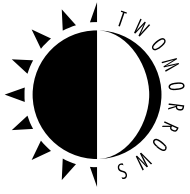


The Magazine for LEGO® Enthusiasts of All Ages!



**\$8.95**  
in the US

# Brick Journal

Issue 32 • January 2015  
people • building • community

## The LEGO® Brick Art Issue

Chris McVeigh • Nathan Sawaya  
Brian Korte • Dave Ware



Captain America TM & © Marvel Characters, Inc.

**Instructions  
AND MORE!**





## Contents

From the Editor..... 2

### People

Maddison Stapleton:  
Building LEGO® Art..... 3  
Making Brick Artistry:  
Chris McVeigh ..... 10  
Paul Lee:  
Making LEGO® Comics ..... 20  
A Look at *The Art of the Brick* ..... 28

### Building

Exploring Mosaics ..... 36  
Why Mosaics? ..... 40  
Brian Korte:  
Making Mosaics at Brickworkz ..... 46  
Minifigure Customization 101:  
The Fantastic Four ..... 50  
MINDSTORMS 101:  
Powered Attachments ..... 56  
BrickNerd's DIY Fan Art!:  
Art and Easel ..... 60  
You Can Build It:  
Mini Gozanti Cruiser ..... 66

### Community

FIRST® LEGO® League Lessons\* ..... 74  
Community Ads ..... 78  
Last Word ..... 79  
AFOLS ..... 80



Kermit the Frog, Jack Skellington TM & © Walt Disney Productions, Inc. • Cookie Monster, Oscar the Grouch TM & © Sesame Workshop • Iron Man, Captain America, Wolverine, Rocket Raccoon, Spider-Man, Groot, Fantastic Four, Silver Surfer, Galactus TM & © Marvel Characters, Inc. • Boba Fett, Jawas, R2D2, Chewbacca, Han Solo, Storm Trooper and all related characters TM & © Lucasfilm Ltd. • Back to the Future TM & © Universal Studios • Bart Simpson, Bender TM & © Matt Groening • Transformers TM & © Hasbro • Rocketeer TM & © Dave Stevens • Scott Pilgrim TM & © Bryan Lee O'Malley • Harry Potter, Voldemort TM & © J.K. Rowling • Jack, Adventure Time TM & © Cartoon Network • Batman, Superman, Green Lantern, Wonder Woman, Flash, Robin, Joker, Riddler, Man-Bat, Poison Ivy, Scarecrow, Catwoman TM & © DC Comics • Skeletor TM & © Mattel • Legend of Zelda, Pikachu TM & © Nintendo • Toothless TM & © Dreamworks • Benny the Spaceman TM & © The LEGO Group

### \*What is FIRST® LEGO® League?

FIRST LEGO League introduces students in grades 4-8 to real-world engineering challenges by building LEGO-based robots to complete tasks on a thematic playing surface. FLL teams, guided by their imaginations and adult coaches, discover exciting career possibilities and, through the process, learn to make positive contributions to society. Go to <http://www.usfirst.org/roboticsprograms/fll> to get involved, and page 74 to read about one participant's amazing story!

Maddison Stapleton is a builder, a photographer, a cosplayer, and a painter. In only a few years, she has been recognized for her artistic and LEGO related creations at events around the US—she is a true LEGO artist.

Her roots in creativity began in childhood. Maddison tells, “I have always been interested in art. Growing up, my parents had a giant table that was stuffed with art supplies that my brother and I would go to town with. My love for art continued on to college, where I graduated with an art degree, with focuses on photography and painting, in 2012.”

Maddison also started building at a young age when her dad asked, “Hey kids, want to help me sort these LEGO bricks?” Her two favorite themes were the Ninja line, “because of the kick-butt female ninja in all the promo material,” and Bionicle, because “of the visuals, storyline, and the existence of another kick-butt female character.” Back then, she didn’t build a lot beyond a few small things, because she would get so frustrated with creations not turning out how she envisioned them. However, she was heavily involved with the Bionicle community on BZPower.com. Besides Bionicle, her senior project involved making pinhole cameras from LEGO and displaying huge prints of the photos in the school gallery. 2012 was the year that Maddison really took off on building, and also the year when she began taking antidepressants. As she happily notes, “It turns out that having a clear, anxiety-free mental state really does wonders for my ability to concentrate!”

Maddison’s building focus is mostly sculptural. In terms of theme, though, she kind of builds whatever catches her interest. She explains, “I like to push my abilities and see what I can do. Seeing how far I can take LEGO bricks as a medium is fun and challenging. When I went to LEGOLand California as a kid, seeing all of the giant LEGO sculptures of ordinary everyday things was fascinating to me, especially the creations that people were able to still interact with. I really like the idea of taking everyday objects and creating them out of bricks. It continually makes me wonder what I can create next.

# Maddison Stapleton: Building LEGO Art

*Article by Joe Meno*

*Photography provided by Maddison Stapleton*



*Far left: An example of Maddison’s photo work.*

*Left: A LEGO pinhole camera Maddison built, with (below) an image from it.*



**SUBSCRIBE NOW AT OUR LOWEST RATE EVER!**



# Brick Journal

**THE MAGAZINE FOR LEGO® ENTHUSIASTS OF ALL AGES!**

BRICKJOURNAL magazine spotlights all aspects of the LEGO® Community! It showcases events, people, and models every issue, with contributions and how-to articles by top builders worldwide, new product intros, and more. Available in **FULL-COLOR** print and digital editions. Print subscribers get the digital version **FREE!**

LEGO® and the Brick and Knob configurations are trademarks of the LEGO Group of Companies. BrickJournal is not associated with The LEGO Group.

**DIGITAL EDITIONS AVAILABLE FOR ONLY \$3.95**

**ALSO AVAILABLE ON THE APPLE AND GOOGLE APP STORES**



**TwoMorrows Publishing**

10407 Bedfordtown Drive • Raleigh, NC 27614 USA • 919-449-0344

E-mail: [store@twomorrows.com](mailto:store@twomorrows.com) • Order at [twomorrows.com](http://twomorrows.com)

**SUBSCRIBE!**

**OVER SAVE 20% OFF COVER PRICE!**

**GET THE NEXT 6 ISSUES AT OUR LOWEST RATE EVER—PLUS FREE DIGITAL EDITIONS WITH EVERY SUB!**

- \$42 US Media Mail - **15% OFF NORMAL RATES!!**
- \$54 US First Class Mail (faster delivery)
- \$60 Canada/Mexico
- \$70 International Surface Mail
- \$23.70 Digital Editions Only

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

Address: \_\_\_\_\_

City/Province: \_\_\_\_\_

State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Country (if not USA): \_\_\_\_\_

E-mail address: \_\_\_\_\_  
(for free digital editions)

**MAIL THIS CARD WITH PAYMENT TODAY!**

TwoMorrows Publishing  
10407 Bedfordtown Drive • Raleigh, NC 27614 USA

For faster service, order online at:  
**[www.twomorrows.com](http://www.twomorrows.com)**  
or by phone: 919-449-0344



# People



## Making Brick Artistry: Chris McVeigh

Article by Joe Meno

Photography provided by Chris McVeigh

*Chris with his Brick Sketches. Characters TM & © their respective owners.*



Chris McVeigh is a photographer that has made his mark on LEGO photography and building. With his building and photo skills, his work has been seen on websites and magazines. On his website, he has building guides for some of his most popular models. *BrickJournal* chatted with him about how he started out his LEGO art.

