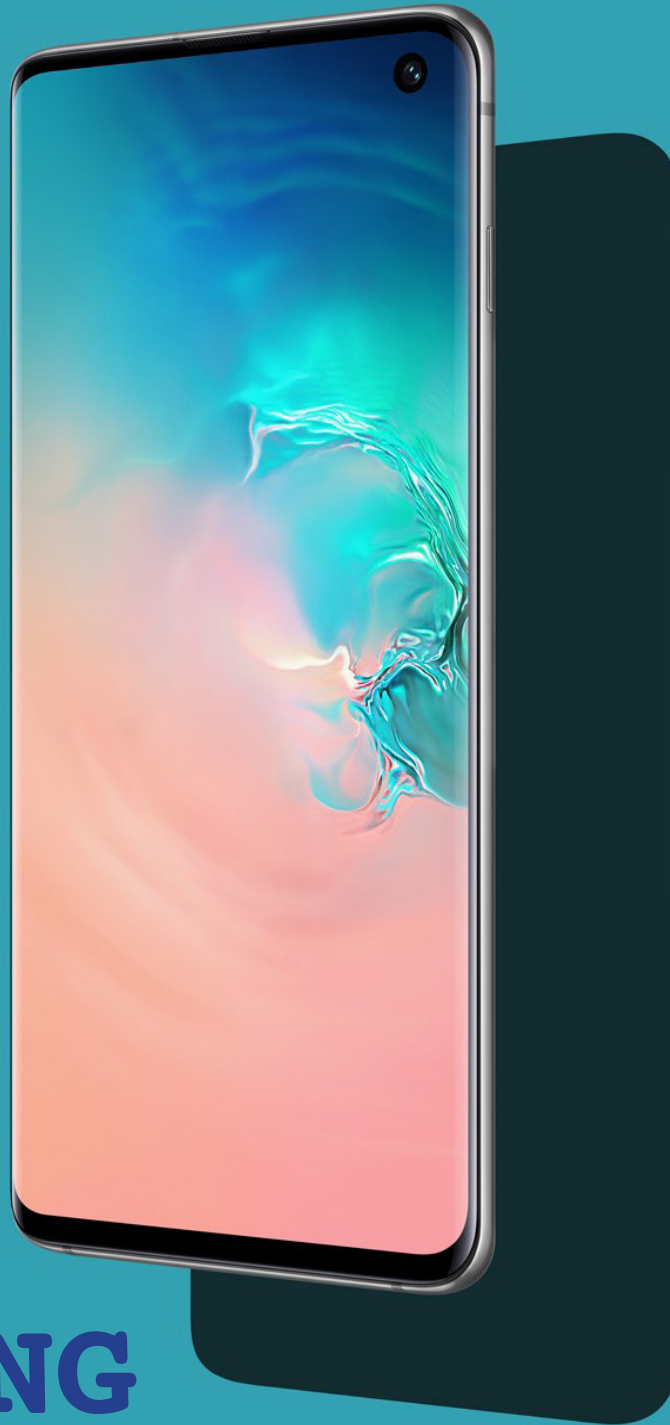


# PIXELATED

A TECHNOLOGY AND VIDEO GAME MAGAZINE

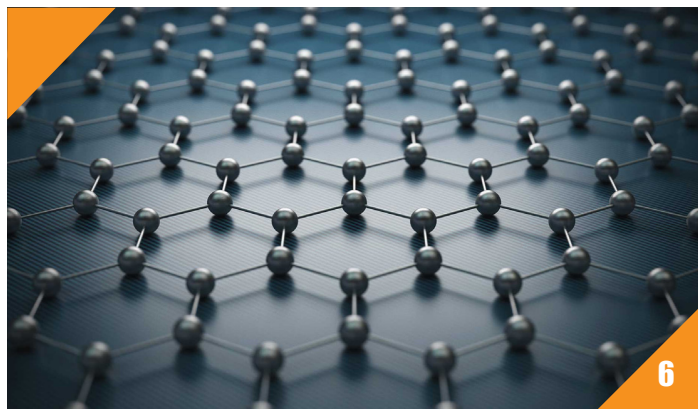
Vol. VIII - N° 02 - Spring 2019



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*Winning the  
Smartphone Game*

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## LETTER FROM THE EDITORS

Hello again!

We're excited to present to you Pixelated's second edition for this year! All of our writers and editors put their all into it and for one of us EICs, this is our last year, so it's bittersweet to be leaving Pixelated behind. This is the last issue of the year, and it's been a great journey. We have the latest in gaming and tech to present to you in this final issue of the year.

In technology, we've got the updates on SpaceX, the innovations of Graphene, news about new samsung phones, and a discussion about airpods vs. galaxy buds. In video games, we have a discussion about a competitive smash bros ultimate tier list, news about the new hit game Apex Legends, MLB the show 2019, Anthem, Competitive League of Legends, and about Assassin's creed's role in the repair of Notre Dame. We also have the latest about new switch games, like the Link's awakening reboot, Yoshi's crafted world, New Super Mario Bros deluxe, and Pokemon sword and shield.

We want to thank all of our readers for their continued support of our publication and interest. A special thanks to all our writers, editors, and our Faculty advisor, Mr. Renner for helping make this possible, we hope you enjoy this issue!

Until next time,  
Andre Dang  
Libby Mather  
Editors-in-Chief, Volume VIII



On February 6th, 2018, SpaceX launched its Falcon Heavy Rocket. Falcon Heavy had never been launched before, and after years of planning, building, and testing, it completed its maiden voyage without exploding into what would be the “best firework display” one would have ever seen, to quote SpaceX CEO and Founder Elon Musk.

Falcon Heavy can be used to transport heavier cargoes than other rockets; it has 27 Merlin engines and can deliver up to 5 million pounds of thrust at liftoff, the equivalent of the maximum thrust of 18 Boeing 747 aircrafts. Falcon Heavy delivers the most thrust of any currently operational rocket on Earth and is second in total only to the United States’ Saturn V Rocket. Falcon Heavy can transport up to 141,000 lb pounds of cargo, and its three rocket boosters are able to self-navigate themselves down to a landing pad on Earth for use in following missions. This unique ability allows SpaceX to greatly cut launch costs. It hasn’t flown since its maiden launch but is set to fly again on April 9, 2019, as of the writing of this article.

SpaceX’s other, smaller rocket is the Falcon 9 Rocket. It is a single-fuselage rocket with 9 Merlin engines and can deliver up to 1.7 millions pounds of thrust at sea level. It can transport up to 50,000 pounds of cargo, and after being launched into space, its rocket booster can self-navigate itself back down to Earth like the Falcon Heavy. SpaceX has used Falcon 9 for dozens of missions. It only costs \$62 million to launch, compared to the launch cost of the Falcon Heavy coming at \$90 million. These prices are lower than what competitors can offer, and are extremely low when compared to launch costs of previous US government rockets.

With reusable rockets, low launch costs, and other efficient business models like in-house vertically integrated manufacturing, SpaceX is poised to become a global leader in rocket transport. One of the main goals of the industry is lowering the cost/cargo ratio of a rocket launch, and thanks to technological achievements like these, the company has begun to tout rockets as both economically and technologically viable forms of intercity transportation. It would take approximately half an hour to get from New York to Los Angeles in a rocket, SpaceX says.

Overshadowing SpaceX’s “smaller” dreams such as intercity rocket transport is the company and CEOs’ prized goal: a self-sustaining city on Mars with a population of 1 million by 2060. This is, as usual with Musk, an extremely ambitious goal, and requires the completion of numerous steps. In addition to perfecting a spacesuit, maintaining financial stability, and researching Martian colonization methods, SpaceX would need to

develop a fully functioning, low-cost rocket that could transport humans and cargo to Mars and back, all while keeping the rocket largely reusable. However, SpaceX has its eyes trained on the Red Planet and is quickly working towards its goal. It has already designed, created, and successfully tested an inner-ship spacesuit. SpaceX has proven that it can maintain financial stability and remain profitable, and the accelerating development of rockets and other space technologies ensures the continued demand for its rockets. And while it appears that SpaceX has yet to begin researching Martian colonization, its design and construction of an eventual Mars rocket is well underway.

**“With reusable rockets, low launch costs, and other efficient business models like in-house vertically integrated manufacturing, SpaceX is poised to become a global leader in rocket transport”**

Originally, SpaceX planned to develop its “BFR”, or “Big Falcon Rocket” (also “Big Friendly Rocket” or, more bluntly, “Big F\*\*\*\*\*g Rocket”), as a single booster rocket standing 348 ft tall and delivering almost 12 million pounds of thrust. SpaceX recently redesigned the BFR, however, and it is now a two-part rocket. Its booster is called Super Heavy and its ship is called Starship, with the whole rocket still being referred to as BFR. Super Heavy will be about 207 ft long, and Starship will be about 180 ft long, making the BFR 387 ft tall in total. BFR will be able to carry 150 tons, the greatest payload capacity of any rocket ever, greater than the 135 tons for Saturn V and 54.4 tons for Falcon Heavy. On top of this, Starship can also house up to 100 people. Because it is fully reusable, BFR also has the lowest marginal cost per launch of any rocket ever built. In fact, the Falcon 1, Falcon 9, and Falcon Heavy, all SpaceX’s rockets, happen to be the next three rockets (in descending order) with the lowest marginal cost per launch.

