A Leader's Guide to

Maze-O

A Fun Orienteering Activity

for

Scout Meetings

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Revision 5
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Maze-Orienteering

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What is Maze-O?

The Maze-O is a short, fun Orienteering course where the runners orient themselves on a map in a 40-ft square MAZE. They follow a course from point to point through the MAZE and punch/scan the markers at each control point. It's a fun race against the clock. There are several different difficulty levels that range from White (basic), to Yellow, Orange and Green (advanced). This is a fun activity for Scout meetings and introduces Scouts to Orienteering in a small, manageable area.

WHITE Course:

Follow the course from point to point until the finish. This is much like a traditional point-to-point course, only in a small maze.
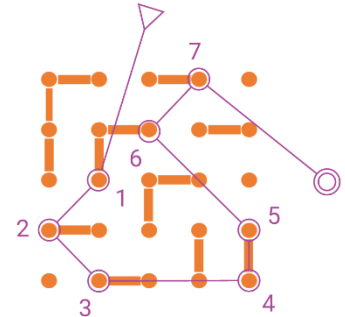
YELLOW Course:

Like the White course, however the course is NOT drawn on the map, follow the instructions to navigate from point to point using a list of Cardinal Directions (eg. go 2 South, then 2 East)

1. 2 S, 2 E
2. 1 NW, 3 W
3. 2 SE
4. 1 S, 2 W
5. 3 E, 1 SW
6. 1 E
7. 2 N
8. 2 N, 1 SE, 2 S
Finish: 1 N, 1 E
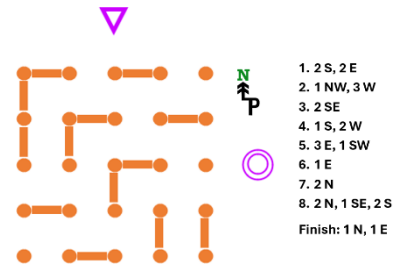
ORANGE Course:

The course becomes more difficult as you are given partial squares of the map to get from one control to the next.
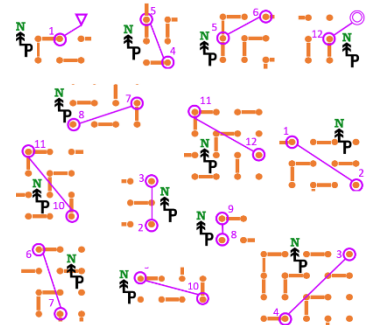
GREEN Course:

This map is shown in oddly cut shapes that show puzzle-like pieces of the map that are rotated off north. Find the piece that shows your current location and the next control and visit all of them as quickly as you can.
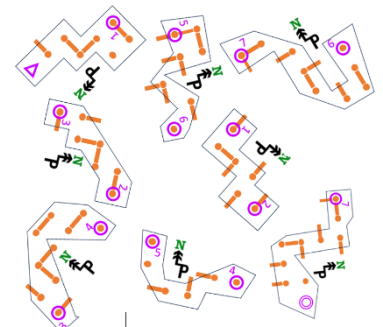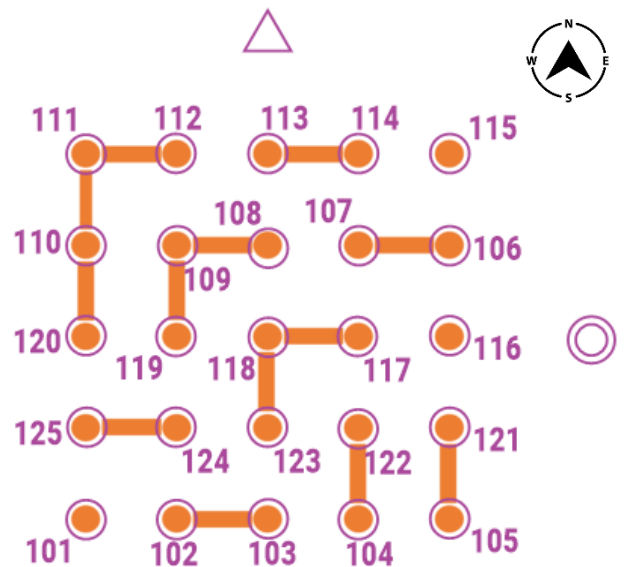
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Maze-O Set-up

The Maze is built on a 5x5 grid of garden stakes, cones, buckets, large rocks (or whatever you have), 10ft apart for a total of 40ft square (or whatever size you like). Some courses are sensitive to North (see the set-up diagram for North).   Ask us about our 49pt Maze for larger events.

