

# STEM Pledge Kit



Space Cookies



Team 1868



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# ABOUT THE STEM PLEDGE KIT

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The Space Cookies STEM Pledge Kit is a downloadable PDF with all the materials needed to assist Girl Scouts working on their robotics badges. The following documents are meant to help *FIRST* Teams host competition tours for Girl Scouts of all ages. This will not only increase the team's *FIRST* outreach efforts to reach girls, but it will also help Girl Scouts complete their badge requirements and gain exposure to STEM.



## GIRL SCOUT STEM PLEDGE NATIONAL LAUNCH

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In 2018, we were honored to be invited to the launch of the Girl Scout STEM Pledge, a groundbreaking initiative to reduce the gender gap in STEM fields by bringing millions of girls into the pipeline. Since then, Girl Scouts USA has relied on us to help pilot their robotics and other STEM badge programs tailored to each age group.



# HOW TO USE THE STEM PLEDGE KIT

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The kit contains the following documents: **About Girl Scouts**, **How to Contact Your Girl Scout Council**, **Sample Google Form for Scheduling**, **Scavenger Hunt Template**, **Tour Sign Printout with Instructions**, **Sample Flyer**, **Safety First**, and **Sample Emails**.

These supplementary documents will be referenced throughout the instructions.

- 1** Read the **About Girl Scouts** documents to get acquainted with what troops are trying to achieve. Also, read the **Safety First document**. These documents will help you design and implement your tours.
- 2** Decide what event(s) your team would like to host tours at. FRC, FTC, and FLL competitions are ideal. Contact the competition's organizer to let them know your team plans on running tours. Consider keeping a venue map handy during the tours.
- 3** Determine the time slots your team members are available to lead tours. Select people who are social and knowledgeable to lead tours as Girl Scouts (and their parents) often have a lot of questions.

## FRC TOURS

The ideal time to run tours is during the qualification matches because all of the pits are set up and the matches are continuous.

## TRAINING TOUR GUIDES

Train members to explain robotics in simpler terms. Girl Scouts will be between the ages of 5 and 14 (they often have younger siblings who tag along). For example, instead of "our robot can shoot cargo into the center rockets," say "our robot can shoot orange balls into the goal." It's important that both girls and their parents can understand the competition.

- 4** Make a Google Form using the **Sample Google Form for Scheduling** document. We recommend having tours last up to an hour. This Google Form will be sent out to the troop leaders to register for tour slots. Make sure to select the times for these slots carefully based on your team's availability.
- 5** Contact your local Girl Scout council following the instructions detailed in the **How to Contact Your Girl Scout Council** document. Send them a flyer with information about the event and the link to sign up for tours (see **Sample Flyer** and **Sample Emails**). Google Drawings and Canva are easy (and free) online design software tools you can use to design your flyer. Note that you will need permission from your local council to use the Girl Scout logo or service mark.

6 Once tour requests start rolling in, send confirmation emails to the troop leaders with more details and instructions (see example in **Sample Emails** document). Troops will want to stay together, so you might have a group of 5 to 15 people at a time. You will most likely need two team members to lead each tour (consider three for larger groups), a designated photographer, and two "receivers" who will be stationed at the meeting place to check in troops and hand them off to the tour guides. In the email, include where the troop should meet you and how they will recognize you. Encourage them to wear a Girl Scout badge or sash if they have one. Also include a phone number so they can reach you. Never leave a group alone and always have someone there to engage with them.

### STAFFING

You will need a minimum of 5 people (2 guides, 2 "receivers", 1 photographer) to run one tour. Make sure your team is properly staffed before sending a confirmation email. Some troops travel over an hour for tours, so please be organized and don't cancel at the last minute.

### TROOP CANCELLATIONS

Sometimes troops will cancel last minute or not show up. Try contacting the troop leader (call or email them) for an update. We recommend that you give them a 15 minute buffer before canceling the tour.

7 Prepare a scavenger hunt to help guide the tours. A **Sample Scavenger Hunt** is included in this kit, but feel free to edit the questions based on the troop age group. Check which teams are attending the competition and find interesting facts about them to include in the hunt. Bring pencils for kids to write with.

8 Make tour signs. See **Tour Sign Printout and Instructions**. In the past, we've named tour groups according to the robot game theme. Be creative and have fun with this!