To finance BFR, SpaceX designed it to be able to support all the missions that its current operational rockets, the Falcon 9 and Falcon Heavy, are able to carry out all at a lower marginal cost per launch. BFR will not only be able to deliver satellites to Earth orbit but will transport cargo and humans to and from the International Space Station, the Moon, and Mars. It is designed to replace Falcon 9 and Falcon Heavy and allow SpaceX to direct its all its resources to them.

Despite expectations, BFR’s first mission will not be to Mars; SpaceX has made the prudent decision of launching BFR into

lunar orbit for an easier week-long mission which is scheduled for the year 2023. Soon after the announcement, Japanese billionaire Yusaku Maezawa bought all the tickets on that flight and has not revealed whether he will invite others along with him. This trip will help to test and further finance BFR. After BFR completes its first mission, SpaceX hopes to also land it on the Moon and begin developing a moon base. Then, after proving the rockets’ capabilities, will SpaceX send it to Mars. Earth-Mars synchronization, or the term for describing when Mars is closest to Earth in terms of each planet’s orbit, occurs about every two years. In 2017, SpaceX stated it would send its first Mars mission in 2022, and its second in 2024, both being Earth-Mars synchronization years. With the lunar mission scheduled for 2023, however, it’s probable that SpaceX will send BFR to Mars later than originally scheduled.

The first BFR Mars mission will only send one rocket, the purpose of the mission being “to confirm water resources, identify hazards, and put in place initial power, mining, and life support infrastructure”. BFR’s second Mars mission will involve at least two rockets carrying both cargo and a crew. The BFR uses liquid oxygen and liquid methane as its propellants. Since these resources are abundant in the solar system refueling stations can be set up on planets like Mars. Setting up a refueling station will be one of the first objectives of BFR’s first manned mission. Once the basic refueling and life support necessities are set up, more rockets will be sent to Mars thereby bringing more cargo and more people.

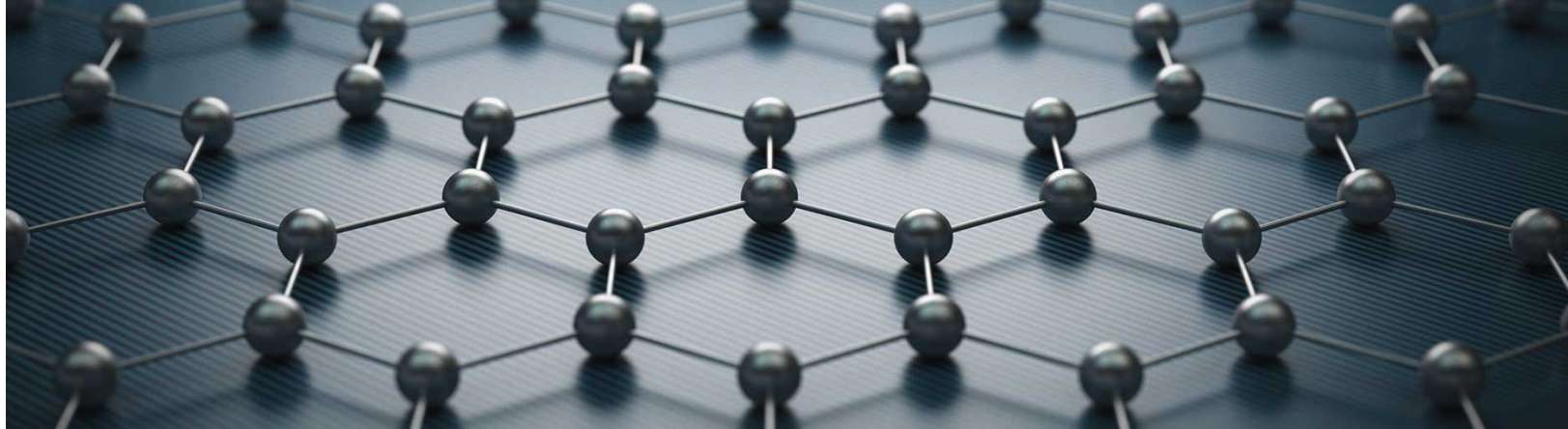
Even without factoring in technological obstacles, further questions surround humanity’s likely colonization of Mars. Will people be comfortable with the several-month-long trip? How will Martian gravity affect the human body? If we continuously struggle with both domestic and international politics, how are we supposed to even consider dealing with interplanetary politics? How will we deal with intersections of Martian and Earthian societies? While SpaceX’s first Martian city may be governed under “direct democracy,” as Elon Musk has stated, how will other Earthian nations and corporations rule their own settlements? Massive infrastructure is needed to create BFR but also to ensure that future Martians are ensured the preservation of their basic human rights. Questions such as “how will passengers live comfortably on the trip over?” should be answered with “how will passengers live comfortably once the trip is over?” If we want to get a million people there by 2060, we need our sociologists, psychologists, and anthropologists to think as hard as the physicists and aerospace engineers at SpaceX.



# SPACEX BFR

by Lorenzo Hess





# Graphene

by Lorenzo Hess

**G**raphene, which might sound like an over-the-counter medicine if one has not learned some chemistry, has only recently surfaced as a molecule that could revolutionize the technological world. Graphene has been hidden right under our noses for centuries, in places as common as our graphite pencils. For the many who know some chemistry but need a complete definition, graphene is a single-layered hexagonal lattice of carbon atoms, depicted well by the accompanying image.

Graphene is essentially a 2D lattice of carbon atoms; layers of graphene form larger structures, such as graphite, and other carbon-based molecules, such as fullerenes, have similar structures. A fullerene is like a spherical or cylindrical layer of graphene, basically any cage or cylindrical shape made of a layer of carbon molecules. While they are used a lot in the biomedical field, many are not such as the carbon nanotube, a cylindrical fullerene with exceptional strength, stiffness, thermal conductivity, and conductive properties. The properties of carbon nanotubes are not unlike those of graphene.

Graphene has incredibly high electron mobility, a measure of how quickly an electron moves through a conductor. Its electron mobility has been calculated to be at least  $15,000 \text{ cm}^2/\text{V}^* \text{ s}$  at around 300K (room temperature); the electron mobility of silicon, the main semiconductor used to build transistors, is only  $1400 \text{ cm}^2/\text{V}^* \text{ s}$  at 300K. It is worth noting that the electron mobility of graphene theoretically goes up to  $200,000 \text{ cm}^2/\text{V}^* \text{ s}$ , in specific situations, and that its electron mobility remains relatively unchanged within temperatures from 10K and 300K. Graphene also has an extremely low resistivity and has demonstrated to have superconducting properties, meaning an electric current can pass through it with

almost no resistance. Of course, as one would expect, graphene can also act as a complete insulator, blocking any flow of electric current.

Graphene's electronic properties are greatly appealing, but have only barely begun to show themselves. This last clause turns into a pun once you consider that graphene is practically transparent, only absorbing 2% of all incoming light. If multiple sheets of graphene are stacked, it does become more opaque, but a semi-transparent graphene display only 10 to 40 atoms thick was already produced in 2014. Given graphene's high conductivity, strength, and flexibility, it is a natural choice for replacing or improving screen technology.

Graphene's other properties include its extremely high thermal conductivity, which is higher than that of natural diamond, the most thermally conductive natural material. Furthermore, two-dimensional graphene is the strongest material to be tested, measured to be 200 times stronger than steel. However, a single layer of graphene is not a tough material, as it is brittle and can easily fracture. Multiple layers of graphene are more tough, though, and despite being brittle, graphene is still incredibly lightweight and flexible.

Graphene itself was first observed in 1948 but was never fully researched until 2004. As anticipated, with the ever-growing technological market always looking for smaller, faster, and more versatile materials, graphene's unique properties are already being put to the test.

Graphene has been used to create supercapacitors, which are often used in rechargeable batteries. In addition to charging quickly, supercapacitors can store 10 to 100 times more energy and can withstand many more charge/discharge cycles than a normal battery. In 2017,

graphene supercapacitors capable of delivering a power output between 520 kW and 1500 kW were first available for industrial use. Using graphene to build electric car batteries could modernize the field and completely disrupt the current lithium-ion battery market.

Graphene's scope of electronic capabilities also makes it extremely efficient for use in photovoltaic cells, more commonly known as the solar cells used in solar panels which convert light energy into electrical energy. Graphene, when it absorbs a photon, tends to emit multiple electrons, whereas silicon emits only one electron per absorbed photon. To reiterate, graphene's host of other special characteristics—its transparency, flexibility, and low weight—means some sort of clear, ultra-thin, non-rigid photovoltaic graphene cell could be manufactured and applied to surfaces such as the outside of buildings or one's own clothes. For similar reasons, Graphene is also expected to be useful in building LED lights and touch screen panels.