- Stake the first corner for the point with control code 111
- Connect a 100ft tape measure to the first stake, use a compass to align 101 stake due South
    - For best alignment, use a real compass, not your phone compass
- Install a stake every 10 ft
- Rotate tape measure from control 111 due East to control 115
- Install a stake every 10 ft
- Repeat 112 to 102, 113 to 103 etc until the entire grid is complete
- Tie neon construction tape or rope to make MAZE WALLS as shown in the diagram
    - the maze walls are not required; however they make the grid look more interesting and create some restriction of movement to the runners
- Install START (North of control 113) and FINISH stakes (East of control 116)
- Install control markers on each garden stake (clothespin a card to the stake, if you are using buckets or cones, just tape the markers…see Appendix)
    - Markers should display the control code (e.g "CC--125") and include either a pin punch or a code for scouts to write down, or barcode if you are using scanners
        - Increase difficulty level by blocking out the control codes on the Map so Scouts cannot check if they are at the right point
        - If you would like to use a wireless barcode scanner, they are ~ $30 on Amazon; email orienteering@troop8787.org for the free program used to record and score your runners on a PC. The Maze-O program is made to work with Symcode 2D Wireless Barcode Scanner and we usually run with 4 at a time. You could start with one.
- Set a table for your officials, NE of Control 115, convenient to start and finish makers

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Maze-O Operation

Check-in table Supplies

- Table & chair for the Official(s)
- Maps (2-3 each course, in zip lock bags or laminated)
- If you are using punches or hand writing codes, you will need cards for runners to write codes or punch and the official needs a "key" to score each runner (see appendix)
- Timer, if you care (if using wireless barcode scanners, the program will keep time for you)
- If you are using a wireless barcode scanner, you need the scanner(s) and a PC to record results

At START:

- Provide instruction:
  - Choose the course to run, get a map
    - There are easy courses that follow a straightforward path through the maze
    - More difficult courses show partial sections of the maze
    - The most difficult courses show partial sections which are rotated off North
  - Explain that the runner will be following the map to visit markers in the maze in a race for the fastest time
  - Point out the Start and Finish Markers
  - If using wireless scanners:
    - the runner must clear scanner data and then scan the selected course (these are barcodes on the map)
    - Runner must scan the barcode at the Start Triangle to begin timer
    - Runner must scan the barcode at the Finish marker to stop timer
    - Runner must return the barcode scanner to get their time/score registered
- Provide the Map and record the start time

At FINISH:

- Record the finish time and score the runners card against the key (see appendix)
- If using barcode scanners (email me for scoring file):
  - take scanner from runner
  - make sure spreadsheet is in first column of next empty row
  - scan the "Upload Data" barcode
  - all the runner's scans will transfer and be evaluated for time and correct scans
  - the Finish scan row will show total time and "OK" or "DQ"
    - duplicate scans are ignored; any scan missed or out of order will DQ runner
    - Type runner's name on the FINISH row if they want to be listed on the leaderboard
  - There is a second tab in spreadsheet that summarizes top times by course
    - Leader board will look like this

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Maze-O Courses

Print these for your orienteers to run the courses

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WHITE Course

Start at the Triangle, visit each point circled on your course (in order).