## A SUMMARY OF TOUR ACTIVITIES

Start by giving a brief introduction of yourself and your team. Warn the group that competitions can be noisy. Set up some tour guidelines: stay together, move to the side when teams yell "robot," and make sure to comply with other competition rules. Hand out safety glasses for the pit. For Daisy or Brownie troop levels, consider bringing extra safety glasses for parents who will accompany their children in pit.

For larger groups, consider taking half of the group to pits and half to the stands to watch qualification matches. In the pits, go through the scavenger hunt with them. You can stop by different team's pits and show them different robot designs. We often ask teams to demo a part of their robot so the Girl Scouts can see it move close up.

Once you finish the scavenger hunt, take them to the stands. You'll have to plan on how you will keep seats available for them. Explain the game in simple terms and break down a few matches while kids watch. In between the matches, take time to answer any questions or share interesting facts about your team or *FIRST* robotics.

9 Send a thank-you email to the troops for joining you. Include more information about *FIRST* and *FIRST*'s guides on how to start junior FLL, FLL, or FTC teams depending on their age range. After you're done, post pictures on your social media with #firstSTEMpledge! Be sure to tag @girlscouts and @spacecookies1868!



10 Email 1868@spacecookies.org to order patches for Girl Scouts who have completed the tour! We have two. The first five patches are free; additional patches are available for \$1 each. If you have any questions throughout the process, don't hesitate to email us.



# ABOUT GIRL SCOUTS

Girl Scouts created a robotics badge series as part of the STEM pledge. Learn more about Girl Scout badges with the **Badge Explorer** at [www.tinyurl.com/gsbadgesite](http://www.tinyurl.com/gsbadgesite). Visit [www.tinyurl.com/robobadgeinfo](http://www.tinyurl.com/robobadgeinfo) for information about robotics badge requirements.

## DAISY (K-1)



How Robots Move, What Robots Do, Design a Robot

## BROWNIE (2-3)



Designing, Programming, and Showcasing Robots

## JUNIOR (4-5)



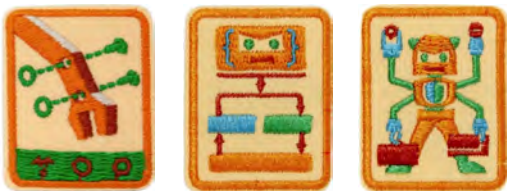
Designing, Programming, and Showcasing Robots

## CADETTE (6-8)



Designing, Programming, and Showcasing Robots

## SENIOR (9-10)



Designing, Programming, and Showcasing Robots

## AMBASSADOR (10-12)



Designing, Programming, and Showcasing Robots

For troops new to robotics they suggest "being a spectator at a local FIRST tournament." Guided tours of FIRST competitions will not only complete this requirement, but it'll also encourage young girls to join FIRST robotics.

Badge designs are copyrighted by Girl Scouts USA

# SAFETY FIRST

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Before you host any tours with Girl Scouts, make sure to review these important **safety guidelines**. Girl Scouts have strict rules about safety and supervision. You can assume that any troops coming to tour with your team have signed permission slips and will have appropriate chaperones.

Basic rules for safety:


- Never take girls away from their group; while it's fine to split a troop into groups, ask the adults first so that they can maintain the appropriate ratio of girls to adults.
- Don't let girls wander off. There is a lot going on at FIRST competitions and they will want to check things out.
- Make sure your team's tour guides know where the First Aid station is.
- Always have girls wear safety glasses in the pit area. Bring extras with you, along with cleaning supplies to use between tours.
- Make sure the girls know your team name and/or number; let them know that if they somehow get separated from their group, they should ask an adult how to get to your team's pit.
- Ask permission to use any photos in your team's collateral or on social media. While entrance to all FIRST events includes an automatic photo release, check with the troop adults to make sure they are okay with you using photos of their Girl Scouts.



# SAMPLE GOOGLE FORM FOR SCHEDULING

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Here is an example of the scheduling form to send to troops. A digital copy is available at [tinyurl.com/stempledgeform](https://tinyurl.com/stempledgeform). If you choose to use the sample, please make sure to make a copy and replace the example text with the appropriate information. Otherwise, feel free to design your own form, but make sure all of the proper information is included. Never use Girl Scout branding without written permission from the council.