**BrickJournal: What is your profession?**

**Chris McVeigh:** I am both a technology journalist and graphic designer by trade. I got my start as a professional writer with *MacHome* magazine, and I'm now an occasional contributor to *Macworld*. And chances are good that you've seen some of the graphic design work I did for Microsoft's former ad agency; in the mid-2000s, I provided vector artwork for a number of high-profile online campaigns including MSN Search, SQL Server 2005, Windows Server and more. Yep, so... sorry about all that nonsense, I'm sure those ads got annoying quickly!

**When did you start photography?**

In 2007, a friend prodded me to join Flickr and start a photography project called '365' where I'd have to post a creative picture daily for a full year. I had very little appreciation for photography at that stage, and to be honest, I felt it was just something I wasn't capable of being good at. However, I found myself with a lot of free time as work for the ad agency wound down, and so I capitulated and signed up to Flickr.



*More Brick Sketches.*



I started off with a consumer-level digital camera that I'd previously used only for photos of family and friends. Over the next few weeks, I quickly picked up speed, learning about composition, framing and focal points. My photos were well-received on Flickr, and encouraged by the response, I purchased my first Digital SLR. I suppose I was equally excited and overwhelmed at that point, because there was so much more to learn: aperture, exposure, ISO, and how they're all so closely interwoven; as well as lenses, lighting, flash and more.

**You did your own digital magazine — what was it about?**

In my university days, I got a job at the campus computer store. I'd had an affinity for Apple computers since I'd gotten an Apple IIc for Christmas in the mid-eighties, and I suppose I quickly became the store's Mac expert. I'd always enjoyed sharing news and knowledge with other folks; for example, in high school, I published a weekly newsletter using early desktop publishing software. So I figured I'd do the same at the computer store (which, oddly enough, was actually called The Computer Store). I developed my own double-sided paper publication that I called *MacSense*, which I handed out to customers. It wasn't long before someone suggested that I should make a digital version and distribute it online. The Internet wasn't even a thing back then—so at first, I distributed it on America Online and local BBSes!

The monthly publication quickly grew beyond news, and I added tips and tutorials, opinion pieces and humour sections. It was a lot of fun, but as these things go, it became too much effort for very little return in return. Online advertising was in its infancy, and few marketers were willing to take a chance on a small online publication with a readership that was hard to quantify.

**How did you begin taking photos of toys, and when did this lead to photographing LEGO?**

Well now, that's an odd story. As I experimented with photography, I would take a few shots of toys every now and again. It was largely without purpose; really, I was just testing my camera and lens and toying

Needless to say, I was encouraged to create more computer models (and publish guides for them, of course). The IIc-inspired model was unveiled in the summer of 2013 and it remains one of my personal favorites, in part because it was my first computer. Additionally, it feels like it hits a lot of the right notes, perhaps more so than the Mac. The IIe-inspired design was developed in early 2014, and in fact, was actually the most requested model by fans. However, I delayed its development out of respect for another builder who had created his own IIe-inspired model in early 2013.



*A more recent iMac.  
A Macintosh SE.*



*An Apple IIe.*





All characters shown TM & © DC Comics.

## Paul Lee: Making LEGO Comics

Interview by Joe Meno  
Art provided by Paul Lee

Paul Lee has worked in the comics industry for over 25 years. Most notably, he's worked on issues of Batman, Green Arrow, Buffy the Vampire Slayer and Conan. Now he's a comic artist for the LEGO Group as well as an AFOL! BrickJournal was able to talk to him about his art and building.

### Background

**BrickJournal:** When did you start building?

**Paul Lee:** I started building as a child, of course. I went through my dark ages as most people do, though I would always pick up a small set here and there. I came out of my dark ages with the first wave of *Star Wars* licensed LEGO sets and began collecting again. When my oldest son turned 3 years old, I began building a lot more as we played with the LEGO together.

**When did you get into LEGO Illustration?**

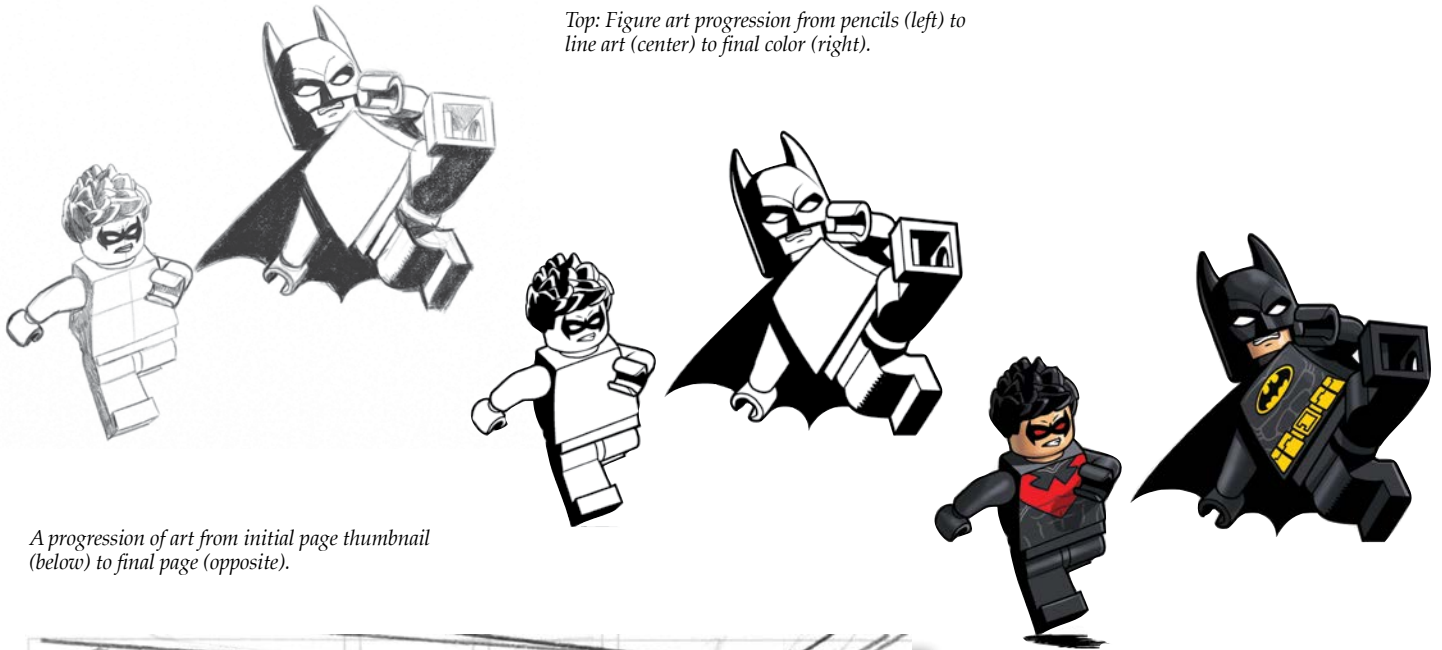
About 7 years ago, I began burning out on mainstream comics. I was losing my enthusiasm for the industry. At that point, I was a pretty active AFOL. While thumbing through a *LEGO Club Magazine*, I saw that they use a lot of comics. It occurred to me that I could do comics work for the *Club Magazine*.