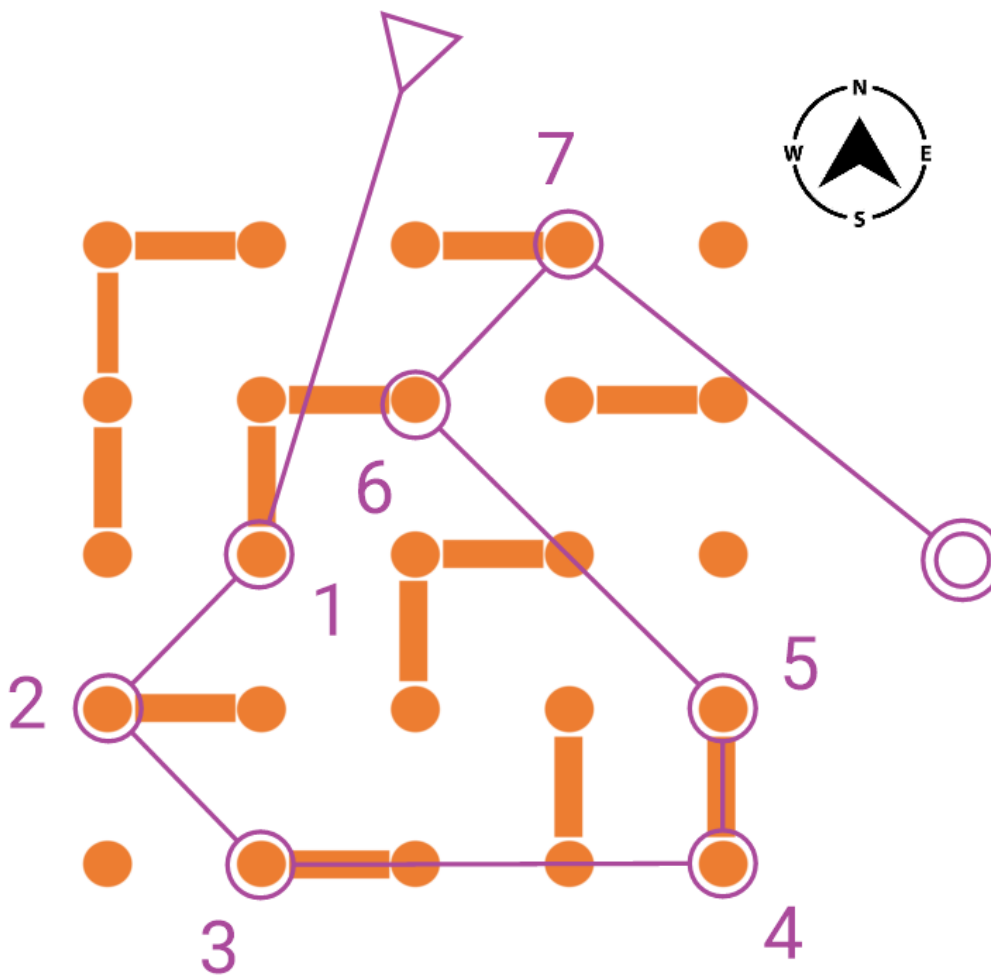Do NOT step over/under the maze walls (tape/rope)
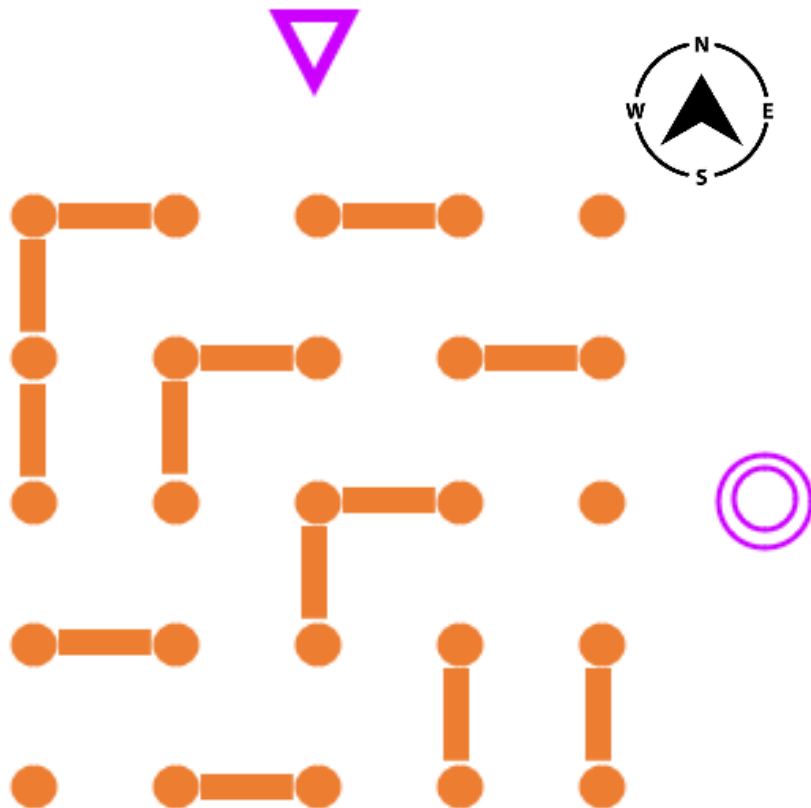
1. <u>Clear</u> your scanner data
2. <u>Scan your course</u> selection
3. **<u>Scan at START TRIANGLE</u>** to start timer
4. ***Run the course!***
5. **<u>Scan at FINISH</u>** sign to stop timer
6. Turn in your scanner to record your score/time

