

MAPMAG

ISSUE 5 EDUCATE



MAPMAG

ISSUES 1-5



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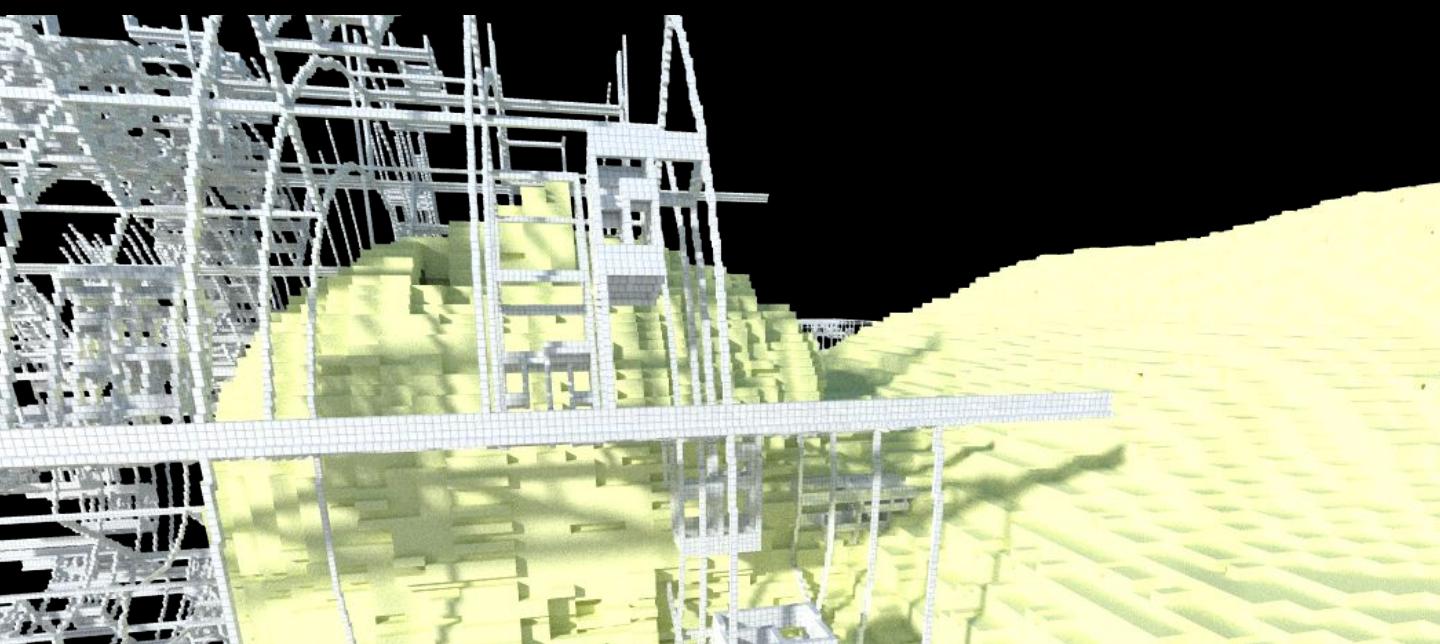
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THE LOBBY

Welcome back to the Minecraft Map Making Scene!



Welcome to the Fifth issue of Map Making Mag.

This issue we dust off the chalkboard and sit you down at your desk for an exciting update on Minecraft as a way to engage students in learning. Included are articles on and by global Education practitioners who have embraced Minecraft as a tool to explore ideas and get kids of all ages interested in *learning about how to learn*.

Of course we have remembered our regular features too. We take a look at how to manage your command blocks for interactive minigames, enjoy some slightly scary and impressive Ender Dragon art, and explore how to hack your Minecraft PE game to increase the size of the visible world.

This issue also has some surprises as well. Make sure you keep reading all the way to the end where you can enjoy SQORED's amazing realisation of The Ender Dragon on the back cover.

If you want to help we are always on the lookout for articles and art. See the side panel for submission guidelines. Until next issue - Happy Map Making!

- Adrian Brightmoore, Editor
Twitter: [@abrightmoore](https://twitter.com/abrightmoore)

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DISPUTES

Writing about what you enjoy and hearing from other people with similar interests can be great fun. When people are excited about what they are doing sometimes things can get a little heated in a large community. If you have any concerns over what **Map^{Mag}** is doing or how we are doing it then please contact us describing your concern. This will allow us to understand how we can do better. We can be reached at mapmakingmag@gmail.com.

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Minecraft Editions... Explained?

Minecraft is now available on many computing platforms with a range of different features, user interfaces, and community supported options. This makes the decision about which version to use for a particular purpose somewhat complex.

The Minecraft brand is now a massive ecosystem. We thought it would be useful to compare the different versions and provide some guidance on when to use them. Since this is an issue looking at Education using Minecraft, we also need to discuss the way in which the game has evolved to where we are now with an officially supported Education Edition from Mojang and Microsoft.

Let's start from the beginning...

In 2009, Markus Persson created a web game that you could **play in your browser**. Until very recently a version of this was still available on the Minecraft.net web site.

Written in the programming language Java, the game then evolved into a stand-alone **Personal Computer (PC)** variant that runs on Windows, Mac, and Linux devices. Community extensions included Google's Quantum learning package and the popular **Minecraft Edu**. This version is still being maintained.

Due to the popularity of the game, a **Console** version was developed by a partner company called 4J Studios. Using talent and guidance from Mojang, 4J Studios re-implemented Minecraft for the XBox and other gaming consoles.

In parallel, a version of Minecraft has been created for portable devices like Android phones, tablets, and iOS equipment such as iPhones and iPads. This edition is called the 'Pocket Edition', or **MCPE** for short.

A unique build of Minecraft was ported from the PE code to run on the Raspberry Pi. This **MCPI** version has a simple socket-based API that allows for programs to be written to change the world.

And, of critical importance to Educators, Microsoft and Mojang have developed a product based on the PE application which is targeted, on a subscription basis, at the education field. It is called **Minecraft Education Edition**.

The PE edition is currently being extended to allow customisations that previously required extensive code hacking to achieve. These extensions allow custom character skins, JSON configured entity attributes, and re-combining existing ingame properties.

The PC version has historically been the most customisable version, with community led packages called 'mods' providing extensions to the game engine. The original community for Minecraft Educators was built on a modded PC version. Microsoft bought this community project and retired it. The new PE based educational version has less features currently than originally offered by MinecraftEdu. The original version is still community supported but lacks the ecosystem of support of Microsoft and Mojang going forward. Watch this space!

Minecraft Educators

Minecraft has been used to enhance learning for many years. There are a number of key contributors to the practise worldwide. Each are happy to share their experiences and success stories, as well as guidance on what does not work well and how best to structure lessons. Let's take a look a few of them, with apologies to those we have omitted - we hope to catch you in future issues! If you are a teacher, or run workshops based on learning outcomes, feel free to reach out to these crafting masters to expand your network, skills and experiences.

Stephen Elford (@eduelfie)

Stephen was an early adopter of the MinecraftEdu platform, reporting about his experiences bringing the tool and his custom lesson plans into the classroom through [YouTube](#) and his [blog](#). Stephen's observations include [early adoption of the new Minecraft Education Edition](#). While Stephen is Australia-based, he has been invited to bring his unique skills to the world stage, and has even conducted workshops in Greece and [delivered a TEDx talk](#) on the topic of "MinecraftEdu – A Game to Change Education".

Shane Asselstine @HikariKishi

Based in Oahu, Hawaii, Shane has been championing Minecraft in Education for years. Passionate about teaching coding principles, Shane works with the global community, mentoring other teachers in how to enhance student outcomes using a variety of tools and techniques.

Shane has been named a Minecraft Global Mentor for 2017. This is a [program run by Microsoft](#) to connect skilled education practitioners to teachers new to Minecraft.

Karl Öglund (@kallespopkonst)

Based in Finland, Karl has used "gamification" of learning through the use of Minecraft with older learners. He [blogs about his experiences](#). He is engaging when discussing approaches that connect students of all ages with new ways of internalising skills using Minecraft.

Garrett.Z @PBJellyGames

Based in Canada, Garrett is part of "[Minegage](#)", an education consultancy that uses Minecraft as an engagement tool. He also convenes regular education chats under the [#MinecraftEdu](#) tag, open to practitioners worldwide.

Mark Grundel (@MGrundel)

Mark has pioneered Skype-based learning, his content extends beyond Minecraft to include regular participation in the [#MIEExpert](#) community of practise. Mark has firm ties to Microsoft's push into Education and is often discussing the latest tools in the context of what has come before, and learning goals.

Stephen Reid (@ImmersiveMind)

Stephen is a principle at Education Consultancy [@ImmersiveMinds](#). 2016 has been a stand-out year for his team, working with the latest technology and building on foundations established in prior years through initiatives to discover the past with students using Minecraft-based excavations.

The Common People (@theCommonPeople)

A collective out of England's Cumbria region, this team has impacted the Minecraft in Education movement through innovative projects with [Tate](#), [Bernheim Forest](#), [Museum of London](#), [MuseumNext](#), and many others. Adam, Victoria and Django design and deliver exciting Minecraft educational collaborations.



Immersive Minds

For creative consultant Stephen Reid, director of ImmersiveMinds, using Minecraft in education has been a tough but exciting six year journey through the politics, policy, practice, pedagogy and parental pressures of introducing technology as a tool for learning.

"In the beginning it was clear to me that Minecraft would be a game that could really change attitudes to games as learning tools. Having used games such as Tomb Raider and the Age of Empires series in the early days of Games-Based Learning, the success among children was high, with massive wins in motivation as well as increased short and long term information retention and creative expression in work related to but not limited to the game itself.

Moving on to games such as From Dust, Guitar Hero, Ico, and Little Big Planet, Stephen could increase the awareness of games across a wide variety of curriculum subjects but the resistance was consistent and came from adults, both in schools and at home.