**Did your building and drawing work off of each other?**

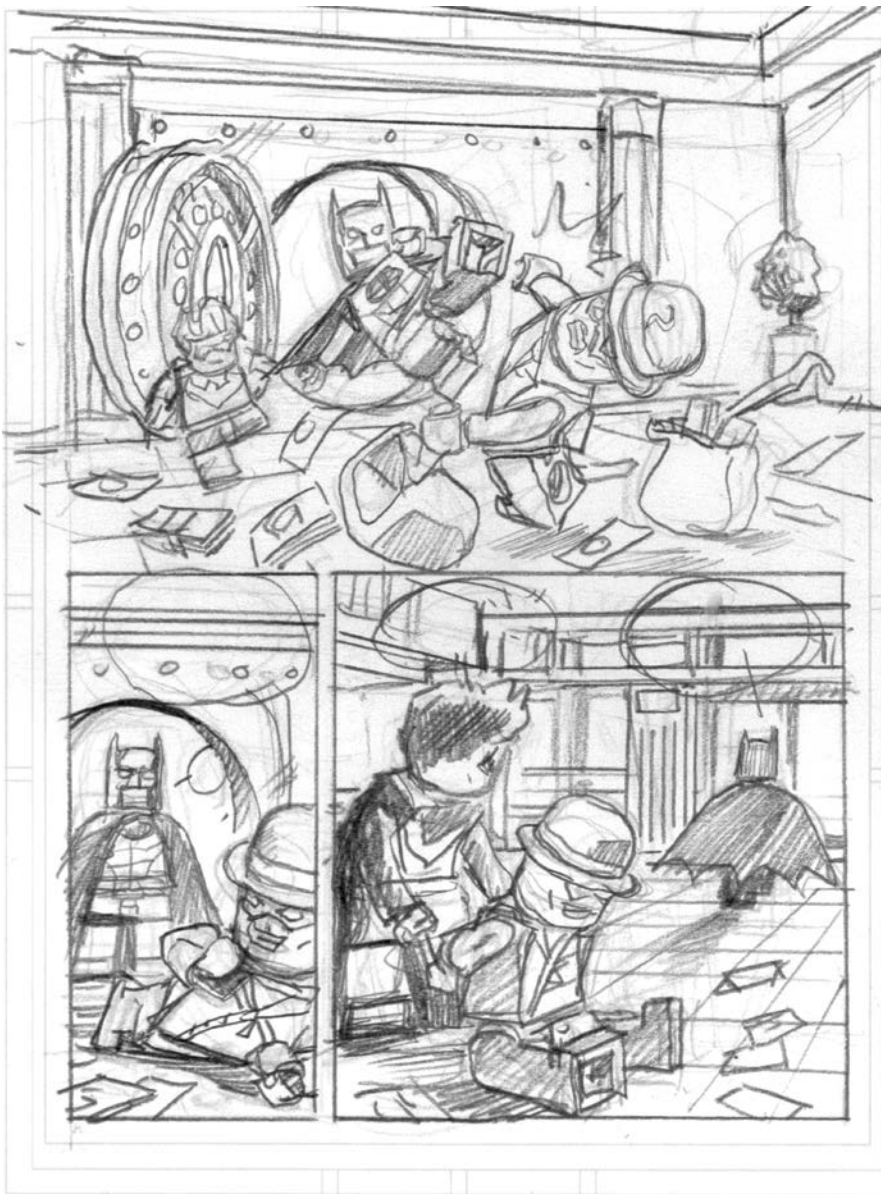
I do think my art background definitely helps my building. I have some sense of design and composition. I use my training to plan the color blocking and I am very particular about details and creating the right angles and shapes.



Top: Figure art progression from pencils (left) to line art (center) to final color (right).



A progression of art from initial page thumbnail (below) to final page (opposite).



## Technique

### *How do you draw LEGO minifigures?*

My biggest secret for drawing minifigures and LEGO comics in general is that I use LEGO Digital Designer. For minifigures, I make them in LDD and pose them, rotating the camera as needed and taking screen shots. I take shots at multiple angles and edit them together in Photoshop to be able to bend limbs in directions that they normally don't bend.

While this may seem like a cheat, it is the most efficient way to make sure I stay on model and that the drawn figure retains the right proportions and looks like an actual figure. Trying to render figures by eye tends to lead to figures that are out of proportion and off-model.

I do the same for the rest of the sets featured, including the vehicles. Ultimately, the comics for the *LEGO Club Magazine* are a form of advertising. The stories are meant to highlight particular themes and sets. So, I take great pains to render the figures and sets accurately. I think it is the best way to represent the product and give a sense of what the play features are.

### *How do you create your LEGO comics?*

The Art Director of the *Club Magazine* sends me a script, usually for a 2-page comic. I read over the script and let the Art Director know what assets I need. Often the comics are for sets that haven't been released yet, and sometimes they

*(Continued on page 26)*



Paul's stretch Hummer.



haven't even been revealed to the public yet. So, in order to know what the new sets look like, I get the instructions, product shots and deco designs.

I then do a loose thumbnail on the script page itself and then turn the thumbnails into a pencil layout, and scan it into a digital file. These layouts are then sent to the various people who need to approve the comics.

It's around this time that I build the required sets in LDD and do screenshots.