   (ask the official to record your name for leaderboard)

Clear Data

MAZE - 01

▷	**START--**
1	CC--119
2	CC--125
3	CC--102
4	CC--105
5	CC--121
6	CC--108
7	CC--114
◎	**FINISH-**

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YELLOW Course

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Start at the Triangle and visit all control points in order, by using the list of cardinal directions (2 S, 2 E means go south 2 points and then east 2 points).

Do NOT step over/under the maze walls (tape/rope)

1. <u>Clear</u> your scanner data
2. <u>Scan your course</u> selection
3. **Scan at START TRIANGLE** to start timer
4. *Run the course!*
5. **Scan at FINISH** sign to stop timer
6. Turn in your scanner to record your score/time
   (ask the official to record your name for leaderboard)

Clear Data

MAZE - 02

1. 2 S, 2 E

2. 1 NW, 3 W

3. 2 SE

4. 1 S, 2 W

5. 3 E, 1 SW

6. 1 E

7. 2 N

8. 2 N, 1 SE, 2 S

Finish: 1 N, 1 E

▷	START--
1	CC--106
2	CC--111
3	CC--118
4	CC--125
5	CC--103
6	CC--104
7	CC--117
8	CC--121
◎	FINISH-

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ORANGE Course

Start at the Triangle, find the piece of the map below that shows your current location and the next control, then get there as quickly as you can until you visit all controls.

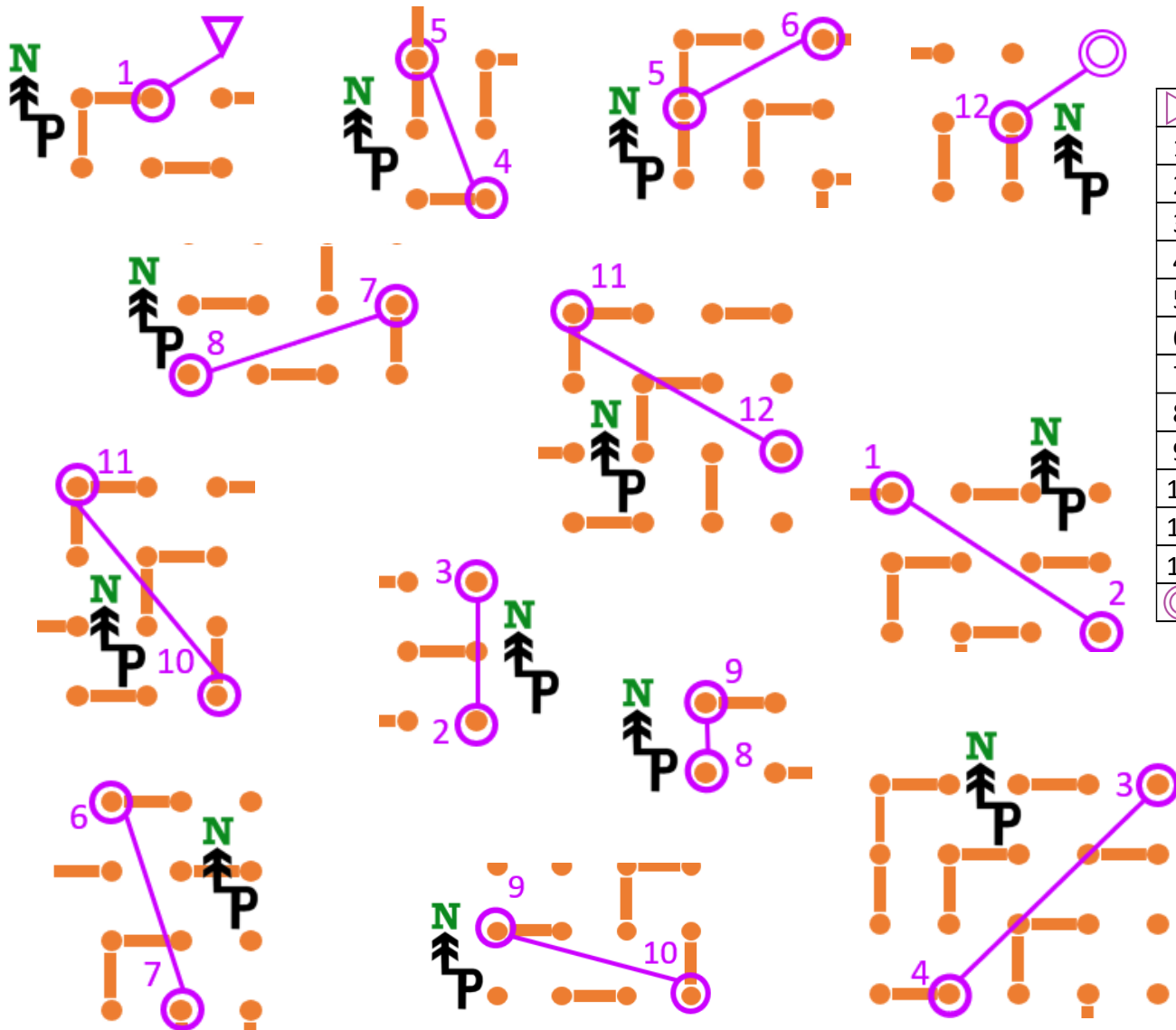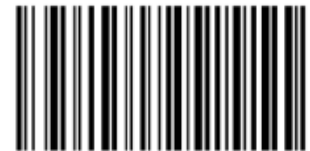Do NOT step over/under the maze walls (tape/rope)