"The challenge for me was to create an environment in which both could have their place. Children and adults learning through play, together.





A world, within a world, within a world...

Immersive Minds

"That's been the hardest part of the whole journey, facilitating a change in the mindset of adults who largely aren't gamers or see games as having a negative impact on learning." Says Stephen. It's been a massive part of laying the foundations for what is now a good level of competence and confidence in this area, with parents and teachers now openly seeking advice on how best to use games in their classrooms."

And then came Minecraft and everything changed, in the beginning we had this little-known game that played like digital Lego, lift a block, place a block and create anything at all you want to. Redstone wasn't a thing and early blocks were limited. But still, there was a massive opportunity to have children create within the parameters set by the teachers. Open landscapes, modelled on the real world, with land and water. Plant and animal life, biomes, ore and more. Soon we had this entire learning platform, allowing children to explore and model geography and history lessons, simple and eventually complex science subjects, maths, art, literacy and more. In fact, aside from sport in school, there isn't a single subject we haven't been able to develop a map for."

Stephen has developed maps for schools, libraries, art galleries, museums, charities, and businesses all over the world now and has a portfolio of hundreds of lessons across dozens of purpose-built education maps. For teacher CPD he has developed a learning world made up of structures created by students in his lessons, showing teachers not only what is possible and how but also to what standard and timescales for each age group.





Immersive Education...

Stephen's 'Immersive Education' Minecraft world offers a good mix of all subject areas including :

Environmental Science - featuring working solar and wind farms and hydro-electric system complete with mountain, river, reservoir, dam and power station, which powers a small village nearby. A sustainable forestry island, challenging learners to manage resources effectively without creating an imbalance in natural resources. Deforestation models in which students must run logging companies that manage forestry ethically, while making money. A working recycling plant providing a system for sharing surplus materials instead of the constant use of fresh coal, wood, ore etc.

World History – including Ancient Egypt, encouraging children to learn both in and out of Minecraft by making papyrus, jewellery, writing about life in Egypt, mathematics using Egyptian methods etc. WWI Trenches in which learners write instead of fight for the next trench. Writing letters home to loved ones based on their research of the conditions and facts of the great war. A history of coal – Exploring the rise and fall of the coal industry and the changes in

methods and technology for mining. Pompeii complete with a working volcano that erupts and destroys the city. The Vikings and the Romans and a whole lot of archaeological digs.

Science Zone - Complete with the human biological systems with working respiratory, nervous and excretory systems. Plant and animal cells that show the production of proteins through working ribosome models and molecular structures such as DNA. Electricity lessons including logic gates and circuitry. Even the solar system!

Humanities – Including a refugee crisis narrative taking children through the journey a refugee may take to reach Europe. Religious understanding and tolerance with places of worship from each major religion built by children of different faiths together, ecology and animals.

Mathematics – Including whole areas dedicated to primary mathematics including symmetry, tessellation, grid referencing and 2D/3D shapes.



"Whatever the subject, it's important to be sure that the tool best suits the learning objectives and the needs of the learners. There are instances where Minecraft is simply not the toll for the job. And it should also be clear that Minecraft is just one of a wide variety of tools available to teachers. So in the creation of any Minecraft map, I'm always careful to make sure that Minecraft is the tool that will best facilitate the learning, I set the learning objectives before I place a single block, I consider the learning audience, environment, pedagogical approaches and assessment of the lesson before I create, or have the children create anything."



3 step process...

"Finally, I always create maps and lessons for maps with the same three principles in mind:

1. **Environment** – What landscape do I need to create this lesson? This may be a particular kind of biome, or must have at least some physical, environment features such as a mountain for Pompeii or a large forest for the deforestation map.
2. **Structures/Detail** – What structures and details do I need to add to bring the lesson into the environment? Buildings, roads, railways, shrubbery, placed animals, buried buildings for archaeology for example. Detail is important, as one student pointed out that cactus only grow in American deserts and so my African WaterAid map had to have all cacti removed post lesson.
3. **Narrative** – What story am I trying to tell? How will my learners move through the map and learn in the way I want them to. This is not always linear, nor should it be.

But consideration of the narrative will help you decide on how the map should form as you build. Early placement of markers, direction of travel, signage, viewpoints and more.



Stephen Reid - Director, [ImmersiveMinds](#)
[@ImmersiveMind](#), www.immersiveminds.com

STEPHEN REID

@IMMERSIVEMIND

Immersive Minds

ICT in Education...

Using technology creatively to enhance learning across the entire curriculum and...

-  Outdoor Education
-  Employability
-  Environmental Science
-  Study Skills
-  Motivation/Aspirations
-  Alcohol Awareness
-  Anti-Bullying/Cyber-Bullying
-  Entrepreneurship
-  Internet Safety
-  Social Media Engagement



Pioneering Games-Based Learning...

Using games and play to enhance and support curriculum learning and life skills development, in children and adults...



Minecraft in Education...

Using Minecraft to support learning across the curriculum...

A global Minecraft server dedicated to training and supporting teachers and parents.



Working with people to develop skills for:

- Work
- Learning
- Life



Communication

Citizenship

Critical Thinking

Numeracy

Analysis

Evaluating

Teamwork

Problem Solving

Creativity

Literacy

Negotiation

Justification

Empathy

Decision Making

Enterprise

Self Confidence

Judgment

Decision Making

Enterprise



Master Map Maker Profile: Jigarbov

Minecraft has continued to evolve over the years since Notch first invited playtesters to explore his new game. Each new version has brought an expanding toolbox of features and capabilities to Map Makers. With each release a Master Map Maker named Jigarbov has worked to quickly bring the new features to players through his exciting Adventure Maps and Mini Games.

Jigarbov may be best known for his masterpiece creation of the complete complex City Simulator: "**Simburbia**". The Minecraft game engine provides him with a platform for a unique game complete with resource management, civic upgrades via a complete technology tree, and some unexpected emergent behaviour as the player builds and develops their metropolis neighbourhood by neighbourhood..





Master Map Maker Profile: Jigarbov

Jigarbov's contribution to bringing together the Map Making and Minecraft player community includes two massive collaborative worlds in the "Adventure Multiplex" series. In these maps, Jigarbov created a modular framework that contributors worked within to build episodic encounters and minigames.

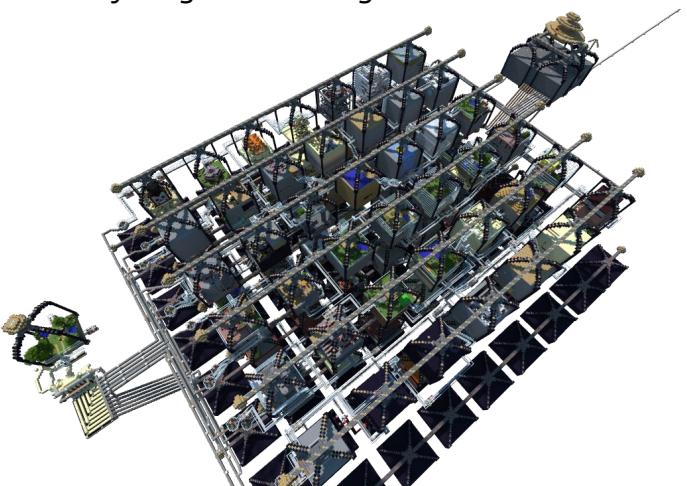
In the first **Adventure Multiplex**, the Player is drawn through a matrix of minigame modules and adventure encounters each within a 20 block cube. Created in the era before command blocks, these modules are heavily Redstone mechanics based.

These modules may now serve as instructional guides for the next generation of Redstone engineers now that the PE platform includes Redstone features. Everything old is new again!



Adventure Multiplex 2: The Village increased the dimensions of the modules to be 30 blocks high. These were combined into a single landscape by Jigarbov with areas of similar encounter difficulty grouped together.

In each of the Adventure Multiplexes, Jigarbov combined all the supplied contributions into a coherent whole, adding game scoring mechanics and built-out environments.



These maps were then released back to the community. The result? Map Makers met new collaborators, and players discovered new minigame creators and got access to many new adventures from their favorite authors.



Master Map Maker Profile: Jigarbov

Jigarbov is known for his solo projects. His maps have been regularly updated and maintained for recent Minecraft PC releases. This is no mean feat given the high volume of content he has produced in the last five years.

Infinity Dungeon is a dungeon adventure where a team of players can explore dynamically generated rooms in search of crystals to defeat the malevolent machine at the heart of the complex. There are plenty of side quests, in jokes, and easter eggs in this cleverly crafted Rogue-style game.

Bridge Out Battle is a team combat game that grew out of an innovative single player game by [@SirVladimyr](#) (the maker of the premiere adventure maps **Silent Heaven** and the **Chronotide** series). Each team scrambles for falling resources, triggered by a massive array of Mob Spawners producing items and falling blocks. The gameplay takes place high up in the air, where one false step or untimely impact from an arrow can result in the loss of all resources gathered so far. Success comes when the other team's base is over-run.

Jigarbov's iconic Eronev series currently includes three titles: **Eronev Mansion Adventure**, **Eronev 2 the Soul Cauldron**, and **Eronev Chronicles: The Flood**. In this series,

the player rescues villagers from various perils while solving puzzles and completing challenges.

In **The Flood**, a unique game mechanic was used, with help from technical wizard [@Texelelf](#), which allowed the map to be flooded with water after a certain time passed. The player's success in locating and saving as many villagers as possible before the waters rise is measured by a dynamically generated cemetery at the end of the game.

All of Jigarbov's maps are good natured romps guaranteed to provide hours of fun. The trick is deciding which to play first!

You can download his maps from his website: <http://www.jigarbov.net>

Remember to let [@Jigarbov](#) know what you played and how you enjoyed it via Twitter.