Graphene has further been combined with other materials to form graphene composites. Using a graphene-plastic composite instead of steel to build aircraft could reduce weight and improve aircraft strength beyond what currently used carbon fiber composites can do. Applications of these composites extend to all vehicles, and coating planes, ships, and cars with graphene-based paint could prevent corrosion and rust.

Graphene seems to be a probable "Holy Grail" for future technology, with the current limiting factor being its production price. If that can be brought down, Graphene will prove exceptionally useful in improving upon existing technologies.



# AIRPODS vs.



# GALAXY BUDS

*by Siddiq Nanabawa*

Airpods, which were first released on December 13, 2016, have gained lots of popularity in the past few years. It is estimated that Apple shipped up to 28 million pairs of AirPods in 2018, (almost 10 million more than how many they shipped in 2016) and brought in \$4.3 billion in revenue since they first released in 2016. Although AirPods are the most popular wireless headphones at the moment, this may not be the case forever; on March 8, 2019, Samsung released the Samsung Galaxy Buds. The Samsung Buds were released alongside the Galaxy S10, S10 Plus, and S10e and they are gaining lots of attention. These Samsung Galaxy Buds are the newest competition for Apple's AirPods so it's important that we know how they compare to each other.

The first major difference between AirPods and Samsung Galaxy buds is their price.

Airpods, which were released more than a year ago, cost \$160, which is steep considering that Samsung Galaxy Buds only cost \$130 right at release. In addition to being cheaper, Samsung Galaxy Buds are also available in three different colors, (white, black and bright yellow) while AirPods are only available in white.

Moving on, AirPods and Samsung Galaxy Buds also differ in comfort and

sound quality. The AirPods weigh a light .14 ounces, so they sit comfortably in the ear and are hard to feel. However, some people say that it feels as though one hard step or movement will be enough to knock AirPods out of their ears. In contrast, The Samsung Buds weigh a similar 0.2 ounces while having a side wing that helps keep to keep them from falling out. As a result, the Samsung Galaxy Buds are more secure and are less likely to fall out compared to the AirPods. So far, it seems as though the Samsung Galaxy Buds have a clear advantage over the AirPods, and that's not going to change. The Samsung Galaxy Buds have buttons on the actual earbud which allows people to play/pause a song, skip a song or start/end a call. While AirPods also have these same functions, AirPods do not function as well as Galaxy Buds when it comes to using these buttons according to online reviews. This can be a problem as Siri is already often hard to use and it only works well with Apple music. It seems obvious that the Samsung Buds take the win when it comes to the controls for the headphones.

Battery life is also a very important feature of these devices and continuing the trend, Galaxy Buds have a larger battery life than AirPods. The Samsung Galaxy Buds have an expected battery life of 6

hours while the AirPods have a battery life of only 5 hours. The Samsung Galaxy Buds also have wireless charging, which is an extremely useful feature. It is also possible to get wireless charging for your AirPods, however that costs even more money on top of the original price of the AirPods..

Now we can move on to the most important part of this discussion: how easy both of these headphones are to use. Starting off with Samsung, the Samsung Buds have their own app which allows the user to set up certain settings for the Buds such as customizing button controls or finding misplaced Buds. AirPods, on the other hand, do not have their own app and all of their options are in the phone's default settings, which in my opinion can be a bit difficult to use. Lastly, both of these headphones are compatible with iPhones and Androids and they both connect to these devices in similar ways which require the user to use normal bluetooth. Despite all of the debate, both of these headphones are great devices that have amazing audio and will serve their purpose. However, in my opinion, the Samsung Galaxy Buds are cheaper and have more options as well as they are easier to use. If it were up to me, I would say that the Samsung Buds would be a better purchase.



# S10 LINEUP

by Pratham Gandhi



**O**n February 28th, Samsung held its annual Galaxy Unpacked event where they unveiled the new additions to their Galaxy line of smartphones and wearables. Amongst the devices discussed were the Galaxy Buds, the Galaxy Watch Active, and the Galaxy Fit, however, the main focus of the event was undoubtedly the new smartphones. The new phones reflect Samsung's investment and opinion regarding the future of mobile computing, with a heavy focus on processing power and artificial intelligence-boosted productivity. Many critics agree that this is the direction in which consumer technology should be moving. Some of the most notable features have been added to this year's S line phones, specifically the S10e, S10, and S10+. These include the new display, the lack of the all too common "notch", the improved camera, in-glass fingerprint scanner, and internal performance upgrades.

Starting with the primary flagship phones, the S10 and S10+, one of the changes immediately caught everyone's eyes is the circular cutout within the front display. Samsung has always been opposed to the more commonly adopted notch design, something you can see on the iPhone XS and Pixel 3. Instead, they've been eliminating side bezels and shrinking the top bezels as much as technologically possible. This year, Samsung has made a significant step forward in the development of a truly bezel-less all-screen phone in the form of a small cutout in the top right-hand corner of the screen which houses the front-facing camera on both the S10 and S10+. This approach is yet to be adopted by any other manufacturer. The new design is quite unfamiliar to many, but reviewers and critics say it's easy to get used to. This, though, is a perfect opportunity to talk about the cameras themselves.

Apart from the front camera, both the S10 and S10+ have a set of rear cameras. The S10 has a single front camera in a circular cutout, while the S10+ has two front cameras, one selfie camera, and one Red Green Blue depth camera, encased in an oval cutout. On the rear, both versions have a magnifying telephoto, wide angle, and ultra-wide camera. The three cameras produce a one hundred twenty-three degree field of view which is able

to capture the same view that the human eye sees. The dual aperture rear cameras produce stunning shots in low light conditions as well. Samsung's growing focus on Artificial Intelligence can be seen in the new photography boosts it built into the new phones, such as Pro Assist, which uses object recognition to figure out what objects are in the shot and automatically suggests setting adjustments which could improve the shots. With a host of additional AI boosted features and highly customizable settings, the new flagship phones' cameras are certainly one of the best on the market. Though I haven't used one of the phones myself, I've seen photos online from the Samsung phones and their competitors, and to me, the shots from the Samsungs are clearly sharper and have a better color quality. I certainly am in agreement that these are the best cameras available on smartphones right now, period.

With the addition of the new cameras on the rear of the phone, Samsung had to move the fingerprint sensor. Due to their commitment to a bezel-less design, they elected to embed the fingerprint sensor within the screen on the S10 and S10+. Using ultrasonic technology, the phone is able to scan your finger using a device underneath the glass of the screen. This is one of the many small adjustments Samsung made this year which bolsters their status as a premier innovator in the consumer technology industry. Other examples of this include higher performance internal processors which make playing Fortnite at highest settings a breeze, 5G capabilities which will allow the phone to download data at a blazing speed, an improved UI which prioritizes focus and simplicity, and wireless powersharing which charges wireless accessories directly from the phone. The new UI has been pushed out to old Samsung phones already and I've had a chance to use it for myself for an extended time. From a user's perspective, the new UI is definitely more visually appealing and easier to use, allowing me to get what I want done much quicker. I'm confident S10 owners will thoroughly enjoy the experience.

The S10 and S10+ were not, however, the only phones unveiled at the event. In fact, there were two other phones shown off: the S10e and the Galaxy Fold. The S10e

is the budget version of the new flagships, comparable to the iPhone XR. The S10e sacrifices the in-display fingerprint sensor, larger screen size, Edge display, and telephoto camera for a one hundred fifty dollar price drop. The Galaxy Fold is a foldable phone which combines the phone and tablet experience into one. Not many details were revealed about the Fold except for its general design, but Samsung did provide the price of the device: a whopping one thousand nine hundred and eighty dollars. While I can't be too sure until the device is actually released, my suspicion is that the Galaxy Fold won't gain a widespread user-base for quite a long time due to its extremely expensive cost and, honestly, impracticality.

**"This year, Samsung has made a significant step forward in the development of a truly bezel-less all-screen phone"**

So this all brings forward the question, "Which one should I buy?" Well, I'd say immediately rule out waiting for the Fold. Besides the fact that we don't really know what it'll entail exactly and it's likely going to be a fairly cumbersome device without much-added functionality, it almost costs more than the price of a laptop and smartphone combined. While the larger battery, additional camera, and wider screen of the S10+ may be a draw, I personally don't think that the accompanying price hike is worth the money either, especially since the majority of important features are available on both the flagship phones. So, that leaves us with just the S10 and the S10e. Given the fact that it's only a one hundred and fifty dollar price difference, the lack of some of the truly revolutionary features which Samsung is pushing this year on the S10e would make me spring for the S10. In the end, however, it's all up to the individual customer, and I'm excited to see how the sales of the different devices play out.