1. <u>Clear</u> your scanner data
2. <u>Scan your course</u> selection
3. <u>Scan at START</u> TRIANGLE to start timer
4. ***Run the course!***
5. **<u>Scan at FINISH</u>** sign to stop timer
6. Turn in your scanner to record your score/time
   (ask the official to record your name for leaderboard)

Clear Data

MAZE - 03

▷	**START--**
1	CC--112
2	CC--116
3	CC--115
4	CC--124
5	CC--110
6	CC--113
7	CC--122
8	CC--101
9	CC--125
10	CC--104
11	CC--109
12	CC--121
◎	**FINISH-**

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GREEN Course

Start at the Triangle, find the piece of the map below that shows your current location and the next control, then get there as quickly as you can until you visit all controls. Be careful to orientent each piece to North.

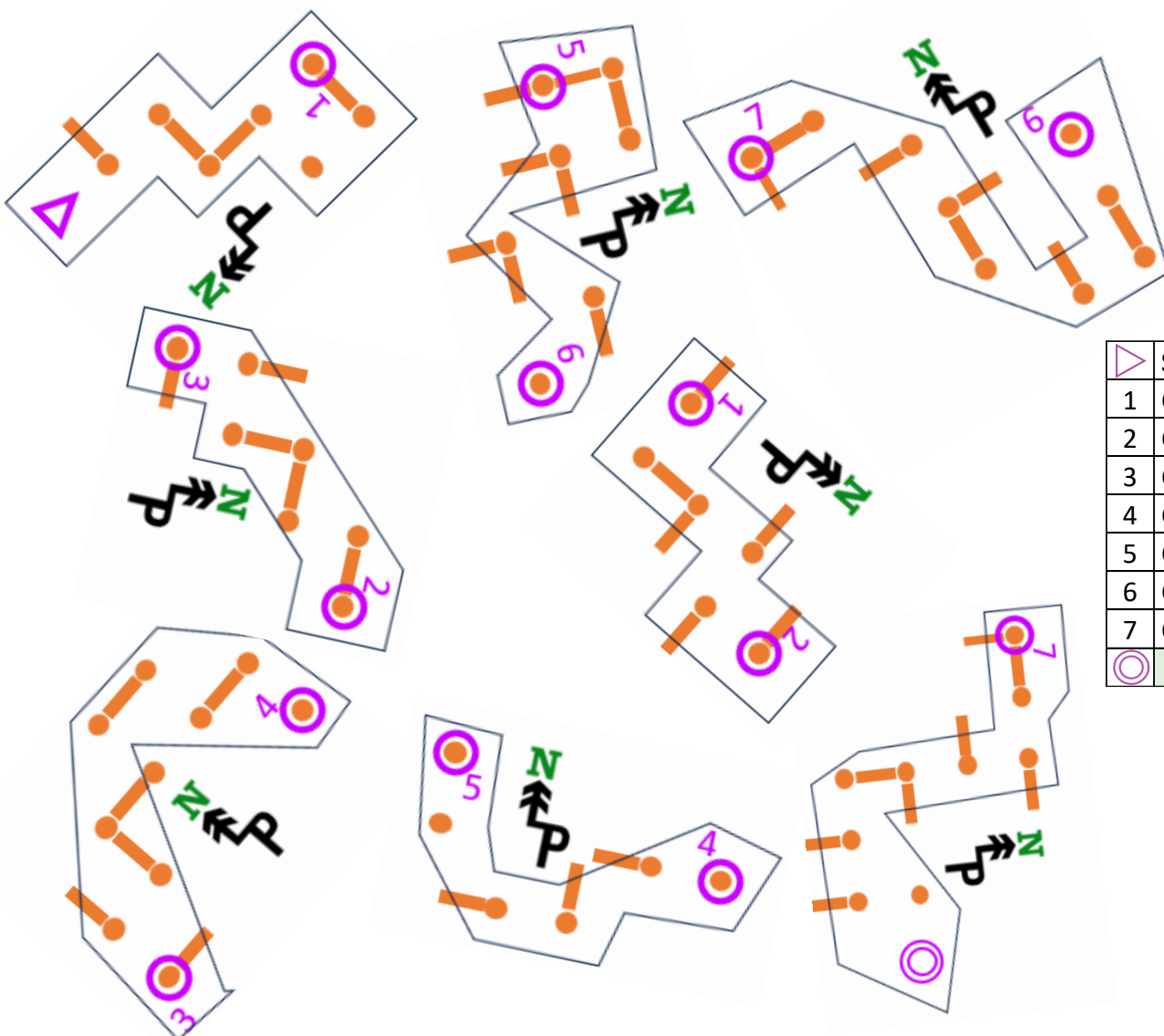Do NOT step over/under the maze walls (tape/rope)