I use ArtRage, a natural media simulation program, to tighten the pencils and add needed details. I bring the LDD screen shots and pencils together in to Manga Studio 5 Ex, a great program designed specifically for making comics. In Manga Studio, I ink the art work, creating the black and white line drawing. I do this at a very high resolution, 600dpi, in order to make sure the line art prints nice and crisp. I also take an extra step to ink different elements on different layers; for example, I ink figures in the foreground separate from the background. This allows for greater flexibility if last-minute changes are needed, as sometimes happens. With each element on a separate layer, I can move or change elements without having to redraw the whole panel or page.

After everything is inked, I move on to the color stage. First I do what is called "flattening" where I select different areas in the image and bucket fill them with color. This step is just to block out the colors. When everything is flattened, I go back and render shadows and highlights to make the image more dynamic and to make it pop. The last step is to add whatever special effects might be needed, like glows or explosions or swooshes.

Then, I send the files in to LEGO. They add the lettering and title graphics. Often the comics are printed in different languages, so they handle the translations.

***Do you have any favorite LEGO characters?***

I am particularly fond of the Superhero theme. It must be due to my comics roots. So I am really lucky that I get to draw the comics for that theme.

***Any characters that you want to draw as minifigures?***

Especially with superheroes, there are always really cool heroes that aren't official figures yet. So I am always interested in depicting new comic characters as minifigs.

**Building and Community**

***What is the theme you build in the most?***

I would probably be considered a spacer at heart. I grew up with Classic Space as my sets. As I said before, I have a fondness for building mechas, which are usually lumped in with space. That being said, I have built many MOCs that wouldn't exactly fall into the space category. I just like to build.

***You're an artist and a LEGO Ambassador. What does that entail?***

LEGO Ambassadors serve as a liaison between LUGs and CEE, the division of LEGO that interacts with the fan community.

People

A Look at

# The Art of the Brick



*Interview and Photography by Joe Meno*

the background image of the farmhouse in 2-D, but the older couple holding the pitchfork in the foreground of the painting as a 3-D sculpture. It was a fun way to play around with many different techniques of building for the different works of art. In all cases, I hope it is a great way to get kids interested in art history, through a medium they love.

*How did you select the models?*

Different works of art were selected depending on different themes we were trying to convey throughout the exhibition.

*You have had a running motif with the human figure—what is your fascination with that?*

The human figure as a sculpture allows me to explore certain emotions. I also enjoy the surrealism that can come with a human figure created from bricks.

*Most of your technique is classic stacking. Is there a reason behind that, besides it being easier to build?*

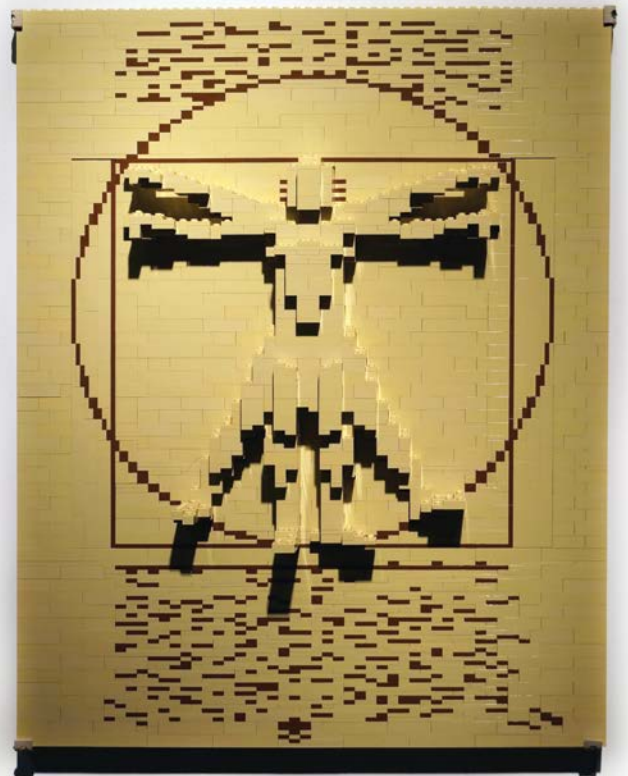
I started stacking bricks when I first learned how to build with LEGO. I guess I am a child at heart.

The Discobolous, a Roman sculpture.



Nathan's treatment of American Gothic, by Grant Wood.

Vitruvian Man, by Leonardo Da Vinci.



## Building

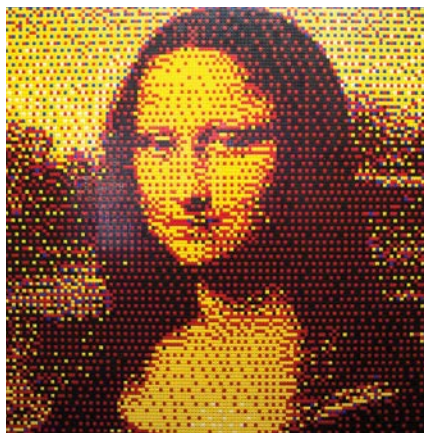
# Exploring Mosaics

Article by Dave Ware  
Photography provided  
by the artist as noted



War of the Worlds by Dave Ware.

LEGO mosaics are a fun and interesting way to bridge the gap between the worlds of toy and art. They take on a number of forms and styles, catching the eye and firing the imagination. Through bright colors and stark contrast, they draw the viewer in to their subject, whether Fine Art or pop culture. More and more artists are working with LEGO as a medium, and the works themselves are becoming more elaborate and decorative. They have moved from simple shapes and letters to photo-realistic representations of life. As with most themes within the LEGO world, fans and artists have taken the basic idea and evolved it in a number of interesting ways. Here are some of the more familiar Mosaic styles:



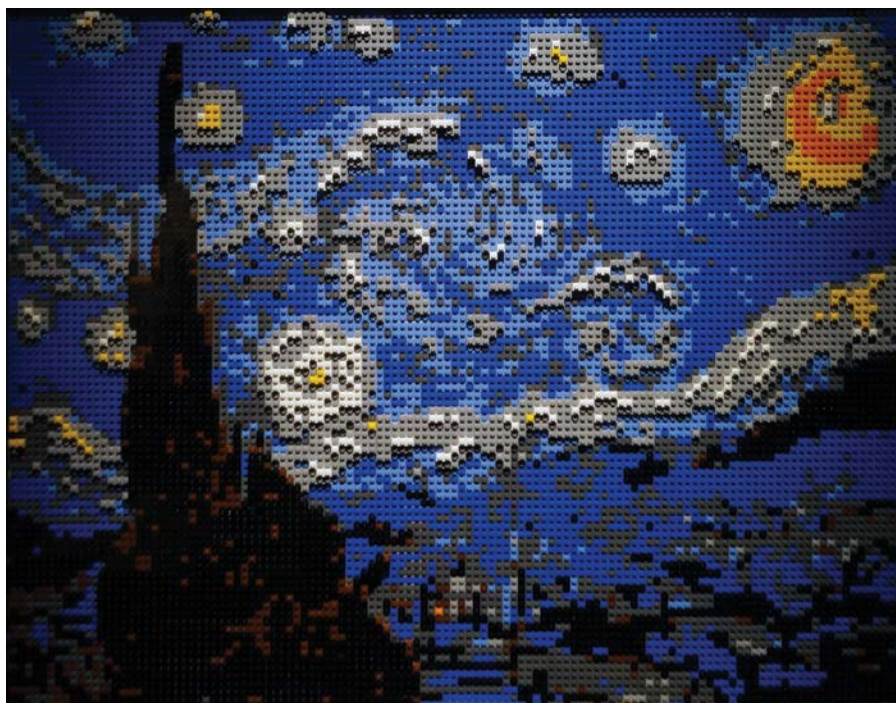
A close-up Mona Lisa, by Eric Harshbarger.