Jigarbov's Minecraft Maps

<http://www.jigarbov.net>



Books About Blocks:

Beautiful Minecraft by James Delaney

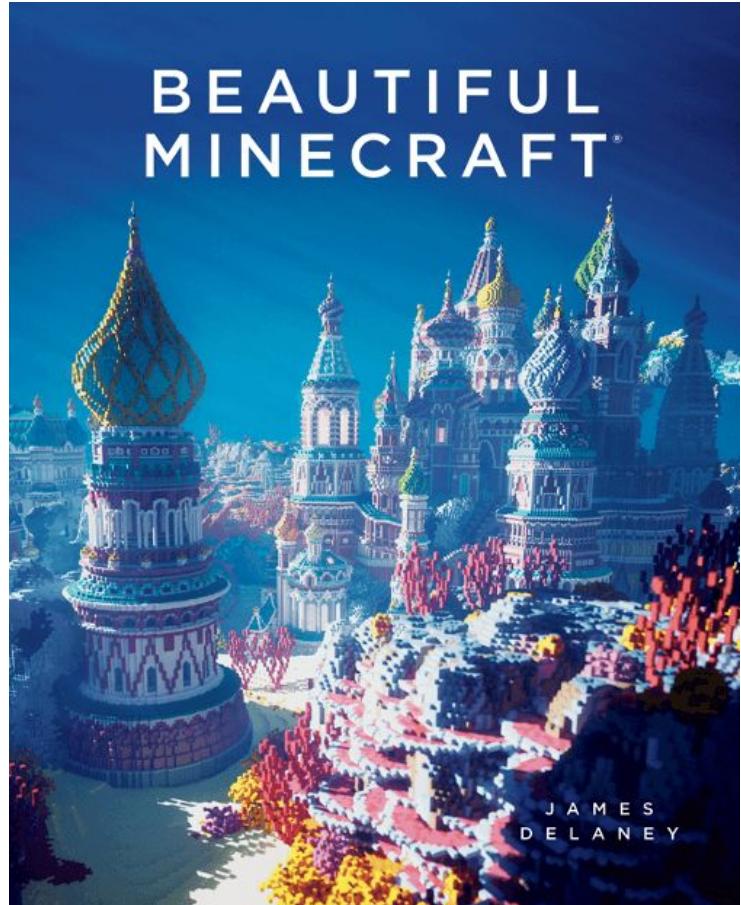
<https://www.nostarch.com/beautifulminecraft>

I first met James Delaney at Sydney Airport. He had kindly offered to assist with an educational project we were working on, for a large Australian retailer, involving Dinosaurs. His team of global Minecraft Masters had created an enormous prehistoric world and populated it with gargantuan beasts.

When the project was complete, kids were able to explore this interactive world with the aid of a time portal and use their newfound Dinosaur knowledge to solve puzzles and prehistoric problems, learning as they go.

While new to Australia at the time, James was a seasoned traveller and had been participating in innovative digital projects globally. Comfortable talking to Marketing folks and Company Executives, behind him stands a team of builders, modellers, and command block wizards that are mobilised to realise the creative vision of organisations like Disney, Minecraft Servers, and even Microsoft (who are the owners and custodians of the Minecraft brand).

With "Beautiful Minecraft", Blockworks has expanded into traditional media through partnership with No Starch Press. This is a delightful coffee table book with ambitions of showing Minecraft as an artistic medium for talented creatives. Included are rendered Minecraft worlds produced by the Blockworks artists under commission, as well as individual voxel artworks.



The physical book is roughly A4 size and bound by hardcover. The cover shows Rowan van Tuijl's *Faberge Palace* (2015). An introduction by James Delaney is joined by essays from Blockworks members Kristen Kodama and Matthew Bush. Each entreats the reader to consider Minecraft projects in the context of "artform".

The book is organised as a gallery, with rendered images and descriptive plates that explain the complexity of each build through block-count and project duration statistics.

"Beautiful Minecraft" is available in hard copy and ePub, and can be ordered from No Starch Press at: <https://www.nostarch.com/beautifulminecraft>



Image by [@walter](#)

Learning JavaScript with Minecraft

One of the advantages of the PC edition of Minecraft is the extensive community based modifications that exist which provide platforms for learning. Walter Higgins ([@walter](#)) created a framework for programmatically interacting with Minecraft worlds called "ScriptCraft". In his own words, ScriptCraft is a "*gentle introduction to programming and modding Minecraft using the Javascript Programming Language*".

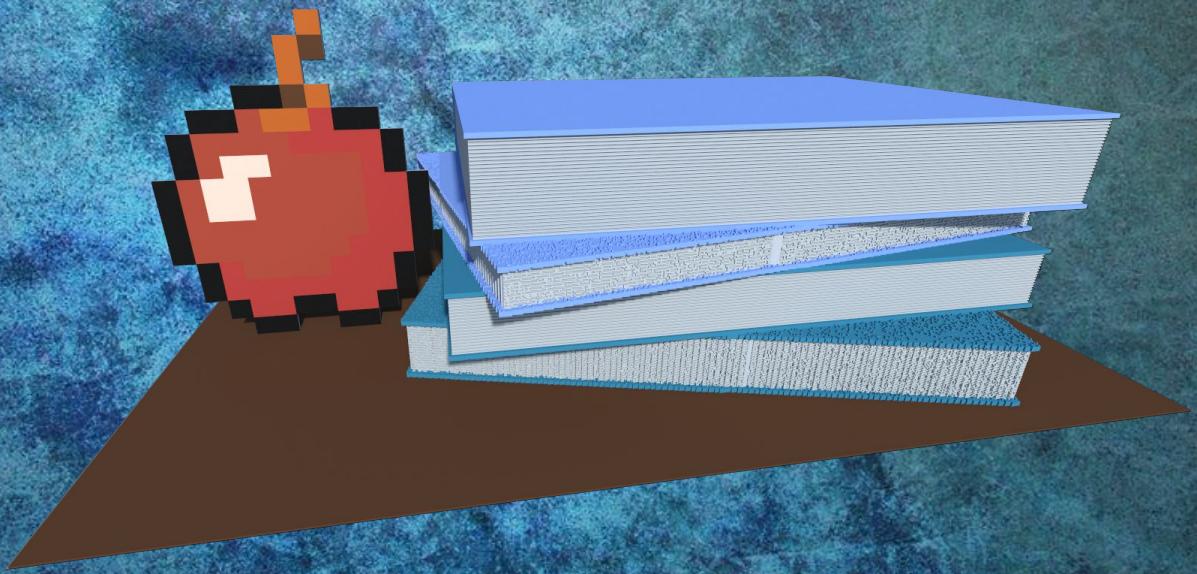
The unique proposition for ScriptCraft is that JavaScript is a highly relevant language for modern web based development, with an easy learning curve. By controlling Minecraft structure generation through ScriptCraft, the learner is introduced to syntax and structure, with a heavy emphasis on developing an intuition for the language as they see three-dimensional models evolve in response to their code.

Code samples are shared freely, with examples of generated architecture available including Greek Temples and Medieval Castles.

ScriptCraft is supported by Walter's "The Young Person's Guide to Programming in Minecraft" which is available on GitHub here: <https://github.com/walterhiggins/ScriptCraft/blob/master/docs/YoungPersonsGuideToProgrammingMinecraft.md>

Download ScriptCraft here: <https://github.com/walterhiggins/ScriptCraft>

Walter's book, "*A Beginner's Guide to Writing Minecraft Plugins in JavaScript*", is available to order online: <https://www.goodreads.com/book/show/21920755>



Use Minecraft in class? Yes but how?

by Aurélie Marmu (@P7i7Plum3)

Translated from the original article (French): <https://rslnmag.fr/jeunesse/edtech-comment-utiliser-minecraft-en-classe-education/>

Bringing new educational practices to life is the goal of the game Minecraft, whose educational version, co-developed with more than 50,000 teachers and students around the world, is now available. But what is Minecraft for? What can we do? How? Are there prerequisites?

How do we get started with Minecraft?

This is the question that David Plumel, a technology teacher using Minecraft in college, and that Imad Bejani , Director Education and Research at Microsoft France, discussed during a round table organized at the education conference "Educatec - Educatice".

"To start, it is about finding the idea."

For David, it is not necessary to be an expert to get started in Minecraft. Far from it:

"Minecraft: Education Edition is just one more tool in the teachers toolbox. This is a huge sandbox of billions of cubes in which we can do what we want" laughs this technology teacher with 350 students in fifteen classes.

David compares this approach to projects with other college professors: *"90% of students aged 8 to 16 already know the game. They do not feel like it is hard work performing the exercises."*

What is Minecraft for? What can we do? How? Are there prerequisites?

Use Minecraft in class? Yes but how?

How to get started?

"For those who want to learn to use Minecraft there are loads of tutorials and online resources" says Imad Bejani. For his part, David Plumel reassures:

"You can learn quickly. And there is no need for all teachers to know how to use the game. At the beginning of the school year, I usually demonstrate to the teachers I work with what it is possible to do with Minecraft. From there they build their universities and their courses."

For the equipment part, a single computer for two or four may be enough, *"two students can work on paper while the other two are on computer. Then we alternate,"* he explains. At the start of a project, students can prepare their building plans by hand. With the accompaniment of a mathematics teacher, the first step can be to work on proportionalities, particularly by setting the rule *"one cubic meter is equal to 0.8."*



The medieval castle of Guédelon Minecraft version via YouTube Video screenshot

From the reproduction of a college to that of an historic building

In practice, "making the connection between real and virtual" is the starting point for many ideas to be developed in class. With his students, David Plumel has made a Minecraft reproduction of their college, *"They are there every day. They know the college better than the professors do. We recovered the actual plans of the architects and we then modeled the whole of the college. It is a titanic project: more than one million cubes placed by students!"* Said the professor while presenting photos of the actual and virtual version.