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## Robotics Tours for Girl Scout Troops

We are the Space Cookies, a robotics team and Girl Scout troop from Mountain View, California. We will be attending the Los Angeles North Regional and will be organizing robotics tours for Girl Scout troops of all levels on Saturday, March 16 at Valencia High School in Santa Clarita! We love meeting other Girl Scouts and are looking forward to getting Girl Scouts excited about robotics and STEM :)

Tours will satisfy some requirements for GS Robotics badges!

When: Saturday, March 16  
Where: Valencia High School, Santa Clarita, CA  
What: 30-45 minute robotics tours for all Girl Scout troops

Learn more about our team at [frc.spacecookies.org](http://frc.spacecookies.org) and about robotics at [firstinspires.org](http://firstinspires.org). If you have any questions, leave them below or email [redacted].

Form closes on Monday, March 4.

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Name \*

Short answer text

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Email address \*

Short answer text

Number of girls \*

Short answer text

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Number of adults \*

Short answer text

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Troop Number \*

Short answer text

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Troop level \*

- Daisy
- Brownie
- Junior
- Cadette
- Senior
- Ambassador
- Juliette

Tour time - tours will be approximately 30-45 minutes long \*

- 10:30 am
- 11:00 am
- 3:00 pm

# HOW TO CONTACT YOUR GS COUNCIL

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Girl Scouts prepares girls to empower themselves and promotes compassion, courage, confidence, character, leadership, entrepreneurship, and active citizenship. Girl Scout membership is organized according to grade, with activities designed for each level. Girl Scouts USA is a member of the World Association of Girl Guides and Girl Scouts and accepts girls of all backgrounds.

Girl Scouts is administered through **local councils**. Each council covers a geographic area that may vary in size from a single county to multiple states.

Within each council, local **Service Units** support groups of troops within a specific neighborhood/area. The Service Unit team organizes training, mentorship, girl programming, and membership support for volunteers, girls, and caregivers.

The fun happens at the Girl Scout **troop** level. Troops are organized by program level (find more information about program levels at [www.tinyurl.com/programlevels](http://www.tinyurl.com/programlevels)), typically consisting of 12-20 girls, supported by a volunteer troop committee.

FIRST teams wishing to conduct tours at local events or host Girl Scouts in their lab or school can find their local council at [www.tinyurl.com/findacouncil](http://www.tinyurl.com/findacouncil).

Once you know which your local council is, contact them using the number for their main office and ask for contact information for the Service Unit in your area. The Service Unit leaders can put you in touch with local troops. Calling them is better, but see **Sample Emails** if you need to email them. Giving a short presentation at a Service Unit meeting attended by troop leaders can be an expedient way to reach out to multiple troops at the same time.

## ADDITIONAL INFORMATION

Fast Facts About Girl Scouts: [www.tinyurl.com/gsfacts](http://www.tinyurl.com/gsfacts)

Learn About Girl Scouts: [www.tinyurl.com/gsmoreinfo](http://www.tinyurl.com/gsmoreinfo)

Learn About Girl Scout Age Groups: [www.tinyurl.com/gslevels](http://www.tinyurl.com/gslevels)

Learn About GS Gold Awards: [www.tinyurl.com/goldawardinfo](http://www.tinyurl.com/goldawardinfo)

Join Girl Scouts: [www.tinyurl.com/howtojoings](http://www.tinyurl.com/howtojoings)

# SAMPLE FLYER

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Here is an example of what the flyer sent to the Girl Scout Council should look like. A digital sample is available at [tinyurl.com/stempledgeflyer](https://tinyurl.com/stempledgeflyer). To edit our template, make sure to make a copy of the Google Drawing and input your information. You can also design your own form, but make sure all necessary information is included and make sure you have permission to use any Girl Scout brand elements.

Space Cookies  
PRESENTS



## ROBOTICS TOURS FOR GIRL SCOUT TROOPS

**Where:** Valencia High School, Santa Clarita

**When:** Saturday, March 16  
9:00 - 3:00 on the hour

**Satisfies requirements for all  
Girl Scout Robotics Badges!**

Discover robotics by touring the pits and watching matches with the Space Cookies, a Girl Scout Robotics team from Mountain View, CA

Register at [goo.gl/gRk8y3](https://goo.gl/gRk8y3)



#bakeadifference #firstlikeagirlscout #stempledge



frc.spacecookies.org



1868@spacecookies.org



@spacecookie1868



Space Cookies Robotics Team 1868

# SAMPLE EMAILS

## Emailing Girl Scout Councils

Hello,

We are the Space Cookies, an all-girls *FIRST* robotics team and Girl Scout troop based in Mountain View, CA. We will be attending the Silicon Valley Regional and hosting tours for Girl Scouts on Saturday, March 30. Our tours will help satisfy robotics badge requirements. We've designed a flyer (attached below), and we would appreciate it if you would distribute it to troop leaders in the area. Here is the link to sign up: [insert link]. Let us know if you have any questions. We look forward to hosting tours for Girl Scouts!

