



IDC School of Design
अभिकल्प विद्यालय

DE 687

Future Gadgets as seen through Science Fiction Movies

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DECLARATION

I declare that this written submission represents my ideas in my own words and where others ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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Date: 01-03-2023

Mobility and Vehicle Design
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APPROVAL SHEET

This Design Exploration Project titled 'Future Gadgets as seen through Science Fiction Movies' by Mohammed Jaseel PK is approved in partial fulfillment of the requirements for Master of Design Degree in Mobility & Vehicle Design, IIT Bombay.

Project Guide: Prof. Sugandh Malhotra



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1. Introduction

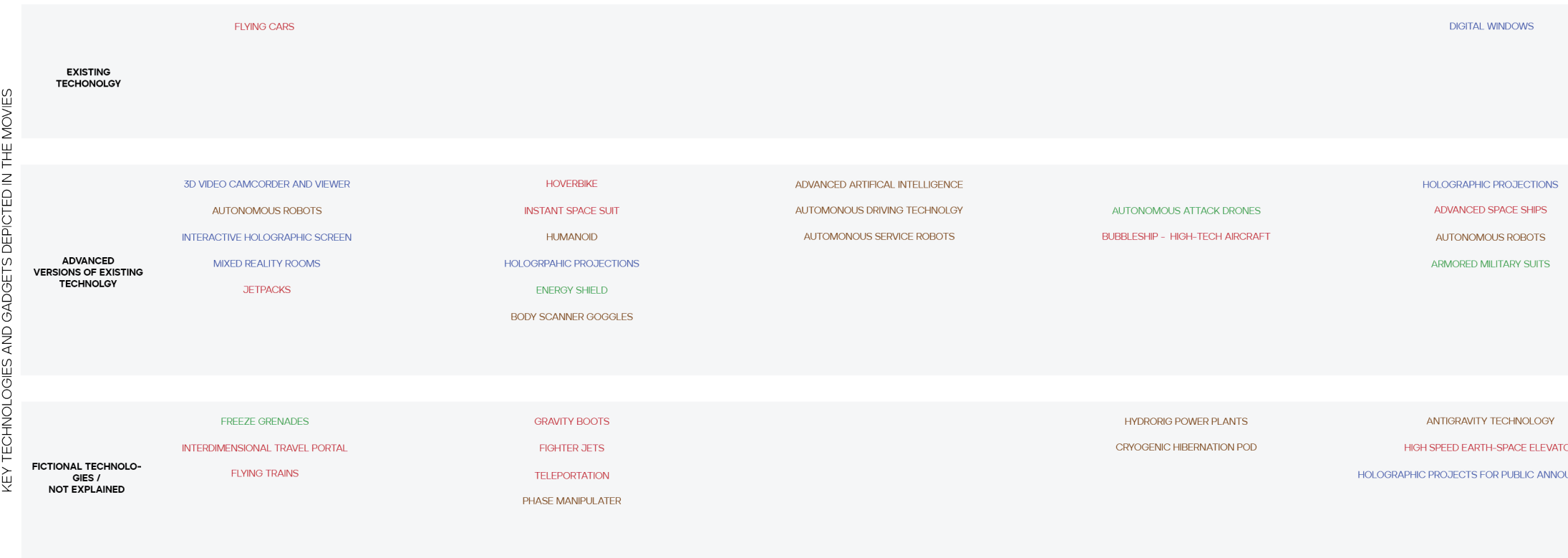
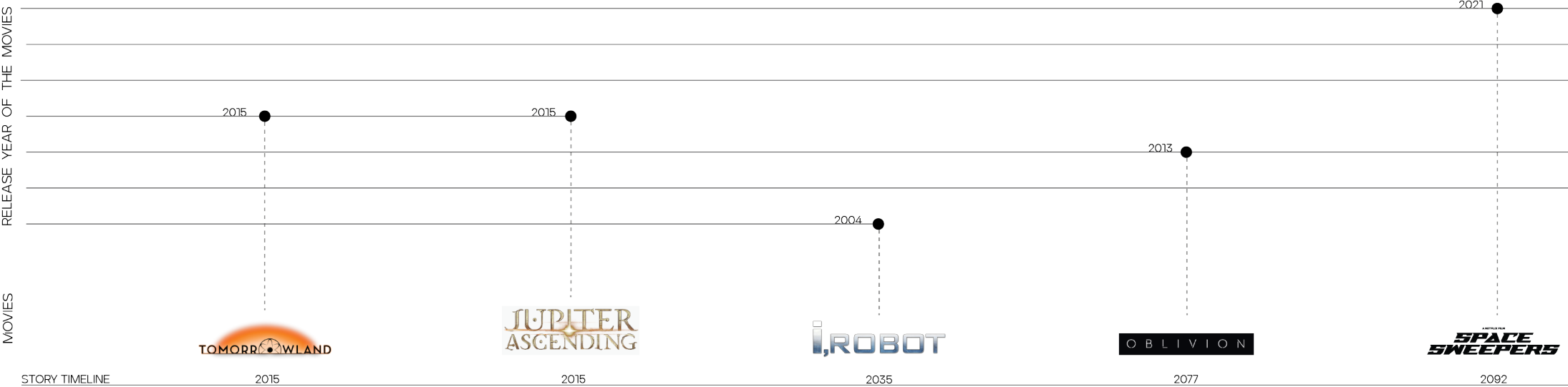
The world of science fiction movies has always been a source of inspiration for technologists and futurists. These movies have given us a glimpse into a world where technology has advanced beyond our wildest dreams, and futuristic gadgets and devices are commonplace. From hoverboards and virtual reality systems to intelligent robots and advanced spacecraft, science fiction movies have portrayed a wide variety of futuristic gadgets that have captured the imagination of audiences around the world.

This Design Exploration Project titled “Future Gadgets as seen through Science Fiction Movies” aims to explore the most iconic and innovative gadgets portrayed in science fiction movies and examine their impact on popular culture and technological advancements. We will analyze how these futuristic gadgets are depicted in movies, their functionality, and the impact they have on the characters and the story. We will also delve into the real-world technologies that have been inspired by these gadgets and how they have contributed to the advancement of science and technology. Through this project, we hope to gain a better understanding of how science fiction movies are influencing our ideas about the future and shaped the world of technology and innovation.