# Yoshi's Crafted World

by Leonard Song

Most people love Yoshi, an adorable, friendly, green dinosaur that is a side character in the Mario franchise. In 1995, Nintendo released a game with Yoshi as the main character instead of a sidekick. Since then, they have released eight more games, including Yoshi's Crafted World. In the opening cutscene, Kamek tries to steal the Sundream Stone and sends the stone's gems flying across the map in the process. Either flying solo or playing alongside a partner, the goal is to complete levels and fight bosses to save the fellow Yoshis.

Yoshi is seen as a really adorable character, so the world and craft-themed level details put into this game make it super fitting for a character like Yoshi. Its level design is very much similar to that in Yoshi's Woolly World, having a very similar arts-and-crafts style. The cardboard doors, paper platforms hanging from a string, and the very plush-like Yoshis and enemies are very well done. Even the bosses Kamek creates to battle you are built in front of your eyes as a basic art project. The cutscenes, although very short, are very creatively built to give players a moment to just enjoy the game and maybe even let out a little laugh. The accompanying music adds on even more to such brilliantly built visuals. One might even say that the visuals of this game reflect a dream of a five-year-old: very surreal and friendly, appealing to all ages.

Like Woolly World, the levels are hardly impossible to beat, especially given Yoshi's two main abilities, his flutter jump and his eating. Within playing the first level, the basic mechanics become pretty simple: eat everything in sight, and jump wherever needed.

Nintendo is aware of the lack of difficulty associated with a side-scrolling platformer paired with a character that is almost impossible to die with, and instead of trying to create the difficult levels, they go the other way: make the levels easy to beat, but add secrets within each level. From the basic gold coins to the secretive red coins to the hidden flowers, every level poses a challenge in finding and collecting every single item. Extra flowers are rewarded for completing levels under certain conditions, such as collecting all 20 red coins, or not losing a single life. The golden coins have another use: buying costumes for Yoshi. For every 100 coins, Yoshi is allowed to buy a special costume that she can use in levels for more than just appearance; each costume gives Yoshi armor to soak up damage, with rarer costumes giving more armor. There is also a secret boss fight at the end of the game, which can only be unlocked by completing a sequence of specific actions, and it takes Yoshi into a special fight against Kamek. Nintendo has even included two new abilities if there are two players. The first one allows a Yoshi to ride on the back of another Yoshi, and the second allows a Yoshi to eat and spit out their partner at enemies. They are not very special or make the levels easier, but the fact that Nintendo thought to include these features shows the creativity put into the game.

When Nintendo released Yoshi's Woolly World back in 2015, the game was met with mixed reactions. Most people liked and appreciated the woolen textures, but felt as if the gameplay itself was underdeveloped because so

much effort went into perfecting the visuals. The boss battles also felt repetitive, without much differing one battle from the next. It seems as if Nintendo took these reviews seriously, as many of these underperforming parts of Yoshi's Woolly World seem to be fixed in Crafted World. They introduced hiding secrets in the background and foreground add extra spice for players, and give the platforming feeling a little more three-dimensionality in a mostly 2D game. The boss battles, although similar in some aspects, differ enough for players to not get bored. Since both games are very similar, Nintendo has been able to smoothen out the flaws for Crafted World, making it a game with little to no flaws.

Unless you are a player who wants an action-packed game, then I think Yoshi's Crafted World is a good game to buy overall. The levels are not tediously long that playing requires hours to spare, nor are they too short that you just breeze through the game. Yoshi's abilities also allow players to not focus all of their energy onto surviving, but enough to find all the secrets. And on top of it all, a relaxing visual and soundtrack make this game one worth getting. There will definitely be more Yoshi games in the future, but as of right now Nintendo has not released any information of one. We can expect the next game to maintain some of the features in Yoshi's Crafted World, such as easy levels with secrets, detailed visuals, and a solid soundtrack, as this game did with Yoshi's Woolly World, but we can still expect Nintendo to spice things up with whatever they have in mind for the next Yoshi game.



# THE LEGEND OF ZELDA™ Link's Awakening

by *Jayer Yang*



On February 13th, an unexpected announcement caused waves in the Nintendo community. Nintendo was planning on remaking Link's Awakening on the Switch. The original game was released for the Gameboy over 25 years ago, and is still regarded as one of the best entries into the Legend of Zelda series to this day, being praised for its originality and difference from other main series games. Now that the game is being remastered, it seems like a good time to take a look back at the development of the original.

The original Link's Awakening was released in America for the Gameboy in August 1993, and it was considered extremely groundbreaking as it was the first portable game in the Legend of Zelda series. The game has Link explore the island of Koholint, a deviation from the regular setting of Hyrule, battling monsters and exploring dungeons in a classic overhead-perspective action-adventure game. (Fun Fact: This is the first in the series that utilizes the overhead style of gameplay to also give Link the ability to jump.) Originally intended to be a port of A Link To The Past, which was released on the SNES, Awakening's development process was relatively unique, starting out as an unapproved side project which was distinctly apart from the rest of the games. The idea behind its experimental nature was to test the limits of the Gameboy's hardware and software capabilities, and once the developers were satisfied with what they saw the project quickly became its own unique game.

The game was released to critical and commercial success, selling about 6 million units total and proving its distinction from A Link to The Past as its own, very successful, game.

“The newest edition of the game looks better than ever, featuring modernized, and completely new graphics”

Interestingly, 2019 is not the first time this game has been remastered. Appearing for the newer Gameboy Color, the remaster, titled Legend of Zelda: Link's Awakening DX was released in 1998. It built off the biggest complaints that the public had with the original, those being the control scheme and its bland color palette. Its release came paired with an exclusive dungeon level and compatibility with the Gameboy printer, a mostly forgotten accessory that allowed you to print little pictures of certain screenshots. The port was praised for providing some new content and for touching up most of the little gameplay issues with the original game. However, the game's revamp for the switch seems a lot more complex than a graphics touch-up, having

made the huge jump from 2D graphics to 3D. From the footage that's been released so far from the Nintendo Direct and its announcement trailer, the newest edition of the game

looks better than ever, featuring modernized, and completely new graphics in the style of A Link Between Worlds, another entry in the Legend of Zelda series. At the same time, the remake seems to have taken cues from the original, taking careful steps to maintain the feel of gameplay and layout of the original map to create an authentic experience that blends the best of both worlds, old and new.

A full-on remake of an older game is rare for Nintendo, so details on how much work was put into this project as of now remain sparse, but will most likely become clearer as time goes on. No official release date has been slated for Link's Awakening, only that it will be available by the end of 2019 exclusively on the Nintendo Switch. It will be distributed through digital download, accompanied by a limited physical release. This is probably due to the fact that Nintendo is expecting lower sales on this game than say, 2017's Breath of The Wild, due to its nature as a remake. Regardless of sales, however, we couldn't be more excited to see how this game turns out.

# Top 8 Players at the Mid-Season Invitational

by Ryan Eastep

Every year, the best teams and players from around the world come together for the Mid-Season Invitational (MSI), the second biggest international tournament of the calendar year, only outshined by annual League of Legends World Championship. The field is made up of the champions from each of the 13 regions around the globe, ranging from the more successful regions like Korea, China, and Europe to the lesser known ones such as Japan, Oceania, and Turkey. Considering that only regional champions make it to the tournament, there's always serious competition present, and this year is no different. In fact, this year might be the most stacked MSI has ever been. The reigning world champions, China's Invictus Gaming (IG), are ready to expand on their legacy, while 3-time World Champions SK Telecom (SKT) are looking to stop them in their tracks en route to their 3rd MSI trophy. Europe's G2 Esports, fresh off of a semifinal finish at the 2018 World Championship and a dominating Spring split, built a superteam ready to take on the best in the world and ultimately prove their worth. Even Team Liquid, a team which has struggled in the past, look solid with their newly minted roster stacked with world champions, MVPs, and loads of experience. Each of these rosters has their fair share of outstanding talent, and we're going to look at who, individually, can make the biggest splash at this year's MSI.

## 1) Kang "TheShy" Seung-lok, Invictus Gaming

Ever since he blossomed onto the scene as a dominant top lane force in early 2018, TheShy has exceeded all of the enormous expectations placed on him. In incredible fashion, he led IG to their first World Championship title by flexing on his opponents with lane dominant picks like his signature Fiora and Aatrox, proving to the world that no one can match up to him one on one. He hasn't lost a beat since then, placing in the top 5 for MVP voting despite not playing for half of the season. TheShy is undoubtedly the current best player in the world and looks to build on his already impressive legacy by showcasing his talent yet again at MSI.

## 2) Song "Rookie" Eui-jin, Invictus Gaming

After many years of hardship and failure, Rookie finally broke through and with his partner in crime TheShy, was an integral part of IG's Worlds run. Undoubtedly the best mid laner in the world for the majority of 2017/2018, Rookie has shown time and time again that similar to his fellow solo laner, almost no one can match him in lane. His proficiency on dominant lane picks like Akali and Leblanc enable him to control both his lane and the map in ways unmatched by anyone. Although he's no longer the trophy-less player thought of by many to be the best player to never win a title, Rookie is determined to show that his dominance from the last couple years was

no fluke.

