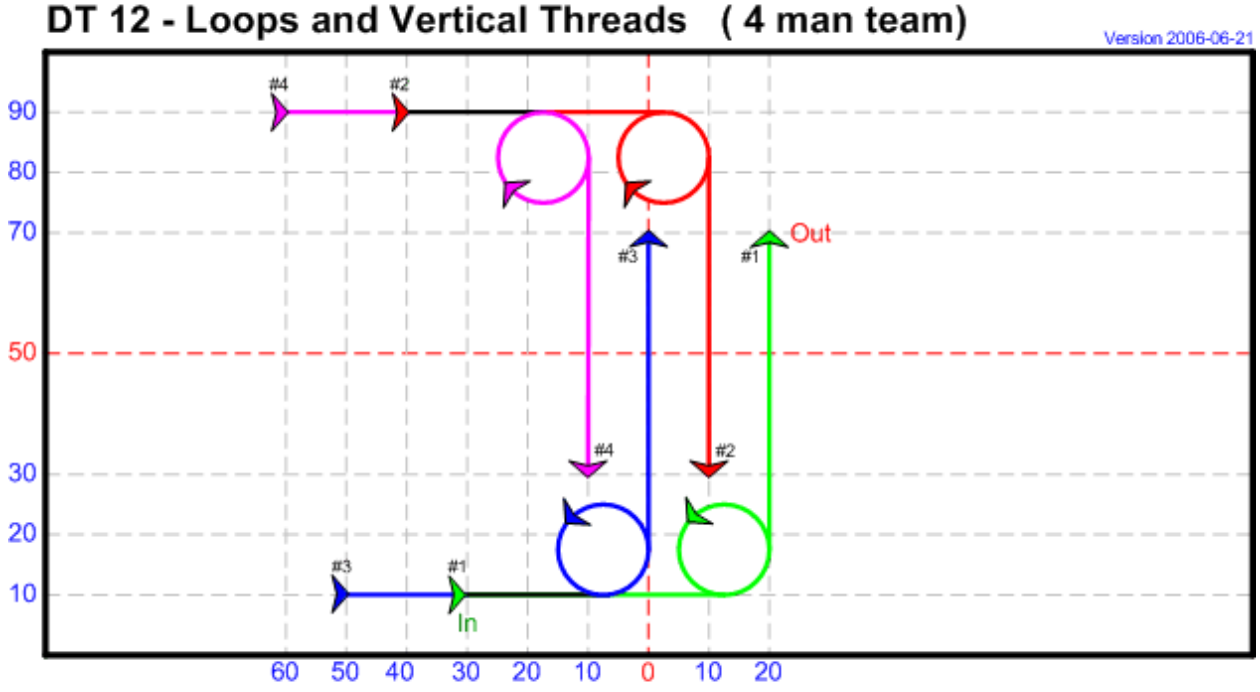
Version 2006-06-30

Judges will Particularly Consider

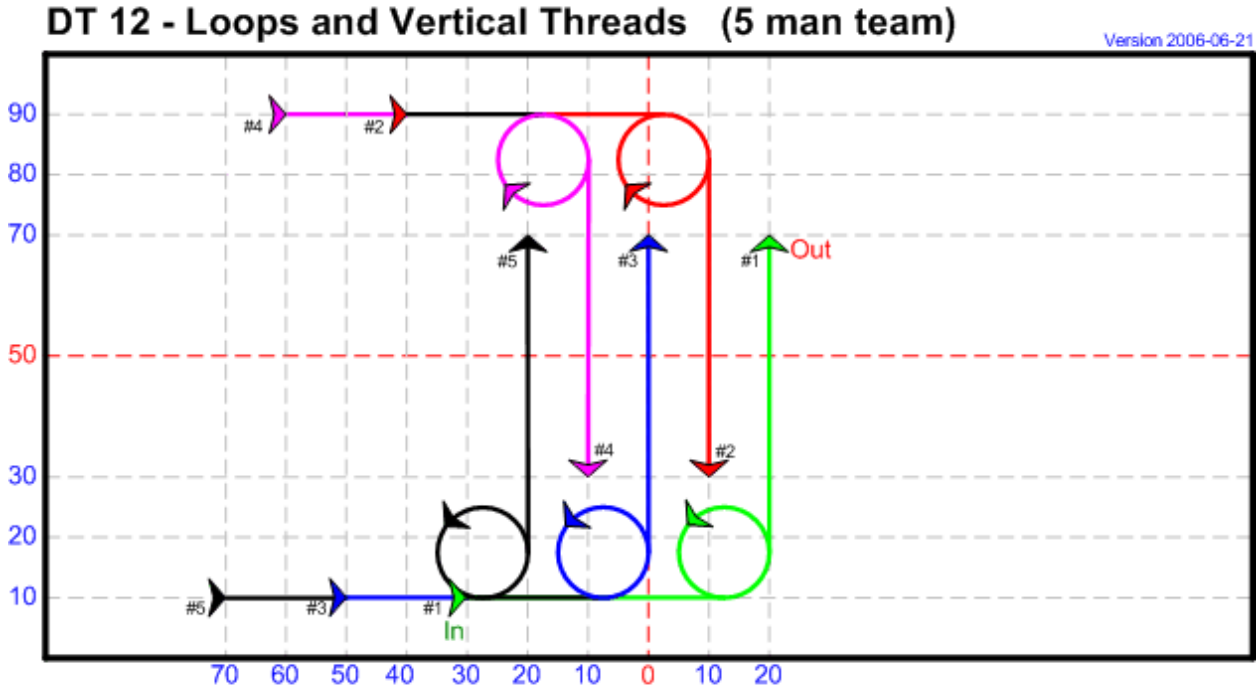
- Circles
- Relative placement of components
- Speed control
- Position within the precision grid
- Parallel lines

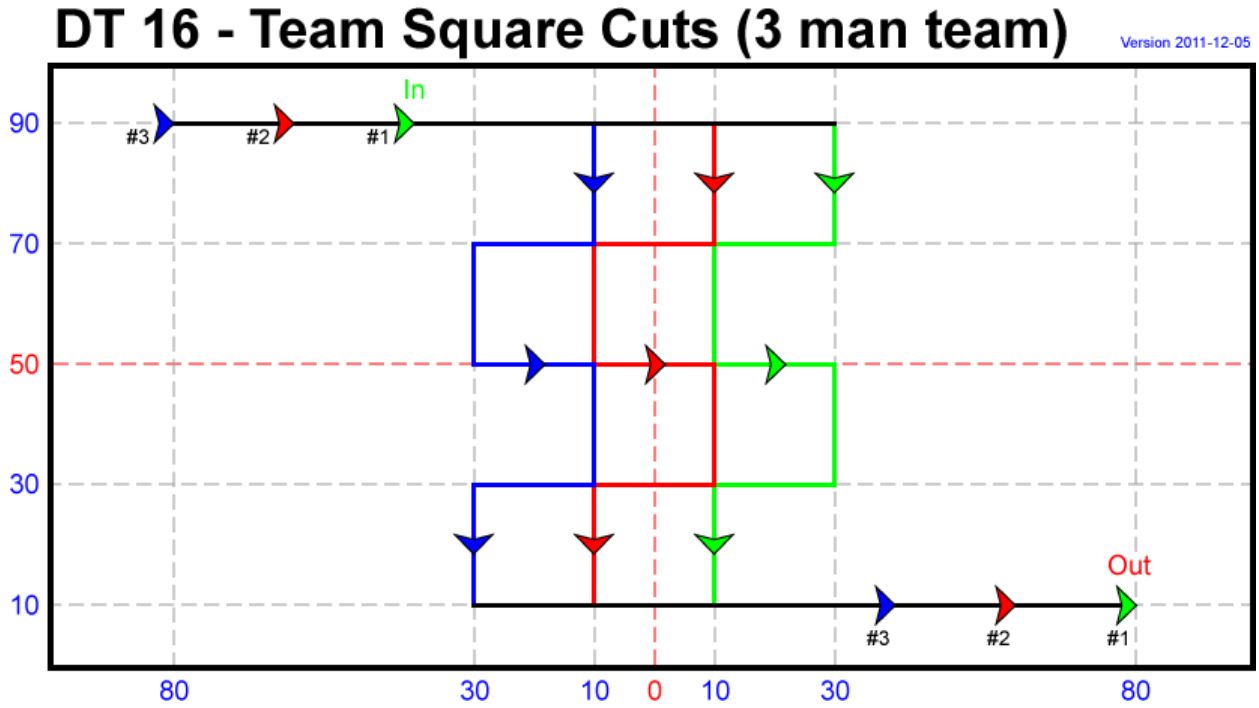
Explanation

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



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





DT 16 – Team Square Cuts

Version 2011-12-05

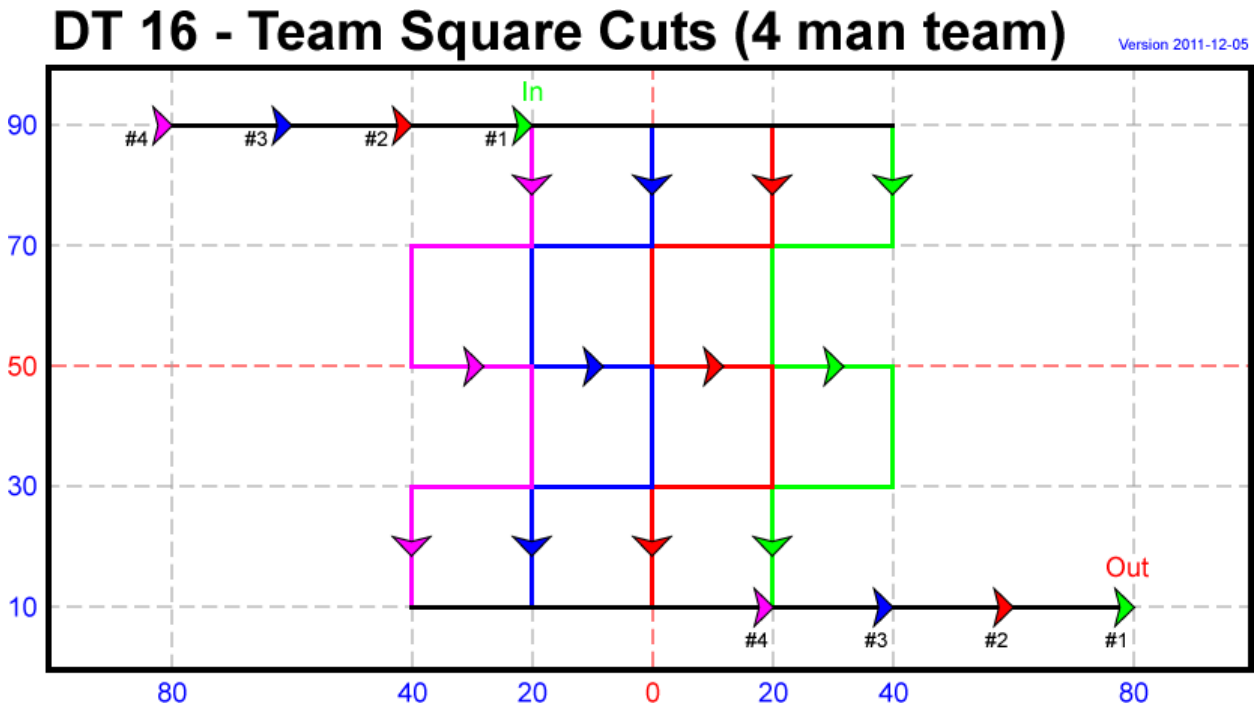
Judges will Particularly Consider

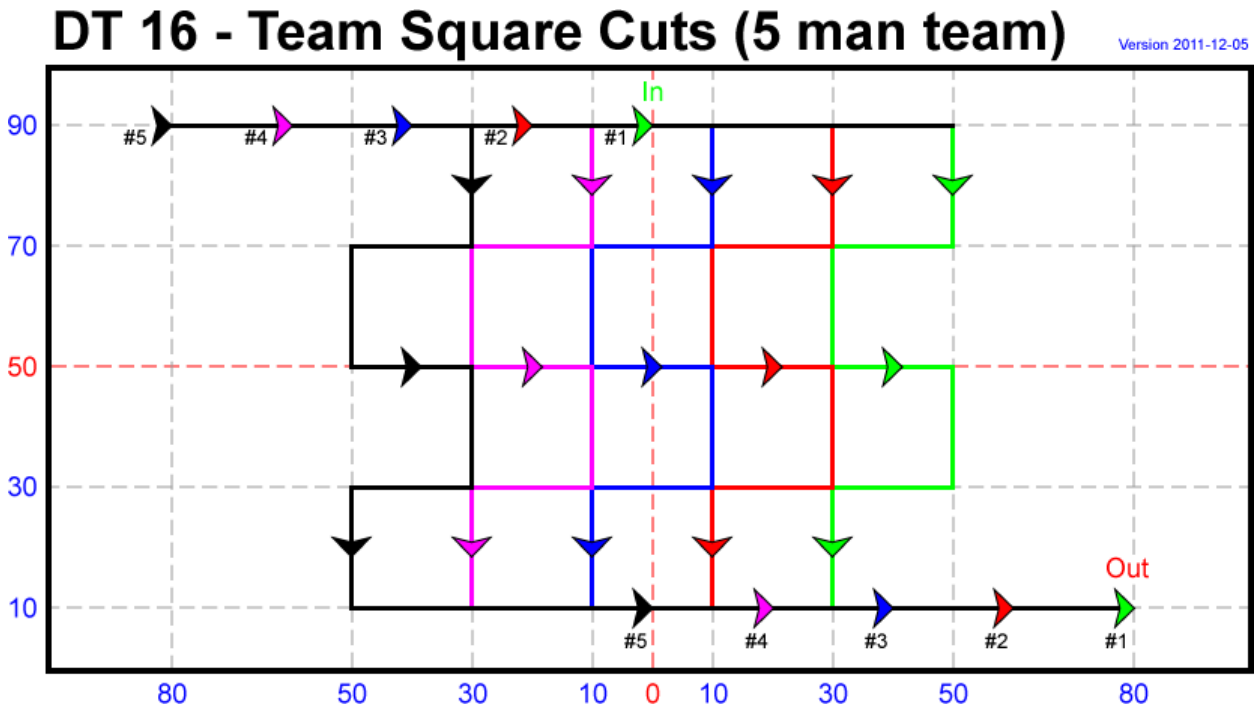
- Synchronicity of turns
- Position within the precision grid
- Relative placement of the components

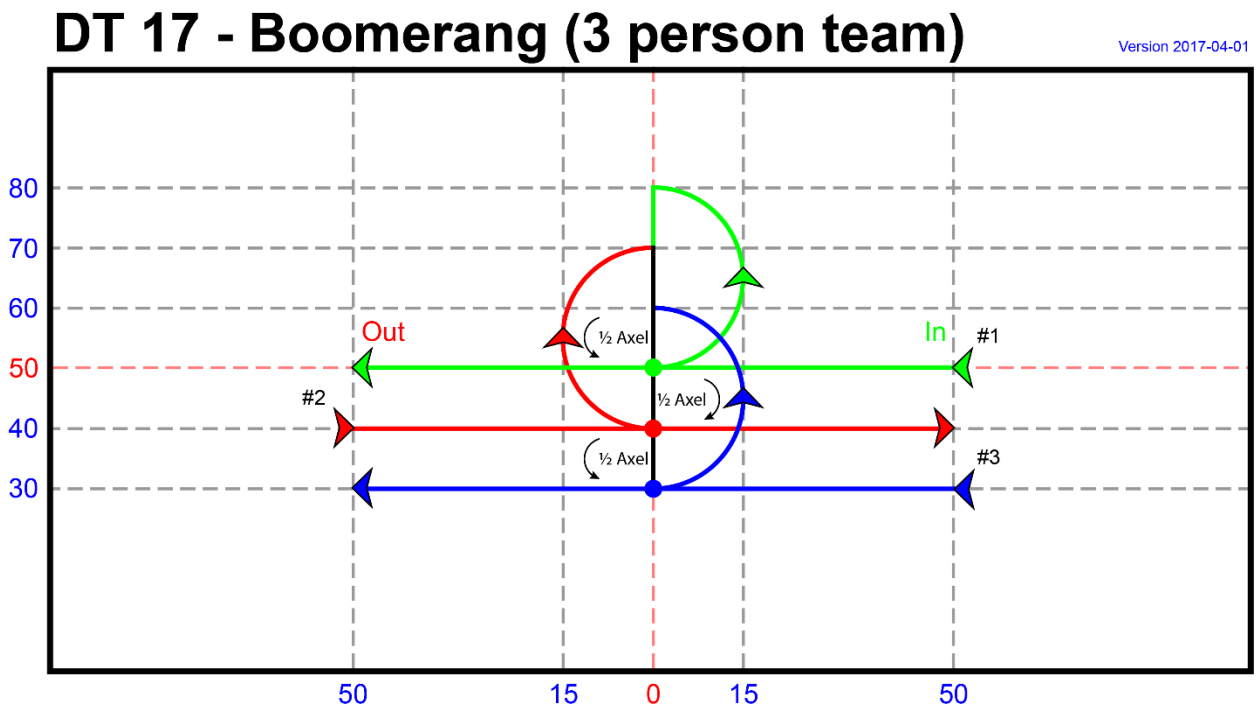
Explanation

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
In
#4
#3
#2
#1
90
70
50
30
10
Out
#4
#3
#2
#1
80
40
20
0
20
40
80


DT 16 - Team Square Cuts (5 man team)
Version 2011-12-05
In
#5
#4
#3
#2
#1
90
70
50
30
10
Out
#5
#4
#3
#2
#1
80
50
30
10
0
10
30
50
80



DT 17 – Boomerang

Version 2017-04-01

Judges will Particularly Consider

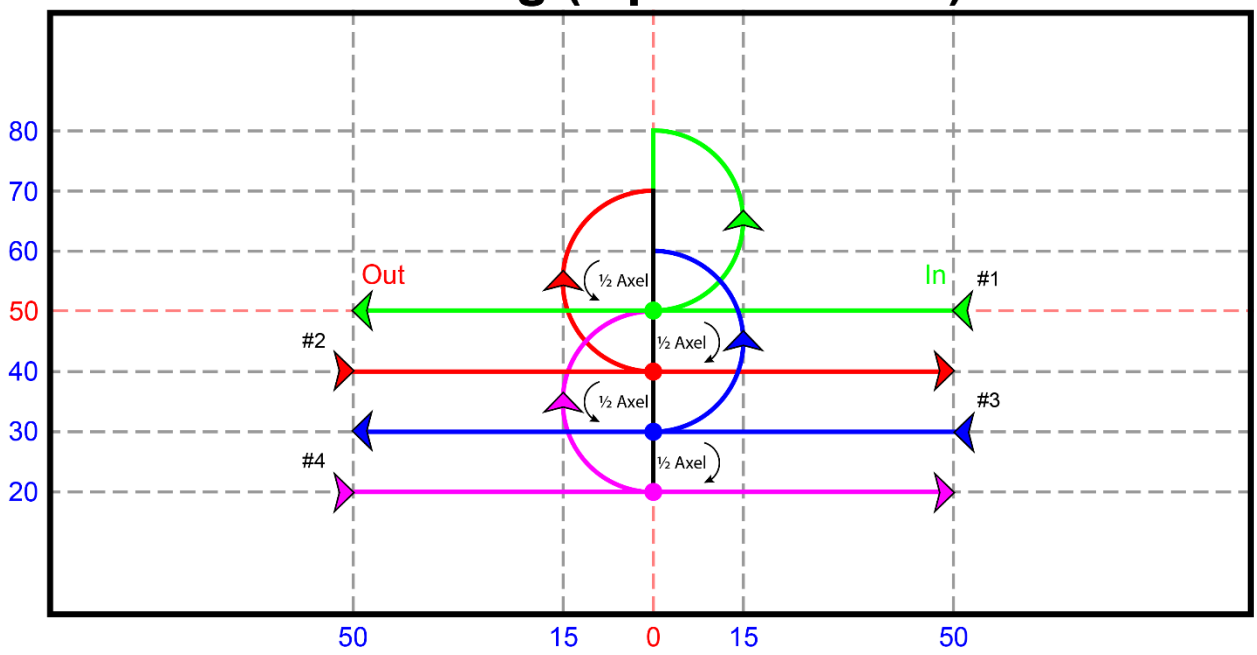
- Parallel lines
- ½ Axels
- Arcs
- All kites following in a straight line while in downward vertical flight,
- Relative placement of the components
- Synchronicity of execution

Explanation

Kites enter from opposite sides of the wind window as indicated, executing a ½ axel at centre of the window and continue into an arc. At the highest point of the arc all kites execute a sharp turn into downward vertical line. On reaching the point where the ½ axel was initiated, each kite executes a sharp 90 degree turn as indicated. The line of exit should effectively be a continuation of the original line of entry.