1. <u>Clear</u> your scanner data
2. <u>Scan your course</u> selection
3. **<u>Scan at START TRIANGLE</u>** to start timer
4. ***Run the course!***
5. **<u>Scan at FINISH</u>** sign to stop timer
6. Turn in your scanner to record your score/time

Clear Data

MAZE - 04

▷	START--
1	CC--124
2	CC--114
3	CC--125
4	CC--116
5	CC--110
6	CC--116
7	CC--111
◎	FINISH-

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APPENDIX

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Control Point Markers

Cut out and attach to each control point, runners either write down the letter code or scan the barcode to record that they made it to the correct control

CC--101 **Code: X12**	CC--102 **Code: X46**	CC--103 **Code: X52**	CC--104 **Code: X29**
CC--105 **Code: X43**	CC--106 **Code: X42**	CC--107 **Code: X54**	CC--108 **Code: X56**
CC--109 **Code: X58**	CC--110 **Code: X49**	CC--111 **Code: X14**	CC--112 **Code: X18**
CC--113 **Code: X51**	CC--114 **Code: X31**	CC--115 **Code: X35**	CC--116 **Code: X30**
CC--117 **Code: X55**	CC--118 **Code: X13**	CC--119 **Code: X39**	CC--120 **Code: X48**
CC--121 **Code: X10**	CC--122 **Code: X15**	CC--123 **Code: X20**	CC--124 **Code: X21**
CC--125 **Code: X53**	START--	FINISH-	

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Course Maps

This is what the courses would look like if the path were drawn directly on the map:

