



RULES & TIPS

Global Space Tie-Off Challenge

Tying the World Together, One Knot at a Time™
a terrestrial knot-tying competition judged online



Many thanks to the International Guild of Knot Tyers
for their contributions to this Challenge!

The Global Space Tie-Off Challenge is a terrestrial competition held during World Space Week (October 4-10, 2025). The Tie-Off unites participants worldwide in a space-themed athletic activity-- knot tying. Knot tying simulates conditions and skills needed for life in micro gravities, and also on earth. It's the core exercise for the Space Games Federation's Astrolete® training, and a baseline skill for our *Space Athletics Playbook*.

Objective

Participants must complete a series of knots while maintaining hands at chest level (simulating micro gravity conditions) within a 60-second time limit-- demonstrating the precision and endurance required for conducting space operations. Allowances for form will be made for the last two advanced knots, 8. Trucker's Hitch and 9. Cat's Paw. See Equipment Needed section.

Note: **No travel is required.** Challengers video themselves at a place of their choosing being timed while tying the knots in proper form, submitting the resulting video to SGF during Open Submissions.

Schedule

Training Period: September 11 – October 11

Submissions Open: October 4 – October 11

Judging Sessions: October 12 – October 20

Winners Announced: October 21 – October 23

Equipment Needed

- **Standard athletic shoelace or rope meeting these specifications:**
 - Length 36-56 inches (91.44-142.24 cm)
 - Width 1/4 - 3/8- inch diameter (.635 - 0.9398 cm)
- **For advanced knots:**
 - 8. Trucker's Hitch you may use a carabiner as depicted in the diagram or similar metal ring
 - 9. You may use your thumb or a hook as depicted in the diagram
- **Recording Device-** camera/smartphone capable of recording full attempt at chest height
- **Timer-** visible countdown timer (**60 seconds**). This can be on the video itself or in the frame
- **Apparel-** shirt must be in contrasting color to your lace or rope so the knots are clearly visible against the backdrop of your torso

Format

Within a **60-second time limit**, participants earn points by completing as many knots as possible in the series specified below while maintaining hands at chest level. You are simulating microgravity conditions.

1. Upon completion of each knot, competitors must present the finished knot to the camera before tying the next.

2. Participants must complete each knot themselves with arms held mid chest **without aid** from another person or object, such as a wall, hook, table or other support.



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Knot Sequence

Knots should be tied in the following order listed here and on the diagram. We know that's a lot to finish in 60-seconds! Just keep going and see how far you get.

Each knot receives 10 points.

1. **Uni Knot/Slipknot** - Basic adjustable loop
2. **Figure 8** - Fundamental stopper knot
3. **Double Overhand** - Simple binding knot
4. **Stevedore** - Advanced stopper knot
5. **Bowline** - Classic terminal loop
6. **Butterfly** - Mid-line loop knot
7. **Surgeon's Loop** - Medical/precision knot

If you're a knot-tyer ace and find you've enough time on the 60-second clock, go ahead and try these last two:

8. **Trucker's Hitch** - Complex tensioning system
9. **Cat's Paw** - Advanced hitching knot

Challenge Protocol- Step by Step

Tips: Make sure your camera and lighting are in good working order. Your apparel should be in a color contrasting with your lace or rope. Do a few tests before you record your official submission.

1. **Starting Position:** Stand with rope in hands
2. **Start Camera** and state your first and last name, age, state, country and the date
3. **Start Timer and/or Record**— camera video recording can serve as the timer &/or a clock/timer can be in frame
4. **Execute:** Tie each knot → present it to the camera → immediately untie it → proceed to next knot
5. **Arm Position:** Hands must remain at shoulder height throughout entire 60 seconds
6. **Completion:** Continue through sequence until time expires
7. **Documentation:** Entire attempt must be recorded on video
8. **Submission:** You'll upload your completed video as directed on the Submission form; we send you the link

Scoring Criteria

The Top 5 Finalists and the Winner will be selected based on those with the fastest time completing the most knots in the best form.

Disqualifications—entries will be disqualified for either/both of these errors:

- Arms drop below shoulder level
- Sequence Error

Tie Breaking—where top scoring entries are tied for points, you may be asked to submit a video completing knots 8 and 9, even if you already completed these in your first submission:

8. **Trucker's Hitch** - Complex tensioning system
9. **Cat's Paw** - Advanced hitching knot

Bonus Points-- In addition, judges may make determinations based on:

- Perfect Form
- Creativity
- Spirit



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Awards & Recognition

The Top 5 Finalists and ultimate Winner will receive a Prize Pack in recognition of their achievements.

Eligibility & Participation

Open to anyone and everyone! Whether you're a space enthusiast, knot-tyer, into sports, gaming, puzzles or crafts--or just enjoy a challenge—we're excited to see how you do.

Note: Those under 18 must secure parental approval to upload their video submission.

Registration Process

1. **Complete registration form**
2. Agree to rules and video submission requirements
3. Join global community platform for updates and training

Safety, Conduct & Technical Considerations

Universal Safety Standards

- Appropriate adult supervision for participants under 18
- Adequate space and proper lighting for safe execution

Code of Conduct

- Demonstrate respect for all participant categories and backgrounds
- Maintain integrity and fair play standards

The Future of Sports in Space: Welcome Astroletes®!

This Global Tie-Off Challenge represents the beginning of a new frontier in competitive athletics - preparing humanity for the physical, mental, and technical demands of space exploration and habitation.

By joining this Challenge you become a founding member of the global SGF space athletics community. Whether you're tying your first slipknot or mastering the cat's paw, you're contributing to humanity's preparation for our multi-planetary future. Every knot tied at shoulder height brings us one step closer to mastering the skills we'll need among the stars.

Welcome to the Space Games Federation. Welcome to the future of athletics.