The students reproduced their college in Minecraft. Image via YouTube video screenshot

Real historical sites are also reproduced by the teacher: *"Close to the hotel is the medieval castle of Guédelon. It is being rebuilt, by hand, using medieval techniques. It should be completely renovated by 2025. My students were not as patient,"* David smiled. They have completely modeled it and built it from the overall plans of the building. And for the measures to be as realistic as possible, David Plumel and the EPS professor even chose to organize a bike trip to take the measurements directly at the source.

Use Minecraft in class? Yes but how?

Not only Building: Language, History, and Science

Beyond the notions of geometry or architecture that are used to make the most accurate virtual reproductions possible, Minecraft Education can also be used as an occasion to focus on more specific points. Within the framework of the castle of Guédelon, the different materials used in medieval times have been studied, for example, in conjunction with the professor of history and geography.

"We can almost attach Minecraft projects to the entire program," enthuses David Plumel. "This year, we even decided to divert the primary function of Minecraft to make an adventure game with the schoolboys of 3rd year. We chose a topic related to SVT courses: 'sustainable development'. The question that the students deal with their SVT teacher, Valérie Deit, is: 'How will the Earth be in 2267?' The students then work with their French teacher, Sandra Bruneau, to realize the scenario. For my part, in the technology course we'll consider building materials, pollution and energy." he explains.

Collaboration opportunities also exist when teaching foreign languages: *"To make a building construction, for example, students will use English," says David Plumel.* They will study this subject with their language teacher while performing the work of understanding and translation.

From creation to 3D printing

Imad Bejani, Director Education and Microsoft Research, says *"The level of David's achievements with his students is an excellent example of what is done in France with Minecraft".* But the professor does not stop there and also uses the technology of 3D printing:

"Work on Minecraft can be exported and printed directly in 3D," he says, pointing to a picture of a student, smiling, mini printed version of Minecraft Eiffel tower in the palm of his hand. *"Some colleges are now equipped with 3D printers. Young people can then make models manipulated directly."*

"At the end of the year, we get a finished presentable project. For children, this is priceless. I also make presentation videos that they are proud to show their parents," says the dynamic teacher.

You can view these videos here:
https://www.youtube.com/channel/UC8XYqZo_nUbFA8jozCnVV20Q



Aurélie Marmu is a writer for the French Microsoft magazine RSLN. You can read more of her work online:

<https://rslnmag.fr/autour/aureliespintank-fr/>

Ender Dragon IRL



By SQORED (@Official_Sqored)

Structuring the Code of a Minigame

by JannisX11

Programming command blocks is really advanced these days, with more and more features and commands being added each version. It can be hard sometimes to structure your games in a way that you can easily find and edit each part of the code. And reduce lagg at the same time.

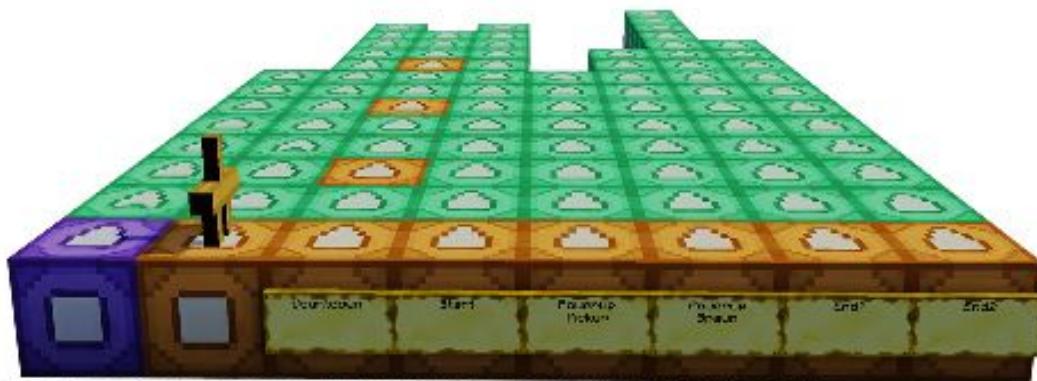
I have been working on command block based minigames for servers for more than a year now. I started working when 1.8 command blocks were still a thing and it was hard to make a lag-free game. Over the months I have started learning how to split up and structure game code in a way that is easily editable, lag efficient and also fully multiplayer friendly.

An Example

Lets say, we have a simple PvP game. There is a lobby, there is an arena, and there is a goal. The goal is to collect a specific amount of points with different actions in game.

This concept can easily be split up in a few different functions.

- Testing if the game is startable
- Starting the game
- Events to get points
- Winning the game
- Resetting the game



The mechanics of my minigame "Pillow Fight", adapted for a Spigot server

The Basics

The basic idea of the concept I am going to explain is to have a function for each bigger event in the game. Just like in programming. But due to the limits of command blocks you can't really use things such as return values.

All of these functions are connected by a game loop. Depending on how importantly I want to reduce lagg, this game loop gets turned on by the game start function and turned off by the reset function.

Functions:

A function is basically a line of chain command blocks, started by an impulse command block. This command block is set to Unconditional and Needs Redstone and contains the command

```
/blockdata ~ ~ ~ {auto:0}
```

This is critical. You can now activate the function whenever you want, with just one command:

```
/blockdata <coordinates of command block> {auto:1}
```

This command tricks the command block into thinking that it should be running, and while running the command block resets itself instantly. And it still activates the rest of the function. This is the core of this concept.

Now that we know how to add and use a function, let's go over the essential events one by one:

Player Testing

This function became standardized over time. I have the same few command blocks for this for every map by now. The function gets activated by a button, somewhere in the lobby.

First, the function checks if the arena is free. I use a testfor command combined with command stats to track the players in the scoreboard. To test for players only in that area, I have made a handy little tool. You can find it here:

<http://server.zofenia.de/selector>

Important for this command is, as for most other commands, that it only includes ingame players. You can do that by specifying the gamemode with m=2. This prevents spectators being recognized.

Now you might wonder, why I didn't check if the game clock was still running or something else. The reason is that, especially on public servers, players tend to log off during the game. In this case testing for the mechanics not running would break the game.

Next, the function counts if there are enough players to start a new game. Same principle here. I use the /testfor command and after that the /scoreboard players test command to test if the amount of players is right.

In both cases, if there are still players playing or there aren't enough players to start a new game, the commands print error messages to the player, using the /tellraw command.

Now we test if both conditions are met, in which case the testing function calls the start function.



A sign works great as an interface to start the game.

The Start Function

This function greatly depends on your game. Here are a few tasks this function generally does.

- Marking all players who are in the lobby and in adventure mode as playing
- Doing a count-down
- Teleporting the players into the arena
- Setting the players' respawn-point
- Preparing the players' inventories
- Preparing the map
- Starting the game loop

In some cases you would call the reset function before this one. This is just to play it safe, in case all players log off during the game and the game doesn't get cleared. Just consider this while making your map.

Ingame Functions

The function gets called by the main game loop, submitting the affected players.

Let's for example say the player kills a mob. This event is supposed to give him points. We can track this with a scoreboard. When the score hits 1, we give the player a tag.

```
/scoreboard players tag @a[score_mobXkill_min=1] add mobXkill
```

Behind that command block we place a conditional command block, activating the according function. This function could now do the following things

- Giving the player 10 points
- Telling the player that he got 10 points by killing the mob
- Telling all other players that player X killed a mob
- Playing sound effects, fireworks etc.
- Removing the tag „mobXkill“ from that player



Image: Zofenia Server

Winning the Game

This function is very similar to ingame functions. It detects when a player hits, let's say, 100 points. It gives that player a tag called „winner“. It triggers the Winning function.

But now there are a few other commands which could be activated. Here are a few.

- Stopping the game loop
- Telling everyone that the player has won
- Playing sound effects, fire works etc.
- Un-marking all players as playing
- Giving the winner some sort of reward
- Teleporting all players to the lobby, usually delayed by a few seconds
- Removing the winning tag from the player
- Calling the reset function

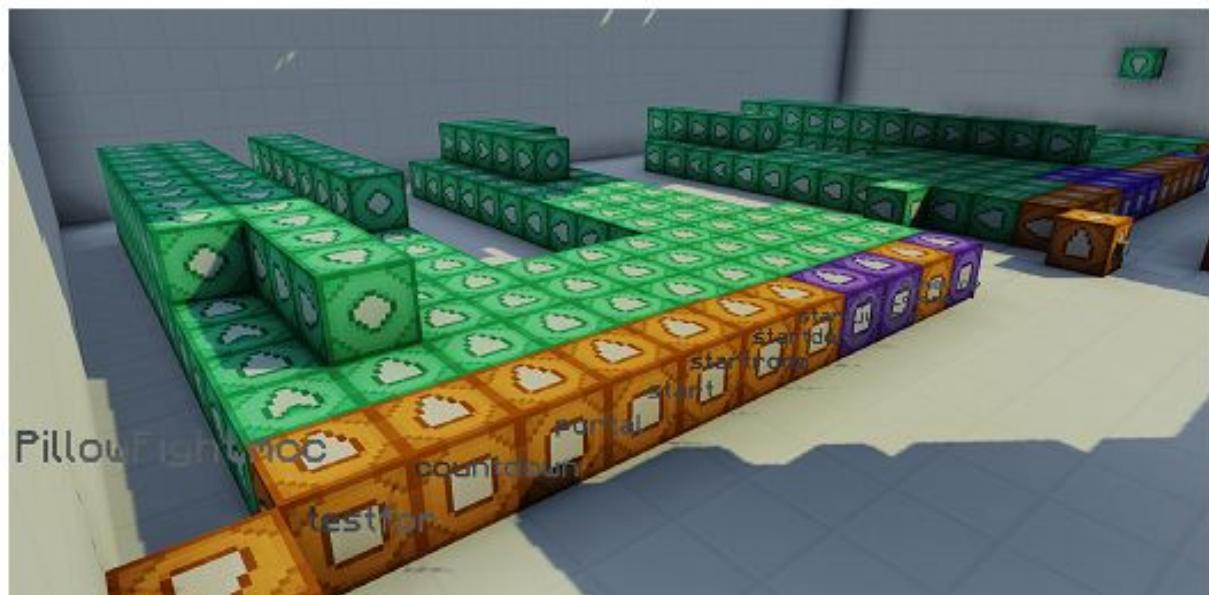
The Reset Function

It should be pretty obvious what this function does, but there are still a few things to consider. The reset function should make sure that the game starts flawlessly every time. Therefore it is important to cover every element of the game. Here are a few things this function could do:

- Disabling the game-loop
- Resetting/Recreating used scoreboards
- Clearing the players inventory
- Clearing the scoreboard sidebar
- Removing all non-permanent entities from the arena
- Re-building parts of the arena, if necessary
- Clearing potion effects

Once you have these base functions set up, you can add more functions, most of them with the properties of "Ingame Functions".