Yellow Course
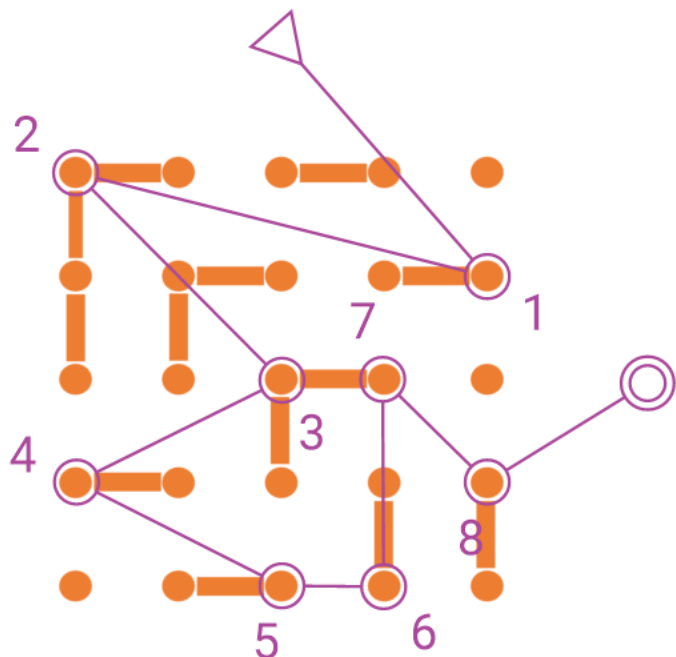
Orange Course
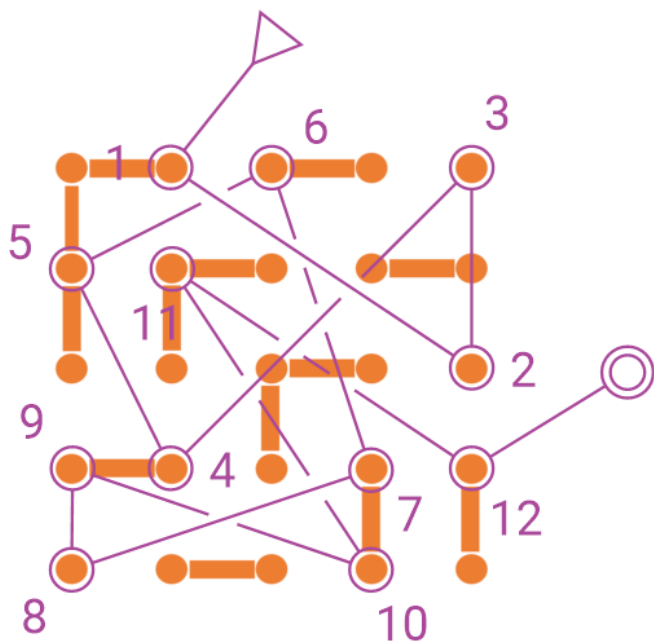
Green Course
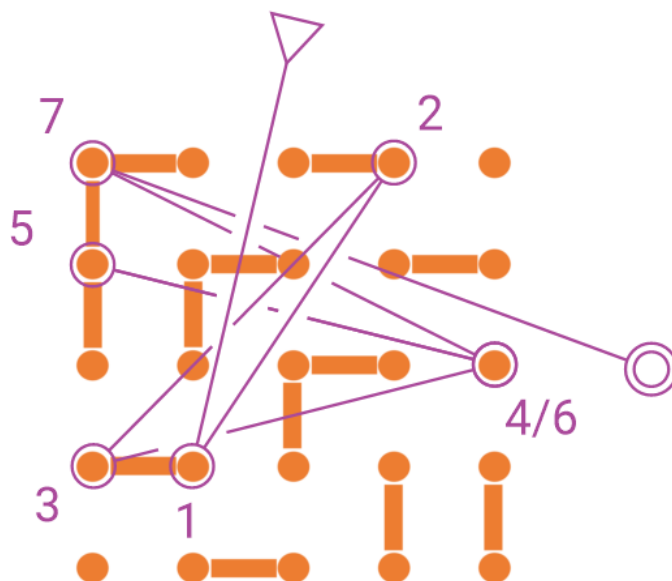
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Blank Cards

For events using handwritten codes (without punches or barcodes)
Runners write the code they find at the corresponding control point.

Course:					
1	2	3	4	5	6
7	8	9	10	11	12

Course:					
1	2	3	4	5	6
7	8	9	10	11	12

Course:					
1	2	3	4	5	6
7	8	9	10	11	12

Course:					
1	2	3	4	5	6
7	8	9	10	11	12

Course:					
1	2	3	4	5	6
7	8	9	10	11	12

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Answer Keys

Course:	White – Answer Key				
1 X39	2 X53	3 X46	4 X43	5 X10	6 X56
7 X31	8	9	10	11	12

Course:	Yellow – Answer Key				
1 X42	2 X14	3 X13	4 X53	5 X52	6 X29
7 X55	8 X10	9	10	11	12

Course:	Orange – Answer Key				
1 X18	2 X30	3 X35	4 X21	5 X49	6 X51
7 X15	8 X12	9 X53	10 X29	11 X58	12 X10

Course:	Green – Answer Key				
1 X21	2 X31	3 X53	4 X30	5 X49	6 X30
7 X14	8	9	10	11	12