Zelda Stained Glass by Remy & Alyse Gagne.

## Studs Out

Studs Out is the most common type of mosaic. Simply put, the studs on the LEGO bricks face out, toward the viewer. This gives the piece the familiar LEGO look, a “bumpy” exterior. They can be built with either plate or brick, depending on the individual’s choice, each having its advantage. Brick is easier to come by in a variety of colors, and plate is lighter (a concern for larger pieces). Studs Out mosaics are usually built on baseplates, whether 15x15 inch (48x48 stud ‘Extra Large’ baseplates), or 10x10 inch (32x32 stud ‘Large’ baseplates). Larger pieces use a number of the baseplates, and are locked together either by larger bricks set over the seams, or by securing the baseplates next to each other. Generally, either small screws through the studs, or ABS glue or epoxy are used to secure the baseplates to a backing board (to provide strength and rigidity). Pretty much every group-built mosaic you’ve seen at events and world-record competitions are built Studs Out. I enjoy working on Studs Out the most, because it “feels” like LEGO. You can run your hand across the piece and feel that bumpy texture. There’s something about the Studs Out method that appeals to the child in me: Simple, basic, wonderful.



Starry Night by Nathan Sawaya.  
Photo by Joe Meno.

# Why Mosaics?

Dave Ware asks some of the best LEGO mosaic artists about their mosaics and why they build!

Article by Dave Ware

Photography provided by artists as noted



Right: Dave's surfboard.  
Below: The Rocketeer.



## Dave Ware

*What do you love about making LEGO mosaics?*

I'm addicted to the small pieces and bright colors. I think I might be part Maggie. I really enjoy taking an image and recreating it in a different form, and the reaction that it gets when it really works.

*Which style of mosaic do you tend to work in?*

I primarily work in Studs Out. I think I've built about 70 pieces or so in that style. I've built a few Studs Up; I find them to be a bit cumbersome to build, not as enjoyable as Studs Out. Lately I've been expanding part selection and working with levels more, with mixed media.

*Which of your pieces is your favorite (or most notable)?*

I think *The Rocketeer* owns my heart; it was one of the early pieces I made that really went a step beyond anything I'd done before. It's one of the few pieces I regret taking apart after I finished it. One day I'll make another version of it. I recently made a surfboard that I'm crazy about—I just really love the colors in it. I doubt it will receive great acclaim from the community in general, but I built it out of a love of surfing and LEGO, and that's enough for me.

*Which mosaic by someone else is your favorite (or caught your eye)?*

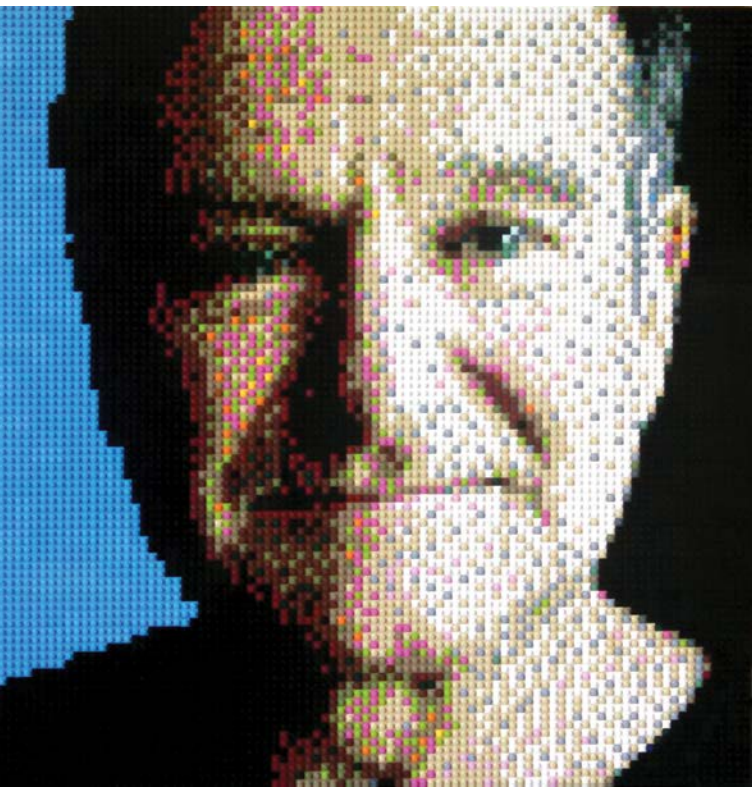
I was really taken by a lot of Eric Harshbarger's work; he was one of the few people who was posting pictures online and describing his work early on. His *White Rabbit* mosaic is a favorite of mine. I also like Dave Shaddix's *Sunrise Launch*; it has a lot of really nice color in the smoke and flames. Brandon Griffith's *Back to the Future* is really special as well, and pretty brilliant.

Eric Harshbarger's White Rabbit.





Dave Shaddix's Sunrise Launch.



Dave Shaddix's tribute to Robin Williams.

## Dave Shaddix

### *What do you love about making LEGO mosaics?*

There is actually a wide spectrum of things that I absolutely love about LEGO mosaics (and LEGO in general). I find the process, from the drawing board to completion, quite therapeutic. Taking a concept and turning it into something real, something that has color and life and that can be seen and enjoyed by people in their homes, at events, exhibits or shows is quite fulfilling and gratifying. Most of all, I love it when someone is looking at my work (or really any LEGO mosaic, sculpture, etc. in general) and says, "Oh wow, that's LEGO?".

### *Which style of mosaic do you tend to work in?*

I've done a few Studs Up/sideways pieces, but really prefer to build Studs Out. Although you can achieve a little more detail using other techniques, I really enjoy the feel of a Studs Out mosaic. There is nothing more "LEGO-ey" than the stud; facing them all at the viewer is my way of embracing the medium and saying, "Hey, this is LEGO!". Plus, people are compelled to touch a Studs Out mosaic... and I let them.