-JannisX11



Tools like Smelt by Gasp allow you to streamline your Map Making Process even further

NEWHEAVEN expand themself to the command-blocker community

NewHeaven is a build team since now 2012, we take Minecraft as a artistic and architectural tool. In 4 years we accomplished a lot of things and finished a lot of projects. We use Youtube to present our map. Sometime we make project with external organization, like museum.



As you read in the title, we want to expand ourself to command blocks but why ? Most of the time (except if you build for a server) our map are useless after we finished them, in the other hand we have the command-blocker that mostly can't build correctly. This is the time to combine ourself and to change that ! Command-blocker have the possibility to make the map useful to someone, the player, and as builder we can make you wonderful map. That's why it's the time to combine both of us to make greater stuff !



NewHeaven has recruited some command-blocker, four in total : Blox, Maxaxis, Dragonmaster and Incar. There is 2 more to go and we will be full for the moment. We don't need more than 6 command-blockers for now. So if you are talented and interested by joining our team, you can contact us by skype at maxmemio.

YOUTUBE : <https://www.youtube.com/user/NewHeavenMC>

TWITTER : <https://twitter.com/newheavenmc>

WEBSITE : new-heaven.fr





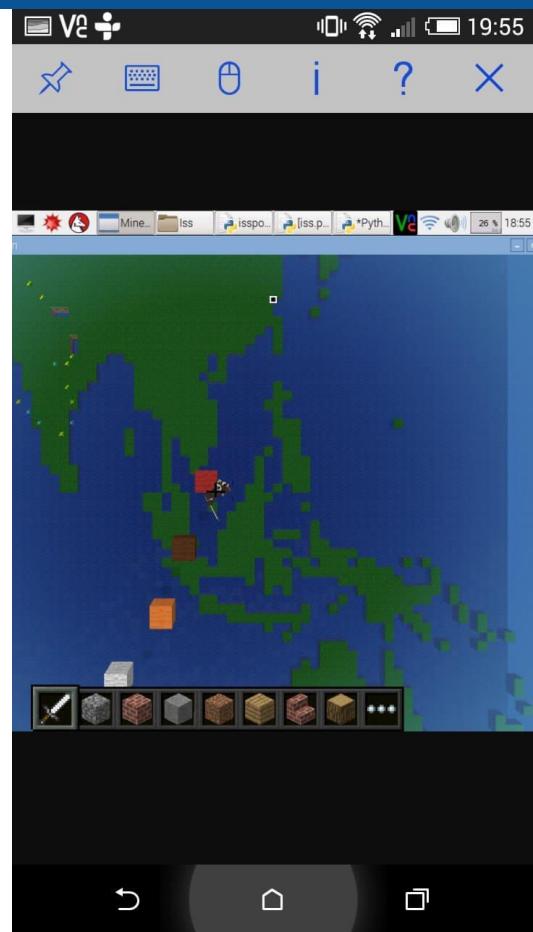
Picture by Keith Ross (@k_ross69)

Tracking the International Space Station with Minecraft on the Raspberry Pi

Damian Mooney ([@damianmooney](#)) has developed a visualisation tool for finding the location of the International Space Station (ISS). The ISS is a joint program by international teams to conduct research in space. It can be seen with your eye if you know where it is, and that is where Damian's tool comes in. You can read about it here: <https://damianmooney.wordpress.com/>

Through a custom generated Minecraft Earth, players can see, in real time, the position of the orbiting space habitat. The ISS location data is provided through an API by Bill Shupp.

The tool has been extended by [@ncscomputing](#) to respond to Twitter requests, with details via the 'HackPack Anthology', maintained on GitHub: <https://github.com/ncscomputing/Hackpack/blob/master/Hackpack%20Anthology%20V1.1.pdf>



Team Solari



EDUCATE

By Team Solari

“ Education is the new battleground for professional builders keen on making their mark. At Solari we have taken a different approach to education. ”

This is the Army

We made this project for a contest on Reddit. We wanted to create an as realistic replica of a D-Day battle scene as we possibly could. The research on this was immense, it ranged from recreating the launchcraft the American and British troops used, to what kind of pebbles and trees were at the beaches. The truth we wanted to add here is that war is not pretty.

War is often portrayed as a beautiful sacrifice soldiers make for their respective countries. There's also the fact that a war changes the soldiers that make it through. Their lives are changed forever after seeing the gore and loss of their best friends. We wanted to show this by including some graphical content that used to be banned from sites such as PlanetMinecraft and we also added soldiers that are shellshocked from what's happening around them and refuse to move forward. Don't get us wrong. All of these soldiers are heroes. They did put their own lives on the line to liberate others and defend their countries. But that doesn't mean a war should be taken lightly.



Team Solari

Into the Frying Pan

The purpose of this build is to illustrate a human instinct. This instinct is fear. All humans act with it in times of stress. They neglect hopes of solving the issue at hand. They neglect the future in hopes of solving the present, this is true for all people.

The issue we wanted to address is the refugee crisis that is occurring all over our planet. People are lost, they are worried, they want to find a solution. So they flee their country or city, just as the people inside Sora City, the structures in this build.

They are cutting the ropes that are holding them in place to flee the danger that's approaching them. They'll fall into an unknown dimension they won't know.

They do not even know if they'll survive.

The parallel between this story and the story of refugees from Syria, Iraq, Libya, Mexico and a lot more places is evident.

They are leaving their homes behind into uncertainty, they are falling through the void. Somebody must catch them.

Instead we are ignorant and refuse them. This is not the thing a righteous person would do. Why are we allowing it?

“ Education is a theme we have worked hard on at Solari. ”



BRAMBOSS

Dumpster Diving

This is a futuristic view of what a part of our planet could look like, made by @Crafterboy327 in the course of 3 days for the latest PlanetMinecraft contest.

It has lots of revolutionary architecture and science fiction elements. But the most important aspect of this build is the message. 'Dumpster Diving' shows what will happen to the Earth in less than a century if we don't change our ways and start taking care of our natural resources and the environment.

There are already vast expanses of this "plastic

soup" all over the globe. Crafterboy's projects shows what happens when we don't solve that issue and let it evolve. The trash will reach our cities and kill our nautical wildlife like it has done in large parts of the Pacific and the Atlantic.

The Human race needs to stand up and take responsibility before 'Dumpster Diving' becomes a reality and the once so beautiful waterfronts of the world are transformed into trash filled, toxic wastelands.

"As a common theme throughout our prestige projects we have always wanted to incorporate some facts that are inconvenient truths."

The 60 Minute Map Challenge

@Recabilly and @CDFDMAN started the 60 Minute Minecraft Map challenge in early 2015. The challenge consists of taking a random concept to base a Minecraft minigame or Adventure map on, and build it completely within 60 minutes.

Each of the Map Makers would then test the maps and a winner was declared. The prize? Bragging rights, until the next week when creative combat resumed with another concept and 60 minute map build.

This “one on one competition to design and build a working map” often produced hilarious results when the maps were tested and found to produce unexpected outcomes, or otherwise an amazing gaming experience.

Later, @rsmalec (the legendary Minecraft Map Reviewer and innovative Map author) rehosted the concept as a competition open to all map makers. He formalised the rules, timing of each round, and created a progression ladder where participants progressed through successive rounds until a winner was declared.

After several seasons of competition, the format was taken over by @Hawkminer in late 2016 and it is expected to continue in 2017.

As a challenge of technical skill, 60 Minute Maps is a great format for Map Makers to work their Redstone and Command Block magic against a deadline. With only 60 minutes to play with, concepts can be distilled to their core elements and

distractions avoided. Map Makers have produced close to a hundred playable Minecraft Maps through the two years since @CDFDMAN and @Recabilly brought the concept forward.

You can review past seasons on YouTube:

- CDFDMAN’s Channel:
<https://www.youtube.com/user/cdfdmanc> - start here:
<https://www.youtube.com/watch?v=mmvtVxdkSyg>
- Ron Smalec’s seasons:
<https://www.youtube.com/watch?v=Oft-uoxQncg>
- Hawkminer’s season 5:
<https://www.youtube.com/watch?v=utN33zT6Bd8>

Each playthrough includes map download links so you can also review the maps yourself. With such a treasure trove of maps from the community you will never run out of ideas! Follow @Hawkminer and give this challenge a go. You never know what you may surprise yourself with in 60 minutes!