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Gear List

- 27 stakes (or similar e.g. cones, buckets, rocks, etc)
- 27 markers (print them on waterproof paper/labels if area is damp)
  - 25 for the maze plus one for start and one for finish
  - staple, tape or clothespin the markers in place)
- Construction tape or rope/string (to make the optional maze walls)
- Tape Measure (long enough to string an entire side of the maze)
- Pen/paper for participants to record each marker they visit
- If using barcode scanners vs pen/paper:
  - Wireless Barcode scanner(s)
  - Computer with access to internet
  - Google sheets template to track time and check runner (email orienteering@troop8787.org)
- Table/chair for official

Control Markers can be printed on paper or stickers (see photo) and stapled to a stake or taped to a cone, bucket, rock or other item you use to make the 5x5 maze.

- Use the barcode with a scanner or...
- Use the handwritten code so runners can record that they found the correct control point

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Scanner Operation

Summary
- While you can run this event without scanners (having scouts hand-write the codes at each control), if you use bar-code scanners it is easier to keep track of time and the leaderboard.
- The bar-code scanners are used in "Storage Mode" so they do not need to be connected to a PC while the scouts run the course and when they finish, their scans are uploaded into the PC for automatic scoring.

Barcode set-up
- The Maze Scoresheet is designed to work with scanners from Symcom with the following settings
- Sound/vibration ON
- Set sleep for 5 minutes so it doesn't turn off in the middle of a run
- Activate "Storage Mode"
- Set up for date/time to append to the end of scan data (the correct time doesn't really matter since the scoring is down based on the difference between start and end time.

Course set-up
- Set up the course the same way as described earlier
- We have set up two print options for control markers: one is intended for a waterproof sticker sheet and the other is intended to print on standard 8.5x11 paper (recommend weatherproof)
  - Sticker template here
  - Cut/staple template here

Testing
- Before you set up the course, you can test your set-up by with the master scan sheet (it is organized in the same 5x5 grid as the course) This way you can 'run' a course while sitting in front of your PC. This allows you to make sure that the scanners are set up correctly and the scoring sheet is working ok.
  - The easiest way is to look at the control table on the map and scan them in order from the master scan sheet.
- After you set up the course, it is best to have someone run them to check proper placement of the markers.

Running the event with Scanners
- You can run this with a single scanner, but we find that 4 scanners/runners at once is manageable and allows for more opportunities to run.
- The runner chooses the course to run and the official gives them a barcode scanner.
- The Scout clears the scanner by scanning the "Clear Scanner" on their course map
- The Scout scans the Course on their course map so the scanner knows which course is selected
- The Scout must scan the START marker in order to start the clock

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- The Scout then runs the course, scanning each control on their map
- The Scout must scan the FINISH marker in order to stop the clock
- Then the runner turns in their scanner and map to the official.
- The official makes sure that the online scoresheet has the courser/selection in the next empty row in column A; then scan the "Upload Data" barcode
- All of the runner's scans will come into the sheet and be evaluated for the correct scan. It will also the accumulated time from each scan until Finish.
- Optional: Official enters the runners name/age in the Finish row. This will allow runners to see how they did on the leader board

Ask about our 49 point Maze if you want to do this at a larger event.

Please let us know if you liked this activity! Feedback is collected at:

https://www.centraltexasspringo.org/maze-o/

For more Orienteering fun, check your local Orienteering Club.

In Central Texas it's Austin Orienteering Club

www.AustinOC.com

The annual Spring-O in Central Texas is a huge orienteering event with special activities focused on Scouts. www.CentralTexasSpringO.org

Revision Notes:

Revision	Date	Change Description	Editor
Rev 1	6/1/2024	Original release	KA
Rev 2	8/16/2024	• Reduce recommended grid spacing to 10ft • Change control code to 3 digit numbers to be more consistent with other Spring-O courses • Update barcodes for more reliable scanning (Code-128 and minimum 7 characters) • Add punch card template	KA
Rev 3		• Increase size of the Maze selection barcodes for improved scanning	Ka
Rev 4	1/26/2025	• Add QR Code for download onto cover • Change compass rose from Lost Pines version to more generic • Add list of gear	Ka
Rev 5	6/6/25	• Add barcode scanner instructions • Add control marker templates for printing on vinyl stickers and fold/staple format • Update hand written codes to match larger maze courses	Ka