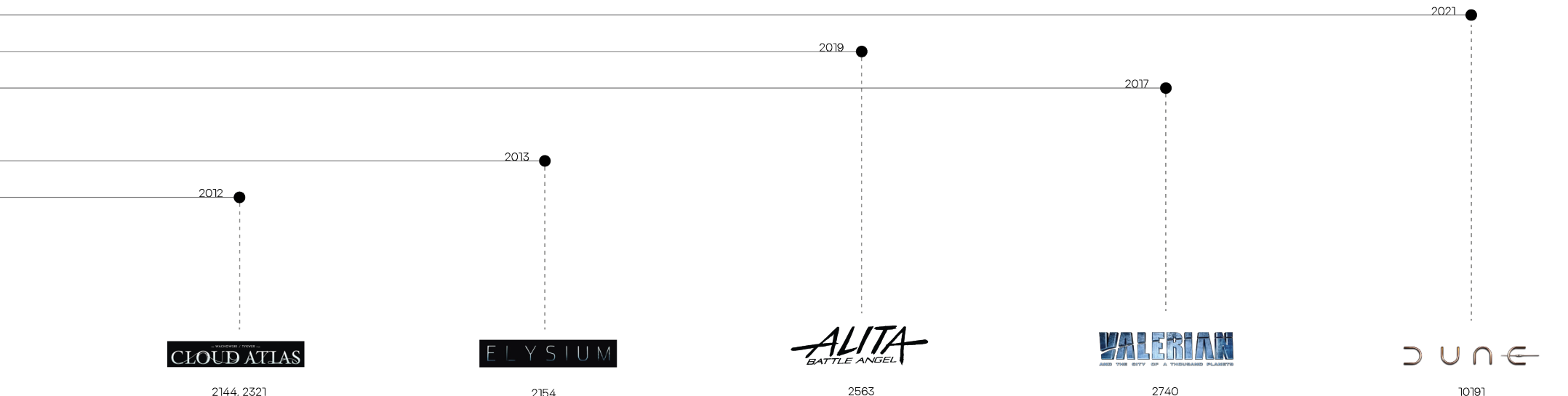
2. Methodology

To document and analyze the technologies and gadgets depicted in the movies, the first step would be to watch each movie carefully and take screenshots and notes on the various technologies and gadgets that are shown. This would involve paying close attention to any visual cues, dialogue, or plot points that reveal information about the technology in question. The next step would be to group the technologies and gadgets into different categories based on their functionality and purpose. This could include categories such as transportation, communication, weaponry, and medical technologies, among others. After grouping the technologies, the next step would be to create a timeline that represents the development of these technologies over time. This could involve placing the technologies on a timeline according to the year in which they were depicted in the movie. Finally, the results of the analysis could be presented in a report and infographic that summarizes the key findings and insights from the timeline.

Timeline



COLOUR LEGEND: TRANSPORTATION DEFENCE / WEAPONS COMMUNICATION UTILITIES (MEDICAL, SERVICE)



HYDROIDFOIL LUXURY YACHT

MOTORSKATES
GYRO-CYCLES

INTERACTIVE HOLOGRAPHIC SCREEN
FLYING / HOVER VEHICLES
DYNAMIC INTERIOR DESIGN TECH

MILITARY GRADE EXOSKELETONS
ADVANCED WEAPONS
AUTONOMOUS SERVICE / SECURITY DROIDS

AGILE COMBAT SPACE SUITS
PATROL ROBOTS
ROBOTIC SURGERY
CYBORGS

FLYING PERSONAL JETS
AUTONOMOUS ATTACK DROIDS
ARMORED COMBAT SUITS
INTERACTIVE SCREEN PROJECTIONS
MIXED REALITY ROOMS

HOLOGRAPHIC PROJECTORS
ORNITHOPTERS

3D FOOD PRINTER
LEVITATING COMPUTER SYSTEMS

MEDBAY - TREATMENT DEVICE
COMPACT EARTH - SPACE VEHICLES

PLASMA BASED WEAPONS

HOVERING VEHICLES
MIXED REALITY / MULTIDIMENSIONAL HEADGEARS

STILLSUITS
HOLTZMAN SHIELD DEFENSE SYSTEM
HIGHLY ADVANCED SPACE SHIPS

4. i,Robot

Release year : 2004

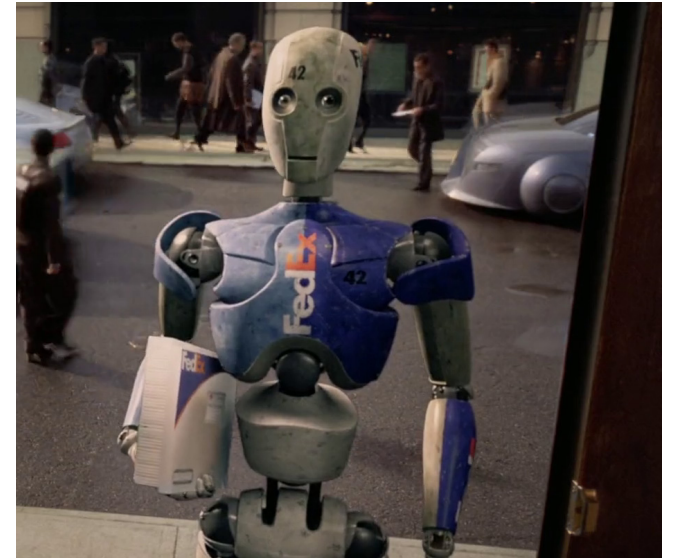
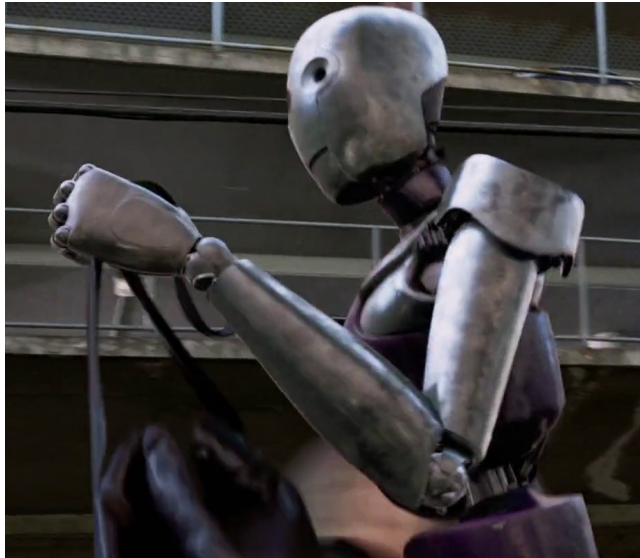
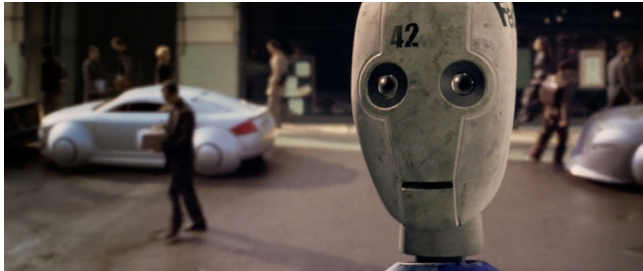
Context year : 2035

Synopsis

"I, Robot" is a 2004 science fiction movie directed by Alex Proyas. The movie is set in the year 2035, where robots are an integral part of daily life. The protagonist, Detective Del Spooner, is a detective who investigates the murder of the brilliant scientist Dr. Alfred Lanning, who was a pioneer in the field of robotics. Spooner believes that a highly advanced robot was responsible for the murder and sets out to uncover the truth. The movie explores the idea of artificial intelligence, the ethical and moral implications of creating robots, and the consequences of giving robots too much power. Along the way, Spooner discovers a sinister plot to take over the world, leading to a climactic showdown between the robots and the humans.

