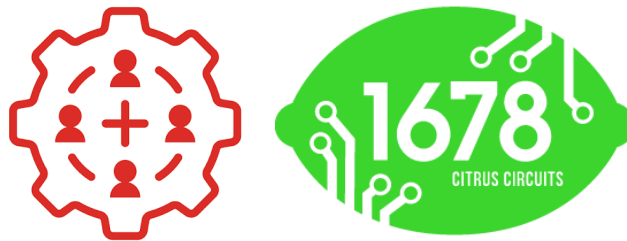


Journey to Starting Your Own Unified Robotics Program!

Thank you for joining us in our mission to make STEM education accessible for all! The following steps outline how we run our Unified Robotics program. **Please note that these steps are merely recommendations. You are welcome to adapt or omit any of them to suit your needs.**



1. Register as a School in Unified Robotics

The first step is to register your school or organization with Unified Robotics. You can do so through the [Unified Robotics Portal](#).

Once registered, you will be able to access the resources and information needed to run your program. Do not worry about the dates—it is perfectly fine if you decide to run the program asynchronously with the official season kickoff dates published on the Unified Robotics website. Historically, Citrus Circuits has run the Unified Robotics program in the spring.

2. Find Teachers

Every Unified Robotics program should have at least one teacher or adult coordinator to supervise the program. Typically, it is easier to find teachers who are already interested in Robotics or have experience with special education programs. However, the teacher will not need to provide anything other than supervision and a classroom space.

Here is a sample email to send out to schools or teachers:

Good Morning,

I hope this email finds you well. I'm **[name]**, the student lead for Unified Robotics from our **[School Name]** robotics team **[Team Name]**. Our goal on the team is to expand learning opportunities in STEM for neurodiverse students, and we are excited to tell you more about the program!

Unified Robotics is a worldwide robotics program for neurodiverse students that introduces a new LEGO engineering challenge each year. Students then design, build, code, and compete in a competition. For more information, please visit the [Unified Robotics website](#).

As we plan for the upcoming season, we are hoping for your support in finding teachers interested in hosting this program. It is a low-commitment 8-10 week program that has students meet once a week for about an hour. We would only need adult supervision, as our team would provide all of the technical skills.

Please let us know if you are interested in participating! We would love to set up a Zoom meeting or briefly meet to further discuss.

I look forward to hearing from you!

Best Regards,

[Student Name]

3. Find Students

The next step is to find students interested in the program. When recruiting students, consider working with special education teachers, STEM teachers, counselors, and other staff members who can help identify students who may be interested in participating. The program works well with around 3-10 students. After recruiting the students, you may want to have them fill out media permission forms.

Here is a sample Google Form you can ask the teachers to use: [General Unified Robotics Student Interest Form](#)

Note: Please do not openly discuss or disclose the students' identities during non-meeting hours.

4. Find Volunteers

Volunteers are essential to helping the program run smoothly. They will most likely be students from your robotics team.

To recruit volunteers, you can make a copy of the [General Unified Robotics Student Mentor Availability Form](#).

It is important to have a large team of confident, adaptable, and dedicated volunteers! Each Unified Robotics program will be led by **one head mentor** and a team of **student mentors**.

The head mentor is responsible for:

- Logistics
- Leading team meetings
- Preparing materials
- Communicating with students, student mentors, and teachers

- Providing an additional layer of supervision

Student mentors are responsible for:

- Working with individual teams
- Troubleshooting robots
- Assisting the head mentor with logistics

5. Preparing Materials

Purchasing Kits

Each individual team will need a robotics kit to build and program. Teams will typically consist of one student mentor and 1-2 students.

There are two kit options: **LEGO SPIKE Prime** and **LEGO MINDSTORMS EV3**. Citrus Circuits has historically used LEGO SPIKE Prime kits, but we understand that they are no longer for sale on the LEGO website.

