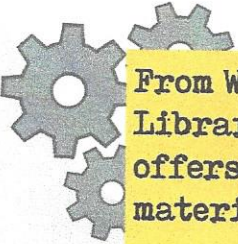
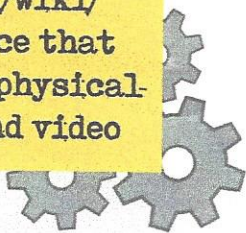


# What is a MakerSpace STEAM Program and Why Should You Care?



From Wikipedia, from Library MakerSpace @ [https://en.wikipedia.org/wiki/Library\\_makerspace](https://en.wikipedia.org/wiki/Library_makerspace): “A library makerspace is an area and/or service that offers library patrons an opportunity to create intellectual and physical materials using resources such as computers, 3-D printers, audio and video



Perhaps you have noticed the boxes and requests for Family Fare Receipts for a MakerSpace STEAM Program and wondered, **Why?** Why, with an expansion of the building in the plans, in a place that is supposed to be a quiet location for reading books, would the Friends be worried about robots?

To these ponderers, I assert: First, Public Libraries are purposed to provide access knowledge, make available information and resources, and educate and inform through programming to their patrons regardless of age, financial status, or any other factors. Second, the need for these 21st century skills of coding and programming, and knowledge of technology and robotics, are not going to wait for a new building. The Friends of the Library are partnering with the Library staff in raising funds for this creative, educational and relevant program because we believe the payoff for mastering coding, programming, and technology will be tangible and immediate, an invaluable service for

our community! So, what is a MakerSpace STEAM Program? As you can see from the definitions, a MakerSpace is any “space” that allows for hands-on manipulation learning. DIY meets pairing up with education. STEAM stands for: Science, Technology, Engineering, Art, and Math. The Library already has a MakerSpace Art Cart in the children’s area, stocked with items like colored paper, markers, crayons, scissors and glue – all the essentials! We know art can reduce stress, inspire creative thinking, boost self-esteem and sense of accomplishment and viewing art can increase empathy, tolerance, and feelings of love.

Our goal is to put the STEM into the Library’s MakerSpace STEAM Program. Which brings this article to the fun part: Robots!! Check out the wish-list included in this newsletter. Most items also require an Ipad for the app in which the programming occurs. When funds are sufficient to purchase the items and the

necessary tablets, the plan is to have them available like any other scheduled afternoon activity, like the already established LEGO club for 6-10 year olds or TEEN Tuesday. The programs will be open to everyone in the age group and is anticipated to be a resource for the parochial and home school communities in Dickinson and the surrounding areas.

Libraries around our state and country have already incorporated these kind of STEAM activities into their programming. It’s a movement, and we want to be a part of it!

At the time of this writing, we’ve already been awarded a grant from the Dickinson Area Community Foundation (and a grant-match donation from the Friends of the Library) and received a generous donation from the Dickinson Optimist Club! Slowly but surely, we believe we will make this dream a reality!

How does Family Fare fit in? On their receipts, you’ll notice a section titled

“Direct Your Dollars.” For most purchases (alcohol is excluded for instance), an amount is designated toward the DYD program. When you give us your (entire) receipt, we keep track of the DYD amount and when we collect \$150,000 worth of DYD purchases, Family Fare’s parent company Spartan Nash will donate \$1000!

In our first month of September, we already collected \$7500 worth of DYD receipts! That’s 5% of the goal in just one month! And at the time of this article, we had already passed the first \$10,000 mark! We hope this article will help spread the word and prompt even more Library patrons to save their receipts! We will continue to announce our collection totals on Facebook [<https://www.facebook.com/FriendsoftheLibraryND/>] and on our “book-stack” display in the Dickinson Area Public Library (each spine represents \$1500 worth of DYD receipts collected!)

### Botley the Coding Robot

Recommended for Ages 5+. Botley helps children learn early STEM skills while playing and having fun. He teaches kids to code with active, screen-free play that's perfect for promoting critical thinking and problem solving skills! Botley is ready to code right out of the box and will have your kid coding in minutes. Botley's smart logic lets him detect objects in front of him and avoid them. He can also follow looping commands, take on obstacle courses, and follow black-line paths. *(This item has been purchased with a donation from The Dickinson Optimist Club!)*



### Ozobot Robotics Kit

Recommended for Ages 5+. These are award winning, pocket sized robots with scalable (simple to complex) coding capabilities! Basic capabilities include learning to code with colors: Draw color codes on a paper or a tablet and the Bots use **optical sensors** to respond—spinning, speeding up and more at your command. Ages 5 and up love using markers and color codes to control Bot's speed, direction and special moves. Print a maze online or open an app game and the challenge lies in using the right combination of OzoCodes to get Bot from start to finish. After mastering the basics, kids and teens advance with the Ozobot and OzoGroove apps and OzoBlockly, Ozobot's block-based programming language. The Ozobot website contains endless OzoBlockly games and STEM activities! *(This item was purchased with a donation from The Dickinson Optimist Club!)*



## our makerspace

# Wish List

(part one)

### Sphero SPRK STEAM Educational Robot

Recommended for Ages 8+. This educational robot (SPRK standing for Schools/Parents/Robots/Kids) turns robotic energy into an interactive tool to teach programming and so much more! It is app driven and allows for a range of use from simply driving it with a remote control tool, to programming it to complete complex tasks and respond to environmental triggers. Children aren't sitting at a desk staring at a screen learning programming, they're running around the room, controlling a hyper-active robot using increasingly complex commands like roll, flip, spin, or change color! The kids soon forget they are learning to code and just see programming for exactly what it is: a series of commands that make things happen! And because it's such fun, all the fear of coding quickly vanishes! *(This item has already been purchased by the Dickinson Area Community Foundation Grant Award!!)*



### Sphero Terrain Park

Available as an addition to the Sphero: ramp, roll and ride the rails. With five challenging configurations, the customizable Sphero Terrain Park puts coding skills to the ultimate test. *(This item has already been purchased by the Dickinson Area Community Foundation Grant Award!!)*



## ...more next issue!