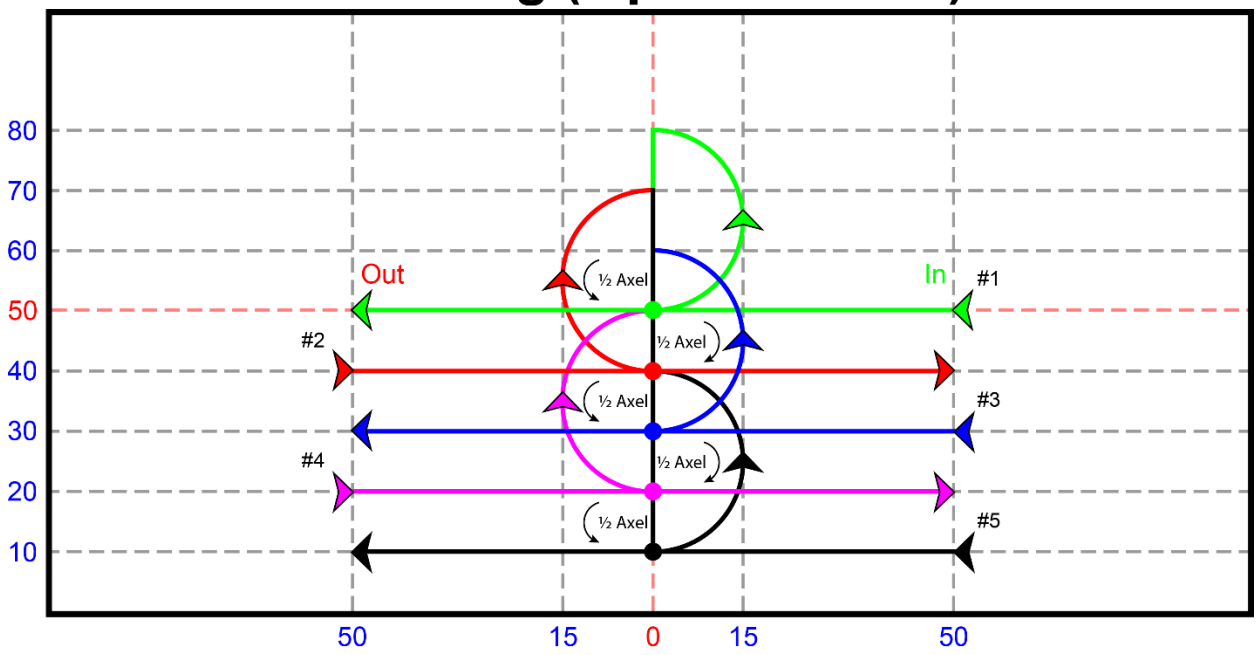
DT 17 - Boomerang (4 person team)

Version 2017-04-01



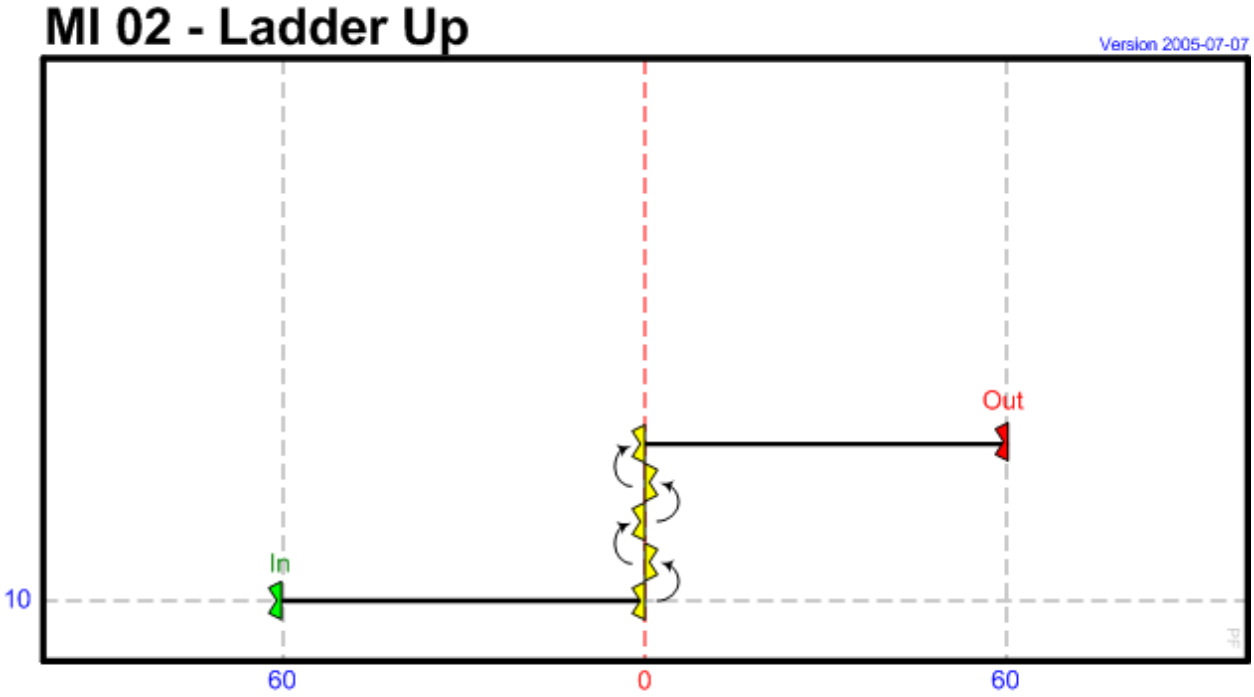
DT 17 - Boomerang (5 person team)

Version 2017-04-01



IX. Multi-line Individual Compulsory Figures

- MI 02 - Ladder Up (Experienced)
- MI 03 - Steps and Turns (Master) - **UPDATED**
- MI 04 - Two Down (Experienced)
- MI 07 - Arc Circle (Master)
- MI 08 - Camel Back (Master)
- MI 09 - Clock Tower (Master)
- MI 13 - Z Pass (Experienced) - **UPDATED**
- MI 15 - Pivots (Experienced)
- MI 16 - Lollypop (Master)
- MI 17 - Reverse Octagon (Master)
- ~~MI 18 - Roman Ten~~
- MI 19 - Bumps (Master)
- MI 20 - Lift (Experienced)
- MI 21 - Diamond (Master)
- MI 22 - The Felix (Experienced)
- MI 23 - Slide and Square (Intermediate) - **NEW**
- MI 24 - Basic Elevator (Novice) - **NEW**
- MI 25 - The Arch (Intermediate) - **NEW**
- MI 27 - Up, Down, Up (Intermediate) - **NEW**
- MI 28 - Square (Intermediate) - **NEW**
- MI 29 - Quadrato (Intermediate) - **NEW**
- MI 30 - Vertical Pivots (Experienced) - **NEW**
- MI 31 - Circle Over Clock (Experienced) - **NEW**
- MI 32 - All Slides (Experienced) - **NEW**
- MI 33 - Home Sweet Home (Master) - **NEW**
- MI 34 - Circle (Experienced) - **NEW**
- MI 35 - Two Rings (Master) - **NEW**
- MI 36 - Rise and Lap (Intermediate) – **NEW**
- MI 37 - Boomerang (Master) - **NEW**



MI 02 – Ladder Up (Experienced) *Version 2005-08-01*

Judges will Particularly Consider

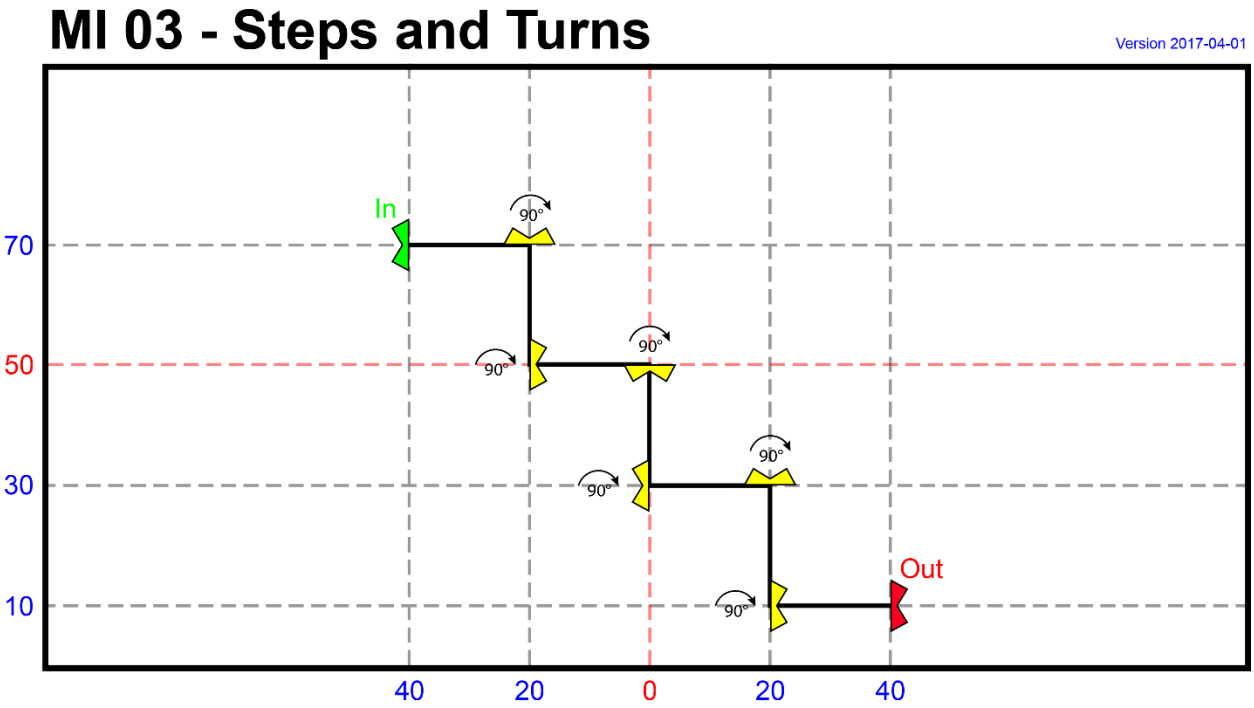
- Rotation
- Position within the precision grid
- Relative placement of components
- Parallel lines

Explanation

The kite rotates forward around one wingtip after the other as it climbs.

The 1st rotation is counter clockwise, the 2nd clockwise, the 3rd counter clockwise, and the 4th clockwise.

The position of the kite after each rotation is determined by the width of the kite. Therefore, the vertical position of the kite at the end of each rotation and the last horizontal line are undefined.



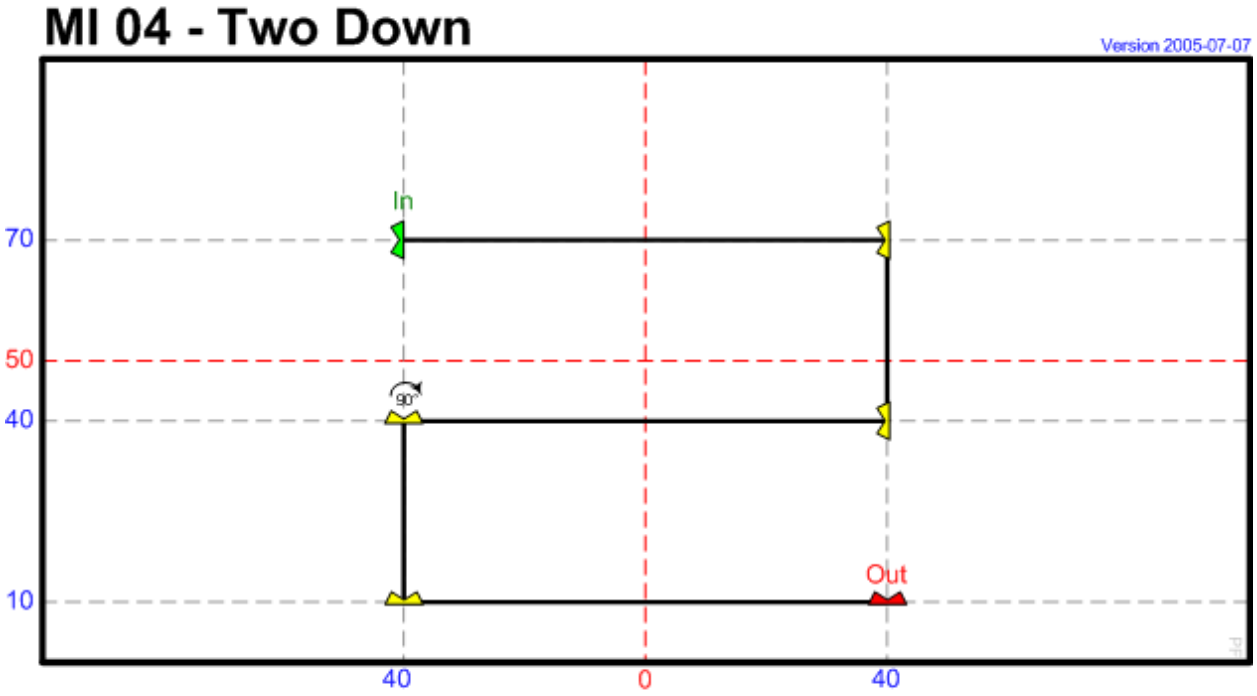
MI 03 – Steps and Turns (Master) *Version 2017-04-01*

Judges will Particularly Consider

- Relative placement of components
- Rotation
- Straight lines
- Position within the precision grid
- Backward flight

Explanation

The kite rotates 90° clockwise around its center at each change of direction.

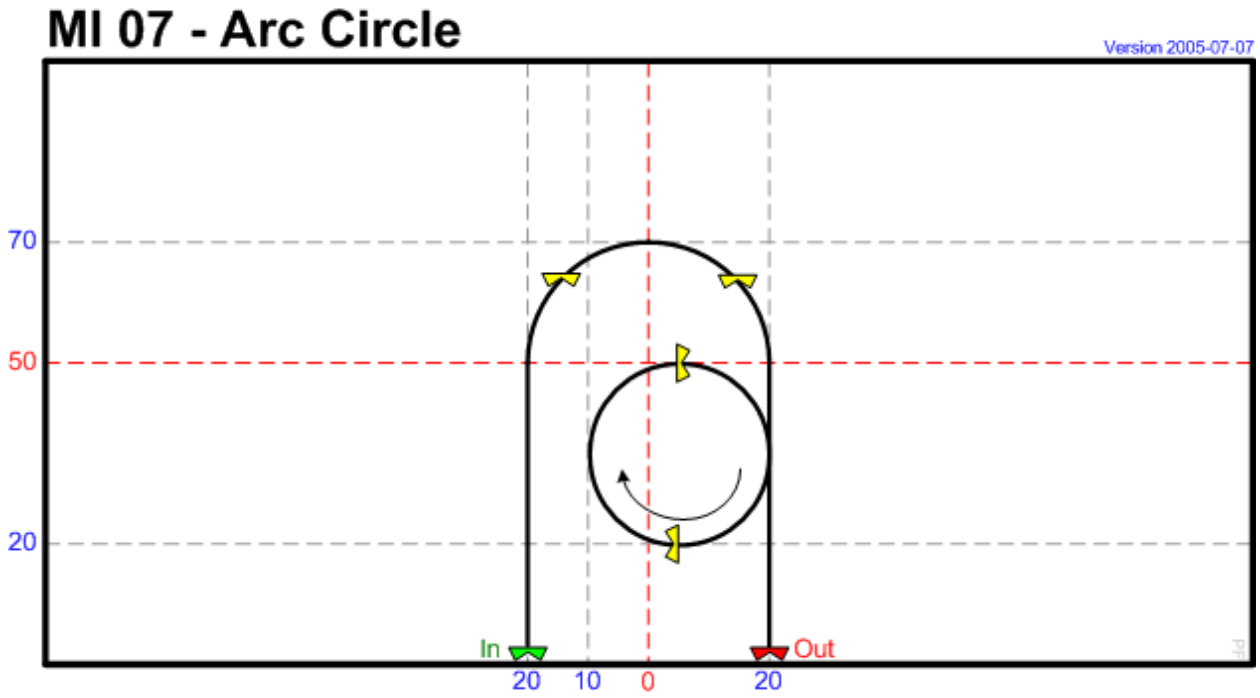


MI 04 – Two Down (Experienced) **Version 2005-07-07**

Judges will Particularly Consider

- Parallel lines
- Inverted flight
- Center rotation
- Speed control

Explanation



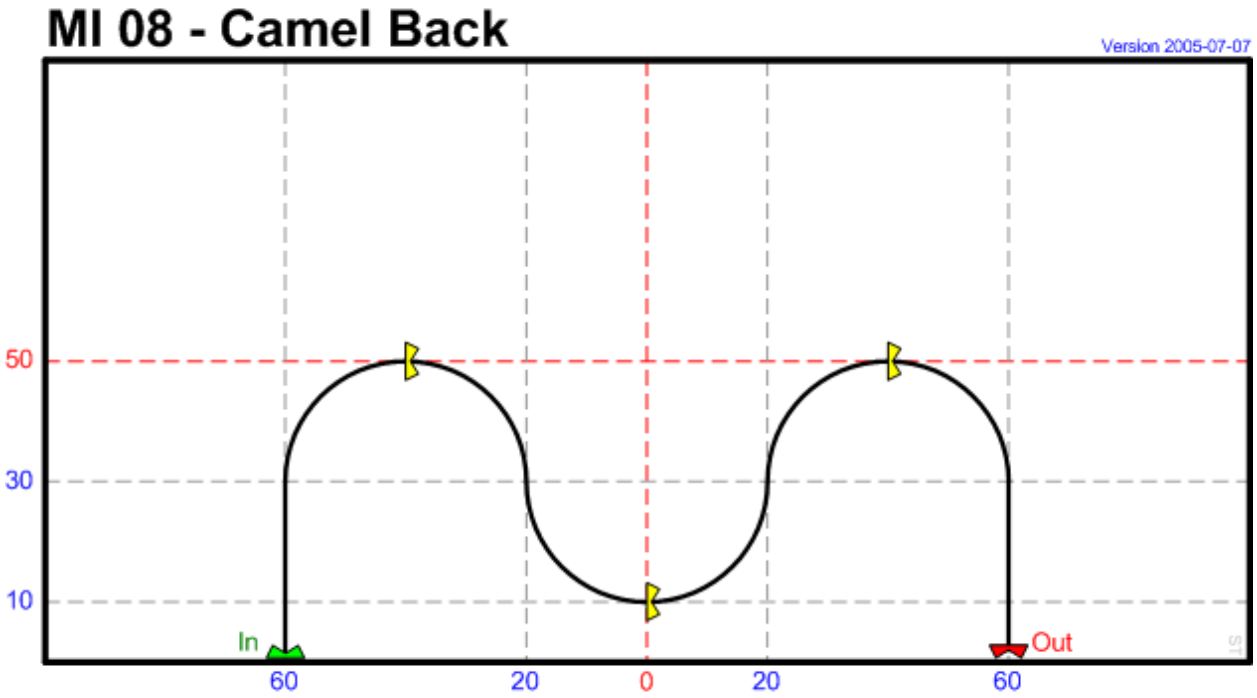
MI 07 – Arc Circle (Master)

Version 2005-07-07

Judges will Particularly Consider

- Circle
- Backward flight
- Arc
- Launch
- Landing

Explanation



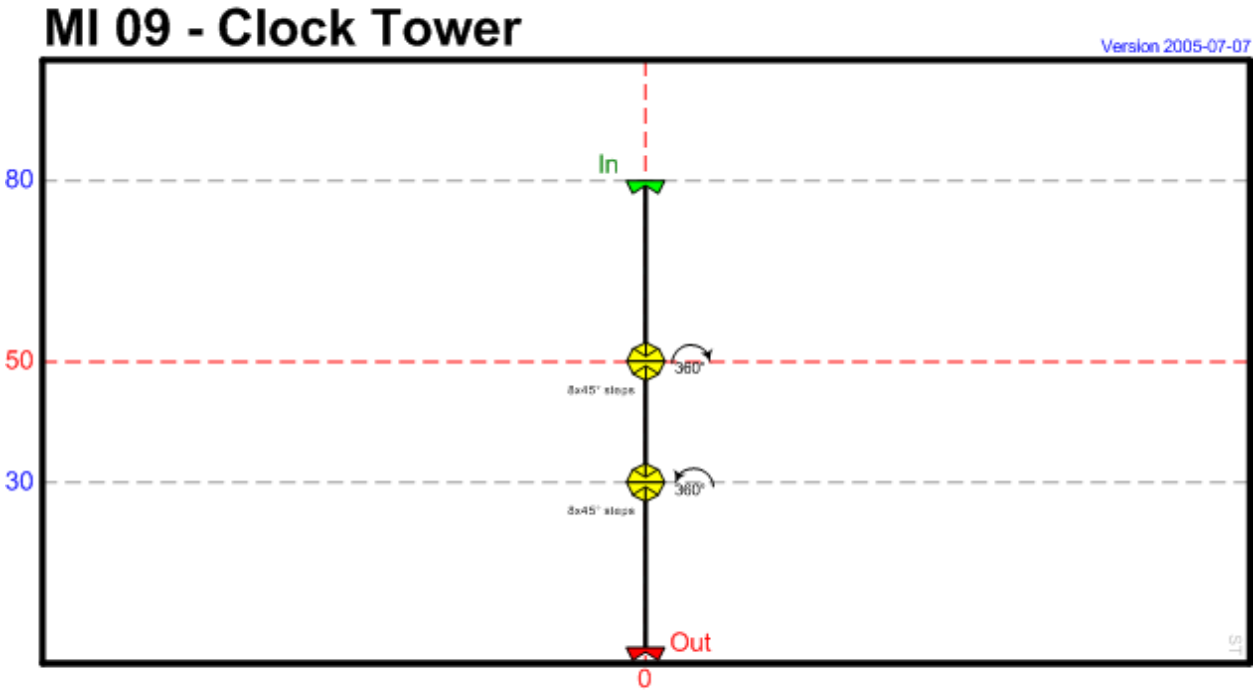
MI 08 – Camel Back (Master)

Version 2005-07-07

Judges will Particularly Consider

- Arcs
- Backward flight
- Speed control
- Launch
- Landing
- Straight lines

Explanation



MI 09 – Clock Tower (Master)

Version 2005-08-01

Judges will Particularly Consider

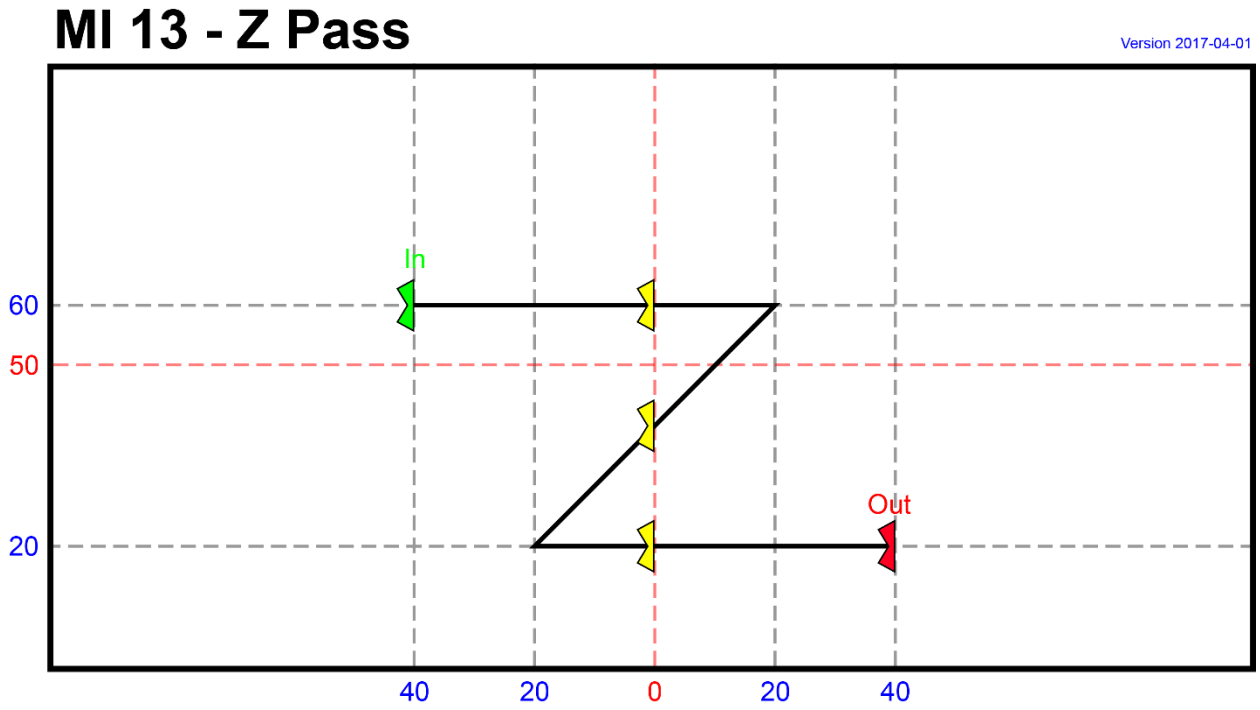
- Center rotation
- Straight line
- Speed control

Explanation

Both 360° rotations are done in eight individual 45° steps.

The first/top rotation is clockwise.

The second/bottom rotation is counter clockwise.