### *Which of your pieces is your favorite (or most notable)?*

Until a few weeks ago, it was a 60" x 60" mosaic titled *Sunrise Launch*, which is on permanent display at the Challenger Learning Center in Peoria, AZ. That changed when I heard about Robin Williams' death. He came into my life as a quirky alien living in Boulder, CO and he has been near and dear ever since. Although I've never met Robin, he's always been the funny man with vices, demons and a big heart. We could identify with him on so many different levels, he was the most human of us all. I started working on a 30" x 30" mosaic of Robin that night (in a cathartic frenzy) and finished it late Wednesday afternoon. I slept very little those nights and produced a beautiful piece of work in a short amount of time. I think it's my very best work, it's my favorite, and I hope that I never have to build another piece like it again.

### *Which mosaic by someone else is your favorite (or caught your eye)?*

First, I really need to tip my hat to Sean Kenney; his work is what I first saw when I started picking up LEGO as an adult. I had recently left an office job (I was an IT guy) that I hated, and became an outdoor guide in northern Arizona. Because Sean had recently left his job in the same manner, I felt a kinship with him. I have always admired his work and attitude.

Dave Ware's *Rocketeer* came along shortly after. I remember staring at pictures of that thing in awe and thinking, "Oh wow, that's LEGO?". I guess I've been chasing that feeling ever since.

I still regard myself as the new kid on the block, and frequently look to artists like Sean Kenney, Dave Ware, Mariann Asanuma, Arthur Gugick, Ryan McNaught, and Nathan Sawaya for advice and inspiration. Their work still makes me step back and say, "Wow." Thank you all for your help, support and inspiration.

## People

# Brian Korte: Making Mosaics at Brickworkz

*Interview by Joe Meno*

*Photography provided by Brian Korte*



*Brian Korte.*

*There is a growing number of LEGO builders who make a living producing LEGO art. One of these is Brian Korte, founder of Brickworkz LLC, who is now not only doing mosaics, but also LEGO building sessions for children and adults. BrickJournal interviewed him about how he started out.*

**BrickJournal:** *How long have you been making LEGO mosaics? What was your first mosaic?*

**Brian Korte:** My first LEGO mosaic was made in 2004—it was a wedding portrait for my good friends, made from more than 13,000 LEGO elements. I built my next mosaic in 2005 to commemorate a cross-country road trip I had just completed. An art gallery in Richmond, VA offered to display my work if I was interested in making more. I spent the next few months building about a dozen more large-scale LEGO portraits, created some business cards and set up a website, and Brickworkz LLC was born officially on January 1, 2006.

**What got you into building, and did you do things besides mosaics?**

I have always loved playing with my LEGO collection—from DUPLO when I was a toddler until the time I had my own castle and space sets as a boy. Recently, my mosaic customers have approached me with sculpture requests, so I have dabbled with creating small-scale LEGO sculptures. The challenge of perfecting the structure and stud-orientation with aesthetics is really intriguing. My goal building sculptures is to design them the way I think a LEGO team would—where everything ties together well and nothing looks out of place.





Baby Molly, a 30" x 30" LEGO mosaic portrait by Brickworkz.

suggest to the viewer that they're really a flower. But with this project, everything was so large, that each pixel in the stem of the flower had its own LEGO stud. There are 525 XL baseplates in the design of the piece. The original design took a few weeks of tediously poring through each plate to ensure that it would look great. In the design, I designed the whole trailer of the truck to be gray, and am really pleased with [owner Dan Brown's] idea to have kids fill the gray space. He also used Eric Harshbarger's *San Francisco* mosaic to help fill some of the space.

Because of the immense complexity, I'd have to say that was the hardest. Unlike all other LEGO world records, this one wasn't taken down—everyone can see it still at the museum.

***What's been your favorite?***

I have two favorites. I designed a large mosaic—60" x 45" of the cockpit of the *Millennium Falcon* with Han and Chewbacca going into light speed—for a really lucky little boy in Texas. His parents wanted an heirloom that would look cool even when their son grew up. The piece ended up looking so good as a LEGO mosaic that I had a hard time sending it out! :-)

Falcon, a 60" x 45" LEGO mosaic—one of Brian's favorites.



## Building

# Minifig Customization 101: The Fantastic Four!

by Jared K. Burks



Right: *The Fantastic Four*, rendered by co-creator Jack Kirby. TM & © Marvel Characters, Inc.

The Fantastic Four is one of the first superhero teams created in the world of comics, dating back to November 1, 1961, long before most readers of this column were ever born. This team was created by the powerhouse duo of Jack Kirby and Stan Lee. The team consists of several different members throughout its long run, but is primarily composed of Reed Richards (Mister Fantastic), Susan "Sue" Storm (Invisible Woman), Johnny Storm (Human Torch), and Ben Grimm (The Thing). This group of individuals gained their powers when accidentally exposed to cosmic rays during a scientific mission to outer space.

In order to adequately capture these characters in LEGO form, one must capture the special powers and personality quirks. The special powers make this team perfect for creation in LEGO, if only LEGO had all the parts needed. This article will demonstrate how I solved the problem of creating the parts I needed to adequately capture these characters. Before I dive into the details, though, let's reflect on all of their special abilities received as a result of the cosmic ray exposure, and their quirky personalities for those unfamiliar with the comic book series.

Mister Fantastic is a scientific genius, who after being exposed to cosmic rays is able to stretch, twist, and reshape his body into inhuman proportions. Reed serves as the leader and father figure of the group and is pragmatic, authoritative and dull. Reed carries the guilt for the failed mission where everyone was transformed—particularly over Ben Grimm (The Thing) due to his massive alteration.