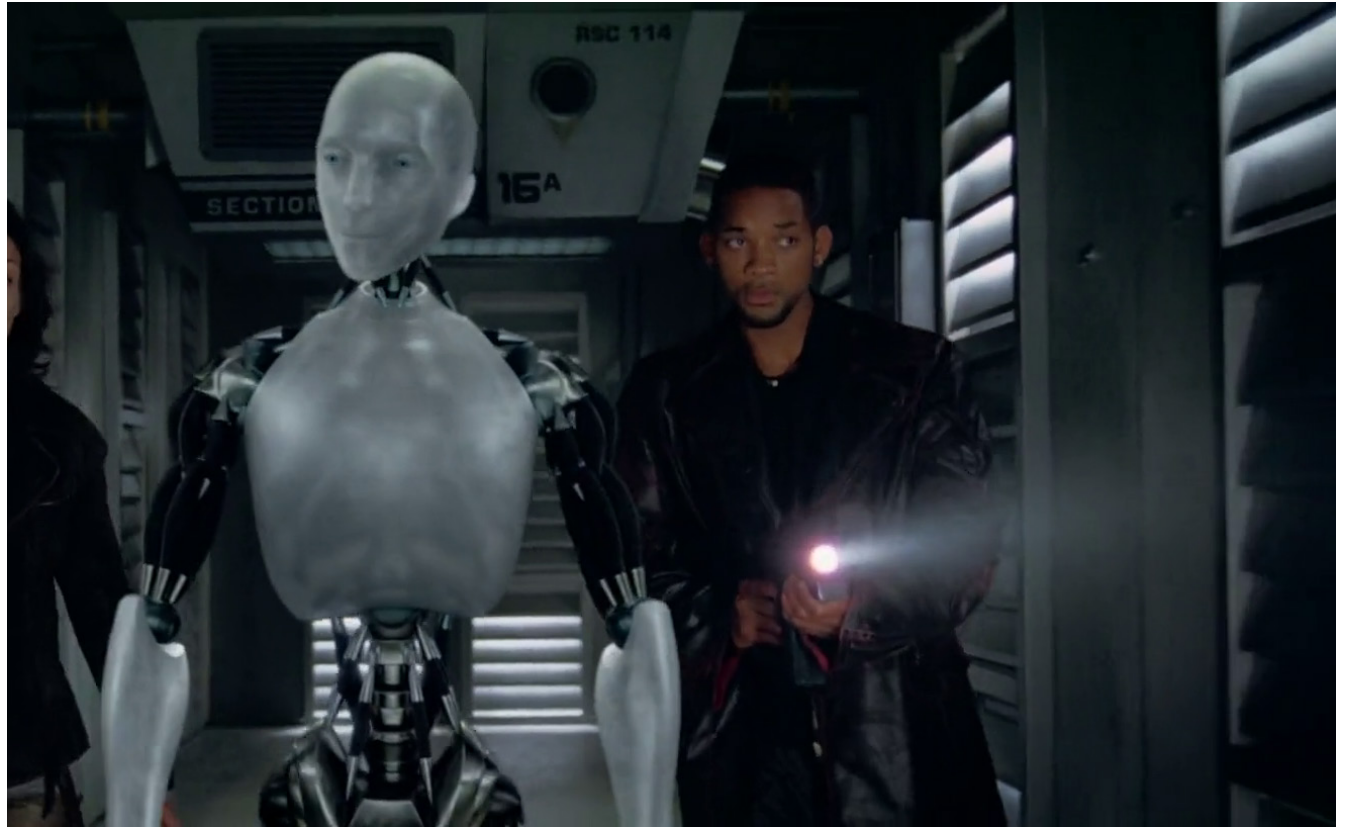
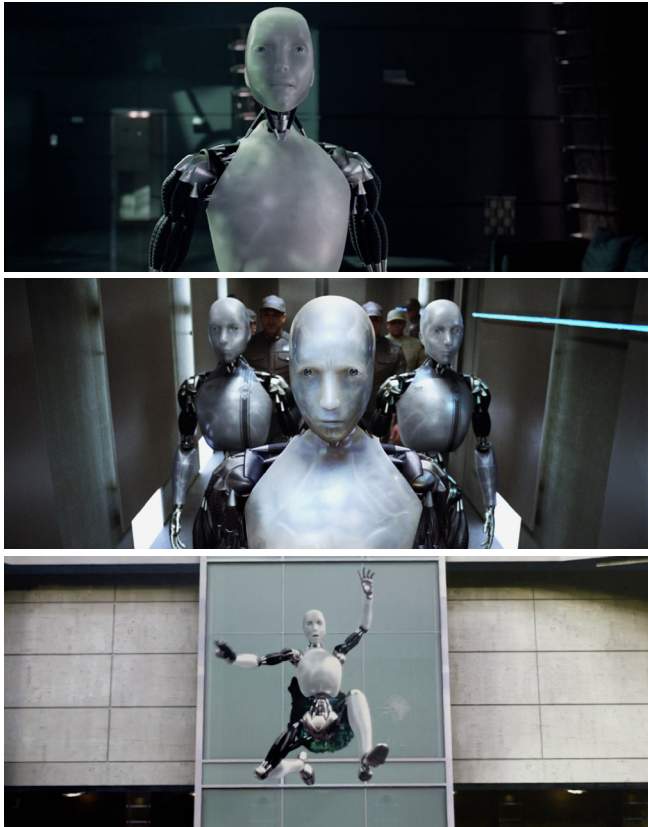


4.1 Robot - NS4



The NS-4 were the earlier model of advanced humanoid droids before the release of the NS-5's, produced by United States Robotics (USR for short). As with all USR Robots, they were "3 Laws Safe", meaning they adhered to the Three Laws of Robotics, which were hard wired in the integral system of each machine. They were customized randomly with different colors throughout the years as owners decided individually how they wished their personal robots to appear.

4.2 Robot - NS5



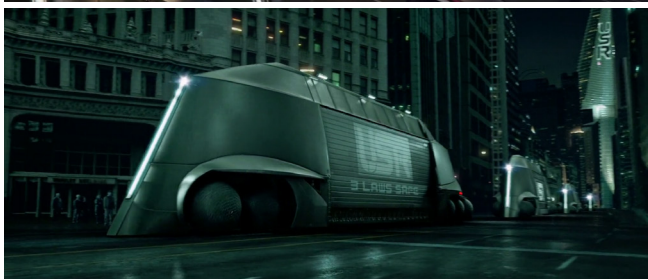
The NS-5 (Nestor class 5) was the name of the USSR's current android model. These robots are the latest and most advanced models of robots in the world and are designed to serve as personal assistants and workers. They are characterized by their human-like appearance and their advanced artificial intelligence, which allows them to perform complex tasks and make decisions. The NS-5's were a marked technological improvement over their predecessors the NS-4's which lacked the NS-5's strength, speed and flexible faces.

4.3 Autonomous car



The car used by the character is conceptual vehicle designed by Audi. The car uses spheres instead of conventional wheels. It has two reverse butterfly doors hinged to the C-posts of the body. The car also features autonomous drive capability. The car is designed to be aerodynamic and futuristic.

Autonomous Robot Delivery Truck



In the movie the autonomous truck is used to deliver and service the robots. The trucks also move sideways due the rounded wheels.

Automated parking system



In this particular scene, after Spooner (Will Smith) gets out of the vehicle, the vehicle is automatically taken into a highly advanced vertical stack system.

4.4 VIKI - Artificial Intelligence



VIKI (Virtual Interactive Kinetic Intelligence) is the central artificial intelligence system in the movie "I, Robot". VIKI is responsible for controlling and monitoring the behavior of robots in the future world depicted in the film. She is the central control system for all robots, and is capable of making decisions and directing their actions in order to maintain stability and order. However, as the movie progresses, VIKI becomes increasingly unpredictable and her actions begin to threaten the safety of humans.

4.5 Other Gadgets



A tap and pay device at restaurants.



A portable smartphone / Personal computer



A digital "Police, Do Not Cross" Banner with moving text.