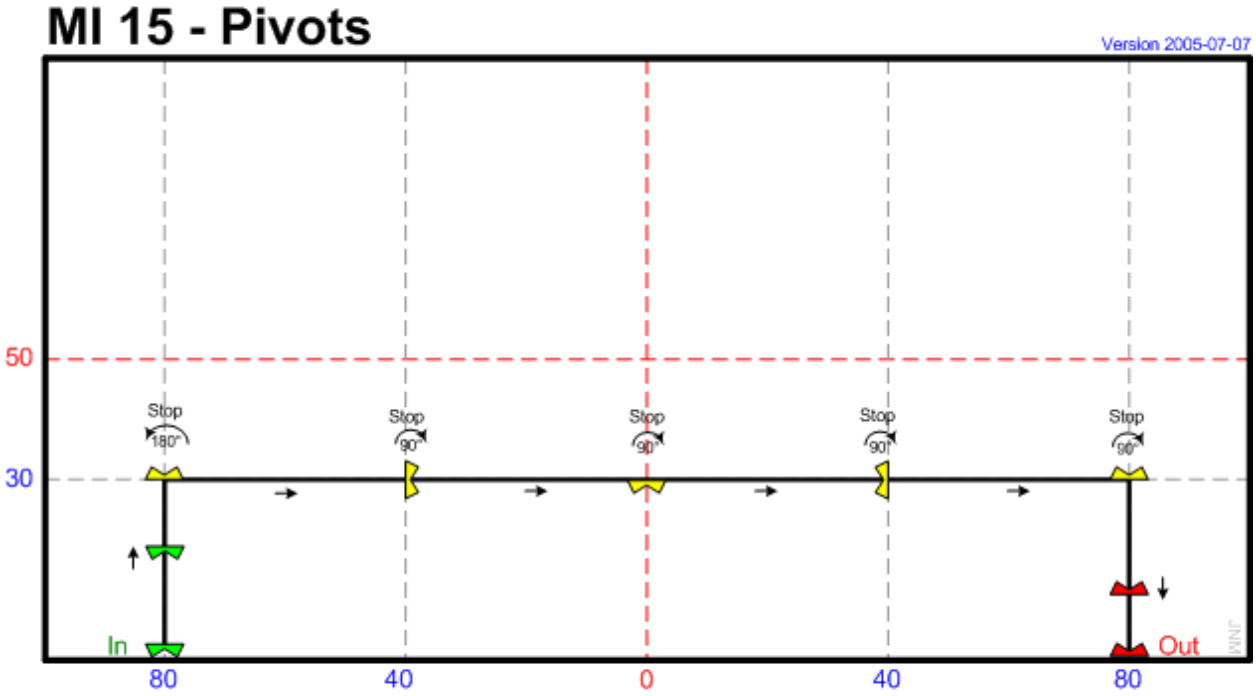
MI 13 – Z Pass (Experienced)

Version 2017-04-01

Judges will Particularly Consider

- Diagonal flight
- Horizontal line
- Speed control
- Position within the precision grid

Explanation



MI 15 – Pivots (Experienced)

Version 2006-06-30

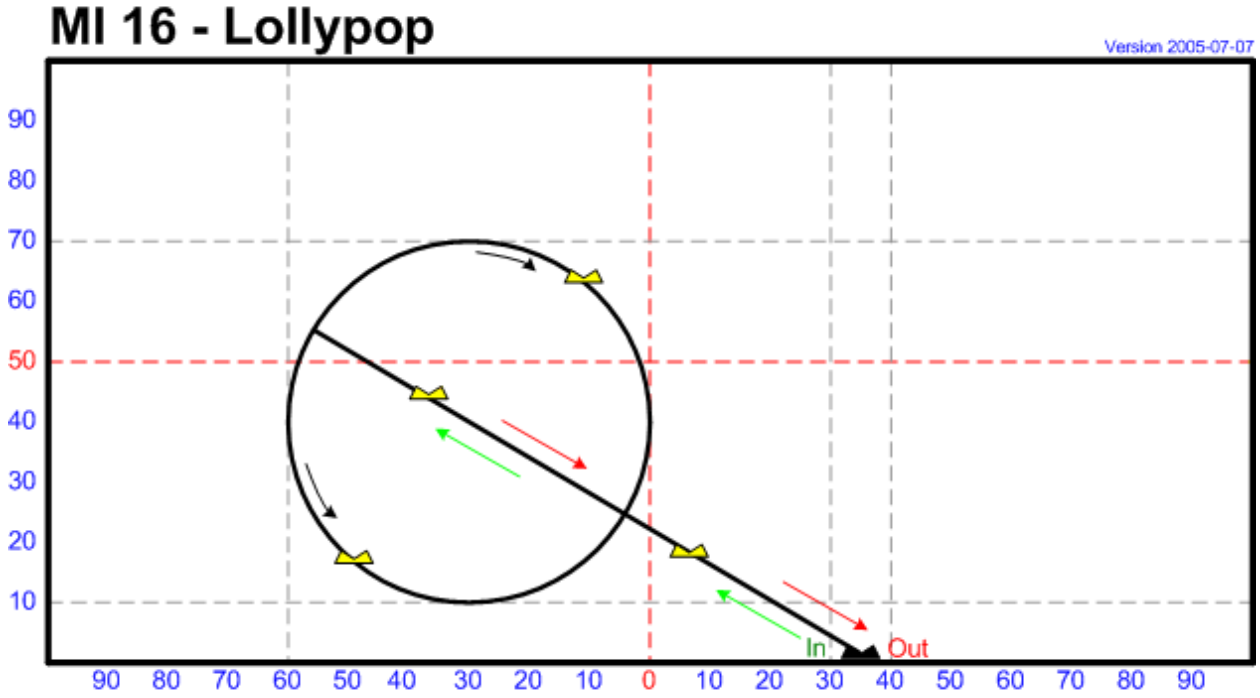
Judges will Particularly Consider

- Rotation
- Horizontal line
- Inverted slide
- Backward flight
- Slide
- Forward flight

Explanation

The kite flies to each position in the drawing, stops, rotates, and continues. The stops must be distinct.

The first rotation is counter clockwise. All other rotations are clockwise.



MI 16 – Lollypop (Master)

Version 2005-07-07

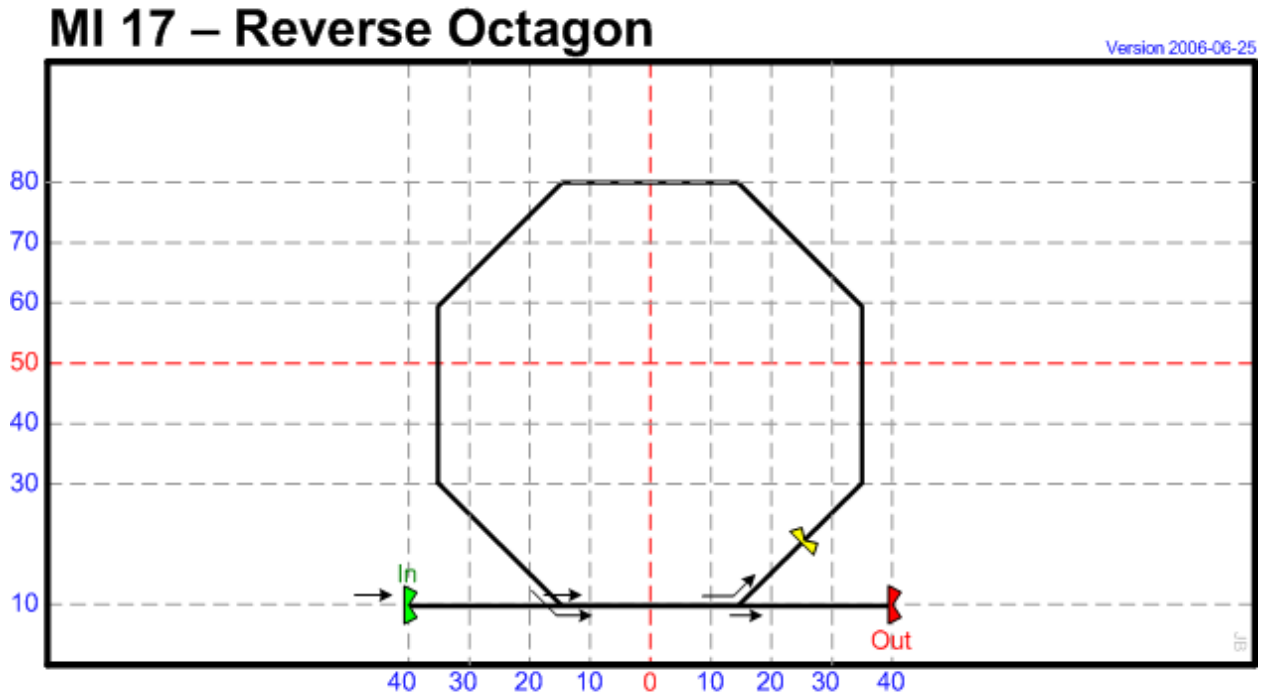
Judges will Particularly Consider

- Inverted flight
- Diagonal flight
- Position within the precision grid
- Circle

Explanation

The circle is flown only once.

The direction the circle is flown is the competitor's choice.



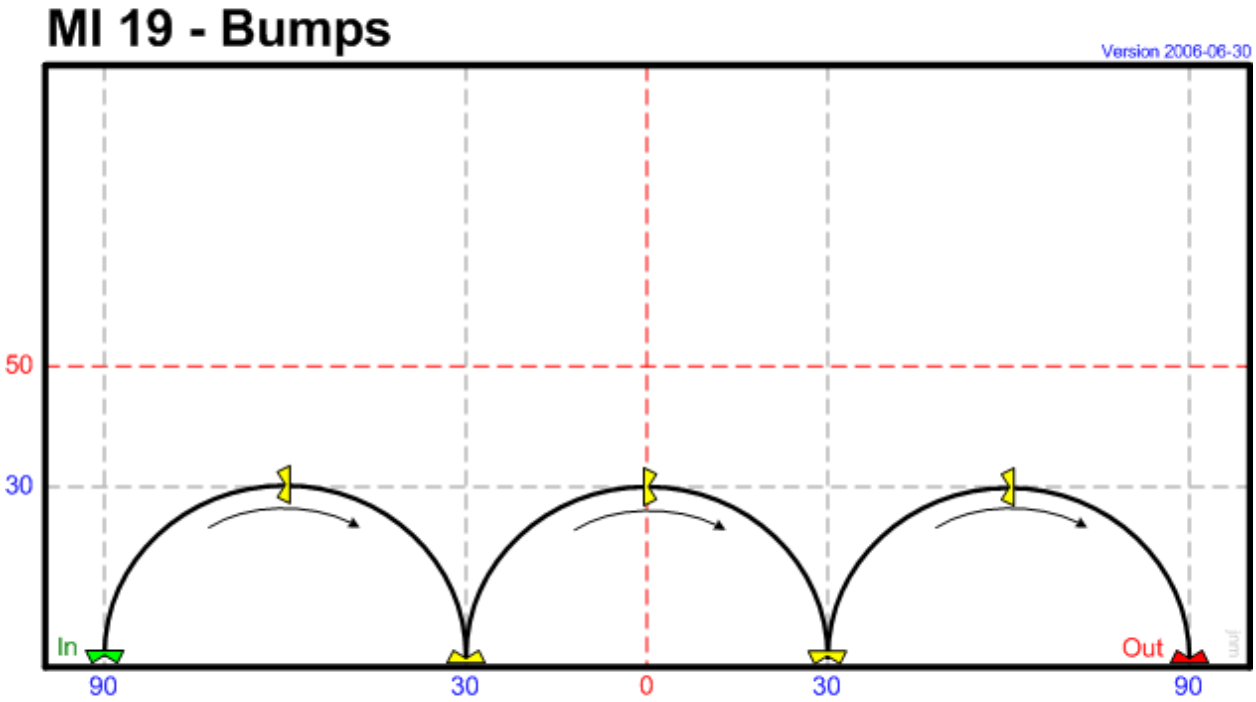
MI 17 – Reverse Octagon (Master) *Version 2006-07-20*

Judges will Particularly Consider

- Backward Flight
- Speed Control
- Position within the Precision Grid
- Turns

Explanation

Entire compulsory is flown in reverse, kite orientation changes accordingly at each turn.
Speed should remain consistent throughout the entire compulsory.
Each of the eight sides of the octagon should be of equal length.



MI 19 – Bumps (Master)

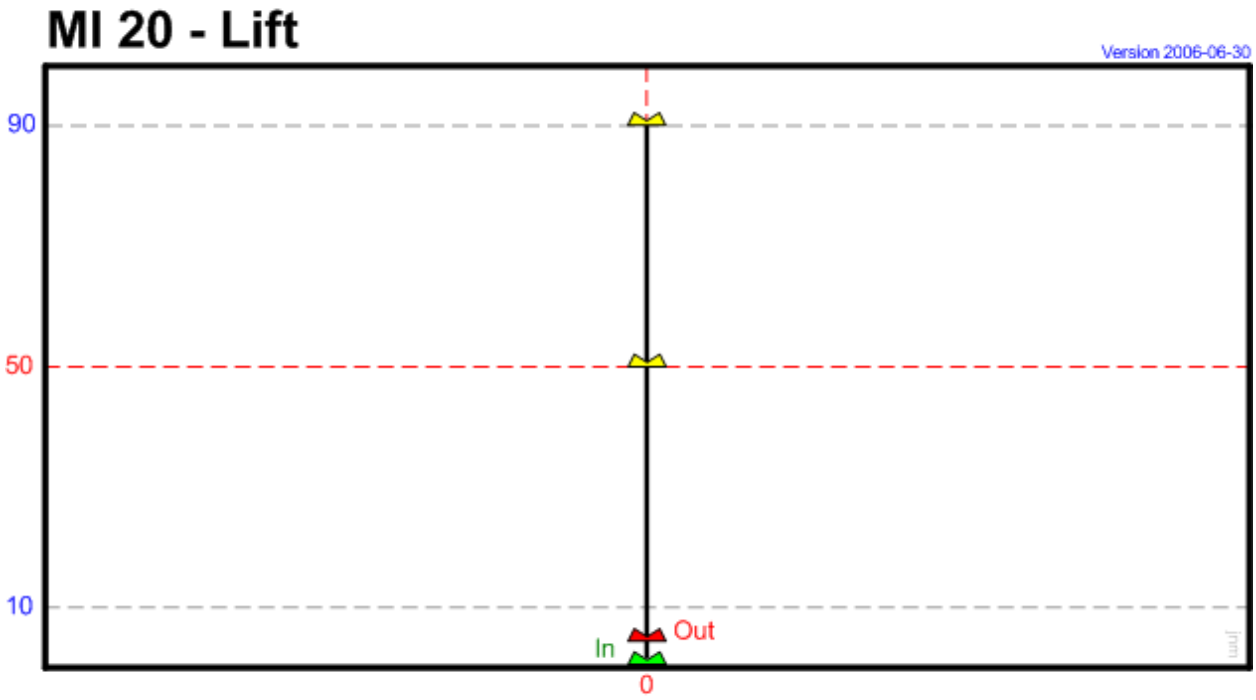
Version 2006-06-30

Judges will Particularly Consider

- Arcs
- Speed Control
- Landings
- Relative placement of the components
- Launch
- Position within the precision grid

Explanation

Three identically shaped and symmetrical arcs will be flown. The 1st will be flown forwards. The 2nd will be flown backwards. The 3rd will be flown forwards. All landings will be smooth and clean.



MI 20 – Lift (Experienced)

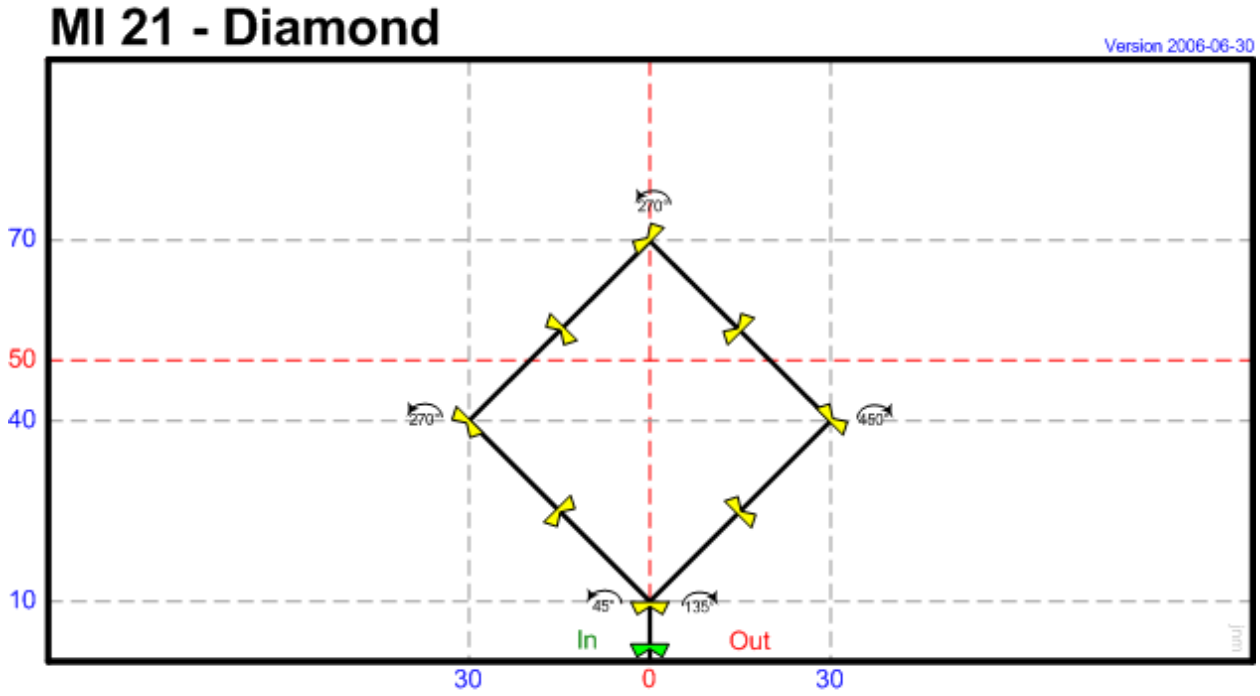
Version 2006-06-30

Judges will Particularly Consider

- Vertical Line
- Backward Flight
- Speed Control

Explanation

IN is at center of the grid on the ground. Kite flies up and backwards in a straight vertical line at a constant speed to 90%, and then stops. Kite then flies forwards and down at the same speed to 5% and hovers. OUT.



MI 21 – Diamond (Master)

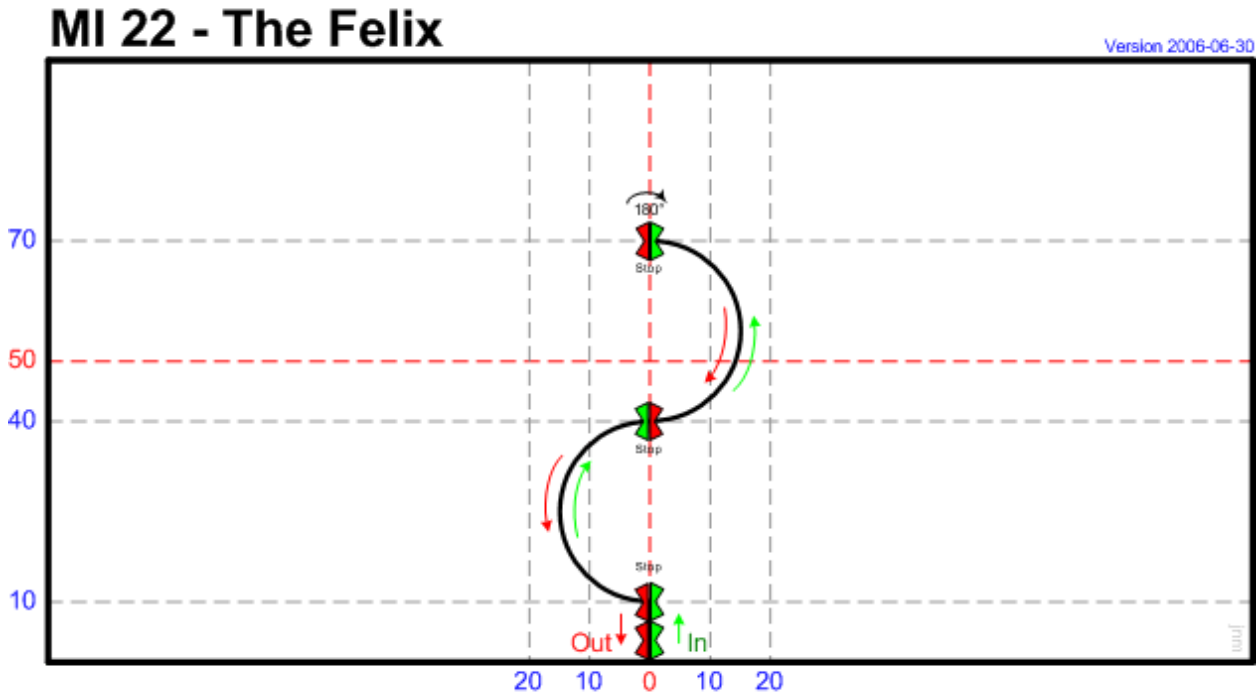
Version 2006-06-30

Judges will Particularly Consider

- Rotations
- Relative placement of the components
- Lines
- Speed control

Explanation

1st rotation is 45° counter clockwise.
2nd rotation is 270° counter clockwise.
3rd rotation is 270° counter clockwise.
4th rotation is 450° clockwise.
5th rotation is 135° clockwise.



MI 22 – The Felix (Experienced)

Version 2006-06-30

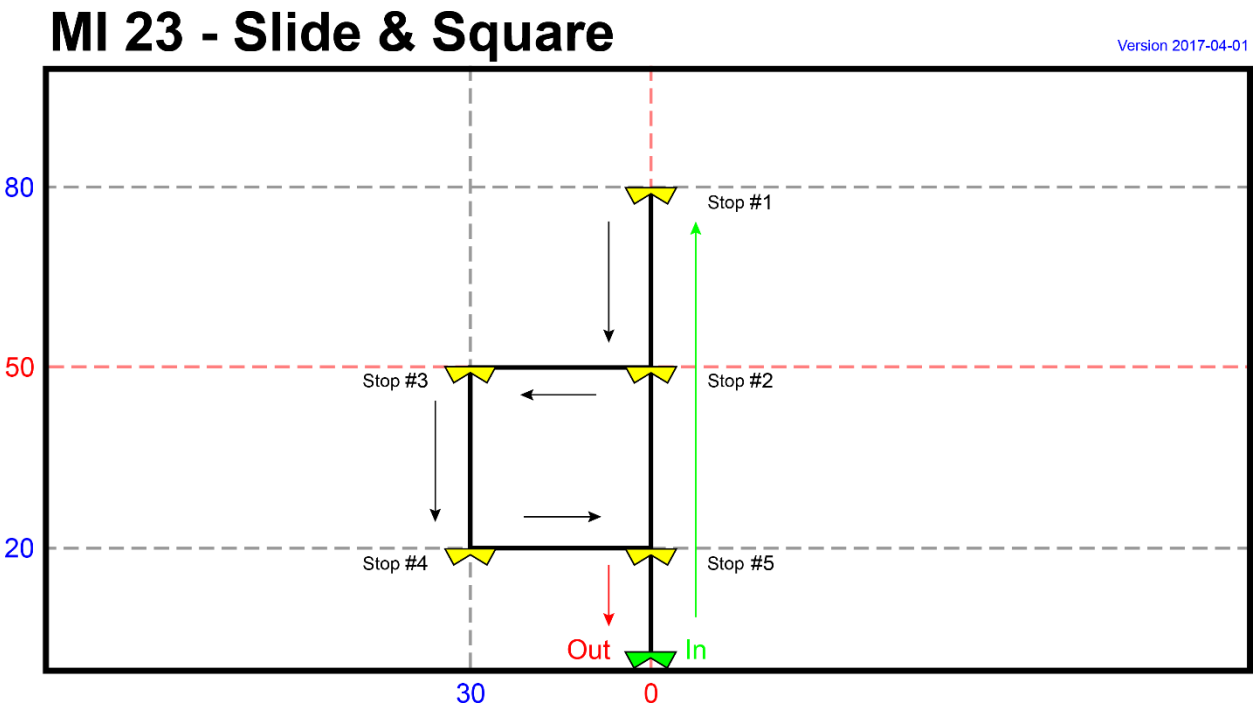
Judges will Particularly Consider

- Arcs
- Speed Control
- Relative placement of components
- Rotation
- Position within the precision grid

Explanation

The arcs will be flown in a forward direction.