## 3) Lee "Faker" Sang-hyeok, SK Telecom T1

When you think of professional League of Legends, one name comes to mind: Faker. By far the most decorated player in the history of competitive LoL, and coming off of his most disappointing year to date, this year is just another chapter to the story that is Faker's redemption arc. Assembling a new roster for 2019, SKT and Faker consistently stayed at the top of the LCK, then absolutely dismantled #1 seeded Griffin to capture the Spring split title. A large part in that was due to Faker and his incredible champion ocean and mechanics. Sporting an incredible 13 champions played, even after accounting for the numerous bans he drew every game, in addition to a mind-boggling 90.9% on Lissandra, Faker has returned and is ready to take back titles that were rightfully his in the past.

## 4) Park "Teddy" Jin-seong, SK Telecom T1

Arguably the biggest acquisition of the off-season, Teddy has way exceeded expectations. Formally the singular force on a horrid Jin Air Greenwings team, SKT picked up the promising AD Carry in hopes that he would contribute in ways he formerly couldn't considering the previous set of talent around him. That experiment has more than paid off, with Teddy dominating bot lanes across the LCK without much hassle. He has shown extraordinary proficiency on





highly mechanical champions like Ezreal and Kai'sa, and will not back down from the spotlight at his first big international event.

#### 5) Martin "Wunder" Hansen, G2 Esports

The highest ranked Western player on this list, Wunder is the epitome of steady improvement. Originally a role player on Splyce, has slowly blossomed into a world-class top laner, capable of many different styles. His versatility is shown directly in his champion pool this year, ranging from heavy tanks like Sion to poke/battle mages like Karma or Kennen. Although he struggled mightily against TheShy at Worlds 2018, Wunder has more than proven that he has moved past that performance, and with his new superteam at his side is ready to take on the dominant Eastern forces again.

#### 6) Rasmus "Caps" Winther, G2 Esports

The two-time reigning MVP in EU has had an interesting year. Last summer, he nearly led Fnatic to a perfect record in Europe, and was part of the roster that made it all the way to the World Final before getting swept by Invictus Gaming. Caps proceeded to leave Fnatic and join the G2

superteam, only to pick up right where he left off. Winning another MVP award and another split, Caps is looking to redeem himself for his shortcomings last year, and this may be the best opportunity he'll get.

#### 7) Gao "Ning" Zhen-Ning, Invictus Gaming

The unsung hero of Invictus Gaming, 2018 World Championship MVP Ning has been a quiet yet integral part of IG's stretch of dominance. He occupies the role of enabling IG's dazzling solo lanes, playing optimally to the team's win condition. Ning is no joke mechanically, either, with his occasional carry performances if the team needs it. He just fits the roster so well, and performing well at MSI will give him a way to prove that he's more than just a role player.

#### 8) Jo "CoreJJ" Yong-in, Team Liquid

Rounding off the list, we have the only player from North America, Team Liquid's CoreJJ. A former world champion for Samsung Galaxy in 2017, CoreJJ decided to return to the North American scene following a disastrous showing at Worlds 2018 with Gen.G. Paired with the best ADC

in North America, Yiliang "Doublelift" Peng, CoreJJ was able to unlock his full potential, capturing his first MVP title and led TL to an epic reverse sweep over TSM for the season title. Although his resumé seems stacked enough for most players, he wants to win MSI to fill up his international trophy case. This current TL squad definitely looks like this is the way to do it.





What's hard about improving the MLB the Show franchise is that the game is already great. Even with the difficulty of adding new content, this edition still adds another layer to the game by making defending even more realistic than before. Even with the upgrades, the game seems to have holes that they need to patch up for next year's version.

The game itself is still as fluid as ever, with turning looking as easy as ever. I found that I tended to dive right into Diamond Dynasty, the myteam version of the show, early on instead of the other modes. Diamond Dynasty has always stood apart from other card collecting myteam games, as it isn't just about who has the highest cards. Skill plays a huge part to this mode and really reflects the true essence of baseball. The better team can still lose 63 games, and unlike basketball

or football it is common for them to lose at least 1 game out of three to a team worse than them. What is also great about this mode which stands out from other MyTeam modes is that you get to design your team uniforms. This addition seems small, but it adds to the feeling that this is your own team, a personal touch which I enjoy.

Besides Diamond Dynasty, the other big game mode is Road to the Show, which is the MyCareer mode of the game. Road to the show seems to be slightly improving every year. This year, the mode lets you choose from 5 different archetypes to start your journey with 2 as a hitter and 3 for a pitcher. While gameplay itself isn't bad in this mode, the time that you spend working out in the gym or doing other activities to get your upgrades can be tedious. I found myself spending an abnormal amount of time doing this, and it took away from the rest of the

"While the game does have multiplayer mode where you can play your friend in a 9 inning game; they don't have a mycareer multiplayer experience like the NBA 2K series and NHL series."

mode. Even with all time spent in the gym, it all becomes worth it once your player makes it to the Major Leagues. The show captures the MLB aspect incredibly as there is a genuine feeling your player is in a major league stadium with thousands of fans cheering you on. Another great



# MLB The Show

*by Mark Fernandez*



addition about the game this year is that the developers listened to the community and have reactivated the ability for your player to become a 90th percentile player.

Moments is a new addition to the game this year which allows you to play big 'moments' from player's careers and get rewards for it. There are different kinds of moments as some will be as easy as getting a hit in a tense game while another will be hitting a homerun in one at-bat or getting 5 extra base hits in 3 games. For someone who doesn't want to grind through a full season mode to get coins, this is the perfect mode.

Road to October, an abridged version of season mode -where you take control of a team throughout their entire season- leaves something to be desired as half of the mode is simulated and there is no lasting effect from winning besides getting a reward

that is not worth the time. Similar to Road to October is Franchise mode, where you take over a franchise for multiple seasons, which hasn't changed and is the ever lovable time killing mode.

The biggest thing that MLB the Show misses on is the incorporation of playing with friends. While the game does have multiplayer mode where you can play your friend in a 9 inning game; they don't have a mycareer multiplayer experience like the NBA 2K series and NHL series. These series create a world where your mycareer player can interact with others and even play 2 on 2, 3 on 3, or even 5 on 5 games against each other using their players. MLB the Show doesn't do this simply because it doesn't work with baseball. To play a baseball game, you need 9 players and there is a lot of time between action. If you were to play a live game, there

would be a lot of waiting and not of action.

Overall, time goes on and MLB the Show has maintained its greatness. Expect to find me in Diamond Dynasty until next March with the release of MLB the Show 20.

# Apex Legends

by Victor Dimitrov



Call down aerial bombardments, charge your shields, and find your nearest zipline because Respawn's newly released free-to-play Apex Legends is here! After a flooding of battle-royales from everybody and their second cousin, Apex Legends delivers a fresh take on the dying genre. Imagine Overwatch and Fortnite combined and you almost have what Apex Legends delivers.

If you have put countless hours into games like PUBG or any other battle-royale, you know what fatigue feels like. Constantly dropping out of the sky, grabbing as much armor and weapons as possible then running from house to house, surviving by the skin of your teeth... Until you either get chicken dinner or get jumped by another player you never saw coming. Even faster paced battle-royale games have been stained by over-the-top in-game purchases and the repetitiveness that comes with any game in this genre. If you understand what I am referring to, and even if you don't, playing Apex legends will feel like a breath of fresh air; and with a million players within the first 8 hours, the fans everywhere seem to agree.

Released on February 4th, with only a stream right before launch and a couple of Tweets to advertise it, Apex Legends is now one of the most beloved battle-royales of all time. As of now, there is no cross-platform play, but Respawn vaguely mentioned wanting to allow players to play with friends on other systems.

While the world of Apex Legends shares a universe with the Titanfall franchise, there aren't any Titans to commandeer in the game. Although I could tell from playing the game that the intricacy and technological level of the equipment used would be on par with huge soldier-like mechs. For those who were waiting for Titanfall 3 to delve deeper into the lore, this is the next best thing.

The game has an opening that briefly explains the characters, appropriately named Apex Legends. They all have different reasons for joining the battle, most of which are only hinted to in the game. Although we have a year of updates and new content on the horizon, I am sure Respawn will want to delve deeper into the characters just like the wildly popular Overwatch still does.

The first thing that catches your eye when you start playing Apex Legends is, well, the Legends themselves. One of the many twists on the genre you can expect from the game is the integration of 3 special abilities per Legend. This takes the gameplay to a whole other level. Just imagine you see an enemy squad in a shack across the valley, and instead of having a straight-up firefight you have tactical options depending on your Legend. Call down an airstrike, use your sense to see them through structures, or even string a zip line to a better vantage point. These are just some of the ways Legends affect the overall gameplay, but they aren't

the only new features being introduced into the battle-royale stereotype.