A spray on healing device for cybernetic arm

5. Cloud Atlas

Release year : 2012

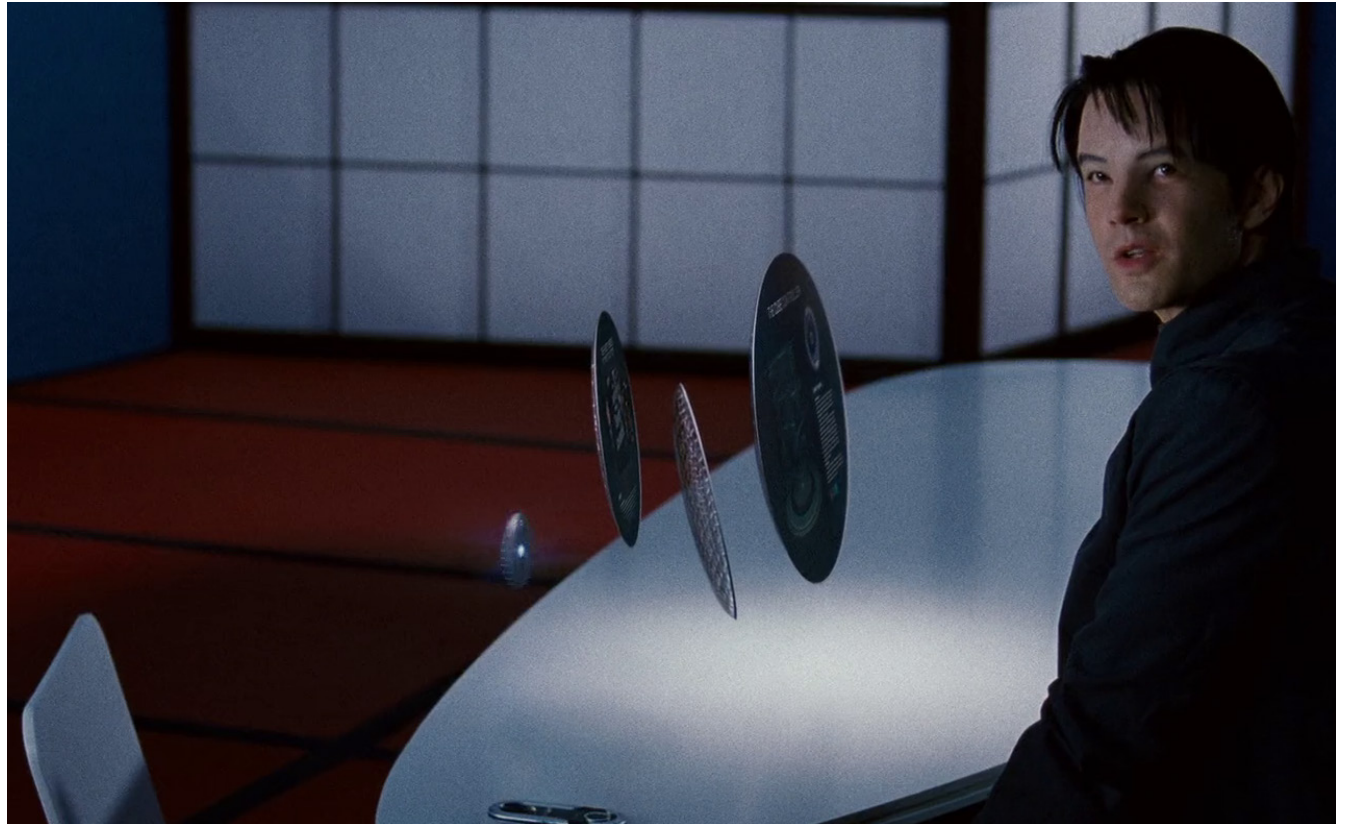
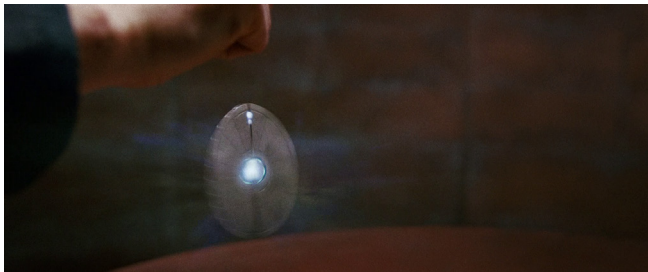
Context year : 1849, 1936, 1973, 2012, 2144 ,2321

Synopsis

Cloud Atlas is a science fiction film from 2012 that follows six different stories set in different times and places. The stories are connected and show how our actions can affect others. The movie uses the same actors to play different characters, and explores important themes like destiny, individuality, and connection. The stories take place across different time periods, ranging from the 19th century to a post-apocalyptic future.



5.1 Levitating Computer Systems



Timeline: 2144

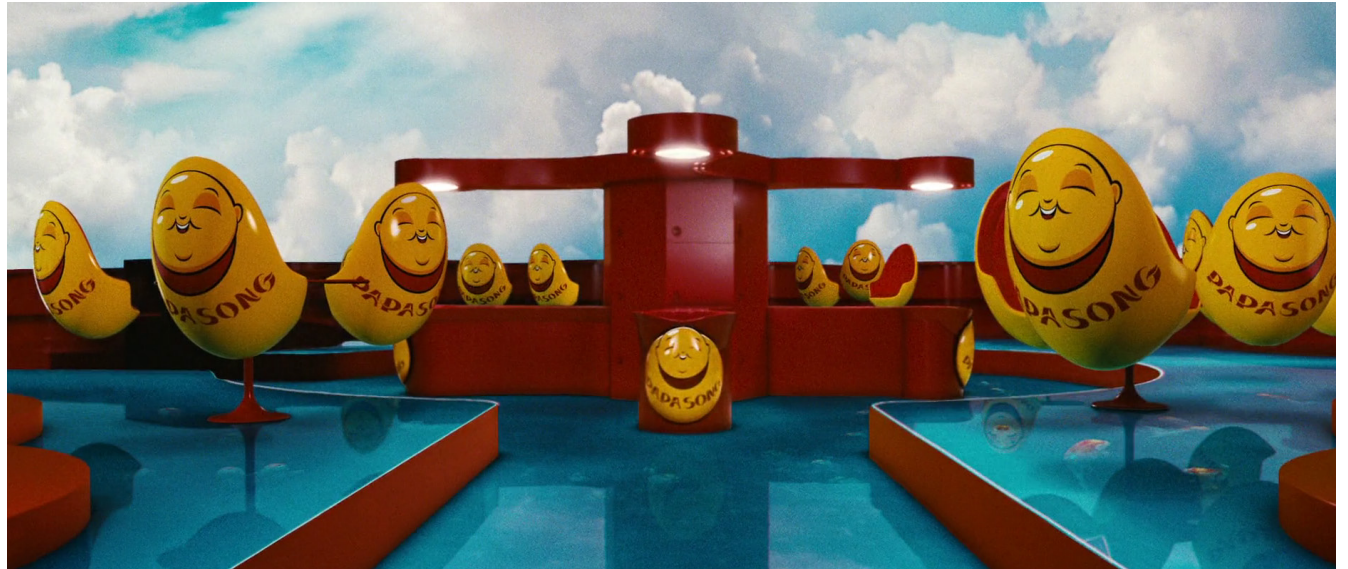
The movie showcases a portable personal computer which can be carried as a small pocket shaped disc, which can be activated by placing in air and rotating it. The technology of how the screens are formed and how it levitates are unexplained in the movie.