IN is at center of the grid on the ground. The kite flies vertically to 10% and stops. The kite flies in an upward arc, vertically and to the left, to 40% and stops. The kite then flies an upward arc, vertically and to the right, to 70% and stops. The kite then rotates 180°clockwise and retraces the previous track, stopping at 40% continuing down to10% and stops. The kite then slides vertically down to land on the right wing tip in the center of the grid. OUT



MI 23 – Slide and Square (Intermediate) *Version 2017-04-01*

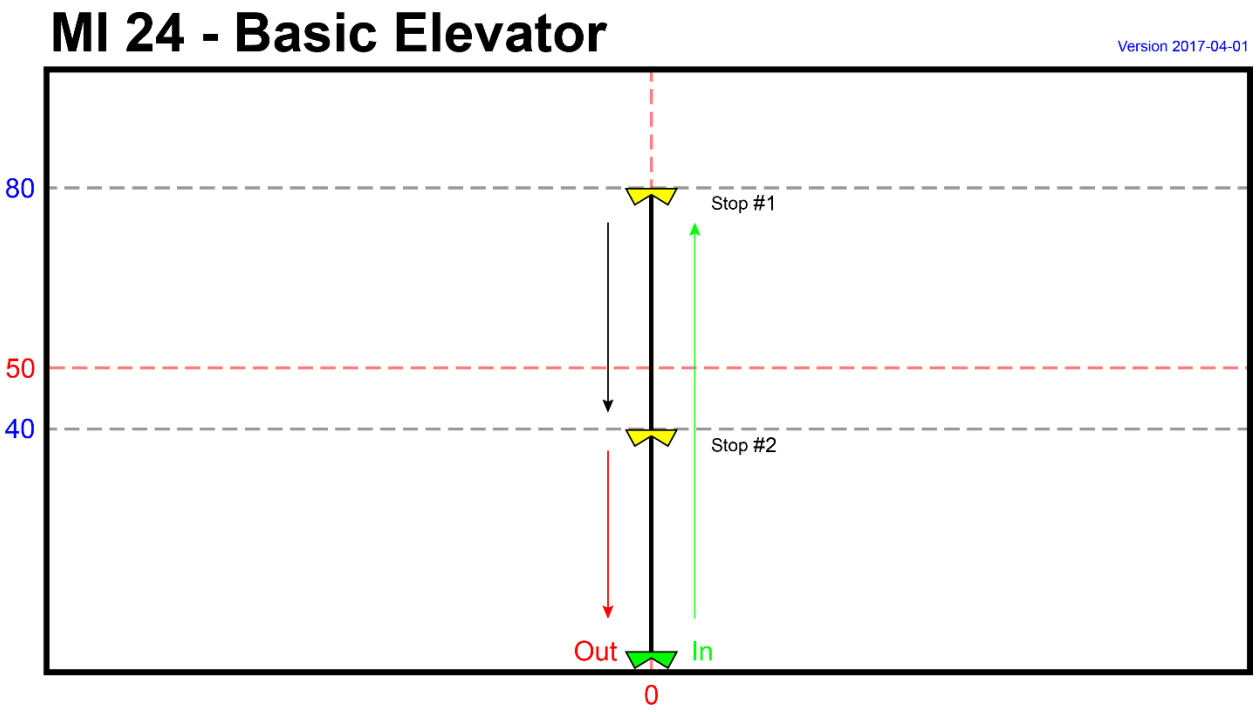
Judges will Particularly Consider

- Position within the precision grid
- Vertical lines
- Horizontal slide
- Parallel line
- Relative placements of the components

Explanation

Launch (IN) and landing (OUT) are at the same point – centre of the grid, on the ground.

1. The kite flies up forward in a straight vertical line up to 80% and then stops.
2. The kite then flies backwards to 50% and then stops.
3. The kite slides left to 30% left and then stops.
4. The kite flies backwards to 20% and stops.
5. The kite slides right to centre and stops.
6. The kite flies backwards and lands.



MI 24 – Basic Elevator (Novice)

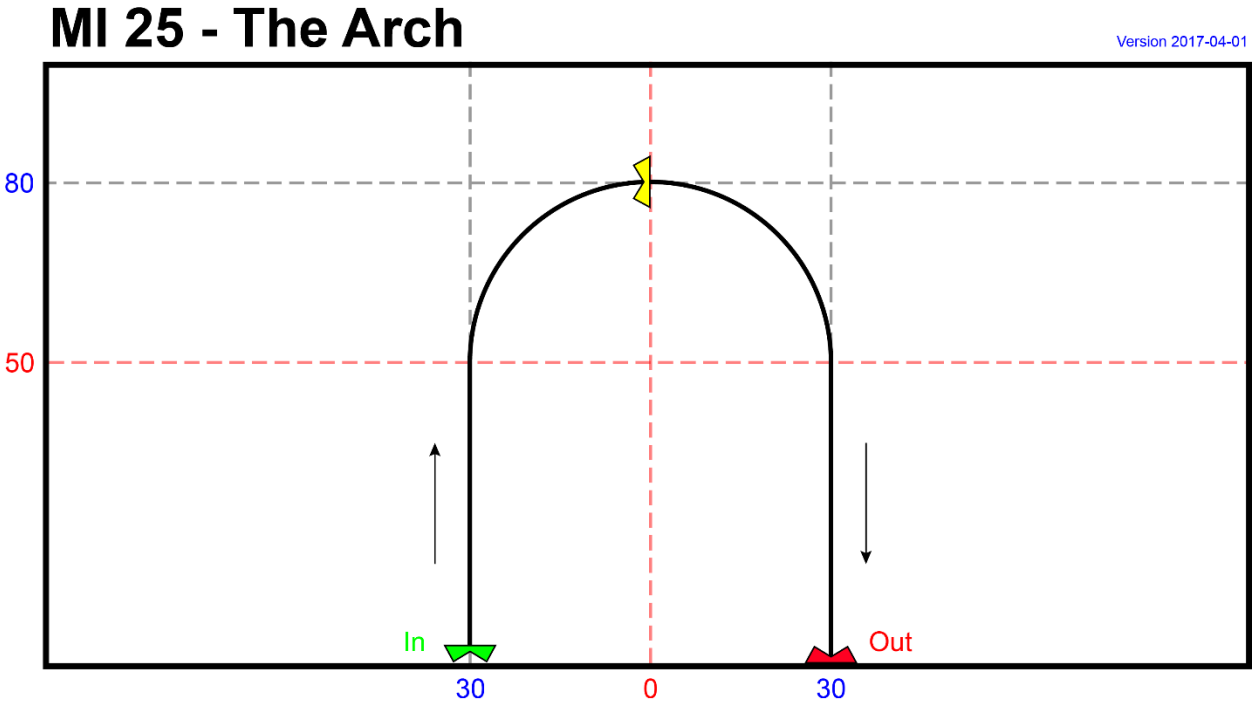
Version 2017-04-01

Judges will Particularly Consider

- Launch (IN) and landing (OUT) at the same point
- Single straight vertical line
- Speed control

Explanation

1. IN is at centre of the wind window on the ground.
2. The kite flies up forwards at a constant speed in a straight vertical line to 80% and then stops.
3. The kite then flies backwards at a constant speed to 40% and then stops.
4. Finally the kite flies backwards at a constant speed until it lands at the same point to which it took off from.



MI 25 – The Arch (Intermediate)

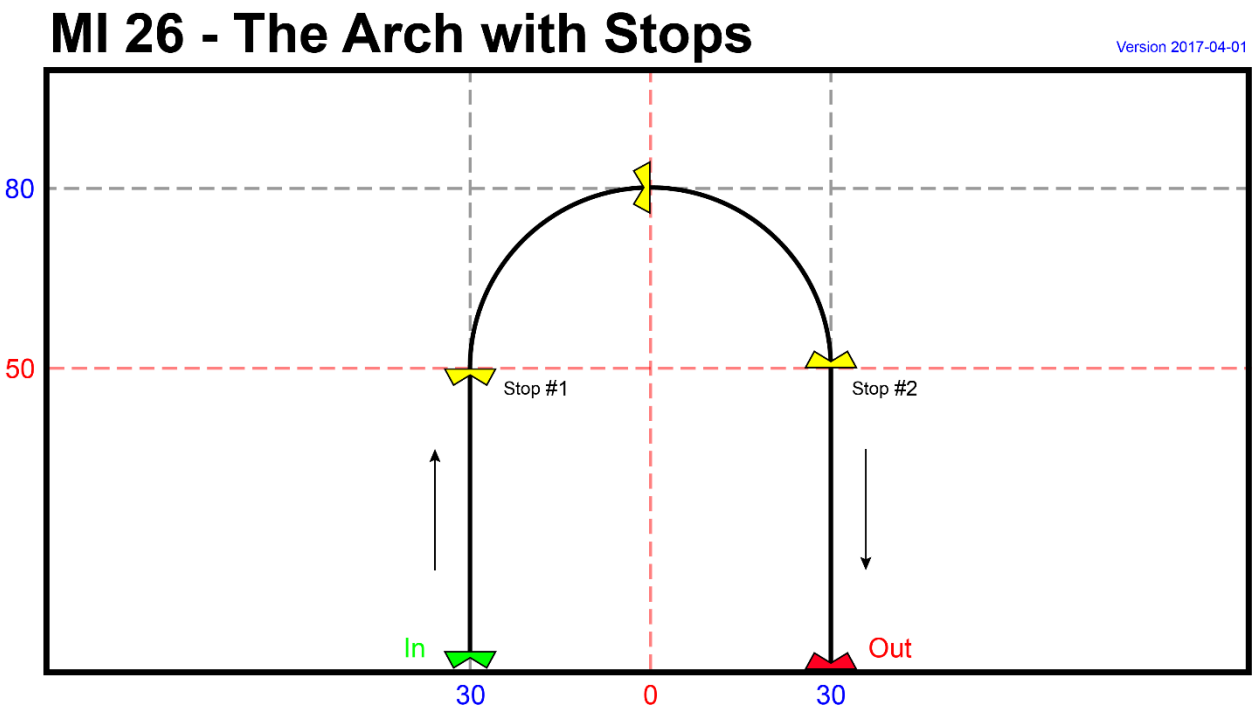
Version 2017-04-01

Judges will Particularly Consider

- Speed control
- Arch
- Landing

Explanation

1. IN is at <30 of the wind window on the ground.
2. Movement is continuous and at a constant speed throughout the figure.
3. The kite flies up vertically transitioning smoothly into an arc at ^50
4. On completing a semi-circle the kite transitions smoothly into vertical downward flight
5. Finally the kite makes a controlled landing at >30 of the wind window on the ground. Pilot calls OUT.



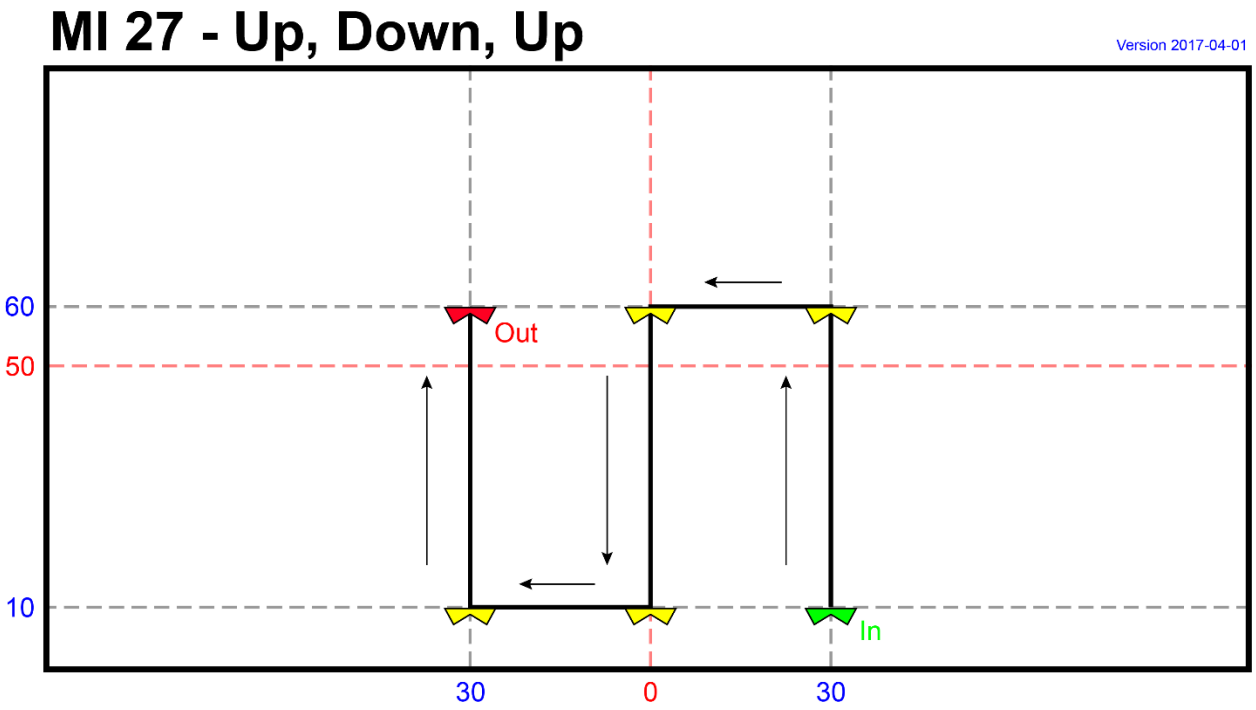
MI 26 – The Arch with Stops (Experienced) *Version 2017-04-01*

Judges will Particularly Consider

- Speed control
- Arch
- Stops

Explanation

1. IN is at <30 of the wind window on the ground.
2. The kite flies up before making a clearly defined stop at ^50<, then continuing in a semi-circle making further clearly defined stops at ^80 and again at ^50>
3. After the second stop the kite continues into vertical downward flight
4. Finally the kite makes a controlled landing at >30 of the wind window on the ground. Pilot calls OUT.



MI 27 – Up, Down, Up (Intermediate)

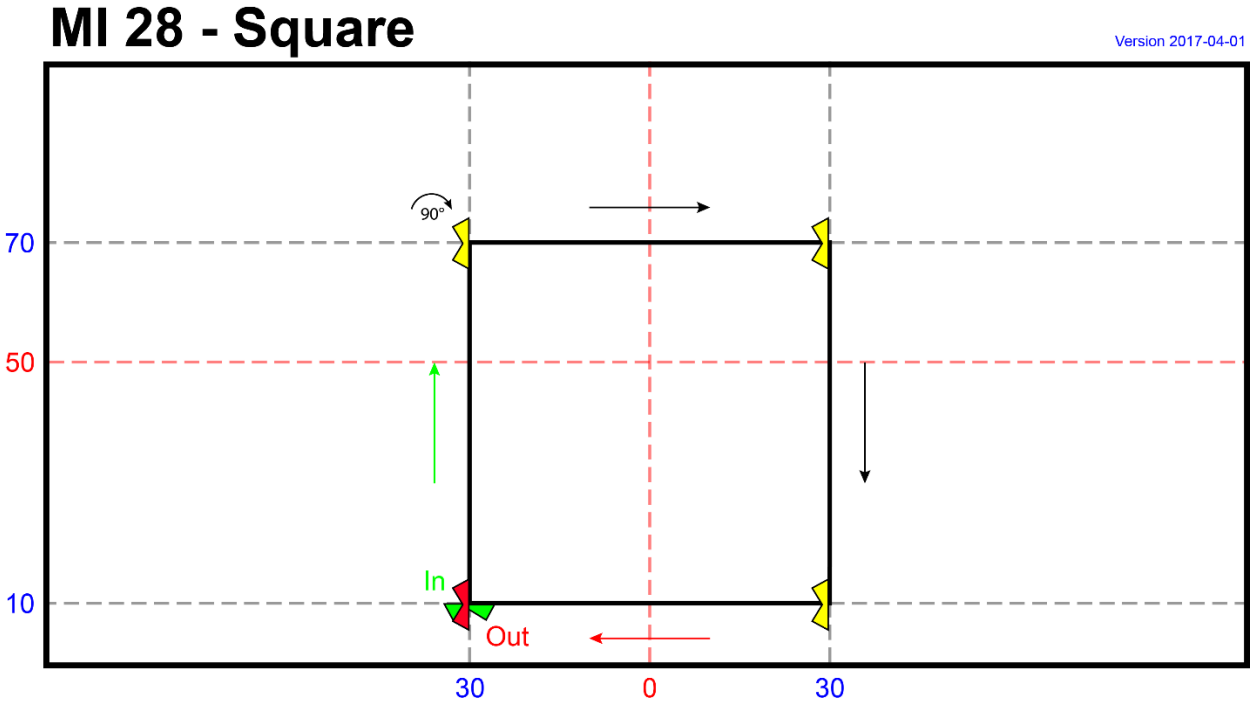
Version 2017-04-01

Judges will Particularly Consider

- Position within the precision grid
- Stops

Explanation

- At each corner of the figure a stop should be performed
- The kite remains in the same orientation throughout



MI 28 – Square (Intermediate)

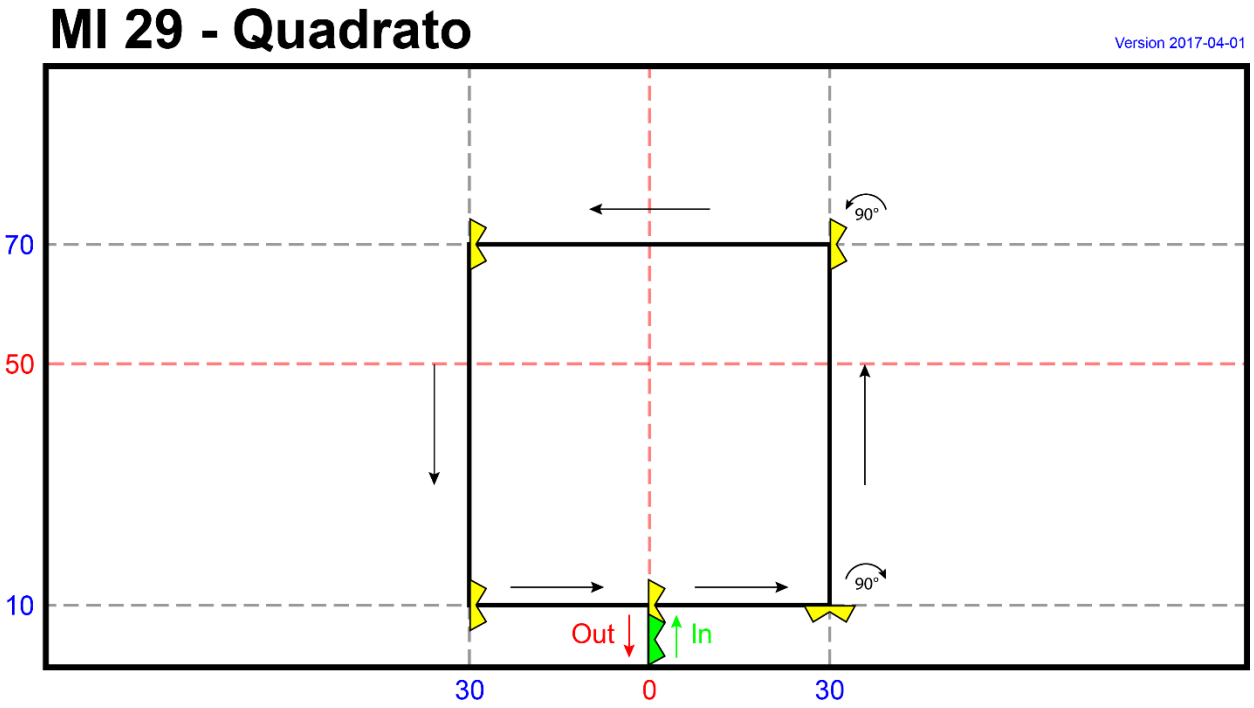
Version 2017-04-01

Judges will Particularly Consider

- Position within the precision grid
- Speed control
- Reverse flight

Explanation

- The only rotation is 90° clockwise after the first vertical climb



MI 29 – Quadrato (Intermediate)

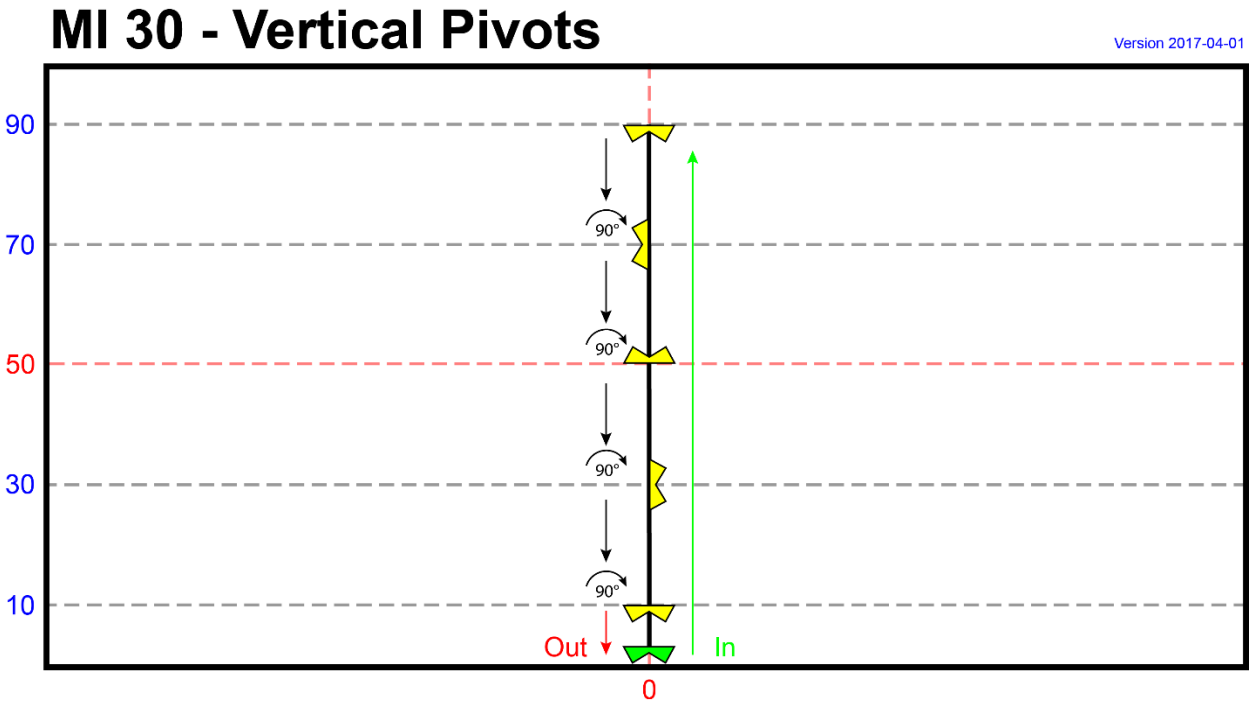
Version 2017-04-01

Judges will Particularly Consider

- Launch (IN) and landing (OUT) at the same point
- Position within the precision grid
- Speed control
- Reverse flight
- Vertical flight

Explanation

- IN and OUT are at the same place in the centre of the wind window with the kite resting the left wing tip on the ground
- First rotation is 90° clockwise
- Second rotation is 90° anti-clockwise



MI 30 – Vertical Pivots (Experienced)