Engaging Students with Programming

by Chris Penn, N:CS Computing ([@ncscomputing](#))

As a Computer Science teacher in the UK I try and use Minecraft to help engage students with programming. It also helps me to experiment and learn new skills. Here is my first random attempt to generate a world without building anything. I have a 15 minute youtube video that goes with this and you can download the scripts that I have used to "build" anything in this video:

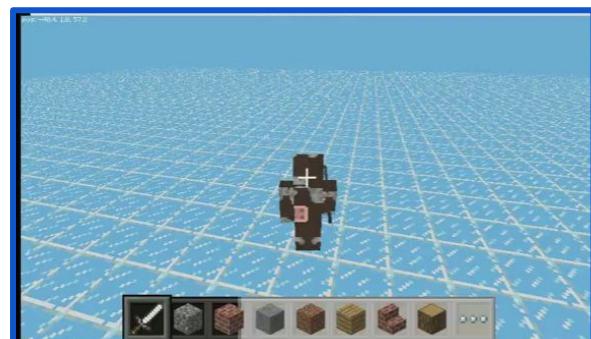
The video can be accessed by using this link:
<https://www.youtube.com/watch?v=WGz7aA5tDZk&t=30s>

You can access the python scripts here
<https://github.com/ncscomputing/Hackpack>. The actual zip of most scripts is here:
<https://github.com/ncscomputing/Hackpack/blob/Volume-5/mmm.tar.gz>

I use Minecraft Pi which is the very simplistic version which is free on the Raspberry Pi. The world starts off like any normal basic world. However I didn't want to have an uneven surface. So I used the "flatmap.py" python script to flatten it.



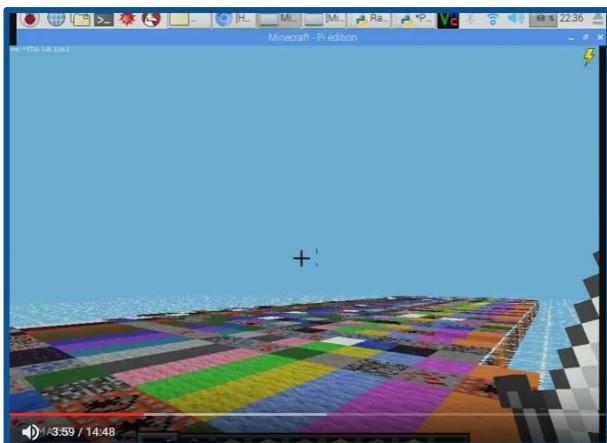
I mostly use python 3 which is the newer version of the programming language. When the flatten script is run it ends up looking like this:



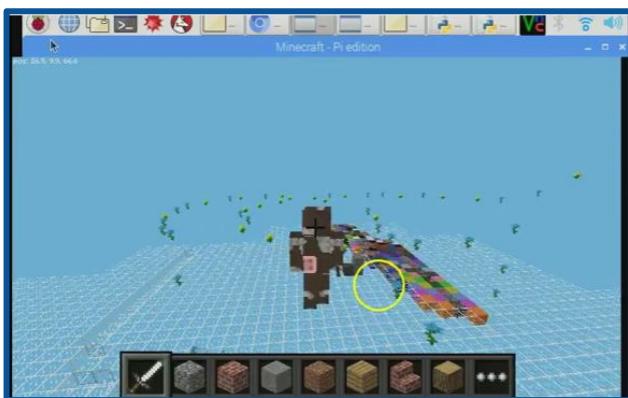
Engaging Students with Programming

by Chris Penn, N:CS Computing (@ncscomputing)

The first thing that any world needs is a road luckily you can use a few lines of python to create a Rainbow road. This road was created using the "RainbowRoadRemix.py" script that I wrote to use with some a class about a year ago. The road ends up looking at bit like this:

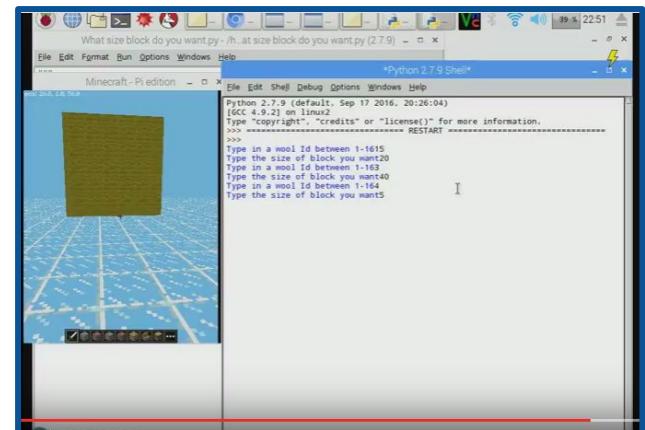


Now there is a simple road I thought I needed some plants, the problem planting is it takes time. Python and loops mean I can fast track my gardening and plant some in mid air too :) This is what my scripted planting session looked like! The script that I used was "walking random flowers.py".



Now that I have created some chaotic flowers, I felt it only necessary to create a massive scalable block. (This script originates from the book written by Craig Richardson <https://www.nostarch.com/programwithminecraft/>) I might have tweaked it but its 90% the same.

The beautiful thing is that it appears like this:



Then disappears 10 seconds later. If you watch the video I tried 300 blocks and it didn't really like it, oh well. The name of the script that I used was "what size block do you want.py".

Finally in this random scripted world I wanted to flatten part of what I created so what better technique than using "walking active tnt.py". You can see the effect in the title picture.

That is about it for my first attempt at making a map! Over and out!

A Brief History of Minecraft Computers

Minecraft is a complex thing. On the one hand it is a game about surviving the night. On the other, it is an almost infinite Lego-like play set full of weird and wonderful pieces that can do extraordinary things. It has a broad appeal that extends from the youngest of children who have been handed their parent's iPad to distract them from a lengthy wait at the Doctor's, and at the other end of the spectrum we find recreations of popular commercial gaming consoles. In the game. That work.

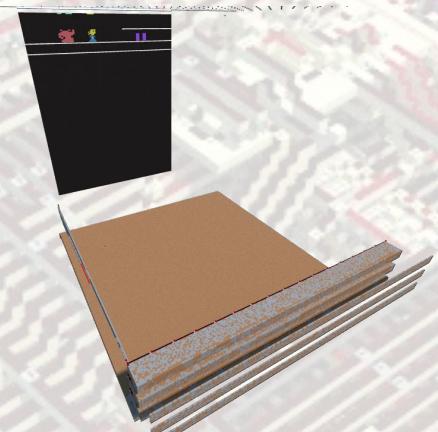
... say what?

A very clever [@MrSquishyYT](#) has created a game console in a Minecraft world for the tile-and-sprite based Pokemon Red. [You can read about it here.](#)



If the thought of playing a game within a game excites you, consider also that SethBling, the grand master of all things Minecraft, has also worked some magic to create a working emulator of an Atari 2600 within Minecraft, including working versions of the specialised graphics chip and display. As if that isn't enough, the system even supports loading up custom game ROMs.

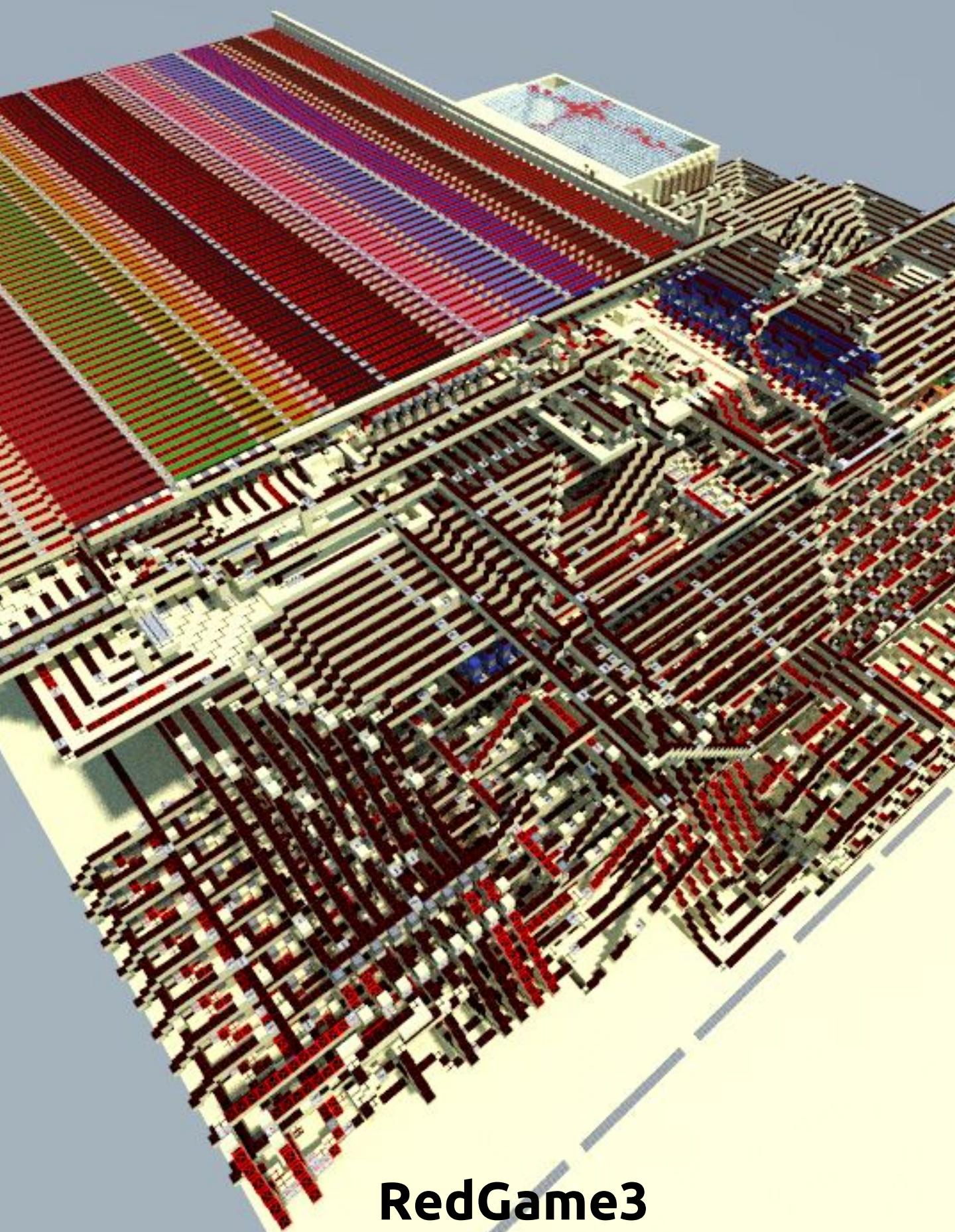
SethBling's creation is extraordinarily impressive on many levels and I suggest you quickly watch his [announcement video](#) here before proceeding. Once you have finished, come back and we will explore how we arrived at this extraordinary state of affairs.