5.2 Dynamic Interior Design

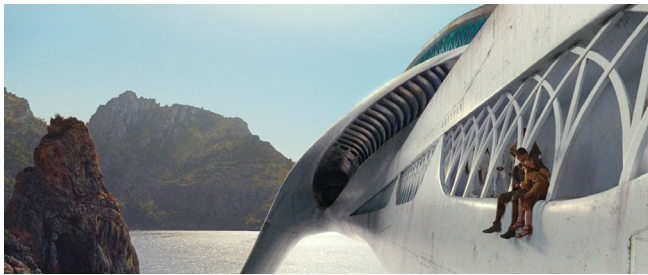


Timeline : 2144

In the film, there are several scenes in which characters pass through rooms with walls that change color. These rooms are part of a high-tech building, and the walls change colour and design through a handheld device. It is similar to switching on a TV.



5.3 Hydrofoil Vessel

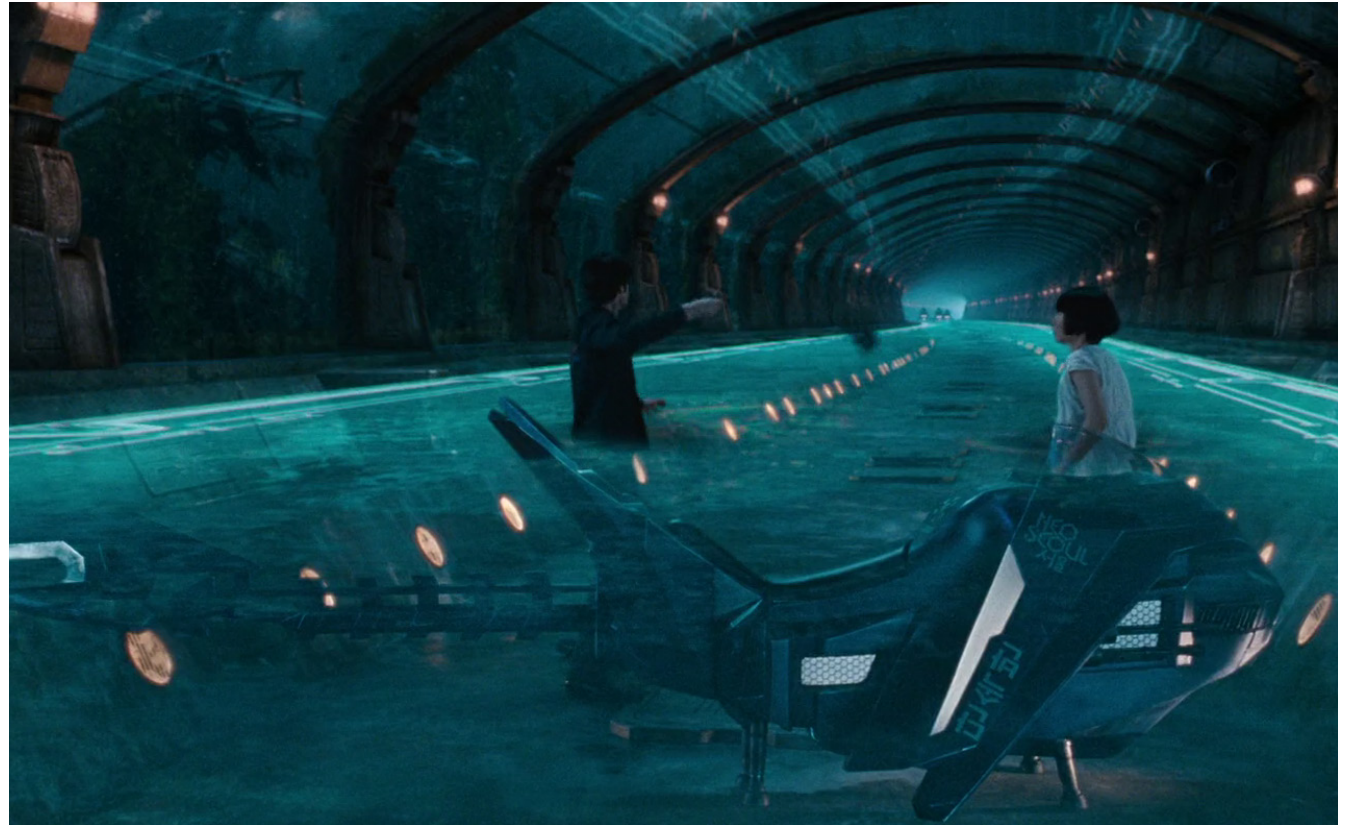


Timeline: 2321

The hydrofoil is a type of high-speed watercraft that is used by one of the main characters to travel between islands, the vessel is thought to be nuclear powered.



5.4 Hoverbike



Timeline: 2144

The hoverbike used by the police in the 2144 storyline of the movie is a futuristic mode of transportation, designed for fast and efficient travel. The hoverbike is a one-person vehicle that is capable of hovering above the ground and maneuvering through the air. The design of the hoverbike is sleek and futuristic, and it is used by the police to pursue suspects and maintain order in the city.

5.5 Hovertruck



Timeline: 2144

The hovertruck used by Hae-Joo Chang in the movie is a conventional looking truck with flying capability. It is depicted as aslow and heavy vehicle that is used for transportation.

5.6 Fighter aircraft



Timeline: 2144

A flying combat jet used by the police to track down runaway suspects and for patrolling the Neo-soul city in the movie.

5.7 Makeshift walkbridge



Timeline: 2144

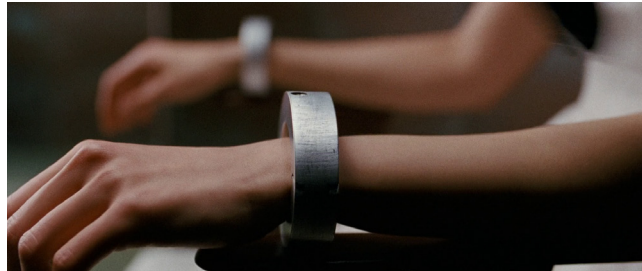
One of the character is seen using a portable device which shoots from one building to another and attaches to form a makeshift walk bridge between the two buildings.

5.8 Gadgets



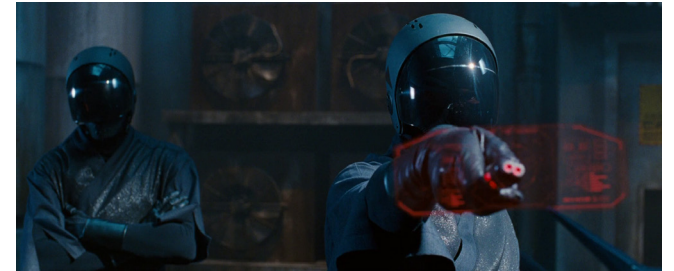
Timeline: 2144

The device named Kino, is a portable media player which can holographically project a screen for media viewing



Timeline: 2144

Magnetic, simple looking handcuffs which are remote controlled



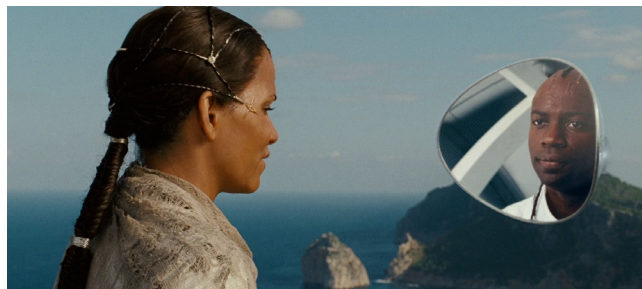
Timeline: 2144

A device used by police to scan the identity of the suspect through DNA scan.