Squads are now made up into 3 players per squad 20 squads per game, this creates an interesting dynamic all but unseen in the gaming world. Even with the odd number, the system works incredibly well and has only improved the mechanics from the outdated 4-man squad dynamic. Since the number of Legends you can choose from are limited at the moment, this feature makes every time you choose a Legend a crucial decision. Will you play as a healer/support while your friends tank, or will you have high damage potential, the choice is yours.

After choosing a Legend, a screen pops up that is new to the battle-royale genre, it shows you a team from the game you're playing and names the best among them the Champion, the best in the last match. There is also a kill-leader: this player, appropriately named, has the highest kill count. Both of these players practically have bounties on their heads, giving a certain sadistic element to hunting down certain squads.

This game has something for everyone, having handpicked the best parts of some of the most successful games being played right now. A good example of this is the executions or finishers that are performed in a short animation when killing an enemy using melee. Each Legend has its own repertoire of finishers which complement their personality.





Bloodhound, for instance, will throw a knife at his victims face, and if you the unlucky receiver of that knife, it still looks great from your first-person perspective. On the flip side, when you revive a squadmate there is a short animation of your character sticking a needle in your friend bringing him back with all of his gear. If your squadmate dies fully after being knocked down, there is still hope. How? By bringing their tag (which will expire in 90 seconds) to a nearby Respawn

Beacon you are giving them a second chance without any prior loot. These short but entertaining animations break the constant first-person view you will most likely be using for most of the game.

At the end of the day, I have yet to play a better game in this oversaturated genre. Given that the game had no hype or any advertising leading up to it, the player base is very impressive and the reactions to the game are even better. Respawn was playing a dangerous game

by changing up the squad number to 3 and adding an Overwatch Hero element, but all of it paid off in the long run. With new updates and a flood of new content announced for the coming year, this game seems to be reaching for the skies. There may not be Titans but the pure replayability of this game has made up for most if not all of its insignificant faults.







# Anthem

by Victor Dimitrov

Anthem's gameplay is built off of Mass Effect 3's incredible co-op multiplayer experience which was also developed by Bioware. In that mode, up to four players would pick a character class, choose a loadout, then engage in battles across various maps. It was expansive, had a ton of depth and really pushed Mass Effect's combat into the stratosphere. Biotics, weapon selection and character skills were honed to perfection and it was easily one of the best co-op experiences ever created. Years later, they took it mode and decided to build a completely unique and fully featured experience centered around that tight and satisfying gameplay loop. The game is directed by Jonathan Warner and was made be available on February 22, 2019.

Anthem places you in control of a Freelancer of your creation. It's not on the same scale of older Bioware create-

a-character modes, however, it is better than Destiny's, and you do have a choice in terms of how they look. Freelancers are the men and woman contracted to venture outside of Fort Tarsis, the Freelancer enclave, in large exosuits called Javelins. You can explore, fight and protect what remains of a world left in ruin by a destructive alien force

These environments are explored in perhaps the best part of Anthem: the feel of piloting and controlling your Javelin. Bioware has finally delivered on something Iron-Man fans have been waiting decades for: the simulated feeling of stepping off a cliff, going into free fall and then activating all thrusters and launching forward at high speed into the sky, from where you can take in the sights of the game's world. The weight of the Javelin, the satisfying thud when you land, and the sound of your jets activating and giving you thrust is incredibly satisfying.

The on-the-ground portions of Anthem function well enough. Guns feel weighty and have a solid sound design. The game even allows the option to increase the volume of successful bullet hits on enemies, which is a nice touch more games should take note of. However, whether through networking issues or general latency, the actual physical impact weapons have on enemies is rather ho-hum. Even when wielding a massive grenade launcher, or an epic shotgun, getting right up on enemies and emptying the clip never quite satisfies the way it should. The sound of damaging an enemy is quite anticlimactic and does not do a great job of reflecting the weapons' power.

Each of the four javelins provides a large variety of gear and attacks that they share, alongside their own unique combo style and ultimate attack. Executing these abilities and attacks truly feels awesome. Running around as a Colossus with my





shield out as a fellow Storm is flying overhead and launching huge, arcing bolts of lightning to enemies in front of me is an incredible sight to behold. When Anthem is at its best it feels like the long one-take fight scenes from the Avengers films. All four character classes in lockstep coordinating attacks and darting around huge battlefields leaving destruction in their wake. Anthem Javelins come in four varieties, or classes: the Colossus, Storm, Interceptor, and Ranger. The Ranger is the all-around class; Colossus is the warrior-type defender class, Storm is the magic-user class, and Interceptor is the agility/speed class. It feels like a dance, carefully choreographed to get through the tougher encounters and requiring coordination and teamwork in a way other games in this genre just don't ask of the player.

Anchoring the combat is the return of Mass Effect's combo system. Each character class has several primer and detonator abilities. Ideally, in combat, you want to try and prime a target and then detonate him to create a combo which does massive damage. Combo damage will increase the damage that you deal to an enemy and it will have different effects depending on which equipment you are using. You can deal damage in Anthem in different ways. You can freeze enemies, electrocute them, douse them with acid, and set them on fire. Each class is capable of doing both of those aspects themselves and it works well enough, but Anthem

truly shines when the team is working together to keep those combos chaining throughout each combat scenario. It's a thrilling and engaging system that rewards player skill, teamwork and unique builds which will keep you coming back for more the same way you would at the start.

**"When Anthem is at its best it feels like the long one-take fight scenes from the Avengers films."**

The powers, teamwork and combo system make up for the lackluster gunplay. The combat is really good, but it could have been truly one-of-a-kind if that aspect matched the rest of the experience if not for this weak link.

Each character can level up to 30 and has several slots for equipping gear. Two weapon slots, three ability slots, and six components are the gear that will affect your power and gear score. As for cosmetics, Anthem is more like Warframe than Destiny: gear doesn't impart a new physical appearance for your Javelin; instead, you can unlock different armor pieces and vinyls and choose the materials and colors of your different parts to make your Javelin unique to you. These

cosmetics can be acquired via in-game coins or a currency called Shards that you pay for with real money. So far the game's cosmetic options are slim to none, with only a couple of different armors and looks to unlock. More are coming when the game officially launches on the 22nd, and during a live Q&A Bioware laid out plans for in-game cosmetic unlocks via strongholds and end-game activities. Regardless of future plans, Anthem does not offer nearly enough different looks to satisfy players who really want to dig into that aspect of customization. Only time will tell how far this aspect goes, but as of right now it doesn't offer much in that regard.

Anthem is a great new start for Bioware. A lore-rich, co-op RPG with a fantastic combat engine and visuals to match. The real test will be if Bioware can keep up the cadence of delivering content on a frequent basis to keep the player base moving forward and prevent it from becoming stagnant. They have already laid out an extensive roadmap, but the launch day Anthem experience is fully featured and has a ton of content to get through. Strong alone, stronger together, Anthem is a fantastic action-RPG experience for solo players or groups. Don't miss it. It will be available on PlayStation 4, Xbox One, and Microsoft Windows.

# *The Role of Assassin's Creed in Notre Dame's Repair*

by Akira Eisenbeiss

For the vast majority of people, video games are merely entertainment. Yet the recent fire that devastated the Notre-Dame cathedral has allowed the video game industry to potentially serve some very real and useful applications. After the roof and spire of the medieval Parisian cathedral burned down in mid-April, people all over the world have been mourning the loss of the iconic monument. The church, constructed in 1180, survived revolutions, wars, occupations, and was even the location of Napoleon Bonaparte's coronation. President Emmanuel Macron promised to launch a fundraising campaign and to find the best solution to rebuild the cathedral. Among the potential suggestions for how to restore the 850 year old church is an unlikely solution using a popular video game franchise.

During the production of their Assassin's Creed video game series, the French game development company Ubisoft spent years recreating famous structures and monuments. In Assassin's Creed, players are immersed into a fictional action-adventure experience set during historical events in real locations. The series

has ventured into the American War for Independence, 16th-century Italy under the Borgias, and even Ancient Greece. With Ubisoft being a titan in the video-game industry (the fourth largest publicly-traded in Europe and the Americas), it is no surprise that

"This digital Notre-Dame boasts more detail than a professional laser scan, and architects believe it is a promising path to reconstruction of the actual cathedral."

they pay extreme attention to the level of detail in their game worlds. For their 2014 title Assassin's Creed Unity, Ubisoft spent two years painstakingly modeling the Notre-Dame cathedral as the game map for the eighth installment in

their series. Intricate knowledge of the iconic monument was necessary in order to ensure the best playing experience. In the game, players can climb over objects and explore every nook and cranny of the game map with little restriction. To achieve this, the developers had to map out everything from the pews to the buttresses of the cathedral. The developers at Ubisoft conducted the necessary research by taking photos and videos of all aspects of the church, accumulating to over five thousand hours of work. The lead artist for this construction project, Caroline Miousse, says that her team did a full and thorough digital replication of the church, even including elements as specific as the artwork on the walls of the interior. This digital Notre-Dame boasts more detail than a professional laser scan, and architects believe it is a promising path to reconstruction of the actual cathedral.