Thank you so much!

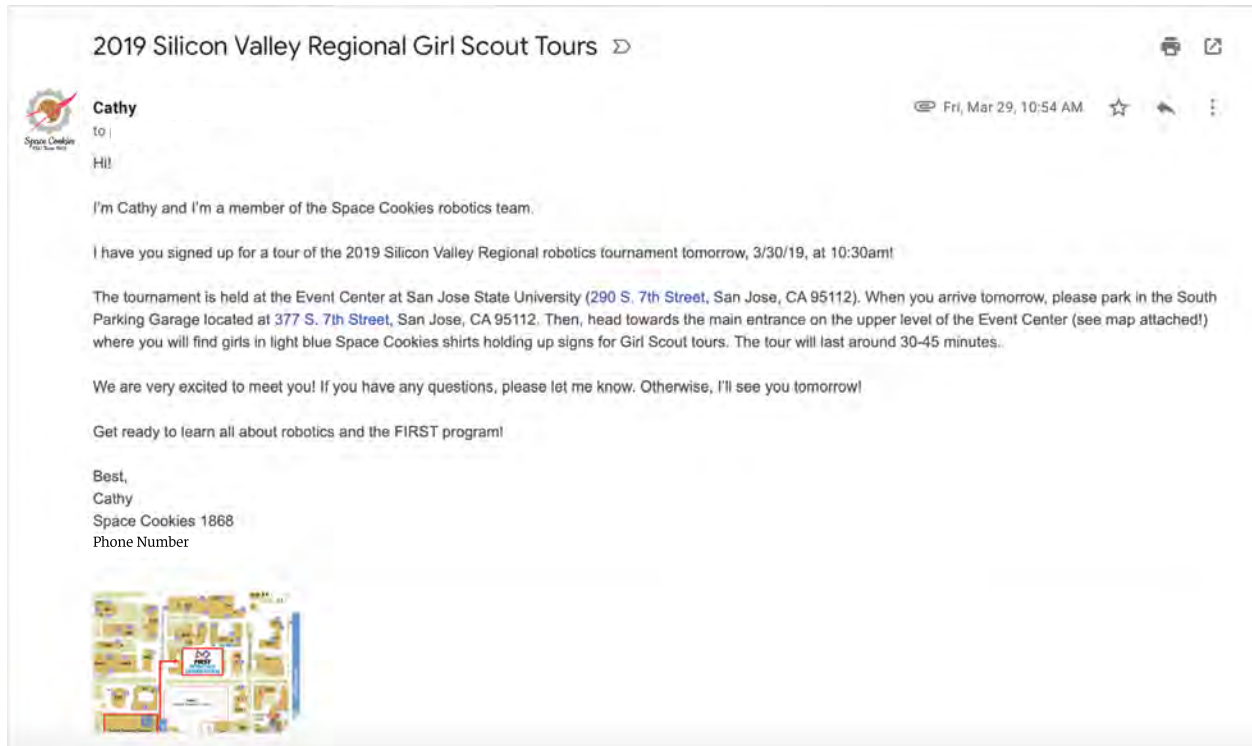
Best,

[First Last]

[Team Name]

[Contact Info]

## Emailing Tour Instructions to Girl Scout Troops



# SCAVENGER HUNT TEMPLATE

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Here is an example of what the scavenger hunt can look like. A digital copy is available at [tinyurl.com/stempledgehunt](http://tinyurl.com/stempledgehunt). If you choose to use our sample, please make sure to make a copy of the document and replace the example questions with ones that pertain to your regional. Feel free to design your own scavenger hunt--you can be really creative with this, but do make sure that the questions can be answered (e.g., if none of the teams at your competition are sponsored by NASA, don't ask the Girl Scouts to find one!)