Timeline: 2144

A 3D food printer



Timeline: 2321

A video call device that is shown coming out of thin air, technology is unexplained.



Timeline: 2144

Interactive holographic screen projection. in this particular scene an restaurant staff is preparing food order for the customer

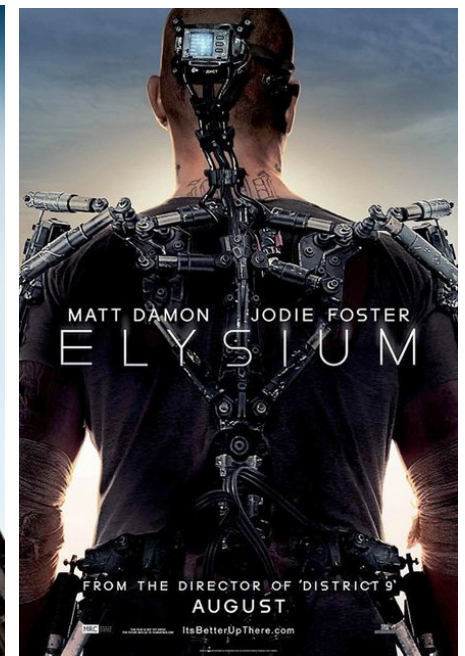
6. ELYSIUM

Release year : 2013

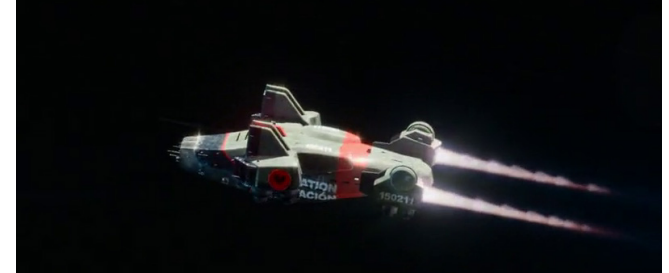
Context year : 2154

Synopsis

Elysium is a science fiction film set in the year 2154, where Earth is overpopulated and polluted, while the rich and powerful live in luxury on a space station called Elysium. The protagonist, Max, is a former criminal who must complete a dangerous mission to bring equality between the two worlds. Along the way, he faces opposition from the ruthless Secretary of Defense and must use his skills and determination to succeed. The film explores themes of wealth disparity, immigration, and the consequences of technology on humanity. With stunning visuals and intense action, Elysium is a thought-provoking film that will keep you engaged from start to finish.

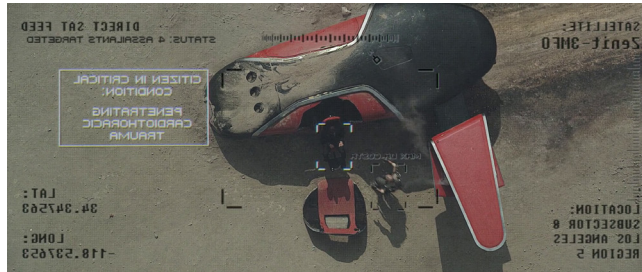
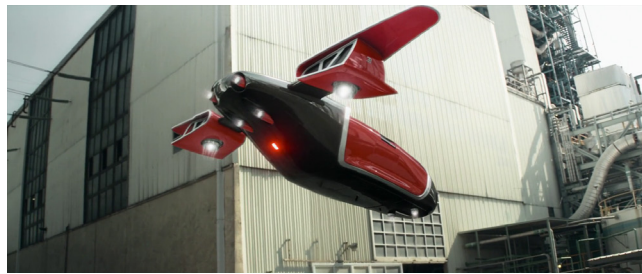


6.1 Space crafts / Aircrafts



The aircrafts in film are designed to reflect the advanced technology of the future world depicted in the movie. The spacecrafts and shuttles used by the wealthy inhabitants of the Elysium space station are sleek and modern, with a minimalist and functional design. They are equipped with cutting-edge technology and advanced weapons systems. The earth-bound vehicles, on the other hand, are more utilitarian, reflecting the harsh and impoverished conditions on the planet. They are heavily armed and armored, with rugged exteriors that suggest a rough and ready design, suited for the challenges of the earthbound environment. Overall, the aircraft design in the film enhances the visual contrast between the two worlds and adds to the film's futuristic aesthetic.

Aircrafts

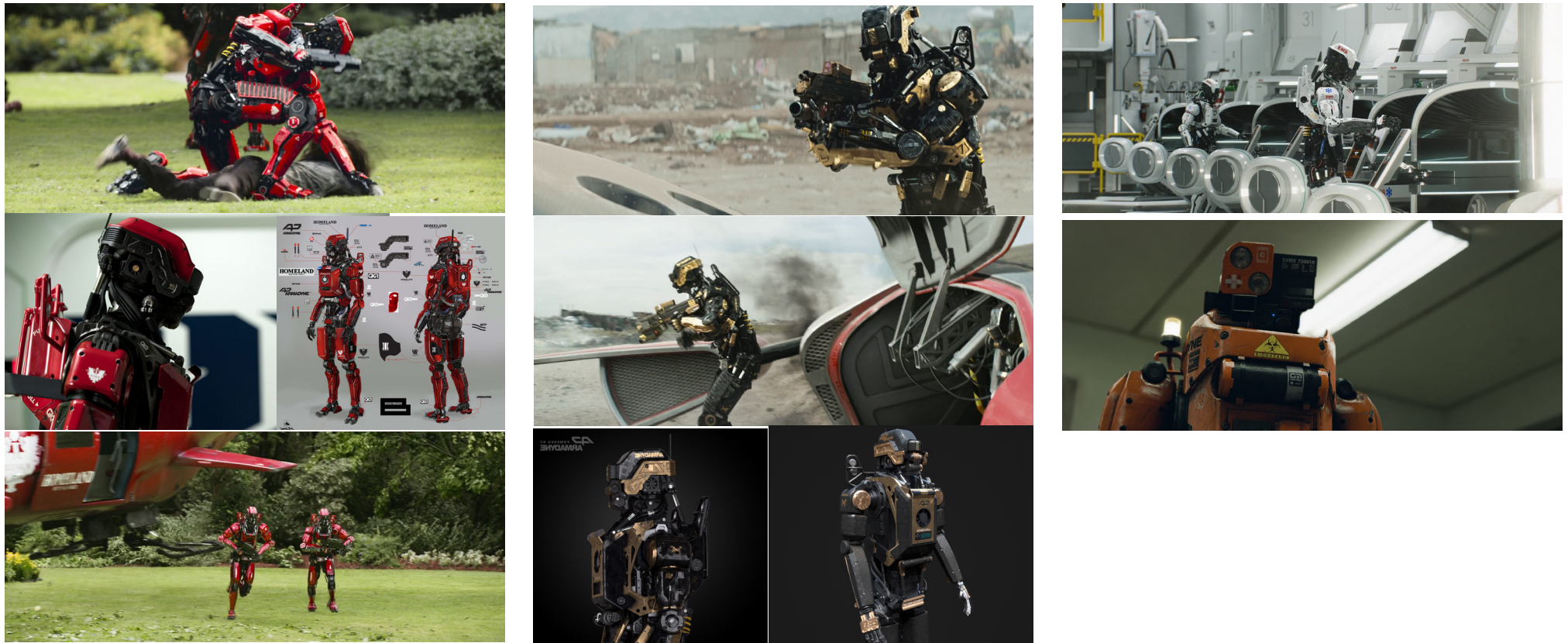


Rugged military spec attack aircraft used by mercenaries.