# Building

## MINDSTORMS 101: Powered Attachments

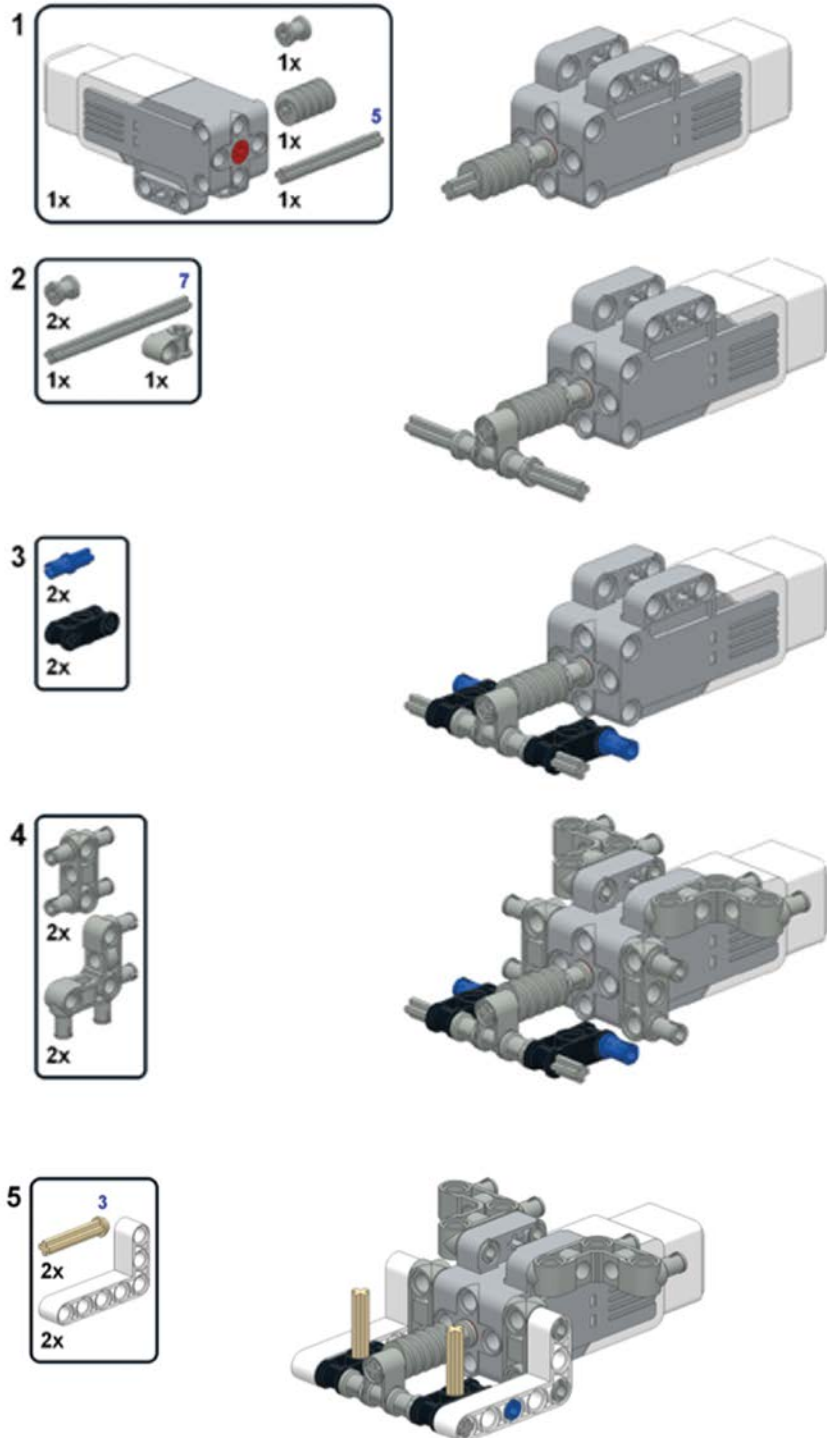
Article and art by Damien Kee

In past installments of our MINDSTORMS articles, we looked at how to program your robot to turn, and how to use sensors to control a robot's actions. This time, we will use a gripper attachment to pick up objects. To get started, grab your RileyRover or RetailRover from the last lesson. In fact, any two-wheeled robot will be fine for this activity.

If you've been following along with our previous articles, you'll be familiar with making your robot drive around, as well as some basic use of the sensors. This article will now focus on the Medium Motor that you get with the EV3 kit and how it can be used as a powered attachment for your robot.

This is a condensed version of a chapter from my *Classroom Activities for the Busy Teacher: EV3* book. For this article, I'll be using my Gripper design from the RileyRover build.

### Gripper Attachment






Tommy Williamson is no stranger to *BrickJournal*, having been featured previously for his Jack Sparrow miniland scale figure. Since then, he has gone farther into building, making some remarkable *Star Trek* props and other models. He's now doing this column for *BrickJournal*. Here, Tommy takes a little

time out from his busy schedule at BrickNerd.com to make a model of his choosing for the magazine.

### About this issue's model:

This issue's model symbolizes man's struggle with his inner demons while illustrating the dichotomy of color and positive versus negative...don't you hate that artsy-fartsy stuff? Don't get me wrong, I still consider building with LEGO an art form, and I consider myself an artist (even if it feels a bit presumptuous) but there are some artists out there that take themselves way too seriously. I for one like to remember always that first and foremost, LEGO is a toy. So go build, play, make and create... and always have fun! 



### Parts List (Parts can be ordered through Bricklink.com by searching by part number and color)

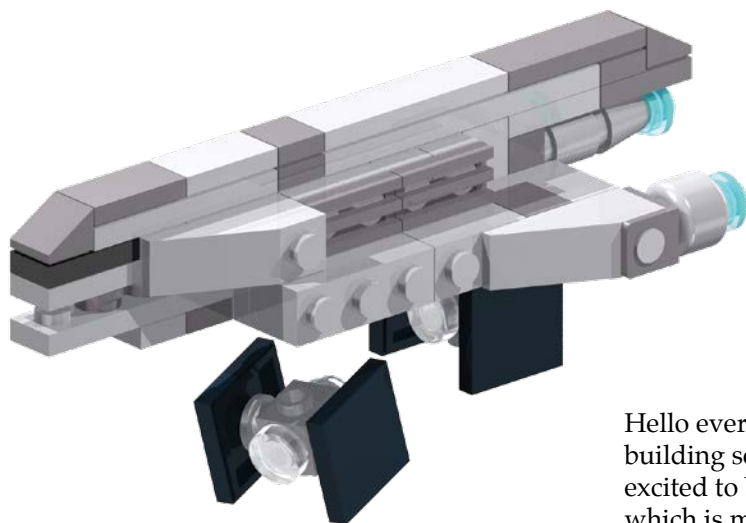
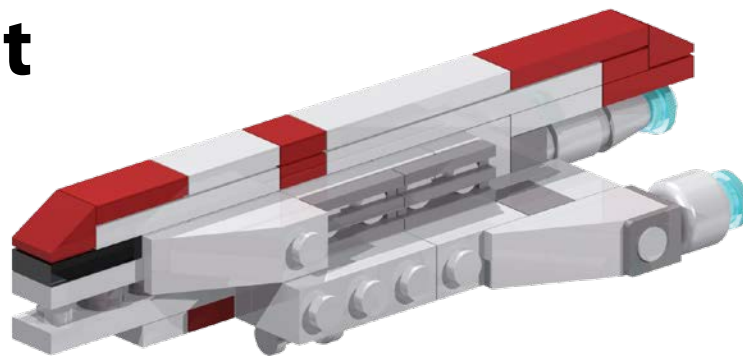
Qty	Part	Color	Description
2	3005.dat	White	Brick 1 x 1
4	87087.dat	White	Brick 1 x 1 with Stud on 1 Side
1	3004.dat	White	Brick 1 x 2
2	3622.dat	White	Brick 1 x 3
4	3023.dat	White	Plate 1 x 2
4	3710.dat	White	Plate 1 x 4
1	3069b.dat	White	Tile 1 x 2 with Groove
2	3008.dat	Red	Brick 1 x 8
1	44302.dat	Tan	Hinge Plate 1 x 2 Locking with Dual Finger on End Vertical
1	44567.dat	Tan	Hinge Plate 1 x 2 Locking with Single Finger On Side Vertical
5	4865a.dat	Tan	Panel 1 x 2 x 1 with Square Corners
3	3710.dat	Tan	Plate 1 x 4
2	3666.dat	Tan	Plate 1 x 6
4	4477.dat	Tan	Plate 1 x 10
1	2431.dat	Tan	Tile 1 x 4 with Groove
3	4162.dat	Tan	Tile 1 x 8
1	3004.dat	Yellow	Brick 1 x 2
2	3023.dat	Yellow	Plate 1 x 2
1	3023.dat	Black	Plate 1 x 2
2	3710.dat	Black	Plate 1 x 4
1	3460.dat	Black	Plate 1 x 8
2	2431.dat	Black	Tile 1 x 4 with Groove
1	4162.dat	Black	Tile 1 x 8
1	87087.dat	Dark Purple	Brick 1 x 1 with Stud on 1 Side
1	3622.dat	Dark Purple	Brick 1 x 3
1	3010.dat	Dark Purple	Brick 1 x 4
2	3710.dat	Dark Purple	Plate 1 x 4