Name: \_\_\_\_\_

## *Name of Regional* Scavenger Hunt

Welcome to the FIRST *Name of Regional*! It's time for a scavenger hunt to become more familiar with FIRST competitions.

- What is the name of this year's game challenge? \_\_\_\_\_
- Find a team that is from *Place* and get a signature from one of their members.  
Team Number/Name/Signature:  
\_\_\_\_\_
- Find a team with a blue banner.  
Team Number/Name and banner title:  
\_\_\_\_\_
- Find a team that is sponsored by *X Company* and ask a team member what their favorite part of their robot is and why.  
Team Number/Name:  
\_\_\_\_\_  
Part of robot and why:  
\_\_\_\_\_
- Find a Rookie team (this is their first year competing) and find out where the team is from.  
Team Name/Home Location:  
\_\_\_\_\_
- Watch a match and tell us which teams won the match and the score of the match.  
Winning Teams/Score:  
\_\_\_\_\_

- Get a signature from one of the **Space Cookies** Drive Team members and ask them what their role is.

Signature: \_\_\_\_\_

Role: \_\_\_\_\_

- Ask a **Space Cookie** about one of their robot mechanisms and what it does.

Mechanism:  
\_\_\_\_\_

- Ask a member from a team that has an animal-themed name and ask what their robot can do during the autonomous period.

Team Number/Autonomous task(s):  
\_\_\_\_\_

- Ask a team with your favorite logo what the height and weight of their robot is. What do you like about the robot?

Team Name/Height+Weight:  
\_\_\_\_\_

What you like:  
\_\_\_\_\_  
\_\_\_\_\_

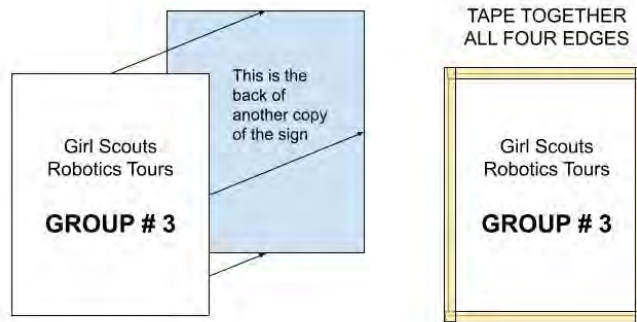
- If you were to build a robot that could compete in this year's game challenge, what would it look like? What game tasks would your robot be able to do? Draw it here:



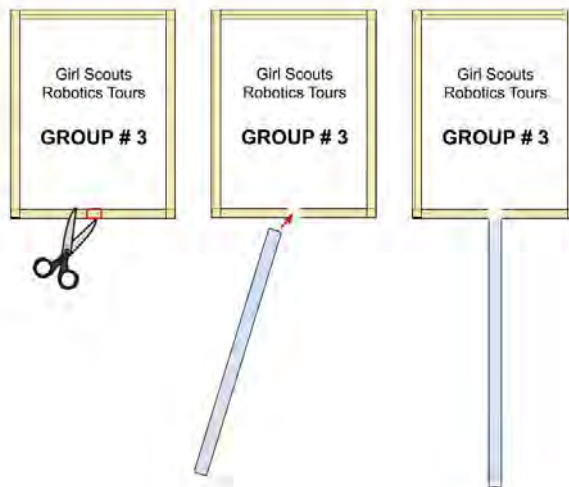
# TOUR SIGN PRINTOUT + INSTRUCTIONS

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- 1 Design the template for your tour sign. An example can be found on the following page, and a digital template is available at [tinyurl.com/stempledgesign](https://tinyurl.com/stempledgesign). If you decide to use our template, make a copy of the Google Drawing and include the appropriate edits.
- 2 For each sign, print out two copies and tape them together along all four sides so that their backs are facing inward towards each other and hidden. If you have access to a laminator, you can also laminate the two sheets together. You should end up with a double-sided sign.



- 3 On the bottom of each sign, cut a small slit. This is where can attach a stick of some sort. (*Tip: PVC pipes were secretly made for this :P*) Voila, now you have a beautiful tour sign! Repeat until you have the right amount of signs (# of signs = # of tours).







*Space Cookies*

**GIRL SCOUTS  
ROBOTICS TOUR**

**GROUP # 6**

***BEARINGS***