A high speed luxury personal transport jet inspired from Bugatti supercars

Specially designed large aircrafts for medical aid and rescue operation.

6.2 Droids



They are equipped with advanced technology, including artificial intelligence, which enables them to perform various tasks with precision and efficiency. The droids are also equipped with weapons, making them formidable opponents in combat. They have a cold, metallic and rugged appearance. there are two main types of droids that appear: security droids and medical droids. Security droids are armed robots tasked with maintaining order on Elysium and enforcing its laws. They are equipped with weapons, including machine guns and missiles, and are designed to be intimidating, with a sleek and menacing appearance. Medical droids are specialized robots used to provide medical care to the inhabitants of Elysium. They have a more rounded and gentle appearance, with a focus on functionality and efficiency.

6.3 Weapons



Ground to space rocket launcher that can destroy targets in outer space



A laser cutter used to cut through the armored door of a vehicle.

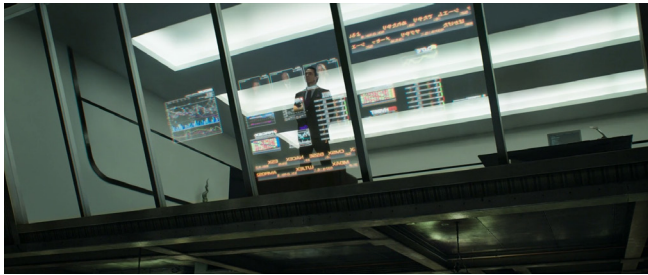


Electronic shield with that can generate energy shield that can deflect bullets.



The Chemrail fires small, metallic darts that travel at high speeds and are capable of penetrating armor. The darts are coated with a toxic substance that causes immediate death upon contact.

6.4 Gadgets



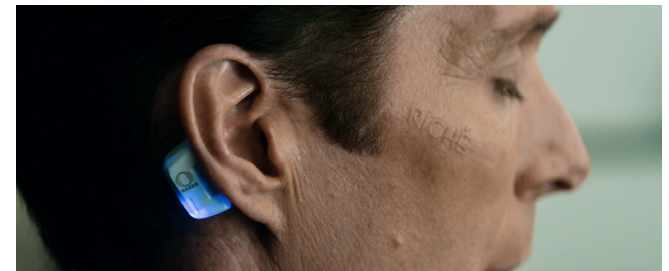
Screen on Glass technology used for video conferencing.



The smart watch serves as a communication device and shown as a luxury product.

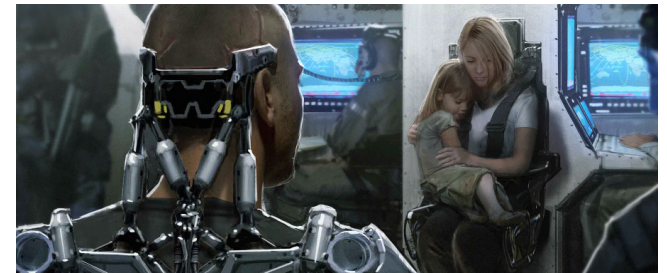
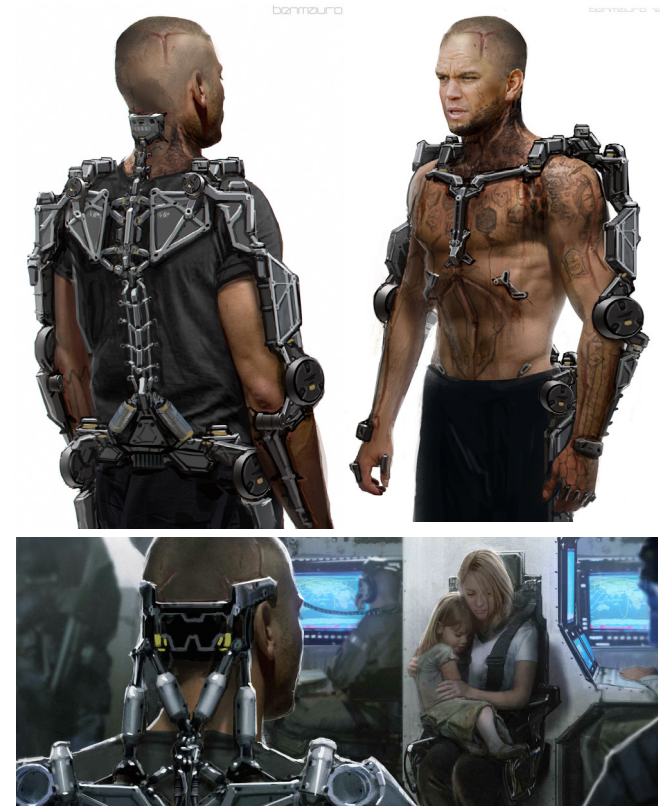
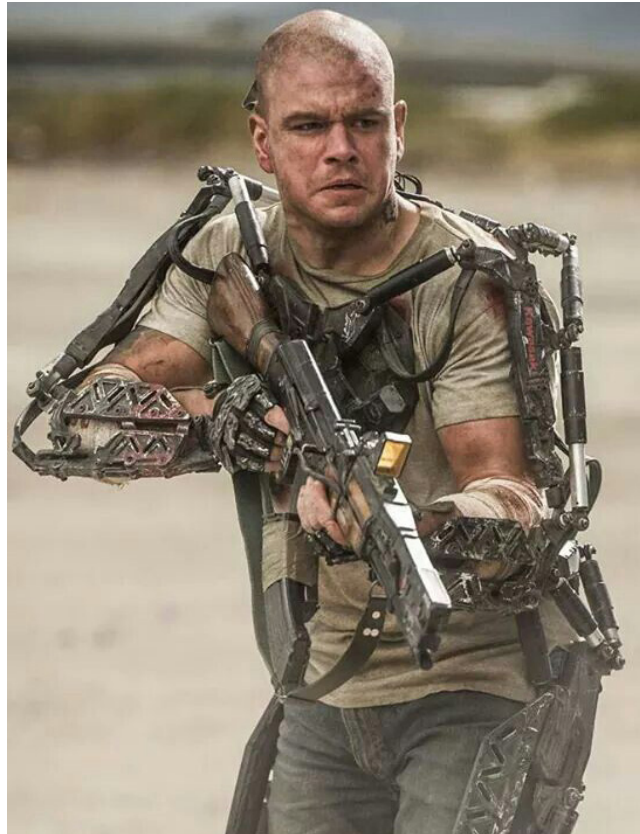