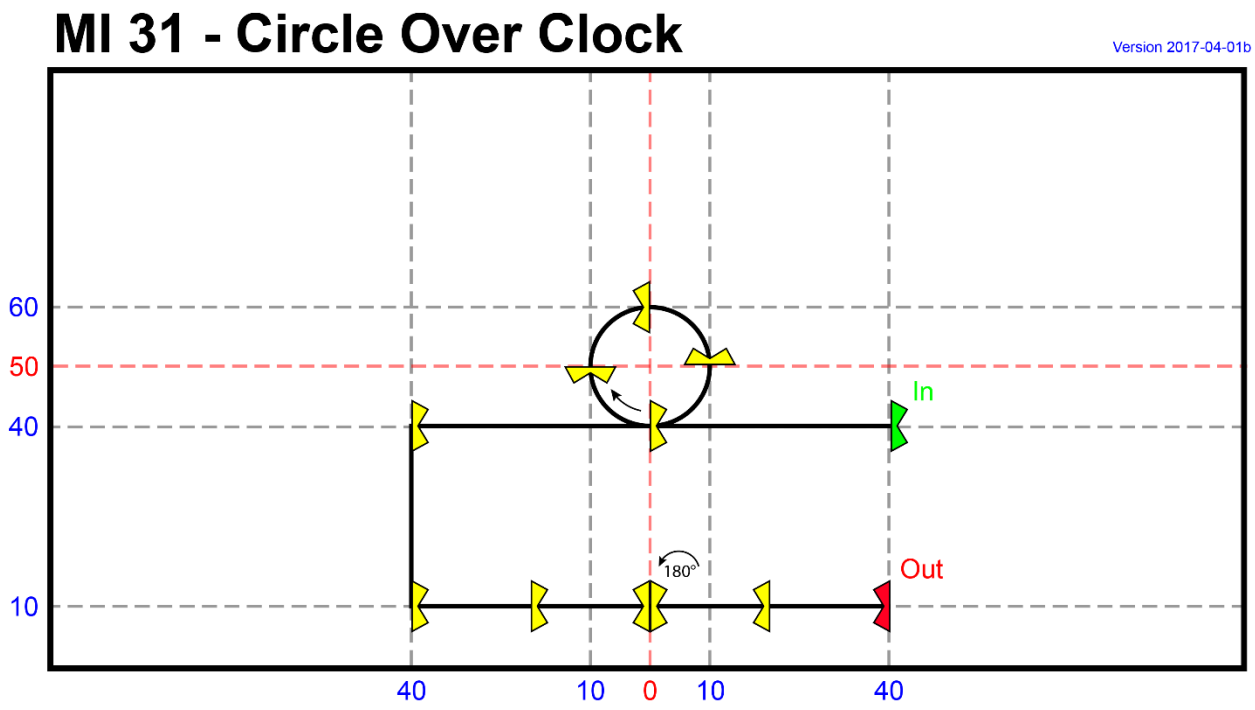
Version 2017-04-01

Judges will Particularly Consider

- Launch (IN) and landing (OUT) at the same point
- Stops
- Rotations around the centre of the kite
- Vertical line

Explanation

- The kite climbs directly to 90% and stops
- The kite descends the middle of the wind window, stopping and rotating 90 degrees every 20%, before finally landing
- All rotations are 90 degrees clockwise



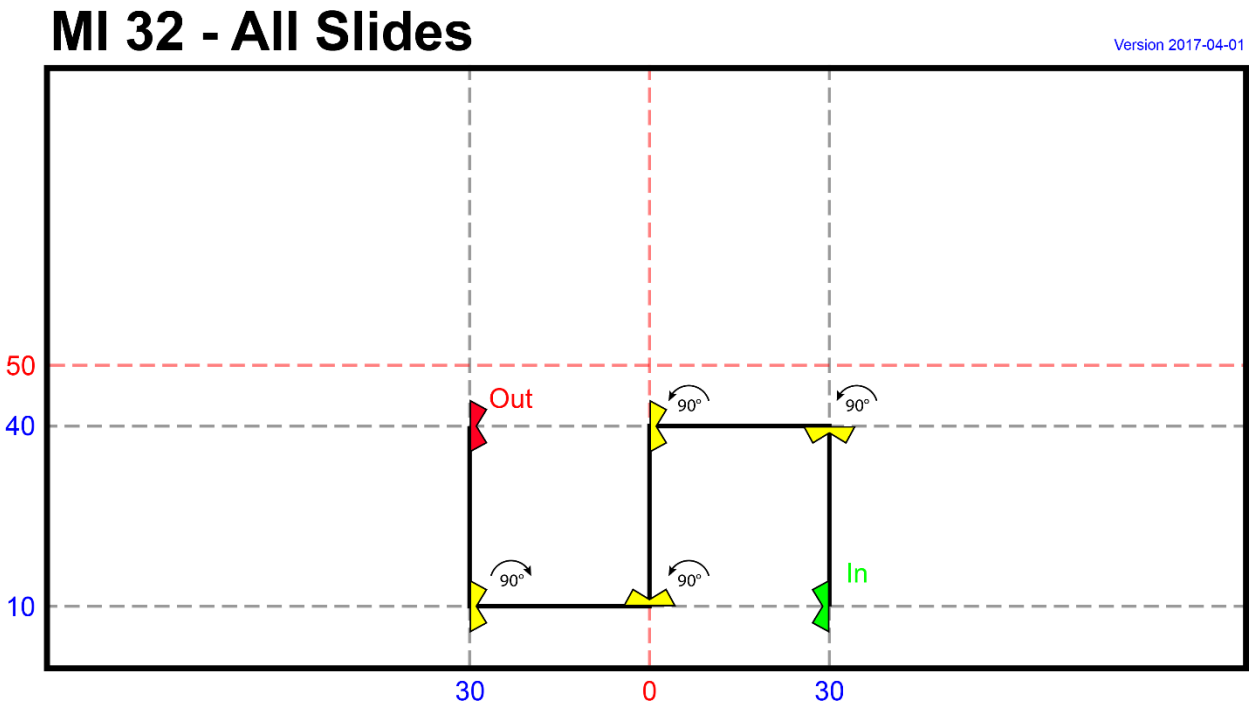
MI 31 – Circle Over Clock (Experienced) *Version 2017-04-01b*

Judges will Particularly Consider

- Relative placements of the components
- Circle
- 180 degree anti-clockwise spin on the spot

Explanation

- Enter in horizontal flight at 40^. At the centre of the window execute a loop. The line of exit from the loop should effectively be a continuation of the line of entry. Kite speed should be constant up to this point.
- From 40^ and 40< execute a slide, descending vertically to 10^. Fly in reversed position to centre of window and perform 180 degree anticlockwise spin turn
- Continue in forward flight, calling OUT immediately below the point where IN was called



MI 32 – All Slides (Experienced)

Version 2017-04-01

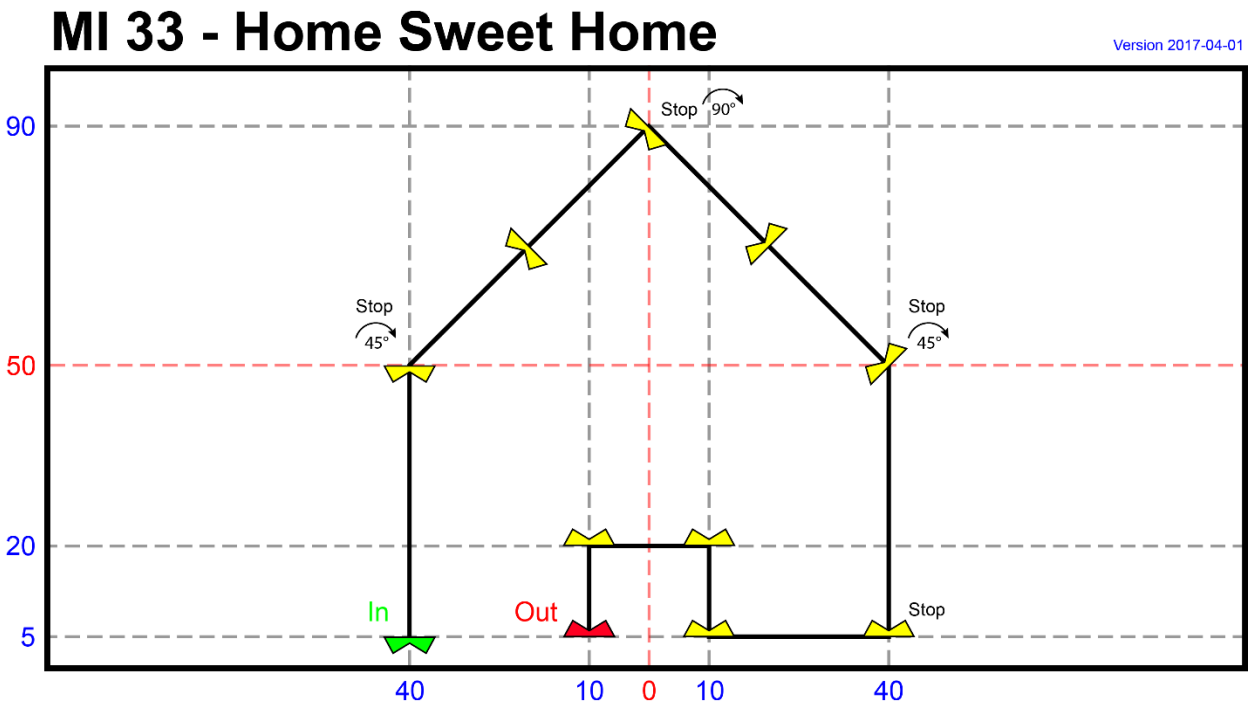
Judges will Particularly Consider

- Position within the Precision Grid
- Slides
- 90 degree rotations around the centre of the kite

Explanation

Each section of travel is equal in length

Anticlockwise rotations at turns 1, 2 and 3. Clockwise rotation at turn 4



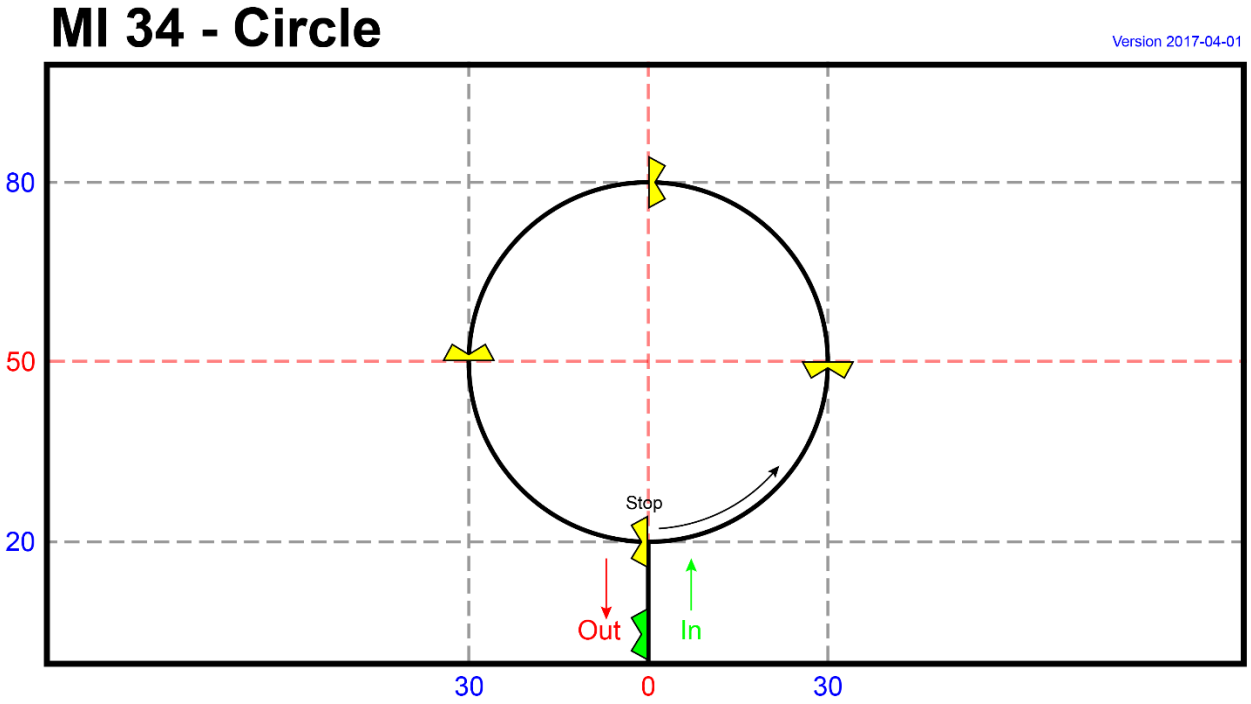
MI 33 – Home Sweet Home (Master) *Version 2017-04-01*

Judges will Particularly Consider

- Position within the Precision Grid
- Slides
- Reverse flight
- Rotations around the centre of the kite
- Placement of elements within the precision grid

Explanation

Kite should be stationery before calling **OUT**



MI 34 – Circle (Experienced)

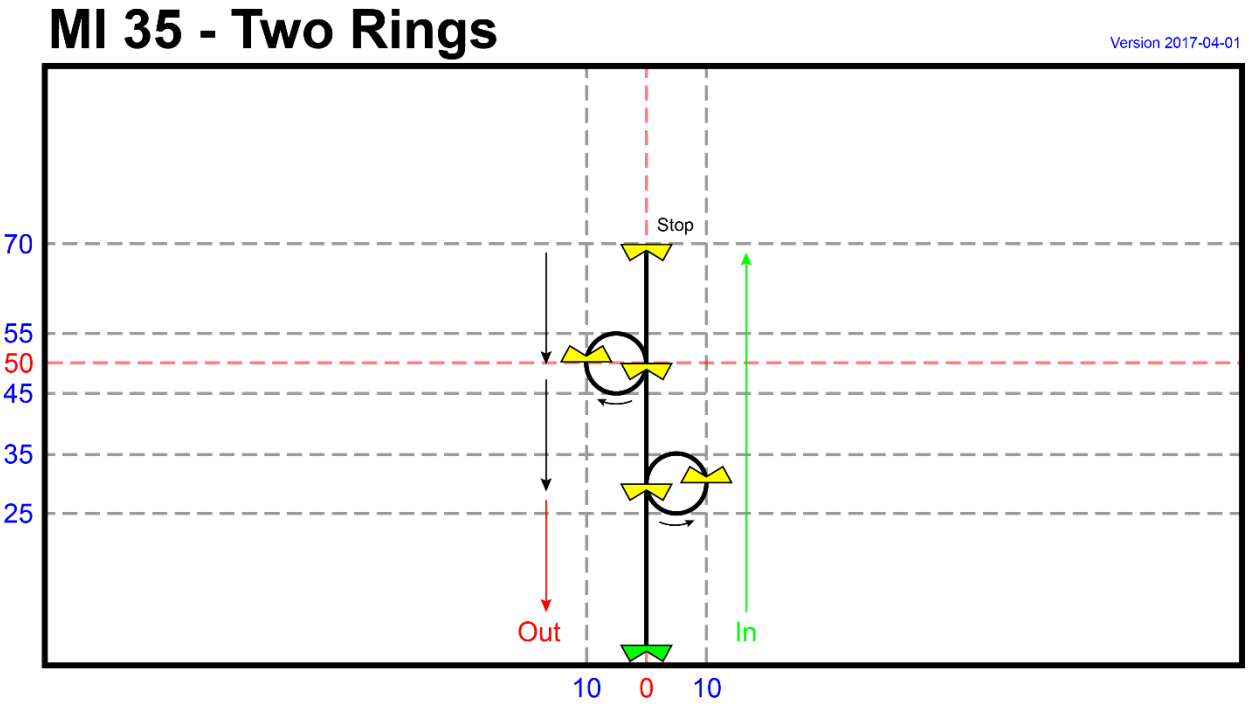
Version 2017-04-01

Judges will Particularly Consider

- Vertical slide
- Launch (IN) and landing (OUT) at the same point
- Circle
- Stop

Explanation

- Launch (IN) and landing (OUT) on the right wingtip
- The circle is flown only once with a stop at the start and at the end
- The circle is anti-clockwise



MI 35 – Two Rings (Master)

Version 2017-04-01

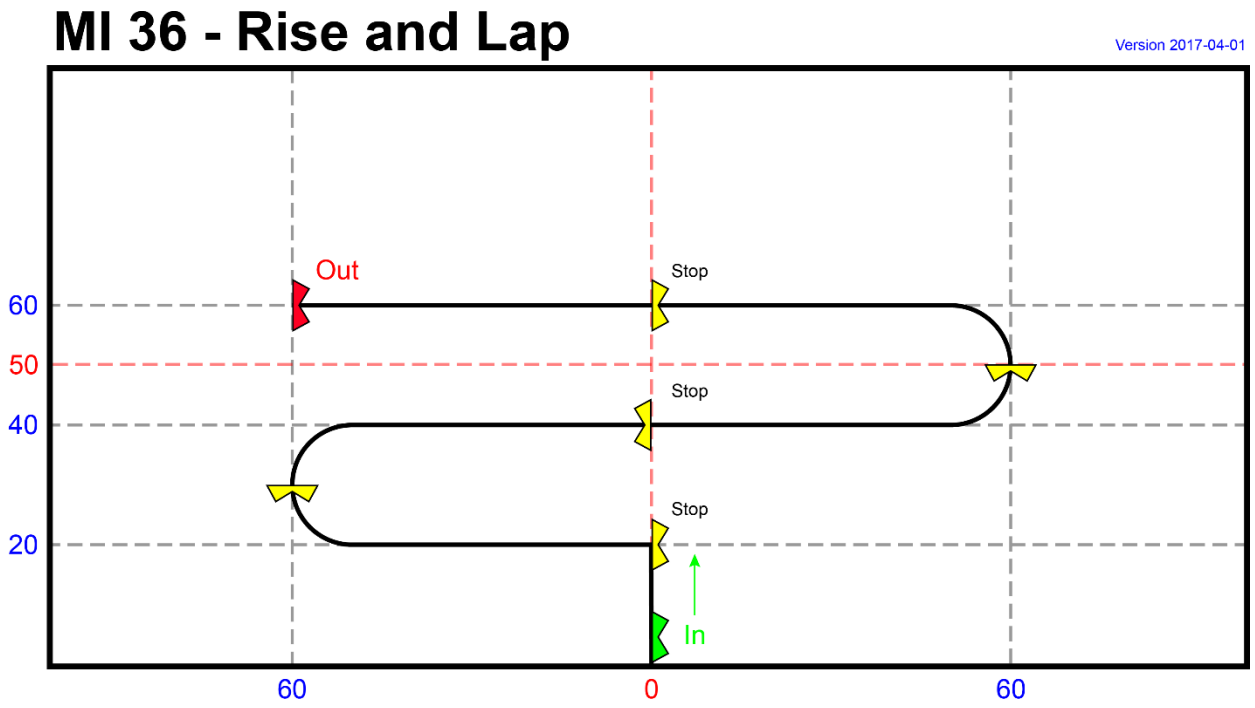
Judges will Particularly Consider

- Launch (IN) and landing (OUT) at the same point
- Reverse flown circles
- Position within the precision grid

Explanation

Descent is one continuous action at constant speed without pause.

Both circles are flown in reverse, starting at ^50 and ^30 respectively.



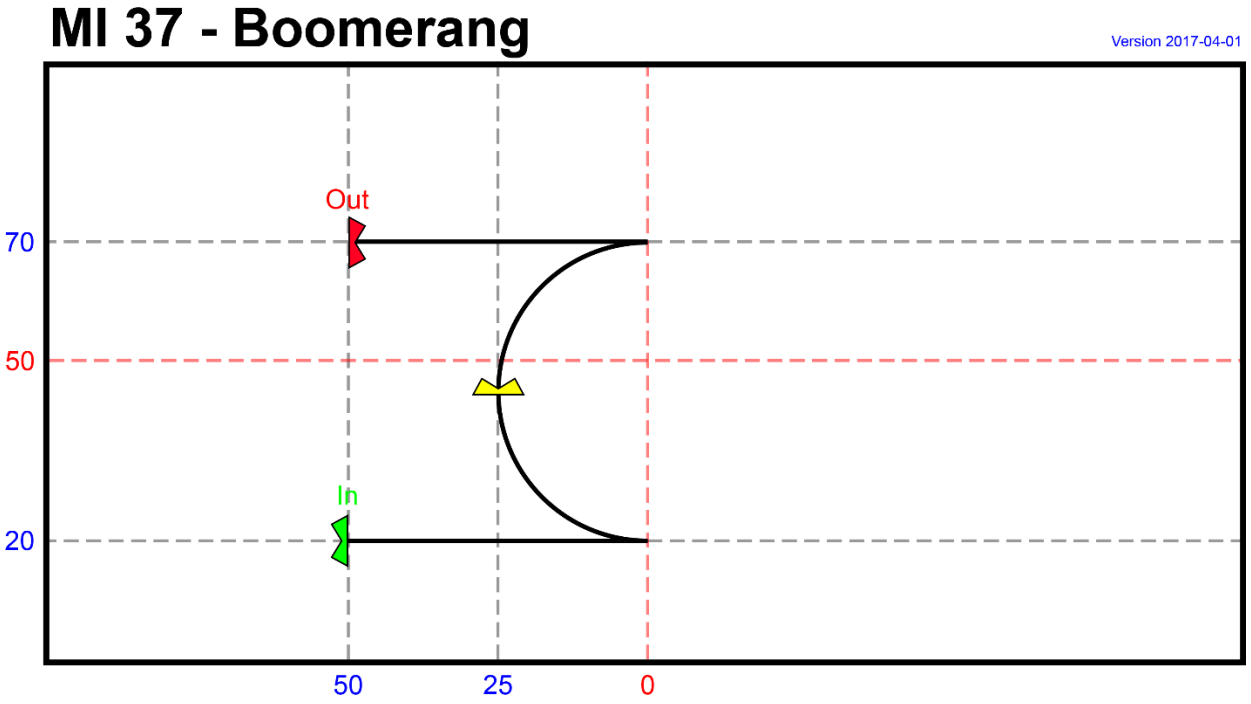
MI 36 – Rise and Lap (Intermediate) *Version 2017-04-01*

Judges will Particularly Consider

- Stops
- Speed control in forward flight
- Position within the precision grid

Explanation

- Launch (IN) on the left wingtip



MI 37 – Boomerang (Master)

Version 2017-04-01

Judges will Particularly Consider

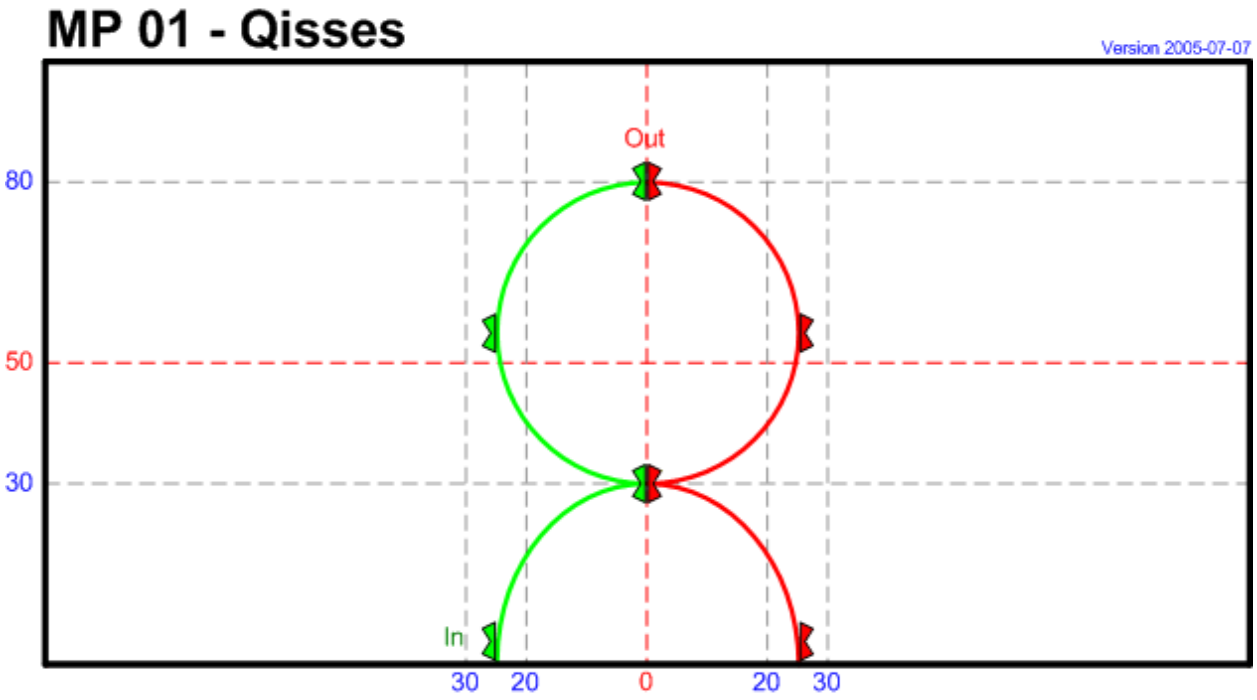
- Arc
- Reverse Flight
- Placement of elements within the precision grid

Explanation

Enter at 20^. At centre of window reverse flight into arc. At 70^ transition to forward flight level flight, parallel to original line of entry. Call out immediately above the point where IN was called.