In the wake of the devastating fire, Ubisoft has been vocal about their willingness to aid in the reconstruction of the cathedral, acknowledging their franchise's debt to Notre-Dame de Paris. In fact, they have already pledged half a million euros to the repair





of the church. Furthermore, they made Assassin's Creed Unity free to download on PC in order to raise support for the church. Since it was made free, downloads of the game have surged and over 950 people have left positive reviews on the Assassin's Creed Steam page in the past 30 days, many referencing the cathedral. Maxime Durand, the Assassin's Creed franchise historian at Ubisoft, says that he and other employees were not planning on using the video game to restore the cathedral. However, fans clamored on social media suggesting that the game presented a potentially perfect

solution. Unfortunately, Durand remains skeptical that the French government will actually engage Ubisoft in the reconstruction of the colossal cathedral. Still, it would be extraordinary if the hard work of game developers could really be used to rebuild one of the oldest and most important French landmarks. The digital Notre Dame cathedral created by Ubisoft represents an attention to detail that can sometimes be overlooked by game critics and shows the amount of time and effort developers are willing to sink into these titles. Even though the reconstruction effort for the

church has raised more than enough money to fund the repairs, many fans are using Assassin's Creed Unity as a way to view the beloved monument. In a time where there is frequent disconnect between the developers of games and their fanbases, the Notre Dame fire has brought player and creator together to remember this historic site.



# Pokemon Sword and Shield

by Ryan Leung

Finally, the newest addition to the incredibly popular Pokemon franchise is set to be released in late 2019. Pokemon Sword and Shield is that game, teased back at E3 by Nintendo when they said they were working on developing a new addition to the Pokemon series. This will be the second Pokemon game released on the Nintendo Switch, but the first that stays true to the philosophy of previous games. The first Pokemon game released on the Switch was Pokemon Let's Go Pikachu and Let's Go Eevee, games which were more akin to the popular mobile game Pokemon Go.

The game features a brand new region called the Galar region. Based on what was revealed in the direct, the Galar region seems to draw lots of inspiration from the United Kingdom, mainly England. The shape of the island is extremely similar to that of the UK, and the big city in the back features many of the landmarks that are found in England such as Big Ben and the London Eye. The Galar region also is more industrialized than other regions in the Pokemon universe due to it featuring a large industrial town and mines that you can explore. Some other notable points of interest in the region are a coastal area that hosts the water gym, a large gothic town, a Dugtrio shrine, and a snowy area. The player's hometown in the Galar region seems to be much larger than that of a traditional hometown, potentially sporting a Pokemon school.

To the excitement of many, the starter Pokemon were also revealed in the direct: the grass type Pokemon, Grookey, the fire type, Scorbunny, and the water type, Sobble. Nintendo has not released any information about the difference between Pokemon Sword and Pokemon Shield at the time of this writing, but every other Pokemon game has had its own exclusive legendary Pokemon - giving reason to believe the same to be true for the new games. In addition to exclusive Pokemon, Pokemon Sword and Shield will also likely contain Pokemon from past generations.

Three Pokemon from other generations have been revealed in the trailers thus far, with favorites like Pikachu, Lucario, and Tyranitar having already been confirmed to be in the game. Because there is so little information that has been released by Nintendo about this newest addition, many fans have resorted to scouring the web for leaks that are supposedly produced via data mining. One of the popular leaks that most people found interesting contain information regarding armored evolution of Pokemon, available across a variety of Pokemon, even including legendaries such as Mewtwo.

Avid fans are also hoping for some core improvements to previous Pokemon games. Perhaps in an act of wishful thinking, many players are hoping for

Galar to be an open world similar to other Nintendo Switch classics like Breath of the Wild or Super Mario Odyssey. Traditionally, Pokemon has been a game without much room for exploration as the game pushes you to move the story forward at every instance in the game, but many players want a chance to explore the region of Galar. Another item on the wishlist for many players is a return of characters from past Pokemon games, making it feel even more true to the traditional Pokemon RPGs we have all come to love. Pokemon Sword and Shield are available for pre-order now on Amazon, so reserve your copy now if you're ready to explore the Galar region and all it has to offer.







# New Super Mario Bros U Deluxe

by Aidan McAndrew

Earlier in January, Nintendo fans got another Wii U port for the Switch. New Super Mario Bros. U Deluxe, (a mouthful, right?), was the next game that Nintendo saw as one of their winning [MOU3] titles to start off the year. Another new Mario title sounds exciting because Mario is so recognizable and often well-regarded, so it was obvious that it was going to sell well and make a decent profit. Yet there was a slew of glaring problems that the community had with the port: why should someone pay sixty dollars for a game released in 2012, with minimal to no new content that only has roughly three to four hours of playtime to finish it? Frankly, nobody should have to.

This port includes the original game as well as the downloadable content New Super Luigi U that came out one year after the game was initially released. The two new additions they added were replacing Blue Toad as a playable character with Toadette. The problem with the character swap is that Nintendo created Toadette with the intent to make the already notoriously easy game even more effortless for children to cheese their way through. Toadette has a new character specific item called the "Super Crown", which transforms Toadette into "Peachette" and grants her abilities that make the game significantly easier. Peachette can glide through the air for quite a long distance as well as double jump in the air. Neither Mario or Luigi have these abilities, and they cannot pick up a Super Crown. Instead of having an option to play as Blue Toad without any special perks, you cannot play with four people in couch co-op unless one person plays Toadette. The lack of the player's option to choose is incredibly disappointing and frankly bad game-design, as now one friend will

be significantly more equipped with an item that makes the game way too easy. Nintendo has had a recent history of making their games significantly easier to try and capture a broader audience, however it is almost unanimously agreed that making challenging games doesn't mean that people won't buy them. It is unfortunate to see that Nintendo thought it was necessary to tone down difficulty to a game that is not all that challenging to begin with. This hand-holding was intended to attract a wider audience, but in fact, for Mario veterans, it drove them away from this game because of it.

Apart from the changes that were made to make the game easier, the lack of new content also contributes to why this game is such a disappointment. The New Super Mario set of games has existed since the initial New Super Mario Bros. on the Nintendo DS in 2006, and then the Mario 2D side scrolling platformer hadn't been seen in years, and so it was refreshing for Nintendo to return to the old style of Mario apart from the 3D Mario games like Sunshine and 64. However, after the first game, the developers made no significant changes to each of the subsequent titles for the Wii, then the Wii U. Nintendo used the same formula for all of the games, and now the "New" series feels generic and sub-par. This statement is especially true when compared to the fantastic indie platformers that have released in the past decade such as Celeste and Guacamelee, both tight, fun and challenging platformers, of which are on the Switch e-shop for half of the price of this mediocre port. Don't get me wrong, New Super Mario Bros U Deluxe is not a bad game in the slightest. It runs and looks clean, and you can still have fun with it as it is a solid title. However, nothing new has been done with 2D Mario games,

and this Wii U port is almost an insult to fans which shows the lack of effort or desire Nintendo possesses to experiment with new ideas, and instead make a bad attempt at a cash-grab

The sixty-dollar price-point for this game is another glaring issue. People already had an issue with another Wii U port, Donkey Kong Country: Tropical Freeze, which was also sixty dollars. However, that game added a new mode and was a better constructed platformer than New Super Mario Bros. U Deluxe, as well as being newer than this other port. It is absurd to pay full price for an inferior platformer that is already seven years old. Super Mario Odyssey, a fantastic 2017 Game of the Year nominee, which is an evidently incredibly polished masterpiece is worth the same as this old port. That is aggravating to see Nintendo set the games as equal when in reality the port should only be worth a quarter of what Odyssey is, maybe even less. Yet, Nintendo is able to charge so much because they know that parents and people like me will still go out and buy the game, just because it is recognizable, and it is Mario. Nintendo has historically held their games up to a respectably high quality, but this game turned out to be the opposite, setting itself on the more forgettable end in Mario's history.

Overall this game isn't necessarily bad, it is just very safe and boring. The difficulty is lacking and almost non-existent if you have played any platformer at all in your life, it is overpriced, and definitely not worth picking up. I guarantee someone would get much more enjoyment out of the previous indie titles I mentioned or literally any other platformer. Sadly, there is not much positivity behind this disappointing relic from the Nintendo's dark days of the Wii U.

