

The Robotics Checklist

Creating an engaging classroom powered by robotics in 10 easy steps

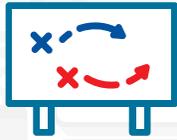
Starting a robotics program from scratch can be a daunting task, but the outcomes of delivering such an exciting and hands-on environment for your students are well worth it. We've boiled down what it takes to get started into 10 easy steps that will have you building, driving, coding, testing, iterating, learning, and loving robots in no time.

START!



BEGIN WITH THE END IN MIND.

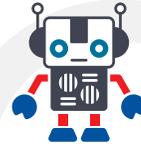
We suggest starting your robotics experience by outlining the goals you have for your program. How many students would you like to serve? Do you want to teach coding? Do you want to have a focus on engineering design and/or STEM learning? Do you want to sharpen soft skills such as communication, collaboration, and perseverance? Perhaps you want to conquer all the above? Thinking through the goals of your program will help you determine not only the amount of hardware you might need but also the curriculum options you might want to look into.



SELECT A ROBOTICS SYSTEM.

After you have some program goals, then you can move into thinking through some more tactical decisions that must be made, such as selecting a robotics system that is right for you. Consider:

- The age range of students you will be working with – this will assist you in selecting a system that is age appropriate.
- How many kits you will need for your classroom – this depends upon the number of students you will serve and the recommended set-to-student ratio.
- What your control system will be – do you want to start with remote-controlled robots? Or will coding be a focus of your program, and, if you focus on coding, do you wish to do graphic or text-based programming?



GET HELP!

Have we lost you already? Not to worry; Pitsco Education has a team of education representatives that help teachers around the world get started with robotics on a daily basis. They are ready and willing to help craft a program that will meet your goals. If you need help, they are just a phone call away.



SELECT YOUR CURRICULUM MATERIALS.

Everyone has to start somewhere and having a set of activities or curriculum in your back pocket will enable your success. Consider:

- The curriculum targets you are looking to meet.
- The number of hours you have to dedicate toward teaching robotics.



GET ORGANIZED.

After your materials arrive, it is time to get organized. We recommend opening up the sets and getting the parts and pieces sorted using the bins and trays that are provided with all Pitsco robotics sets. It is also a good idea to number the sets and controllers for easier classroom management. You can also determine where your sets will be stored and where assembled robots will be kept at this time.



GET FAMILIAR.

All Pitsco robotics sets come with guides to familiarize you with the building and programming environments used. We suggest you and your students start your experience by going through these free resources. This will give everyone a baseline to assist in troubleshooting should issues arise down the line. Additionally, to ensure our educators and students feel successful using our solutions, the Pitsco robotics team has created the RoboBench video series, which gives viewers additional insights, tips, and tricks to using our robotics building systems. You can view them all at [TETRIXrobotics.com](https://www.pitsco.com/TETRIXrobotics.com).



TRY IT OUT.

Three, two, one, JUMP! All sets are organized, control systems are set up, and your lesson is planned; the only thing left to do is dive right in.



GET SET UP.

Make sure that all systems are go! Have any needed handouts and hardware readily available. Charge your robots' batteries. Make sure that software and any needed programming libraries are installed and working on the devices that will be used.



TROUBLESHOOT.

The first lesson with students might go over like a lead balloon . . . and that's OK. Some students might fly through the activity. Some might not finish. Software might crash. The important thing is to stay focused on what can be done to make the next session better. Fix what failed and improve upon what is within your control. If the issue you experience is hardware or software related, know that our Pitsco Customer Service Team can help you troubleshoot the challenges that might arise.



LET IT GO!

One of the most common concerns we hear from educators is the fear of not having all the answers in the robotics classroom. We're here to tell you it's OK and all a part of the fun. As your students engage in the engineering design process, they will experience failure, and it will be up to them to come up with unique and creative solutions to the problems they face. This will result in learners who have grit and are knowledgeable and confident in the solutions they invent.