X. Multi-line Pair Compulsory Figures

- MP 01 - Qisses
- MP 03 - Quadouble-S
- MP 04 - Two Down
- ~~MP 05 - Sticky Wicket~~
- MP 06 - Peaks
- MP 07 - Circles and Slides
- MP 08 - Double Diamonds
- MP 09 - Lollypops
- MP 10 - Parallel Boxes
- MP 11 - Triangle Split
- MP 12 - Split Square
- MP 13 - Pair Pivots
- MP 14 - Boomerang - **NEW**



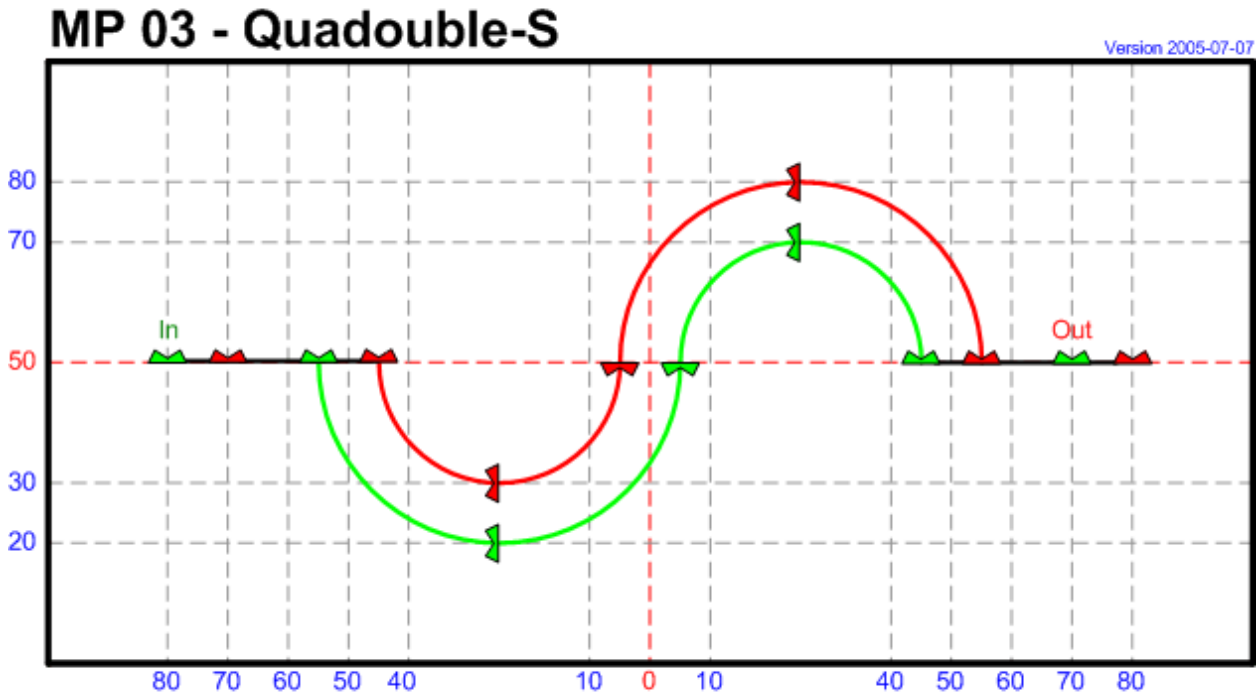
MP 01 – Qisses

Version 2005-07-07

Judges will Particularly Consider

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

Explanation



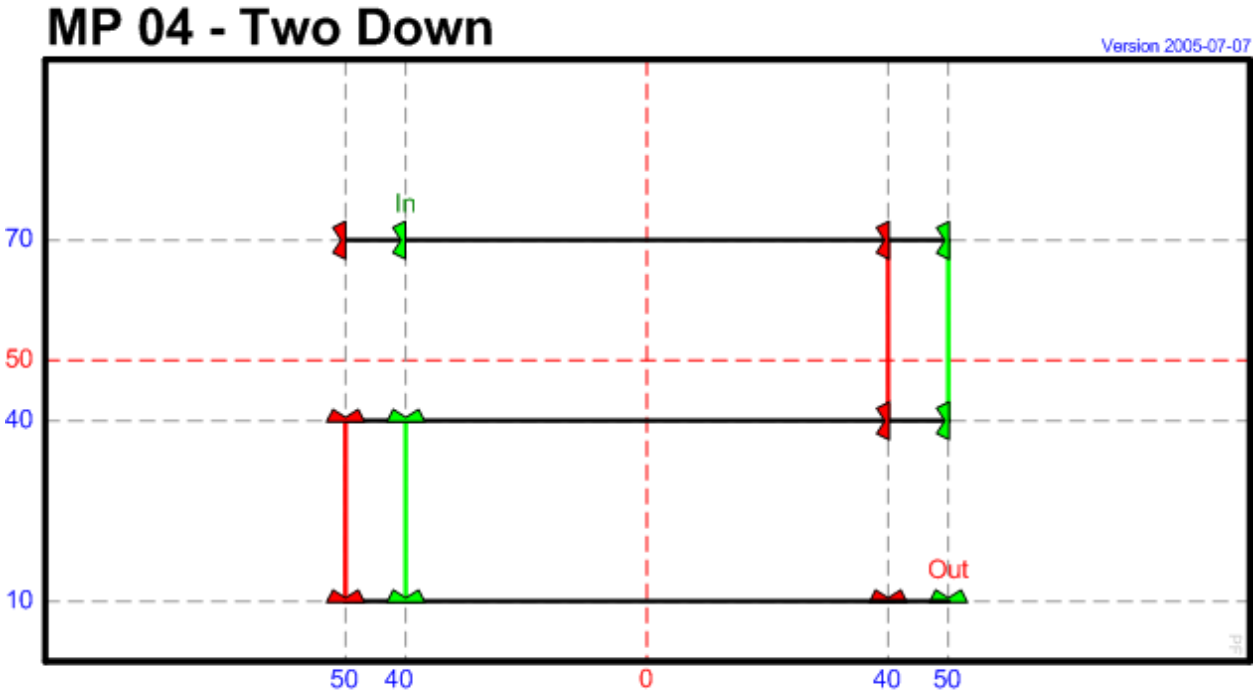
MP 03 – Quadouble-S

Version 2005-07-07

Judges will Particularly Consider

- Arcs
- Spacing
- Inverted flight
- Position within the precision grid
- Speed control

Explanation



MP 04 – Two Down

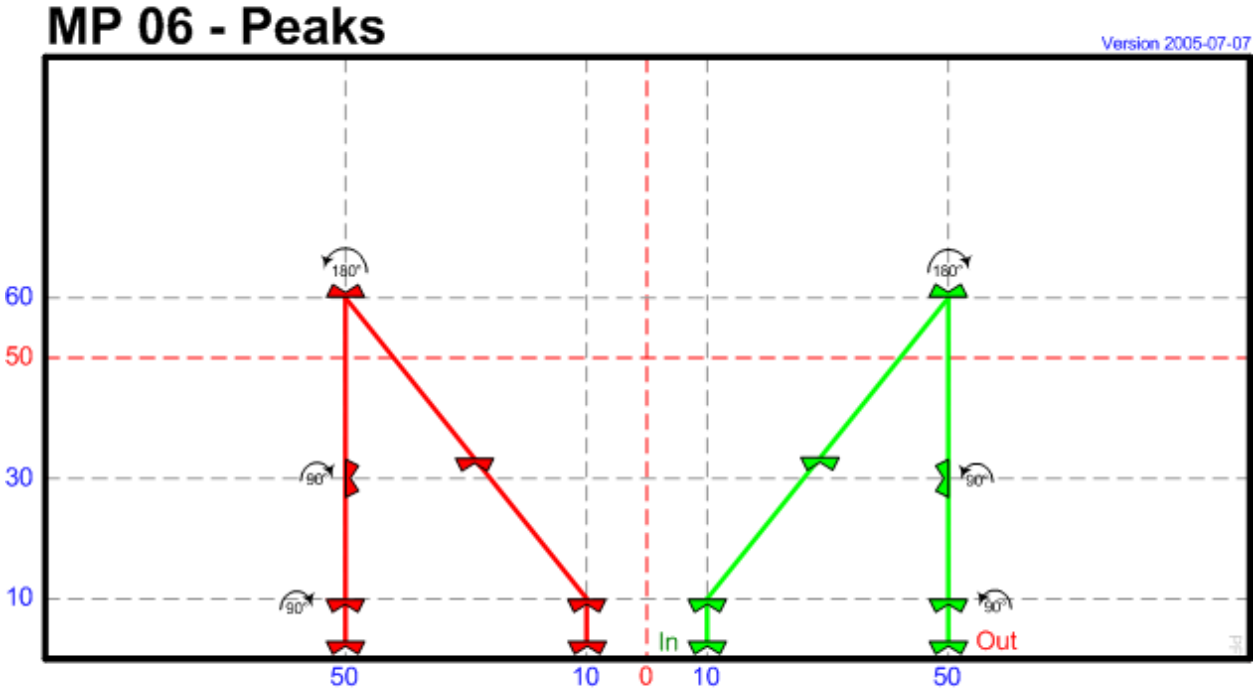
Version 2005-07-07

Judges will Particularly Consider

- Speed control
- Spacing
- Position within the precision grid
- Straight lines
- Center rotation

Explanation

The rotation is 90° clockwise.



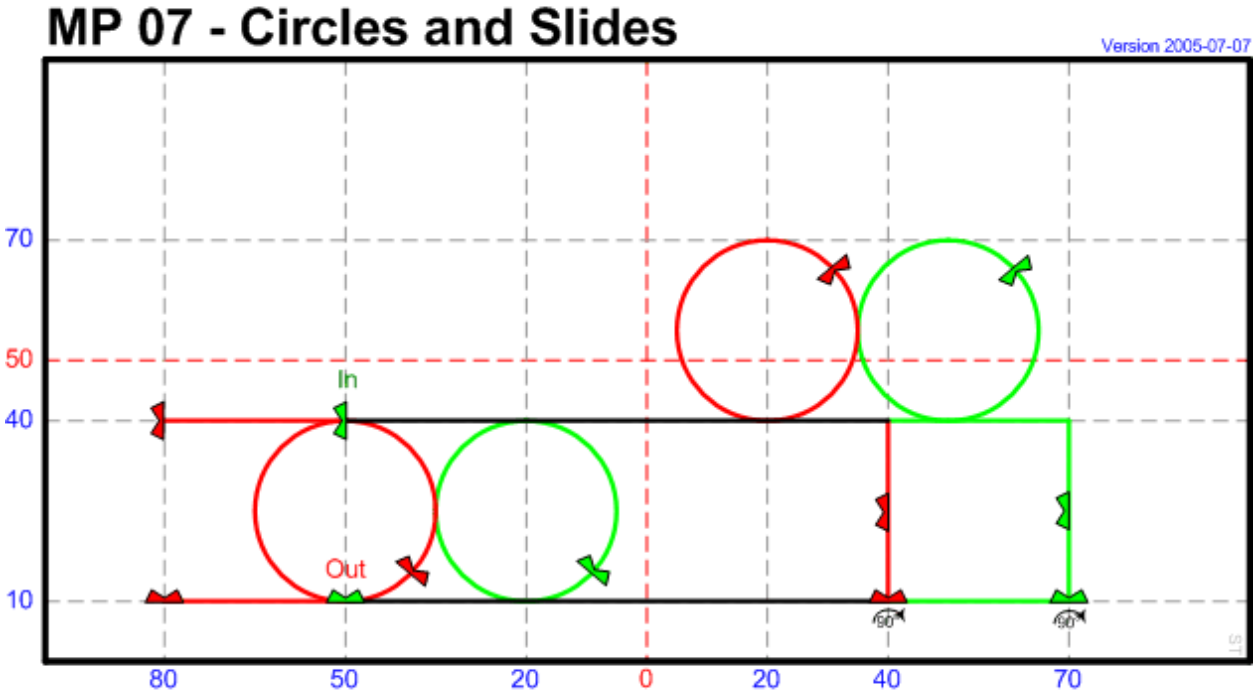
MP 06 – Peaks

Version 2005-07-07

Judges will Particularly Consider

- Diagonal flight
- Relative placement of components
- Launch
- Landing
- Center rotation

Explanation



MP 07 – Circles and Slides

Version 2005-07-07

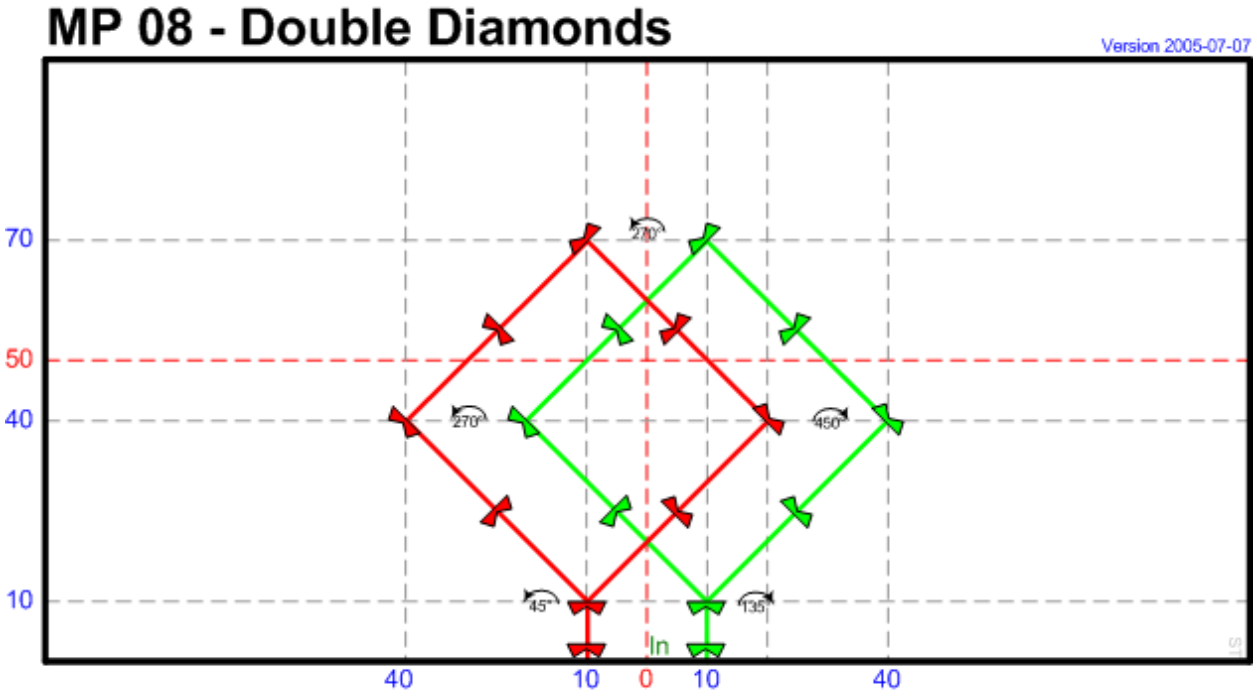
Judges will Particularly Consider

- Circles
- Inverted slide
- Parallel lines
- Spacing

Explanation

Both sets of circles are flown with the leading edge forward.

The circles on the left are flown first and go downward.



MP 08 – Double Diamonds

Version 2005-07-07

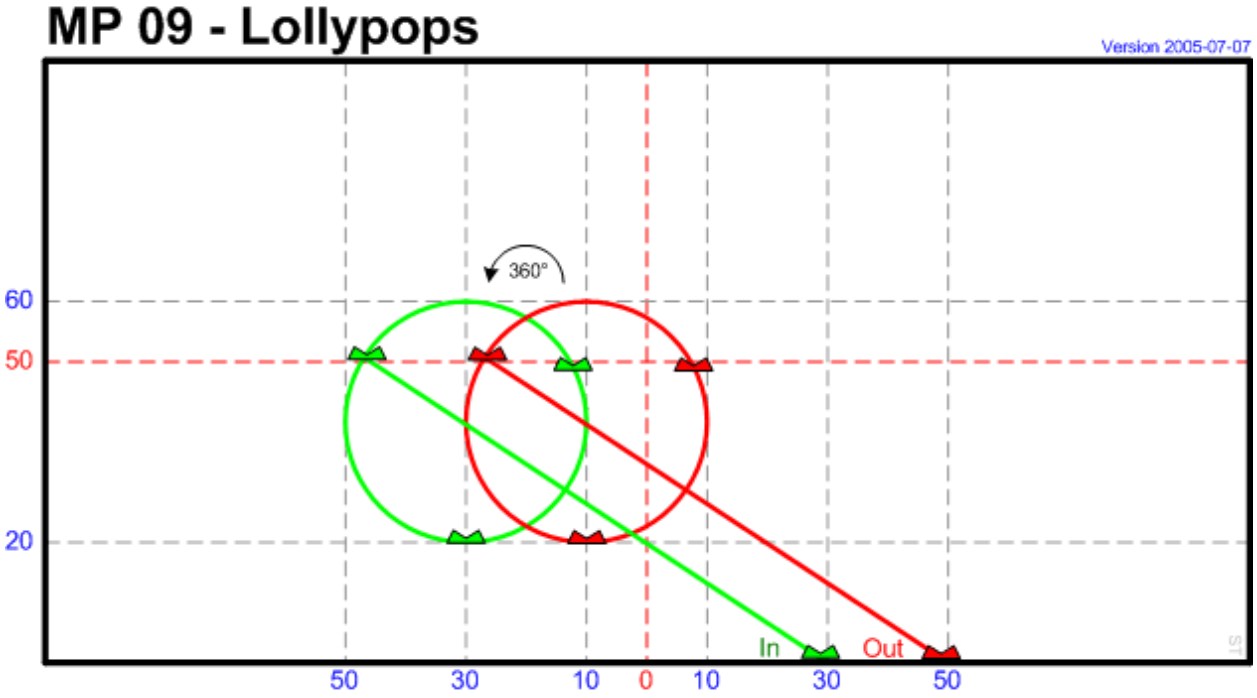
Judges will Particularly Consider

- Spacing
- Center rotation
- Parallel lines
- Straight lines
- Relative placement of components

Explanation

Both kites make a 45° left turn at ^10 after launching.

Both kites make a 135° right turn at ^10 before landing.



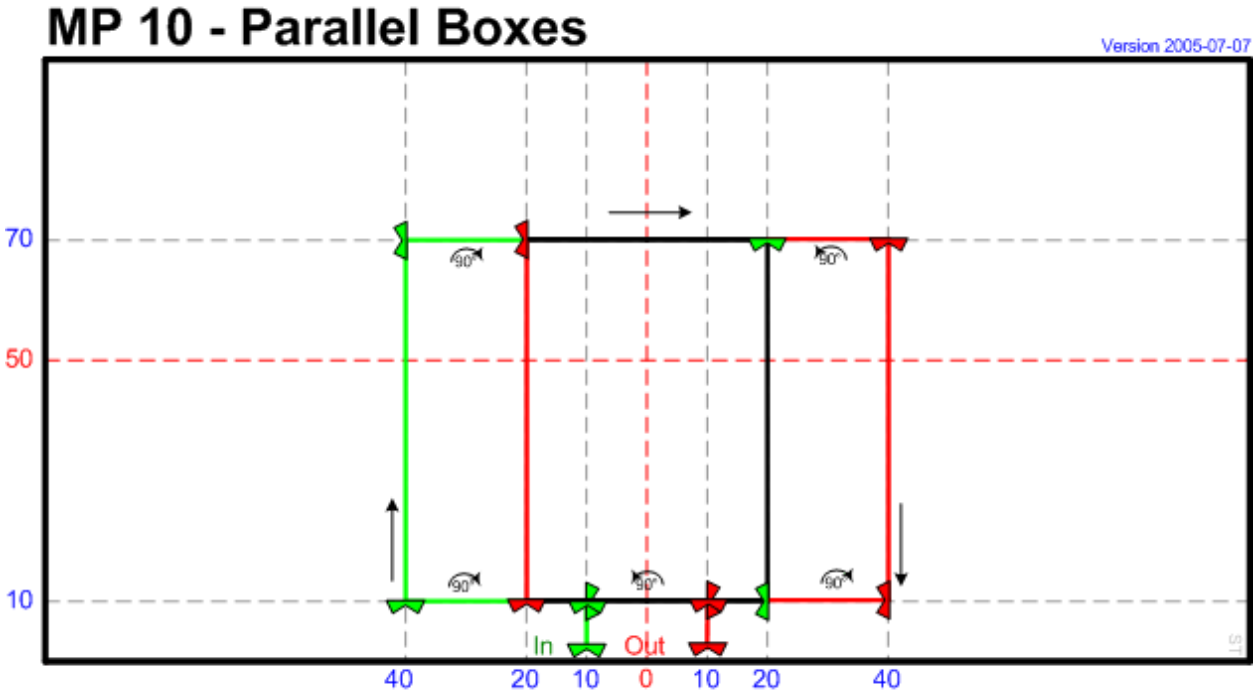
MP 09 – Lollypops

Version 2005-07-07

Judges will Particularly Consider

- Diagonal flight
- Circles
- Inverted flight
- Parallel lines
- Spacing
- Relative placement of components

Explanation



MP 10 – Parallel Boxes

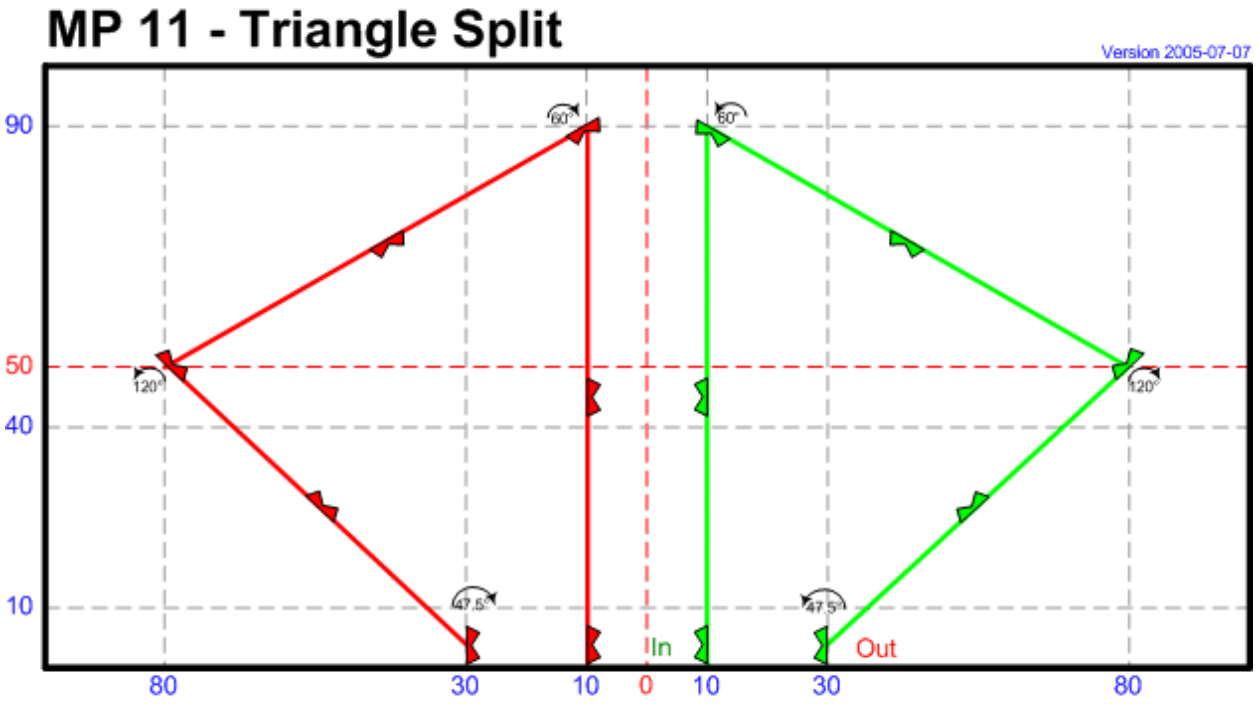
Version 2005-07-07

Judges will Particularly Consider

- Straight lines
- Speed control
- Parallel lines
- Spacing
- Relative placement of components
- Center rotation

Explanation

After launch and before landing, both kites rotate 90° left at ^10.