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# SMASH ULTIMATE TIER LIST

by Ryan Eastep, Melchior Lee, and Spencer Kahn

## Olimar

Olimar is one of the most unique characters in the game, along with being an extremely prominent tournament threat. Similar to his home game, *Pikmin*, Olimar is constantly followed by up to three plant-like creatures named Pikmin, which can be plucked from the ground using his neutral special. Olimar uses the Pikmin for all of his smash attacks, aeries, and specials. There are five Pikmin types each with their own advantages: Red Pikmin make attacks stronger, but grabs weaker, Yellow Pikmin are the largest, Blue Pikmin power up Olimar's grab and throw attacks, White Pikmin do the most damage when they latch on to an enemy, and Purple Pikmin function as a hard-hitting projectile when thrown, complimenting their extreme damage buff to attacks. Olimar can be a very overwhelming character to fight, as many of his moves look similar and most of them don't have a lot of end-lag where Olimar can be punished. Combine this with the fact that most of his moves are relatively safe on shield, and you have the best defensive character in the game. Players are able to use Olimar's strengths in different ways; you can use his

quick, lag-less moves to pressure opponents with aggression, or use his great damage-racking ability to play a longer, slower game. Olimar's huge variety of oppressive options has led to his top tier placement. Without significant changes or nerfs to his character, it won't be surprising to see a more dominant Olimar presence as the metagame evolves.

## Inkling

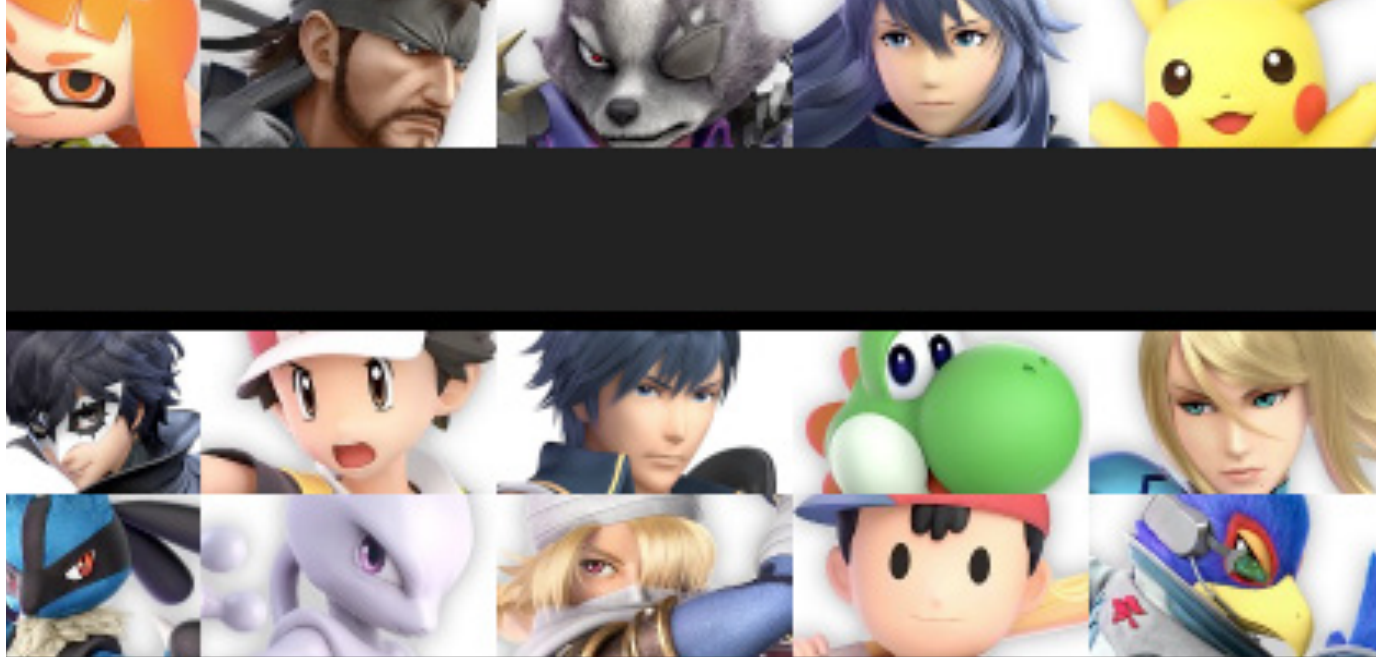
Once considered the best character in the game, Inkling has fallen quite a bit from grace. She was predicted to have made a much larger splash on the competitive scene, but that has yet to come, aside from some decent regional placings and one top player in Cosmos. Inkling is able to ink up her foes using a variety of attacks, and deal extra damage based on how painted the opponent is. Inkling also possesses quick, safe, and strong aeries, a deceptively good dash animation, and a powerful, easy-to-land kill confirm in Roller. Despite all of this, Inkling isn't quite able to match the strengths of other top tiers. Some characters just have better aeries, movement, tilt attacks, and kill moves. Inkling has a lot of options, but none are particularly overwhelming. In this way, Inkling fits a niche of a character that's really good, but not too

good. Solidly at the bottom of top tier and the top of high tier, Inkling has a lot of potential room to grow, but nothing quite motivating top players to play her when there are simply better characters at their disposal.

## Fox

Fox has returned to the top of the Smash tier lists and while he may not be as god-like as his notorious dominance in *Melee*, Fox is definitely a fearsome character that appears frequently in casual and professional play. Being an offensive-based character, he relies on racking up damage with his quick aeries and up tilt combos before killing with his favorite option: the up smash. He is extremely also quick, his movement speed ranks 5th among all characters and his high jumping means that he is even more mobile and hard to deal with. Fox can produce tons of shield pressure on the ground by looking for dash attack setups. Despite his positive points, notable weaknesses are his grab game as well as his offstage recovery. Fox does not have a kill throw nor does he have any throws that combo very well with the rest of his kit. And of course, he is fairly light which means that he can be killed at early percents.





Furthermore, while his firefox recovery (up-special) has a long range, the charge-up leaves him vulnerable to attacks. Fox players must be wary of this as a charge-up to recover from below the stage is primarily vulnerable to a down-air spike. Overall, Fox's play style is reminiscent of his fast-paced Melee version. While Fox is definitely a handful to deal with, Fox definitely has weaknesses that can be exploited by an informed player.

## Snake

Snake is not your traditional fighter. He's quite floaty in the air, with some quick moves and a very projectile-heavy strategy plan. Unlike many other top tiers and good characters, Snake plays a more trap-based defensive game, rather than having a quick rush-down playstyle. This is both a blessing for players and a curse for opponents; Snake's Grenades, Remote Missile, and C4 are great for controlling space on the stage and manipulating your opponent's movements, and they are all complimented by Snake's strong, fast, and ranged tilt and aerial attacks. Not to mention his fantastic grab and throw game, with great damage and positioning advantages at low to mid percent, and guaranteed kill confirms at high percent. The combination of all these tools alone make Snake one of the most oppressing characters in the game when used by a high-level player. Beating a skilled Snake player is mentally taxing, requiring you to be able to take note of a variety of options all at once, and knowing just how and when you can counter-attack. Snake's weight and super-armor boosted

recovery make just taking one of his stocks a challenge, so be prepared for some longer matches than usual.

Snake is not perfect by any means; his large stature makes him an easy target for long combos and ranged pokes. His floaty movement can also hinder his landing ability, as his slow descent can make him easier to juggle in the air, given that you can accurately predict any sort of momentum-reversing mix-ups Snake has access to. Snake is also pretty slow in terms of ground speed compared to most other characters, allowing the majority of the cast to run away from him faster than he can approach with projectiles. These weaknesses, however, are not nearly enough to make him not a threat at top-level play, so Snake has seen great success in the tournament scene so far. Snake is one of the most popular characters to use and has helped many top players win large events. Without any nerfs to his tilts or projectiles, expect Snake to keep making constant top 8 appearances for years to come.

## Pichu

Small and adorable, Pichu packs quite the punch in Ultimate. Originally one of the bottom 3 characters in his first game, Super Smash Bros. Melee, Pichu has risen from the ashes all the way to the top of Ultimate tier lists. His incredible projectiles, small hurtbox, and aerial options make him difficult to deal with in neutral, and his throws and incredible out of shield options with back air give him one of the best punish games out of any character. Not to mention, his

tilts can start long combo strings, allowing him to rack up percent at an astronomical pace. A little while after the game's release, players also discovered "lightning loops" - a mechanic in which Pichu can do drag down combos that combo into itself, allowing him to essentially leave opponents helpless within a certain percent window. To go along with all of his phenomenal traits, Pichu also has some of the best kill options in the game. In Ultimate, both his Thunder and Down air were heavily buffed, allowing him to not only spike opponents but also edgeguard incredibly well. His back and forward air kill at reasonable percents, and neutral air is still the incredible combo breaker and extender it has always been. Even his moves that don't kill, like his up air, provide crazy utility in the way it combos into the rest of his abilities. However, his smash attacks leave more to be desired. Although his forward smash is incredibly strong, it has a very small hitbox. For his up and down smash, they just aren't that powerful at all. Additionally, Pichu is the lightest character in the game, which causes him to die at abnormally low percents. This isn't helped by the fact that he still damages himself with a majority of his moveset, magnifying an already problematic issue. That being said, good players can use this mechanic to get themselves out of certain kill percent windows, but it should be used with caution. All in all, Pichu is an absolute menace in Smash Ultimate and should not be slept on in both casual and competitive play.

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