## Art and Easel

*Design and Instructions by Tommy Williamson*

# You Can Build It

MINI Model



## MINI Gozanti Cruiser


*Design and Instructions  
by Christopher Deck*



You can view Christopher's webpage by going to [www.deckdesigns.de](http://www.deckdesigns.de) or scanning this QR code!

Hello everybody, and welcome back to our mini model building series in this new issue of *BrickJournal*! I am excited to build this little *Star Wars* spacecraft with you which is more popular than it seems. Although only having short screen time, the Gozanti Cruiser already appears in *Episodes I* and *II* of the prequel trilogy. It further has many appearances in the *Clone Wars* TV series, and also appears in the new *Rebels* series as an Imperial transport version.

In this article we want to build the original version from the prequel movies, but it can very easily be modified to obtain the Imperial transport version which is also able to house a couple of rock-on TIE fighters. The main hull is identical for both versions—just replace all dark red pieces by dark bluish gray ones to get the Imperial touch. While the original Gozanti Cruiser has two antennas on the underside, the Imperial transport version has two racks for the attachment of the TIE fighters. By having enough 1x1 clip plates on the underside, we can simply rotate the two tap pieces that were used for the antennas to work as attachment racks for the fighters.

To complete the modification process, the side panels have to be slightly modified as the Imperial transport version has extended wings. That's easily being done by the addition of very few extra bricks. So, with the instructions below you can build two versions of the Gozanti Cruiser. I hope you will enjoy building this, and see you next time! 

## Community



The Bacteria Busters. From left to right: Kate Gagliano, Rhyann Clarke, Earle Arnold, Sonia Clark, Erin Stone, Will Henderson, Jennifer Edmondson, Sarah Edmondson, and Riley Niven.

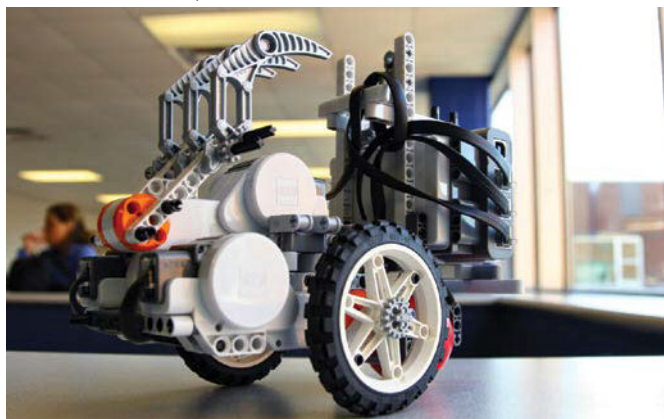
# FIRST® LEGO® League's Lessons

Article and Photography by Sarah Edmondson



Erin Stone lining the robot up on the Robot Game table.

Bacteria Buster's robot, which used a ball as a rear caster.



What I remember most from my first year of FIRST LEGO League (FLL) is a strange lack of fear. I was completely confident in our project's ability to wow the judges, and our robot's absolute perfection on the table. We were one of the top two teams in the FLL program at my elementary school, and all the parent volunteers who had judged us before had been amazed at our knowledge and ability. How could we not be one of the most successful teams at our regional competition? There was simply no way.

Or so I thought. Our team, the Bacteria Busters, did not advance to the state competition that year. We did not win any awards, and we were disappointed by the rubrics we received later. The robot and Core Values scores were okay, but the project was not logical, according to the rubrics.

I felt awful. I'd played a lot of FLL, and I'd been utterly sure of our success. Now, I felt that my small, insignificant weight of our failure.

But factor this in. This was my first year. The coaches, had no idea what we were doing. None of the teams. We literally had no idea how to learn the programming. We were just figuring out what we were doing. We didn't even know that the day of the competition was the only day to be there. The Fighters, didn't even advance to that year. The other teams participate in FLL at other competitions so they can be such rookies, we did not.

My team was in fifth grade. We had just graduated from elementary school. We were going to participate in FLL through our school. Our teammates moved to a different school. The rest of us were attending. All the boys who were on either team with us girls lost interest in FLL. For most people, that would be it. The story would be over.

**IF YOU ENJOYED THIS PREVIEW,  
CLICK THE LINK TO ORDER THIS  
ISSUE IN PRINT OR DIGITAL FORMAT!**



### BRICKJOURNAL #32

LEGO ARTISTRY with builder/photographer CHRIS McVEIGH; mosaic builders BRIAN KORTE, DAVE WARE and DAVE SHAD-DIX; and sculptors SEAN KENNEY (about his nature models) and ED DIMENT (about a full-size bus stop built with LEGO bricks)! Plus Minifigure Customization by JARED K. BURKS, step-by-step "You Can Build It" instructions by CHRISTOPHER DECK, MIND-STORMS building, and more!

(84-page FULL-COLOR magazine) \$8.95  
(Digital Edition) \$3.95

[http://twomorrow.com/index.php?main\\_page=product\\_info&products\\_id=1180](http://twomorrow.com/index.php?main_page=product_info&products_id=1180)