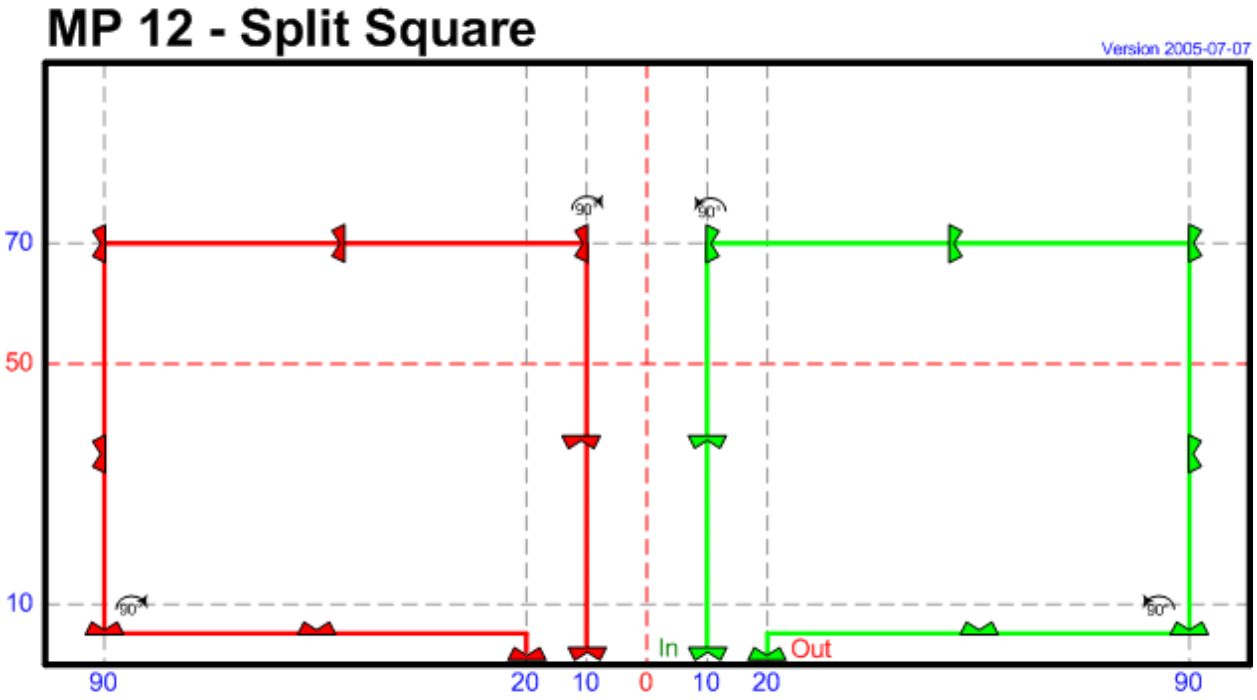
MP 11 – Triangle Split

Version 2005-07-07

Judges will Particularly Consider

- Straight lines
- Position within the precision grid
- Timing
- Center rotations
- Backward flight
- Vertical slide

Explanation



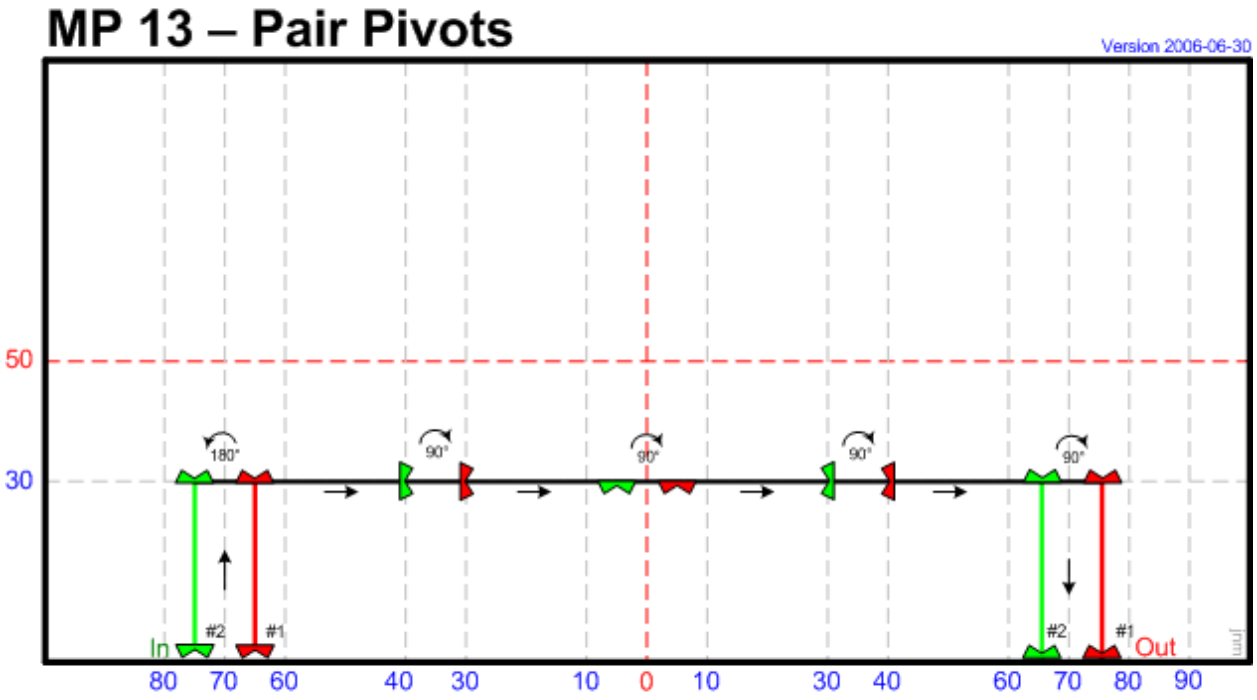
MP 12 – Split Square

Version 2005-07-07

Judges will Particularly Consider

- Straight lines
- Relative placement of components
- Inverted slide
- Vertical slide
- Center rotations
- Position within the precision grid

Explanation



MP 13 - Pair Pivots

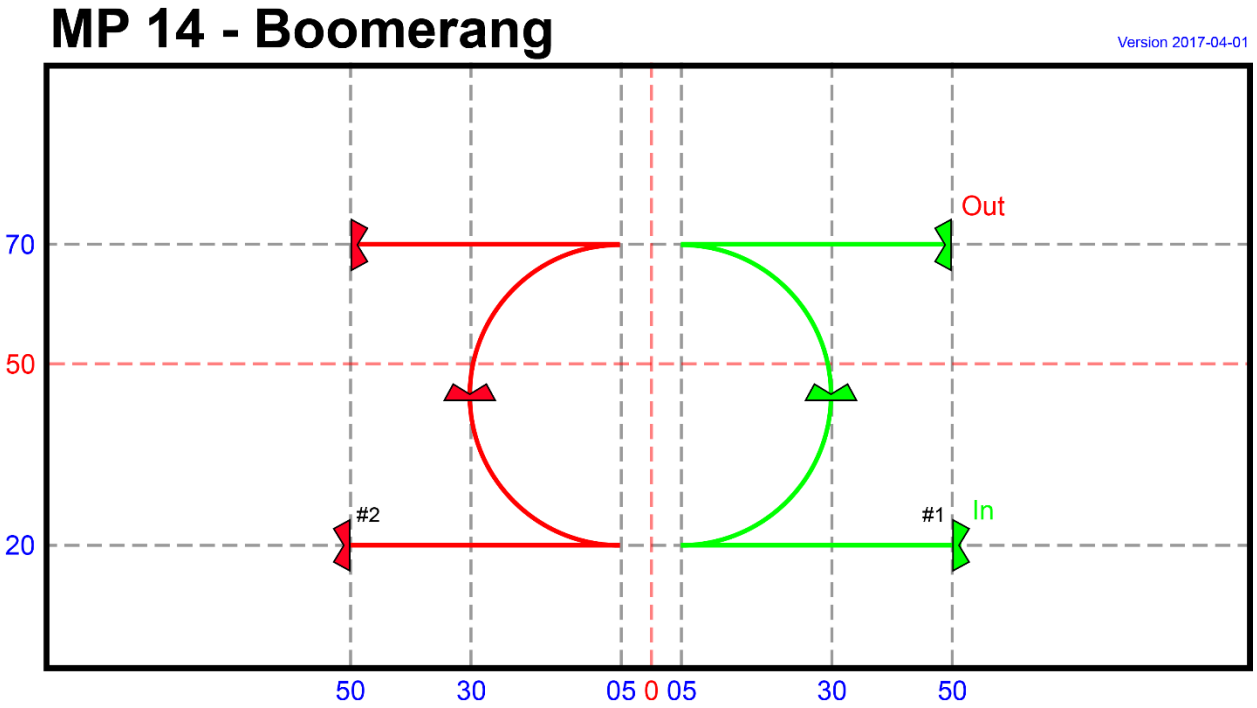
Version 2006-06-30

Judges will Particularly Consider

- Rotations
- Straight lines
- Position within the precision grid
- Relative placement of components
- Speed control
- Backward flight
- Horizontal slide
- Landing

Explanation

1. Kites fly parallel upward to 30% vertical, stop and rotate 180° counter clockwise.
2. Kites slide right horizontally 30%, stop and rotate 90° clockwise.
3. Kites fly backwards 30%, stop and rotate 90° clockwise.
4. Kites slide right horizontally 30%, stop and rotate 90° clockwise.
5. Kites fly forwards 30%, stop and rotate 90° clockwise.
6. Kites fly parallel forwards and downwards, making a simultaneous landing on the leading edge.



MP 14 - Boomerang

Version 2017-04-01

Judges will Particularly Consider

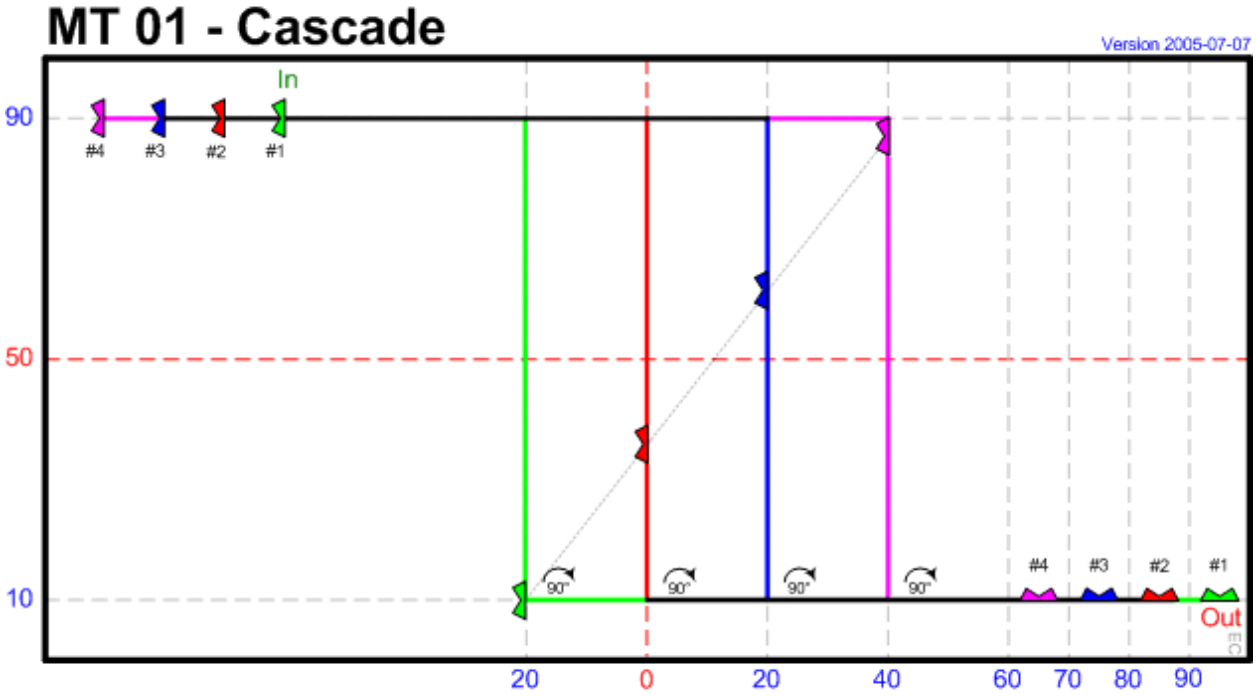
- Arc
- Reverse Flight
- Placement of elements within the precision grid

Explanation

1. Both kites enter at 20^ flying inwards.
2. At <5 and >5 respectively both stop and reverse flight into an arc upwards.
3. At 70^ transition to forward flight level flight, parallel to original line of entry.
4. Call out immediately above the point where IN was called.

XI. MULTI-LINE TEAM COMPULSORY FIGURES

- MT 01 - Cascade
- MT 02 - Follow, Slide, Roll
- MT 03 - Vertical Thread and Rotate
- MT 04 - Rainbow Slide
- MT 05 - Two Down
- MT 06 - Steps and Turns
- MT 07 - Arch du Carousel
- MT 08 - Team Pivots
- MT 09 - The Basket
- MT 11 - Solaris
- MT 12 - Boomerang - **NEW**



MT 01 – Cascade

Version 2005-07-07

Judges will Particularly Consider

- Spacing
- Speed control
- Position within the precision grid
- Straight lines
- Center rotations

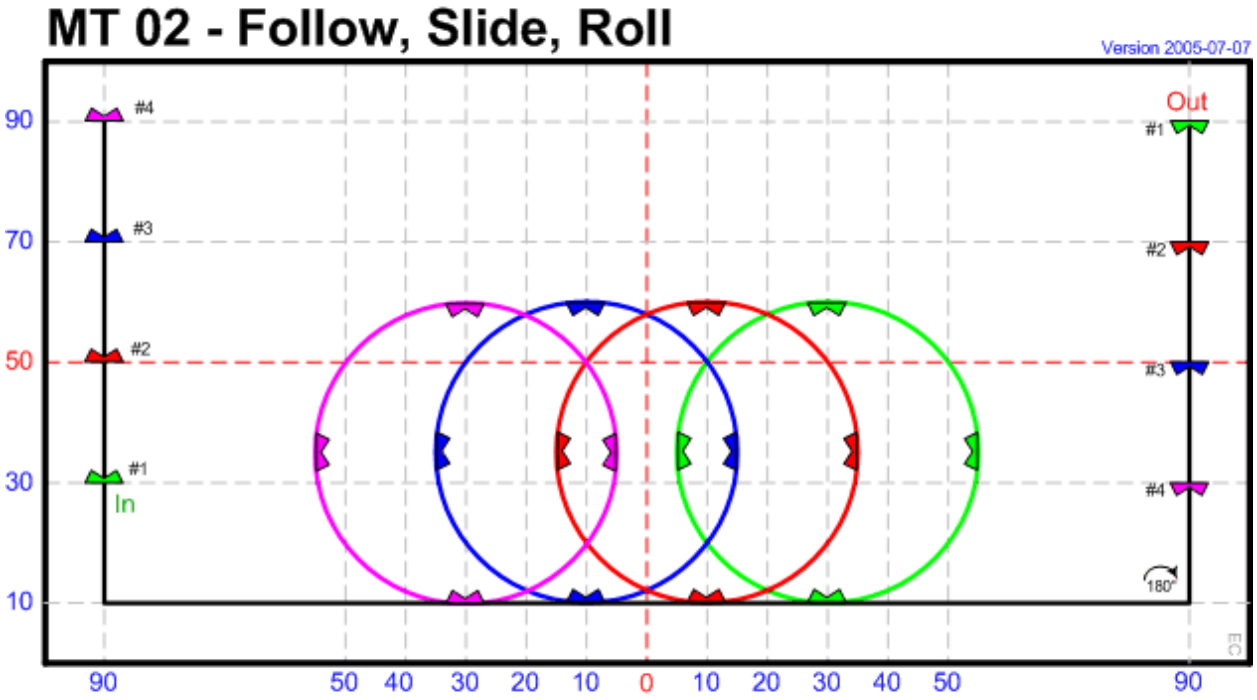
Explanation

At the end of each downward vertical slide, each kite rotates 90° and slides to the right.

Kite #1 passes under kites #2, #3, and #4 as it slides to the right.

Kite #2 passes under kites #3 and #4 as it slides to the right.

Kite #3 passes under kite #4 as it slides to the right.



MT 02 – Follow, Slide, Roll

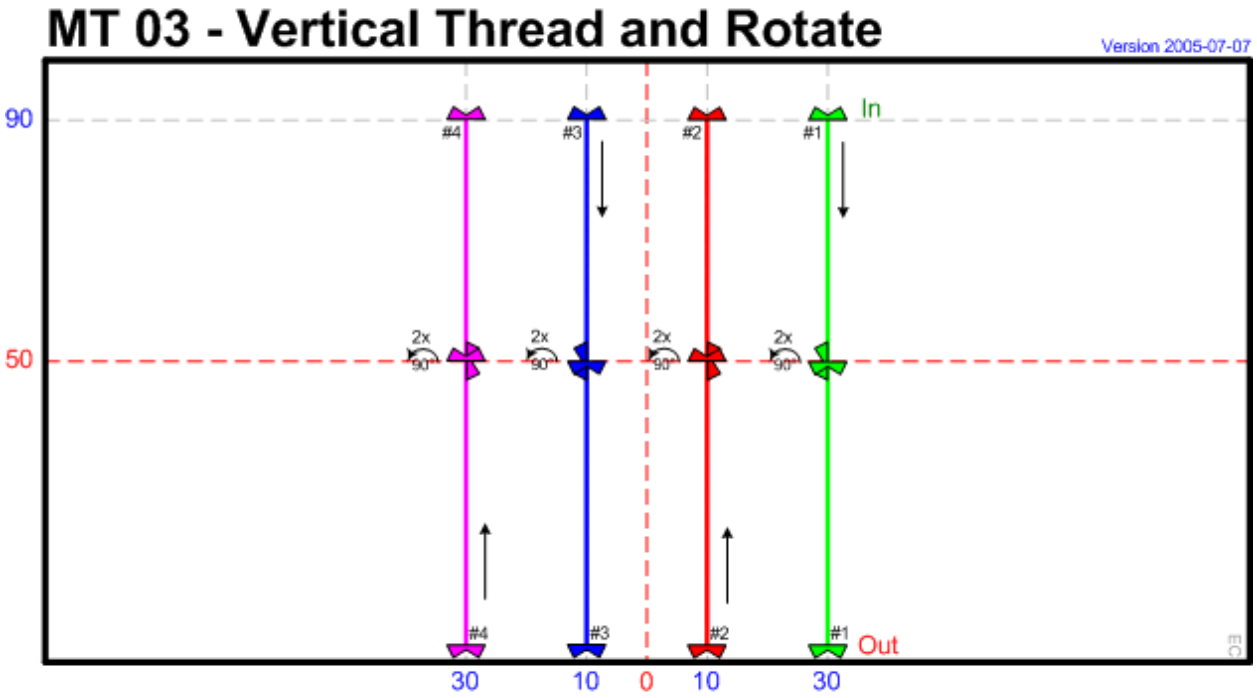
Version 2005-07-07

Judges will Particularly Consider

- Circles
- Spacing
- Straight lines
- Relative placement of components
- Inverted slide
- Center rotations

Explanation

The circles are executed with the nose pointed outside the circle throughout.



MT 03 – Vertical Thread and Rotate

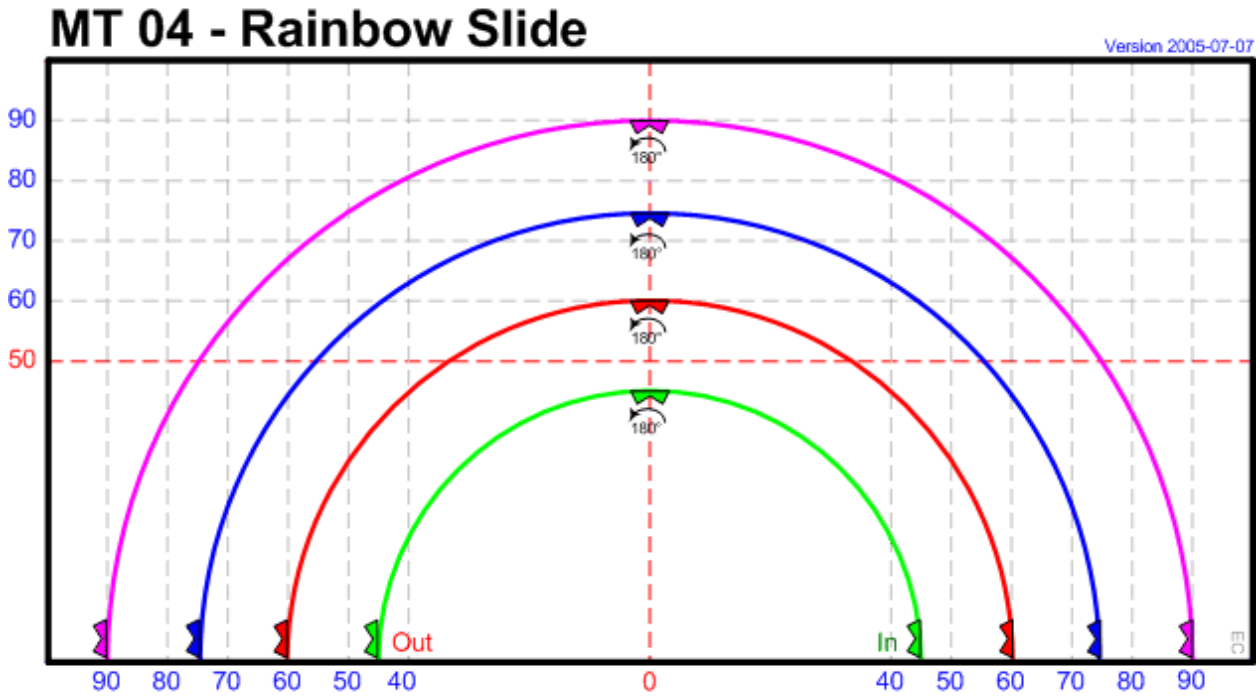
Version 2005-07-07

Judges will Particularly Consider

- Straight lines
- Center rotations
- Spacing
- Relative placement of components

Explanation

The center rotations at ^50 are composed of two separate 90° rotations with a stop before and after each.