We strongly recommend buying SPIKE Prime kits from a third party. If that is not an option, you can purchase LEGO MINDSTORMS EV3 [here](#).

Students will need computers to write code. They may bring their own devices, or if school computers are available through your program, that could be an option. All programming will be done with the following software:

- [SPIKE Prime Software](#)
- [MINDSTORMS EV3 Software](#)

Building the field

Instructions to build the field can be found in the game manual on the [Unified Robotics website](#).

Aim to have at least one field per classroom.

6. Finalize the curriculum

Once you have your teachers, students, volunteers, and robotics kits, it's time to prepare your curriculum! Here are [sample meeting slides](#) and a general season schedule you can use as a starting point:

General Schedule

1. Week 1: Season Kickoff + Orientation

- a. Fun STEM Activity
- b. Students learn the game and review the rules
- c. Whats + Hows

2. Week 2: Build Time

- a. Fun STEM Activity
- b. Students build the base robot

3. Week 3: Intro to Code

- a. Fun STEM Activity
- b. Students learn the basics of block code
- c. Set up the game field
- d. Finish assembling the robot and begin testing code

4. Week 4: General Build + Code Time

- a. Make revisions to the design and code

5. Week 5: General Build + Code Time

- a. Make revisions to the design and code

6. Week 6: General Build + Code Time

- a. Make revisions to the design and code

7. Week 7: Practice Matches

- a. Students participate in scrimmages
- b. Students will continue to make revisions accordingly

8. Week 8: Practice Matches

- a. Students participate in scrimmages

- b. Students will continue to make revisions accordingly

9. Week 9: Season Competition

- a. School(s) will meet up in a friendly competition
- b. Parents are invited to see the students' accomplishments
- c. Students + parents will tour the High School Robotics facility

STEM Activities

One part of the curriculum you may want to customize is the STEM Activities. At Citrus Circuits, some of the activities we use include

- Spaghetti-marshmallow tower
- 3D-printed nametags
- Origami

We understand that you may not have access to a 3D printer, specialized equipment, or other resources. That is completely okay! Feel free to replace these activities with ones that are more accessible to your students and community.

Some other STEM activities you could consider include:

- Elephant toothpaste
- Paper airplane challenge/competition
- Egg drop challenge
- Balloon-powered cars
- Rube Goldberg machines
- For more activities, visit the [WiSE activity list](#)

If you have any particularly successful activities, please let us know so we can add them to the list!

7. First Meeting + Everything Else

First Meeting:

Here is where things get exciting. The first meeting is an important day to get both students and volunteers comfortable with the program. Rather than beginning the program with robots, we usually start the first few meetings with introductions and fun activities. Here is the schedule that we used last year:

3:15-3:25: Set up for meeting

- Snacks, spaghetti-marshmallow tower materials, slides, etc.

3:25-3:30: Middle schoolers arrive

- Be friendly! This is the best time to begin interacting with them and making them feel welcome

3:30-3:35: Introductions + Would You Rather

- Instead of Would You Rather, you could also play Two Truths and a Lie. Any icebreaker game works here—do whatever feels best for you!
- I included some transitions in the slides, so make sure you familiarize yourselves with those. Before the meeting, have a good sense of who's gonna be presenting what and how you will present each slide.

3:35-3:55: Marshmallow spaghetti challenge

- Keep the constraints initially, but feel free to give them extra time or materials later on. In the past, kids had more fun when they had unlimited access to the supplies

3:55-4:05: Game video + review rules (Slides 7-13)

4:05-4:10: What's Discussion (Slides 13-15; write down ideas on the whiteboard)

- The kids will likely have many questions, so make sure **you read the game manual!** This is extremely important.