SethBling has created a custom coding framework that supports the creation of next-generation Command Block based systems within Minecraft. Minecraft can now do very amazing things (with a little outside help).

Command Blocks are powerful, though not strictly required. In 2011 Hans Lemurson used Redstone to create the subsystems of a working computer, and then built a [2D Minecraft based game](#) within it. Laurens Weyn also used Redstone to develop a 10 bit [programmable Redstone computer called "RedGame"](#) (shown next page).

It is a long way from [programmable calculators](#), popular tools for hackers for many years, however the principles remain the same: modular and powerful technology used as a platform for curious and clever creative people to exercise their talents. Minecraft is a powerful tool. What is next?



RedGame3

by Laurens Weyn [@dudearent006](https://twitter.com/dudearent006)

Herocryptic Three

by StealthyExpert, AKA @RedstonerLabs



Today we find our self at the feet of brand new discoveries and map releases by map makers and we have A map created by UnseenDontRun who's an extremely clever map maker on the console that thrives to create that adventure map PC experience with a unique console style twist unlike anything' has seen before well at least until today that is.

Here's a peek at his new map he just released its called "Herocryptic Three" The third installment of the Herocryptic Adventure Map Series which is a fantastic adventure with a Amazing storyline that gets you really into the game and bosses and enemies around every corner your sharpen your PVP skills in no time at all.

Download Link: (Xbox 360)

<http://adf.ly/1q6tjU>

Download Link: (PS3 US - EU)

<http://adf.ly/1q6twd>

Download Link: (PC)

<http://adf.ly/1q6teM>

Download Link: (WIIU)

<http://adf.ly/1q6trC>

The world of Alkerlaria

by StealthyExpert

Rolling good002 is a master at creating Custom terrain on console edition and he is constantly working on amazing breath taking maps for the console. This map pushes the limits of imagination and the console's hardware itself to whole new level so If you like what you see then try downloading and playing it for yourself and explore a whole new realm of survival that boggles the mind and it is truly the most unique custom survival world on Console today and literally nothing can even compare to its awesomeness.

There has also been word that he is currently working on a new adventure map :)



Download Link: (Xbox 360)

<http://adf.ly/1fmA4e>

Download Link: (PS3 US - EU)

<http://adf.ly/1q6viz>

Download Link: (PC)

<http://adf.ly/1q6vFX>

Download Link: (WIIU)

<http://adf.ly/1q6vuR>



The Minecraft International Art Gallery

By Marco Vigelini ([@MarcoVigelini](https://twitter.com/MarcoVigelini))

I am a promoter of CoderDojo, a global movement of free, volunteer-led, community-based programming clubs for young people where kids learn how to code, develop games and apps, play with 3D printers, Arduino and Raspberry Pi boards, exploring new technologies in an informal and creative environment.

Over the years I have been able to examine in depth themes and perspectives tied to the world of education addressed at youngsters. My daughter's teacher, knowing about my activities on digital literacy, approached me requesting my technical support and experience in her classroom.

I brought into her class many aspects dear to the Maker's world such as tinkering, coding, STEAM and 3d modeling activities.

At a certain point we noticed every kid at school talked about Minecraft and the only ones in the dark were us, the adults. In a moment where it is difficult keep the entire class vigilant and for a long period of time we asked ourselves: "Why don't we try to introduce Minecraft in the didactic?" We also decided to use Minecraft because it is universally acknowledged as a gender inclusive tool which is thrilling in the same way to boys and girls.

Minecraft has the same potential as holding in your hands a box full of toy bricks and then opening it: but here bricks are unlimited and the possibilities to arrange them as you want are endless. The only limit is the creativity and the imagination of our kids.

The Minecraft International Art Gallery

For a whole year we appreciated the eclecticism of Minecraft, but we felt like we were missing something: what about the tinkering activities and physical experiences as little makers of our kids ? So we started a long journey looking for a way to mix traditional learning activities, those ones I call 0.0 (zero dot zero), with new technology, and I eventually found the missing link. During a Minecraft event in Rome I met with the founders of the child-friendly social network Creatubbles.com, whose aim is to showcase the creativity of young people all over the world.

Creatubbles allows children to share creative projects with other kids around the world. In order to do this it has a few rules for the security of children online. Only original creations are allowed, and all images or videos which show any type of images that could reveal the child's identity are blocked before being published. A child's account is connected to and overseen by at least one adult. Before being published, all written content first undergoes an automatic check to block any inappropriate language and later awaits direct approval by the adult who oversees the child's account.



The Minecraft International Art Gallery

All images that are uploaded undergo careful checking, and must be approved by the Creatubbles team before being made publicly visible.

Creatubbles noticed that young people were increasingly taking screenshots of what they had made in Minecraft and uploading them to the platform. The thinking being: "I've created a digital construction in my Minecraft world, I like it, I've spent a lot of time on it, and I want to share it with other children."

So why not create a Minecraft mod to interface directly with Creatubbles, and save Minecraft builds without having to leave the famous game of pixelated cubes? Why not make it work both ways? This allows children to showcase the physical creations they have uploaded to the platform within the game itself. See https://www.youtube.com/watch?v=_uK2lzmRI

What better way to bring together old practical skills with the possibilities of Minecraft? From the virtual to the physical, and from the physical to the virtual, full circle. Our children's creations in Minecraft were already amazing. Now, they also have the ability to customize them further with objects that they've really created in the physical world.

What better way to use the best-selling PC game of all time together with drawings and paintings, artworks and other physical objects as a result of creativity, curiosity or tinkering activities: isn't that a great way to promote STEAM activities and let kids get closer to art?

Have you ever seen how the TATE Modern museum of London decided to allow kids to "enjoy artworks like never before" exploring "imaginary worlds inspired by famous paintings and the real-life places they depict" ?



The Minecraft International Art Gallery

Interesting, isn't it? But let our kids be the real protagonists; let them use their physical artworks in their virtual Minecraft worlds. They don't need to be still passive spectators in the age of the new technologies and they should also discoverer the beauty of the ART.

And again what about if we move our server from the classroom to the cloud and share it with several schools and after-school activities from all over the world ? We tried to contact educators, teachers, Minecrafter and art lovers using the most important social networks, inviting them to join, at the same or different times, the virtual world (built by Solary experts), meet each other and share creations in the project we called "International Minecraft Art Gallery".



The Minecraft International Art Gallery

So far we have attracted schools from Canada, China, USA (Colorado, Nebraska, New York, Minnesota, North Carolina, Virginia, Alabama, Hawaii), Brazil, Switzerland, Pakistan, Japan, Vietnam, Australia, Poland, Croatia, Nigeria and South Africa. What a perfect example of collaboration and educational exchange between children and young people at a low cost.

The students have been invited to create art about the town, city or country where they live, and share it in one of the eight art galleries built within the game. Every class has the ability to meet up in the same virtual place: those taking part can then walk around the world viewing the artwork of the other children, and if time zones permit, chat with each other in real time, exchanging ideas and emotions through 'artistic' creations made by the children themselves.

The aim is to show our children that other young people in the world, who may even



come from a different culture or social class, have a different language, are a different age, or are very far away in a different country, they are nevertheless all related by virtue of the creativity and of making things.

They have a way of sharing with each other the beauty of the places in which they live, by showing, through art, what their own countries or cities look like.

Even living in a tiny village, such as Allumiere (near Rome in Italy where I live), kids can now share their creations and interests with other young people who have their same desire to learn about the world.

If you want to join the next Minecraft project or you have an idea and want to involve me simply contact me on Twitter ([@MarcoVigelini](https://twitter.com/MarcoVigelini)).



How to Increase Render Distance on PE

by Keith Ross (@k_ross69)

Graphics: Fancy

Render Distance: 100 chunks

You need a good file browser that lets you edit text files.

Using the browser on your device, navigate to..

Internal storage>>games>>com.mojang>>minecraftpe

and look for a file called "options.txt"

Open this file with your text editor and look for a line of text that says...

`gfx_renderdistance_new`

It will have a 3 digit number at the end (usually 160 = 10 chunks)

This is the figure that needs editing.

For each chunk added, you need to add 16 to this figure.....

So..

11 chunks = 176

12 chunks = 192

15 chunks = 240

20 chunks = 320

25 chunks = 400

30 chunks = 480

Once you have edited this number, save the changes and exit the browser.

Caution, less powerful devices WILL struggle to render greater distances, so don't overdo it (consider 30 chunks to be an absolute maximum for ANY device).

Also, this change is temporary. It will remain in effect only up until the point that you go into MCPE settings and adjust the render distance, then it'll revert back to default.

Instructions courtesy of [@MCPEAlpha](#)

- Keith

The End... of 2016

This issue of MapMag comes at the end of 2016. This has been an exciting year with many changes for lots of people. In this time, we have seen some amazing Minecraft events and activities. To recap:

- **Minecraft Education Edition** was announced, and then released.
- **Minecraft.net** got a facelift, including .. err... magazine style articles! [Check out your humble editor's work written up on the official Minecraft.net site!](#)
- **Pocket/Win10 Overworld and Ender Update** and various **PE/Console DLC** including a Western, Biome Settlers, Battle, Redstoner, Villains, Natural, Campfire Tales, Builder's, Cartoon, Fallout.
- **MCPC Combat Update** v1.9, with some controversy, was released. The Elytra opened up new opportunities for Map Makers.
- **MCPC Exploration Update** 1.10 and 1.11
- **Virtual Reality Minecraft** received official support.
- **Minecraft Pricing** was changed.
- **Minecraft** was officially released in China.
- **Realms on PE** became available, opening up the possibility of custom community created maps in the future.
- **The EULA was revised** to stop in-game commercialisation by 3rd parties, impacting Map Maker monetisation channels.
- **Minigame DLC** for consoles appeared - Battle, Tumble, Dig, Shrug, Frontier.