MT 04 – Rainbow Slide

Version 2005-07-07

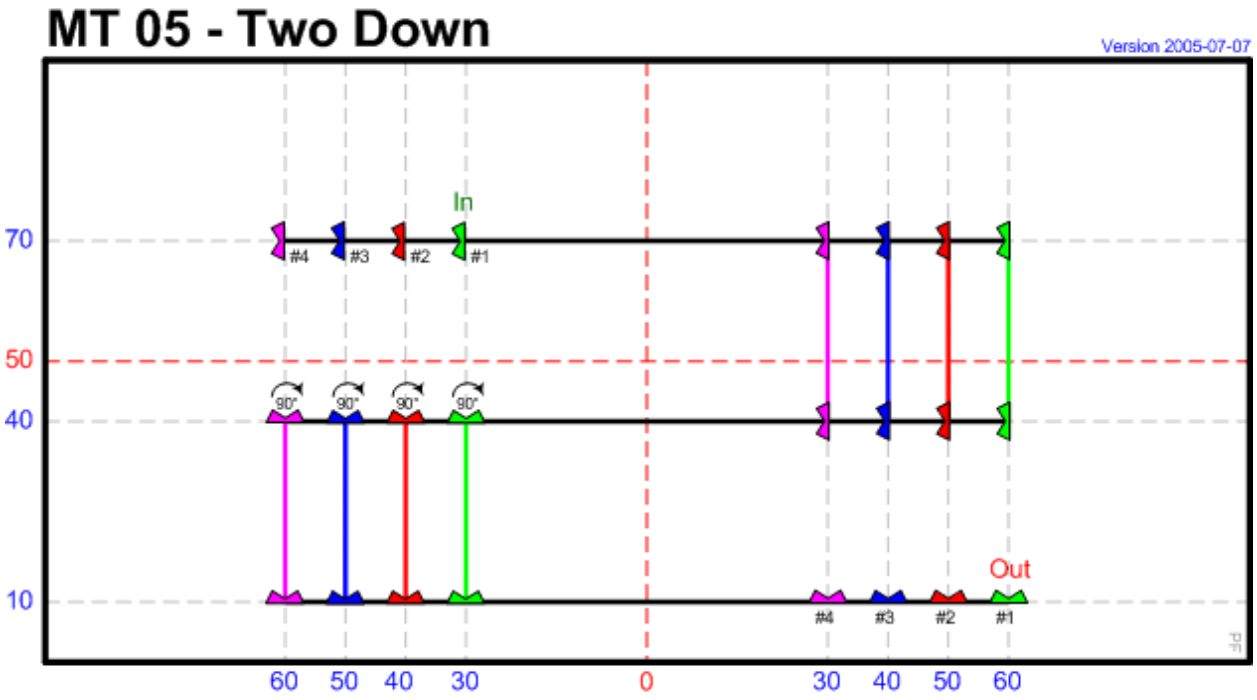
Judges will Particularly Consider

- Spacing
- Speed control
- Position within the precision grid
- Center rotations

Explanation

The launch is from a wingtip stand.

The 180° center rotations are executed in unison and end in a stop.



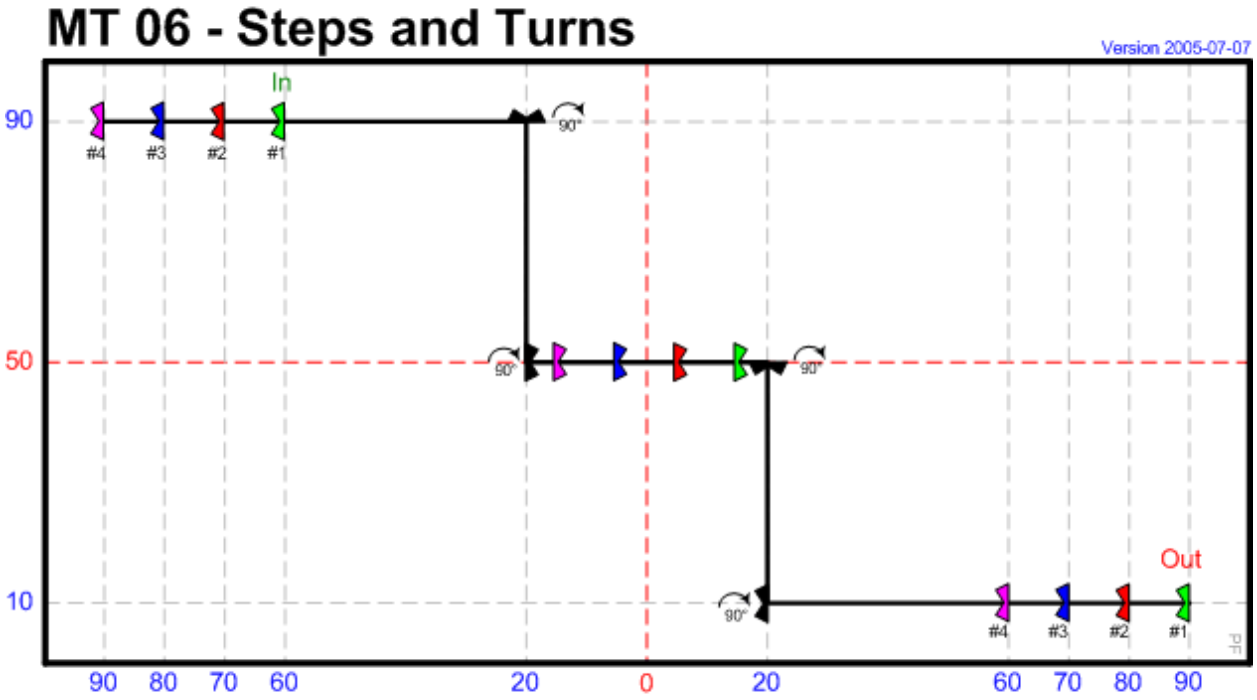
MT 05 – Two Down

Version 2005-07-07

Judges will Particularly Consider

- Speed control
- Spacing
- Vertical slide
- Center rotation
- Position within the precision grid
- Straight lines

Explanation



MT 06 – Steps and Turns

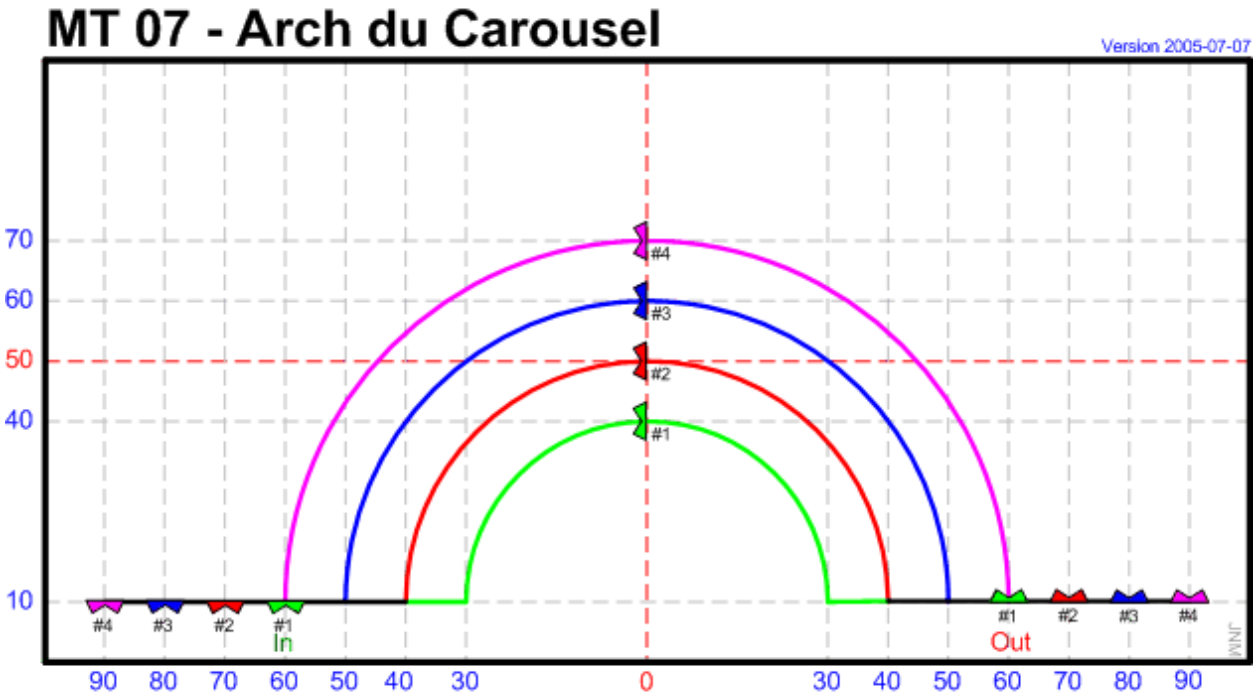
Version 2005-07-07

Judges will Particularly Consider

- Relative placement of components
- Center rotations
- Straight lines
- Position within the precision grid
- Backward flight

Explanation

The kites rotate 90° clockwise at each corner.



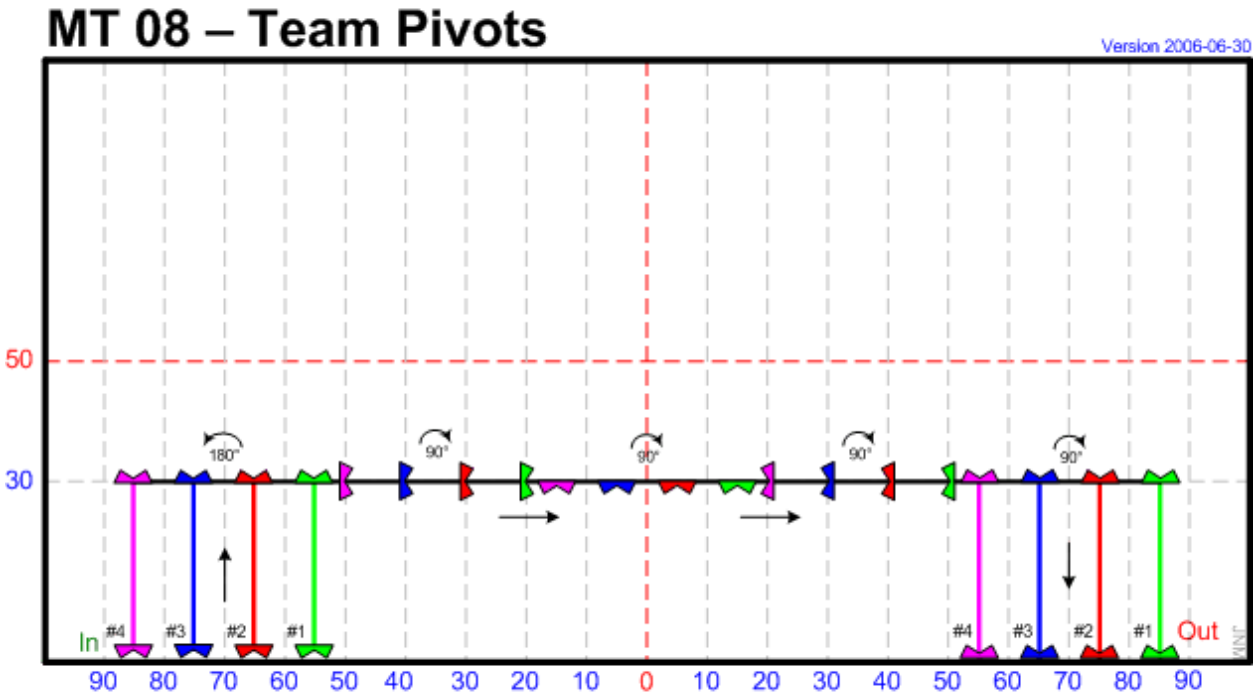
MT 07 – Arch du Carousel

Version 2005-07-07

Judges will Particularly Consider

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

Explanation



MT 08 - Team Pivots

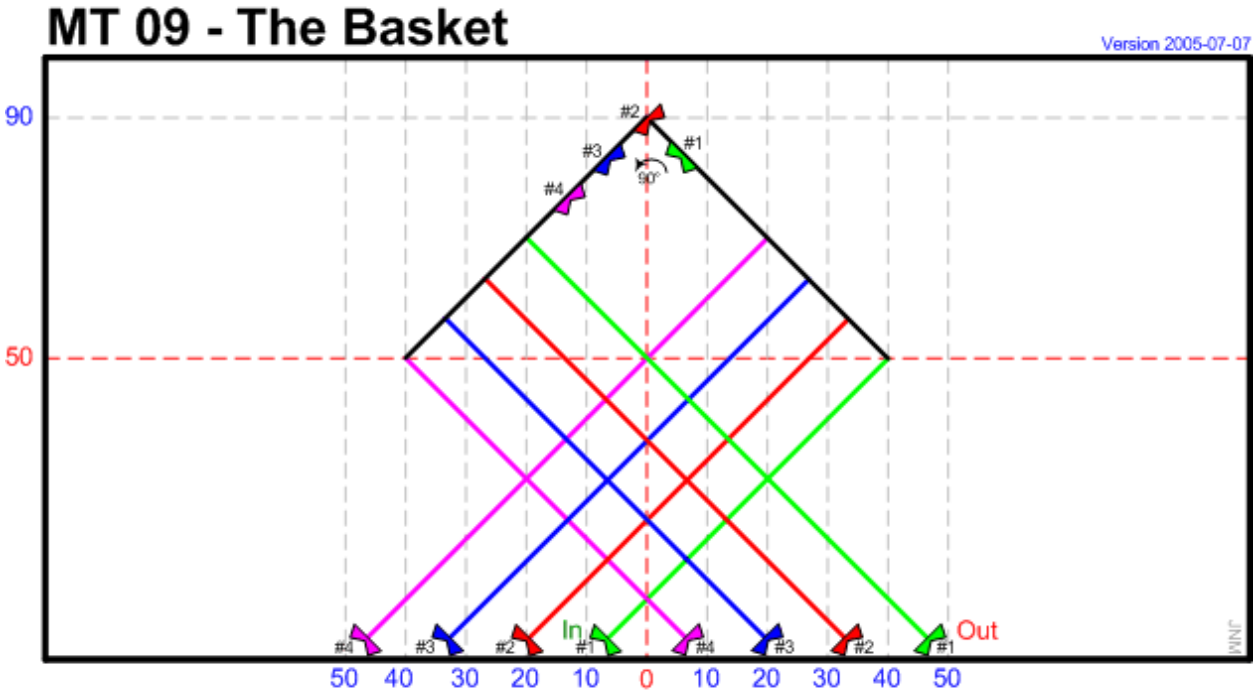
Version 2006-06-30

Judges will Particularly Consider

- Center rotations
- Straight lines
- Position within the precision grid
- Relative placement of components
- Speed control
- Backward flight
- Horizontal slide
- Landing

Explanation

1. All rotations by all kites are executed simultaneously.
2. Kites fly parallel upward to 35% vertical, stop and rotate 180° counter clockwise.
3. Kites slide right horizontally 35%, stop and rotate 90° clockwise.
4. Kites fly backwards 35%, stop and rotate 90° clockwise.
5. Kites slide right horizontally 35%, stop and rotate 90° clockwise.
6. Kites fly forwards 35%, stop and rotate 90° clockwise.
7. Kites fly parallel forwards and downwards, making a simultaneous landing on the leading edge.



MT 09 – The Basket

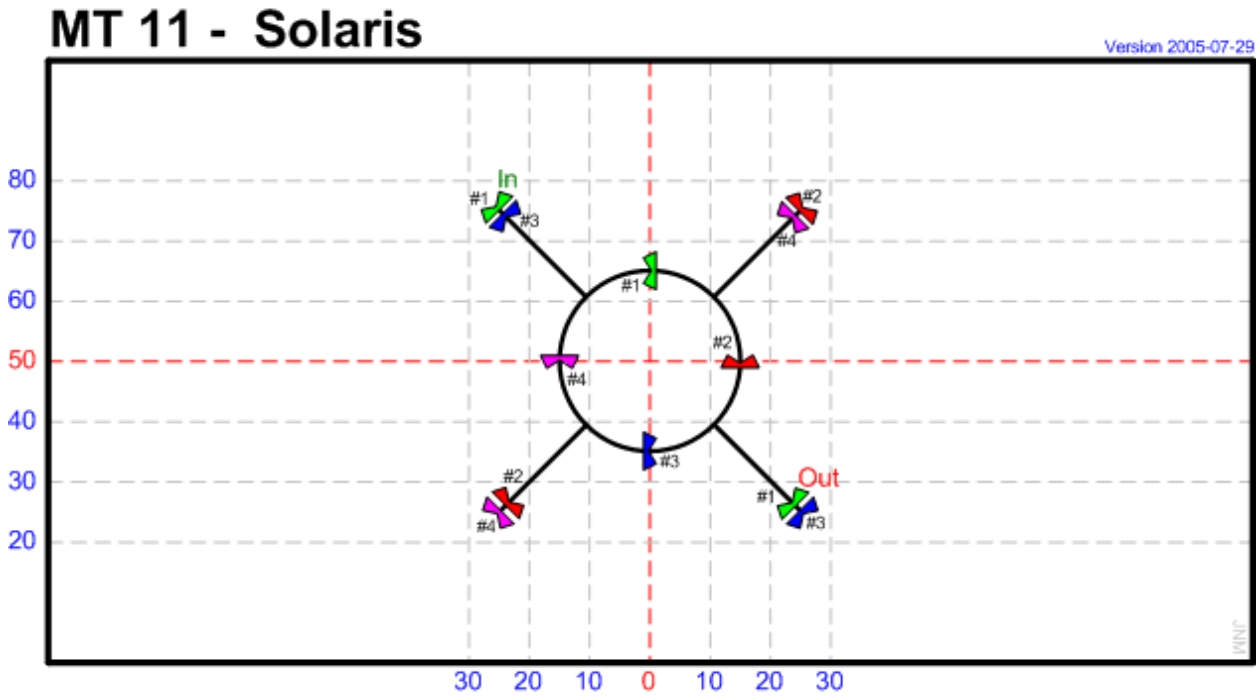
Version 2005-07-07

Judges will Particularly Consider

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

Explanation

1. All kites launch at the same time with the noses pointed at a 45° angle to the right.
2. All kites reach the top right side of the basket at the same time.
3. All kites slide diagonally up to and down from <0> ^90
4. All kites land at the same time with the noses pointed at a 45° angle to the left.



MT 11 - Solaris

Version 2005-08-01

Judges will Particularly Consider

- Speed control
- Timing
- Circle

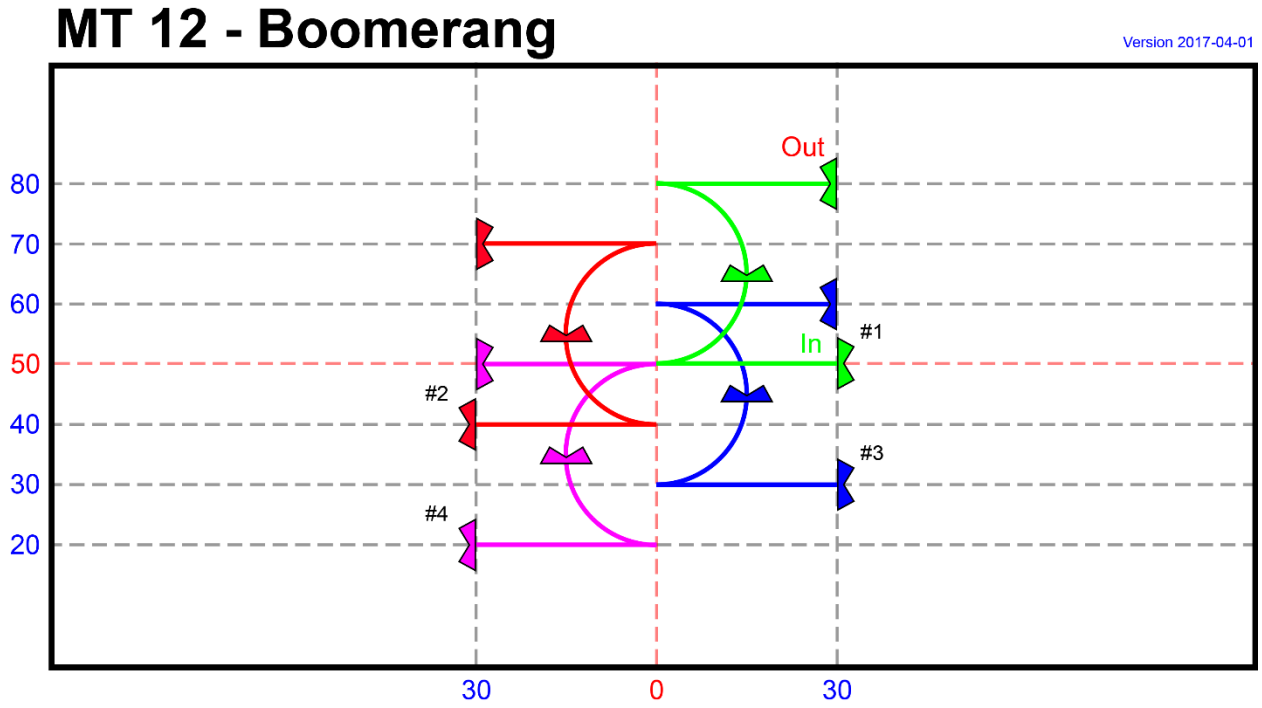
Explanation

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.

With 3 or 5 kites, kite #1 enters at 0°.



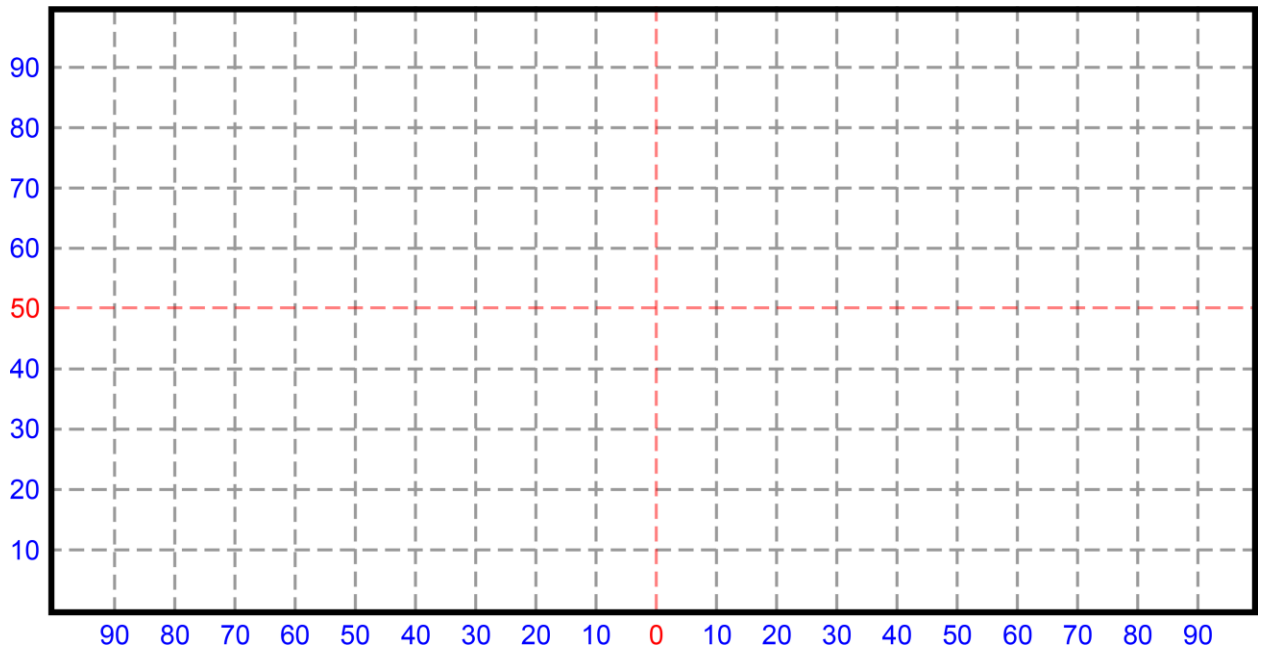
MT 12 - Boomerang

Version 2017-04-01

Judges will Particularly Consider

- Arcs
- Reverse flight
- Speed control

Explanation

1. All kites fly towards the centre.
2. At centre of window reverse flight into arc.
3. At 70^ transition to forward flight level flight, parallel to original line of entry.
4. Call out immediately above the point where IN was called.

XII. Compulsory Figure Template