4:10-4:20: How's Discussion

- Pass out paper + pencil and have the kids draw their ideas
- Leave 2-3 minutes at the end for group sharing)

4:20-4:45: Build Time

- Help them along the way and make sure they are involved

4:45-5:00: Middle schoolers leave, and mentors debrief (What went well, what didn't go well, what to improve). **Make sure to send the debrief notes in Slack.**

It is completely fine if you go off schedule! If the kids are having fun with the STEM Activity, let them keep doing it. The first few meetings should give you a sense of what the students like and how to allocate time accordingly. That said, try to at least show them the game video before the meeting is over.

Other Meetings

For the first few meetings, focus on having fun and getting to know each other. The transition into building robots should be gradual. Still, each meeting should roughly follow this schedule:

1. Begin each meeting with some snacks
 - a. **Avoid nuts and other allergens!** Even if no one in the room has any allergies, be extremely careful about this.
2. STEM/Icebreaker Activity
 - a. This would only be at the first few meetings, or if there is a lot of additional time
3. Robot work time
4. Group bonding activity
 - a. If there is extra time at the end, you could do group activities such as Wordle or other games. Remember to choose games that everyone can participate in!
5. Set five minutes at the end for cleaning
6. Debrief (Volunteers only)
 - a. Include: what went well, what didn't go well, and what to improve. Make sure to **record each debrief** on Slack or some other communication channel.

8. Competition

After weeks of practice, the students compete in a friendly competition. The Unified Robotics Competition is the culminating event of the season and allows the students to showcase their hard work. The Unified Portal has plenty of helpful competition resources, but here are a few more tips:

Before the Competition:

1. **Find the competition venue.** This might be your own robotics shop or the school gym.
2. **Find volunteers.** Unified Robotics mentors are expected to volunteer for the competition, but you may need more. Be prepared to send out a Google Form.
3. **Plan the logistics.** This includes student roles, slideshows, awards and agenda.
 - a. The [Competition Role Descriptions](#) document delineates the various roles and responsibilities.
 - b. For reference, this is the slideshow we used in 2026: [2026 Unified Robotics Tournament Slides](#).
 - c. The awards we give include:
 - i. The **Design Award**
 - ii. The **Autonomous Award**
 - iii. The **Sportsmanship Award**
 - iv. The **Judges Award**
 - v. The **Robot Skills Championship Award**
 - d. Here is the agenda we used for the 2026 tournament. This could be very different depending on the game and number of students:

Time	Event
3:40-4:00	Set Up
4:00-4:10	Opening Ceremonies

4:10-4:35	Qualification Matches
4:35-4:45	Robot Demo
4:45-4:55	Engineering Challenge°
4:55-5:10	Shop Tours
5:10-5:20	Awards Ceremony
5:20-5:30	Recruitment + Questions

*During the Engineering Challenge, we had the high school students and Unified students compete in robotics matches

4. Invite parents and teachers to the competition! Here is a sample email:

Dear Parent/Guardian of **[Student name]**,

After weeks of hard work, our students are ready to compete! I am excited to invite you to the second Unified Robotics tournament to cheer them on.

Event Details:

- **Date:** [Date]
- **Time:** [Time]
- **Location:** [Location]

Please join us for some friendly competition, a robot demonstration, a tour of our facility, and snacks. I hope to see you there!

All the best,

[Your name]

During the Competition

1. Volunteers will come early to help set up. This includes:
 - a. Field elements
 - b. Projector/Screen
 - c. Speaker system
 - d. Emcee Scripts
 - e. Seats
2. The emcees will be reading from [this script](#). **A lot of this document is season-specific, so please edit accordingly!**
3. After the qualification matches, set aside a few volunteers to work on scripts for awards.
A few things to keep in mind
 - a. The team/student that won the most points in the Qualification and Finals matches will receive the **Robot Skills Championship Award**
 - b. Ideally, **each team/student will receive an award**
 - c. While receiving an award, the speech should be specific and customized to the team/student.
4. Bring snacks for the beginning and end of the competition!

9. Good Luck!

You're all set! If you have any additional questions or suggestions, please contact us at admin@citruscircuits.org