At the same time, the Map Making Community grew through home-grown ground-swell unofficial and official initiatives:

- **Add-Ons** were added to PE/Win10, opening the way for custom community content.
- **Minecon 2016**, produced many exciting Map Making focus panels now available for playback online via the [Mojang Team YouTube channel](#).
- **PC Realms** kicked things up a notch by expanding the program for player contributed content, and formal seasonal releases. [See /r/Realms](#)
- **MapMag** Issues 1 through 5 were published, for free, for you! [Download prior editions from the TestForDev site](#).
- Many of the larger multi-year projects are nearing completion, including the revolutionary #PokeCA Pokemon vanilla adventure covered in MapMag Issue 1. Remakes were the flavour of the year, seeing a Gameboy-style Zelda and a [Pokemon Red](#) handheld also under development.

It has been a huge year for big impactful Map releases too. One of the biggest of the year was [Terra Swoop Force](#), by [@Noxcrew](#). Elytra gliding action coupled with custom NPC animations made this a must-play map for the technology breakthroughs. Also, that Shulker Box based elevator made many eyebrows raise!

With all this work put in by Mojang and the Map Making community we are well-positioned for a very exciting 2017.

Guinness World Record
Most Downloaded Minecraft Project



Diversity 2

A black and white screenshot from a Minecraft world titled "Diversity 2". The scene shows a complex, sprawling city or base built entirely of stone blocks. The architecture is highly detailed and varied, with many levels, overhangs, and intricate structures. The sky is dark, suggesting it's nighttime or the player is in a dimly lit area. Several glowing particles or stars are visible against the dark background.

<https://mods.curse.com/worlds/minecraft/224139-diversity-2>

HOW TO WRITE FOR MAPMAG

MapMag is not like all other magazines. We do not have staff writers and we do not pay professionals to research and develop new content. We look for interesting content created by our community of Map Makers so we can bring together all our friends and help them connect with each other.

Because of this, it is quite hard to explain how you should write an article or share your art. If you are thinking of writing an article but are a little uncertain where to start the following tips may help:

1. The basic rule is that if you are interested in something, then there is a good chance someone else will also be interested, so start by writing down your thoughts.
2. A Mind Map may be useful. You can write out keywords and expand on them. It frees you from thinking too much about sentences.
3. Once you have a good idea about what to say you can start to provide some structure to it.
4. A good method to use is to write an introduction that sets the scene for the reader: think about answering the question "why should they care"? You know the answer to this, because you care. Write your reasons down.

5. You can then break up your ideas into a logical sequence. Write one or more paragraphs explaining each idea
6. Then provide a conclusion. You can include a call to action. This can include directing people to a video, website, or download link.
7. A good conclusion explains what has been discussed and reminds the reader why it matters.
8. Once you are happy you can contact MapMag with your article and we will work out where it can go in the magazine. Sometimes we can put similar articles together, and other times we can write something that helps link your article into the issue.

By writing an article for MapMag you can share your knowledge with the community and start a conversation. You do not need to know all the answers to have something interesting to say. Start sharing what you are good at with the rest of us, we would love to hear from you!

About the Magazine

This project is a community driven and contributed magazine. By publishing we seek to develop the wonderful craft of Minecraft Map Making. All content remains the property of the respective author and is used with permission. All trademarks referenced in this publication remain the property of the respective trademark holder.

Last Issue Errata

The Issue 4 News Item for Festive Maps incorrectly credited the map “Minigame Advent Calendar - 24 Minigames”, available from:

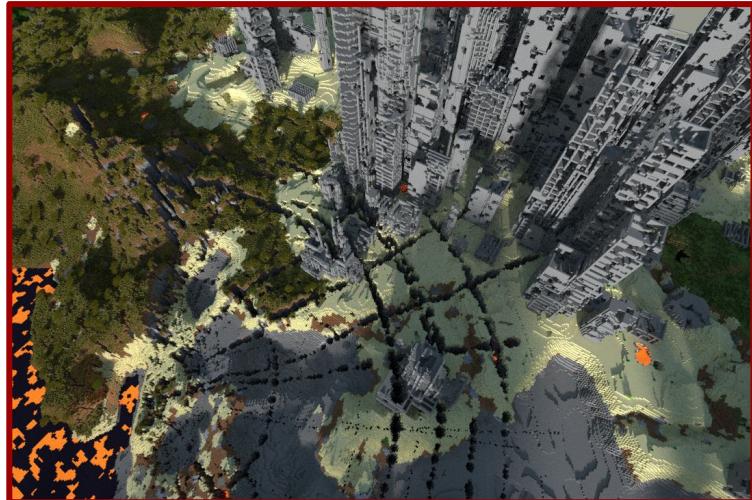
<http://www.minecraftforum.net/forums/mapping-and-modding/maps/2762688-minigame-advent-calendar-24-minigames-9-24-custom>

This map was made by a number of Map Makers: McTsts, NemPlayer, EnderPig, infinitydrago, booty156156, CheckMinerYT, MrKukurykpl, QunSyBer, AFluffyGriffin, marhjo, kradziejpyr

The Map Mag Team

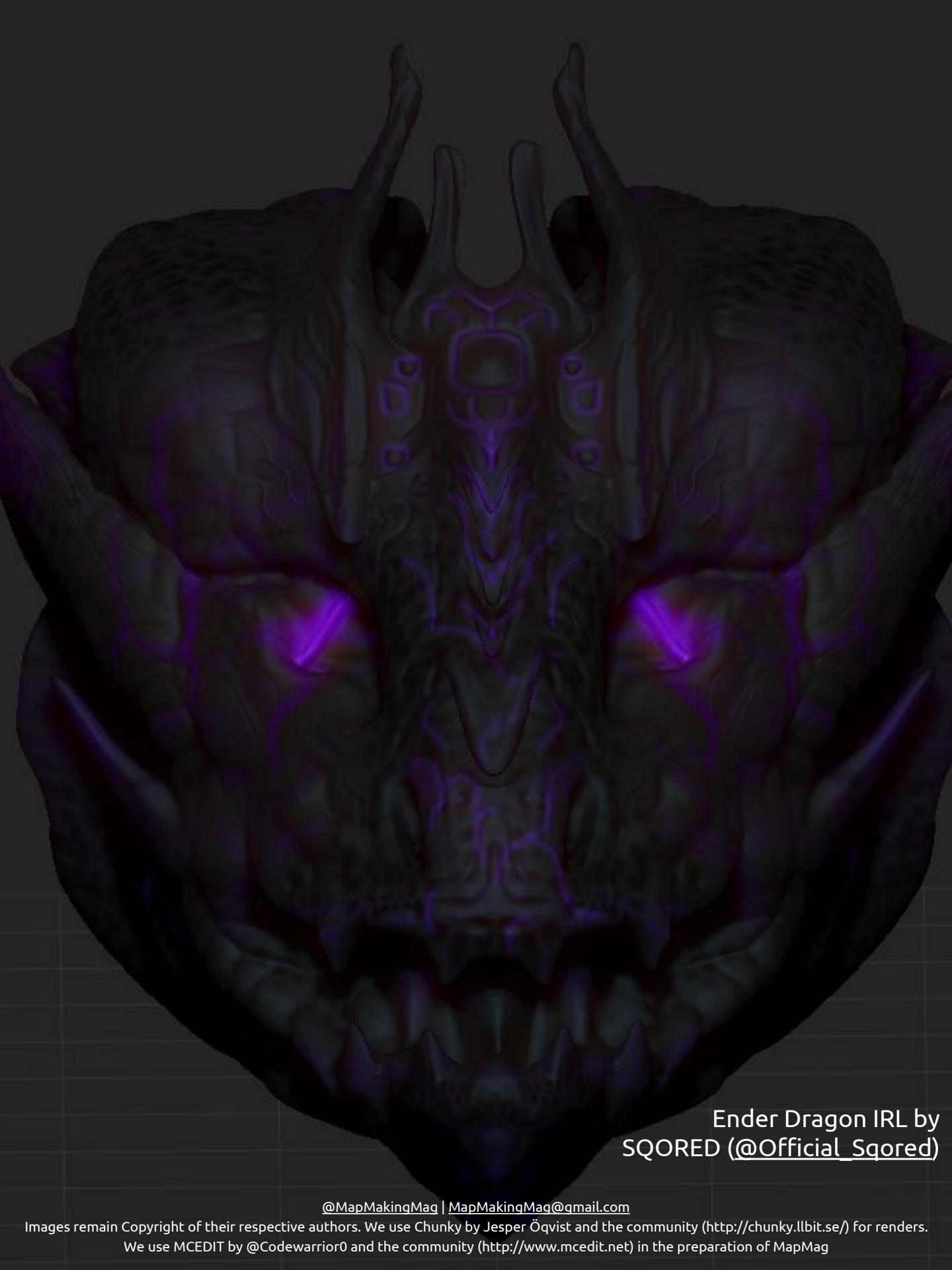
MapMag includes Articles and Art from:

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@NickFlame20
@RedstonerLabs
@SethBling
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@... your name could be here - write an article or provide art for future editions! See submission guidelines in The Lobby.

This publication is a community effort and this issue has been compiled with input from the Minecraft Map Making community. MapMag is supported by donations from: @immersivemind and @cocoamix86



Ender Dragon IRL by
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We use MCEDIT by @Codewarrior0 and the community (<http://www.mcedit.net>) in the preparation of MapMag