

## Stuff parents care about

The fields of Science and Technology are central to the economy today and the economies of the future. No persons will be better positioned to make a difference in the world of tomorrow than those with knowledge and experience in these fields.

The University of Virginia's College at Wise believes that the preparation of students is best begun during the middle-school years and then augmented with programs for high schoolers and college students (such as our Computer Science or Software Engineering program).

The SPIRIT program introduces its participants to the use of a fully programmable and configurable (but easy to learn) robotics platform as the vehicle for demonstrating the tangible application of concepts from the fields of science and technology. This prepares students for a bright future in technological fields and gives them an advantage in admission to the most competitive programs.

## FAQ

When is SPIRIT camp? **June 19-23, 2017**

Who gets to go? **Anyone who will be in grades 6-8 during the 2017-2018 school year may apply. Enrollment is limited so submit your application early for consideration!**

What about lunch? **Lunch is provided in the UVa-Wise cafeteria.**

Will I get to program real robots? **Yes! From day one you will be programming a real robot!**

Do I have to pay? **No. This program is made possible by the MCS department of UVa-Wise.**

What time will I arrive? What time will I be picked up? **Camp begins at 9:30 and ends at 3:30 on campus in Darden Hall.**



## S.P.I.R.I.T.



## SUMMER PROGRAM IN ROBOTICS AND INTELLIGENT TECHNOLOGY

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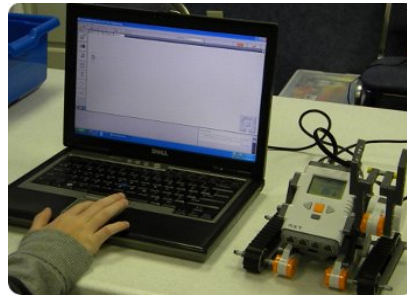
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## Experience with hardware

At SPIRIT camp, we want you to have access to the coolest hardware we can provide. That is why we searched high and low to find kits like the LEGO Mindstorms robot. These robots have many functions, and it is easy to tell them what to do through programming. SPIRIT camp proudly commands a fleet of LEGO Mindstorm robots. These robots have a variety of functions, are easily programmable and can be modified and customized with additional parts kits. Adults will be on hand to assist you in your creativity as you explore what these robots can do.

## Experience with software

SPIRIT camp will put you in control- you will master control of a LEGO Mindstorm robot. These robots have been specifically selected with you in mind- they're easy to learn, which gives you more time to explore. From day one you will be teaching your robots to roll, kick, navigate, seek out and avoid objects. You will be building a foundation for learning more difficult programming later.



## LEGO Mindstorm Challenge

The experts behind SPIRIT camp have formulated each activity to stimulate your mind while you flex your problem-solving muscles. We present you with a problem, and you choose the method the MINDSTORM robot will use to solve it!

### You will learn:

- Basic robotics concepts to help you build your own creation
- Various approaches to design and what kinds of robots you can build
- Learning to make a robot do what you say
- Basic areas of competence in kinematics (how robots move and work)
- Basic and fundamental theories of gears, ratios, etc. so your robot can do some heavy lifting
- How to make your robot smart

## Prepare for your future

Participants who complete this program will be well on their way to a challenging and rewarding career in a technologically advanced field.

Admissions boards for the best colleges and universities in the nation yearly make difficult decisions concerning the admission of top applicants. They make these decisions based on a number of factors including whether or not applicants have exhibited a real interest in life-long, continued education.

Nothing exhibits this willingness to learn and grow intellectually like participation in cutting-edge programs such as SPIRIT.

The SPIRIT program strives to provide talented students with fun and provocative learning opportunities while laying the foundation for an exciting future of opportunities.

## How to participate

If you are interested in participating please fill out the program application that is available at our website ([spirit.mcs.uvawise.edu](http://spirit.mcs.uvawise.edu)), or you can find applications available at your school.