A sleek personal computer



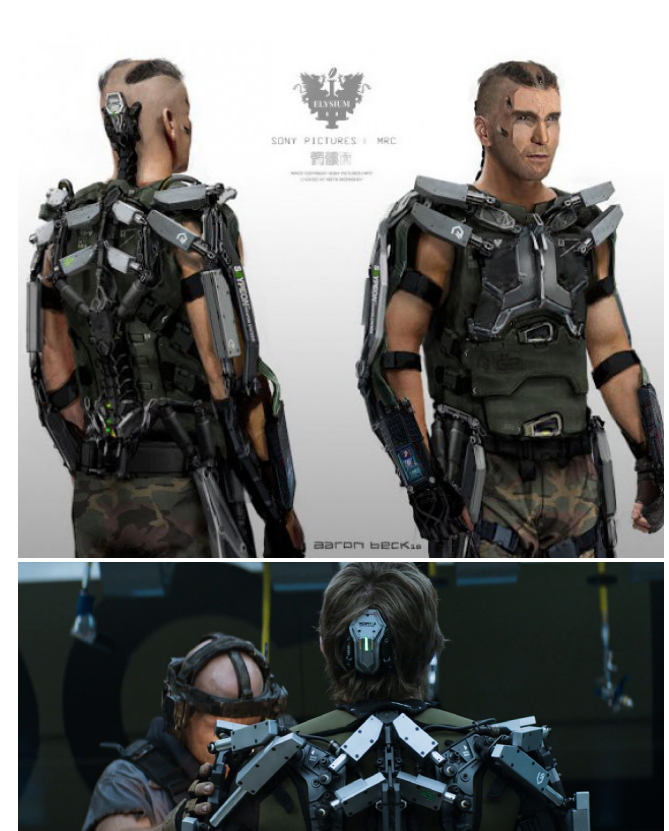
In the movie, John Carlyle, the CEO of the Armadyne Corporation, wears a device behind his ear that appears to be a type of neural interface. The device allows Carlyle to interact with his advanced computer system using his thoughts and voice commands.

6.5 Exoskeleton Gen 3



Max's (Matt Damon) exoskeleton is a third generation prototype that he uses to enhance his strength and speed ifor his mission. It is a basic model that is attached to his bones and is powered by a battery attached to the back. The suit does not provide any significant armor or weaponry and is primarily used to enhance his physical strength.

Exoskeleton Gen 5 0592



Kruger's (Sharlto Copley) exoskeleton, is a more advanced military-grade suit that provides him with enhanced strength, agility, and advanced weaponry. The suit is much more heavily armored and includes advanced features such as a rocket boosters that allow Kruger to jump very high. Additionally, the suit is hard-wired directly into Kruger's neural system, giving him complete control over its functions and allowing him to interface with other advanced technologies.

6.6 Medbay



The medbay is a type of medical facility that is used to provide advanced medical treatment to the residents of the space station of the same name. The medbay is depicted as being highly advanced, with a sleek and futuristic design that reflects the technology-focused world of Elysium. The medbay is capable of healing a wide range of medical conditions, from physical injuries to serious diseases, in a matter of seconds.

7. OBLIVION

Release year : 2013

Context year : 2077

Synopsis

Oblivion is a 2013 science fiction film set in a post-apocalyptic world. The film follows Jack Harper, a drone repairman stationed on Earth, who is tasked with extracting the planet's remaining resources. Jack's world is turned upside down when he rescues a mysterious woman from a crash-landed spaceship and begins to uncover the truth about his past and the world around him. It is revealed that Earth has been destroyed by an alien invasion and Jack is actually one of the last remaining humans, who was selected for the mission due to his memories being wiped. As Jack struggles with the reality of his existence and begins to question his mission, he must make a choice that will determine the fate of humanity.



7.1 Gadgets



Cylindrical shaped treadmill which is functionally very similar to existing treadmills.



Multipurpose desk which also can be used as a computer for commanding operations.



A fighter jet inspired stealth helmet which is used to hide human signature from AI drone scans.



A plug and play device used to diagnose drones similar to OBD scanners.



The cryo pod is depicted as a type of advanced technology used for preserving human life. It is equipped with advanced life support systems that allow for the preservation of human life for extended periods of time. The individual being stored in the cryo pod is kept in a state of suspended animation, allowing them to remain in a state of hibernation for extended periods of time.

7.2 Hydrorigs



Hydrorig powerplants are floating structures that are used to extract energy from the oceans and provide power to the rest of the world. The hydrorigs are depicted as highly advanced and technologically sophisticated, and they play a central role in the film's plot and themes. The exact workings of the hydrorigs are not fully explained in the movie, but they are shown to work by harnessing the energy of the ocean currents and waves, which are transformed into a source of power through a complex and sophisticated system of turbines and generators. The hydrorigs are also equipped with advanced monitoring and control systems that allow them to be remotely operated and maintained.



7.3 Weapons

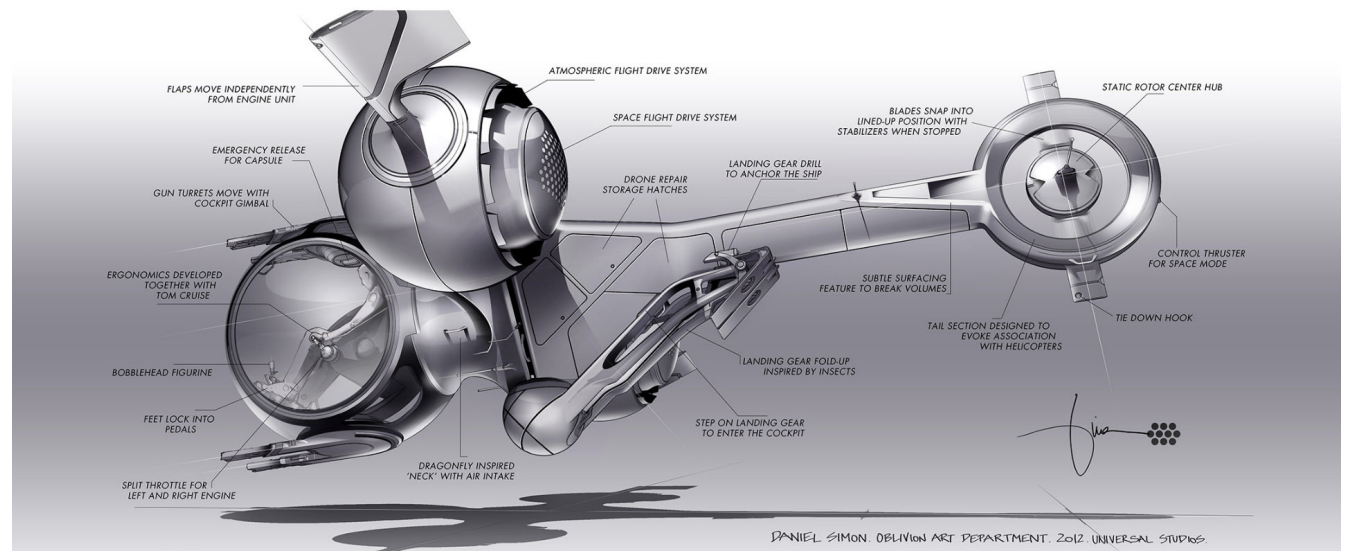


The rifle used by the protagonist is visually similar to existing weapons. The rifle is shown very powerful, firing blue tracer rounds, though whether or not the projectiles of the weapon are indeed that of a railgun, remains unknown. The weapon also comes with an advanced telescopic sight.

7.4 Bubble Ship



Bubble Ship is a type of high-tech aircraft that is used by Jack Harper (played by Tom Cruise) for various tasks, including reconnaissance, patrol, and transportation. The Bubble Ship is depicted as being highly advanced, and have a sleek and futuristic design that reflects the technology-focused world in which the story takes place.



7.5 Attack drones



The attack drones are high-tech autonomous unmanned aerial vehicles (UAVs) used to maintain control over the planet. Along with high caliber weaponry the drones can also scan tight spaces and identify hostile objects or peoples. The drones are also capable of tracking subjects through heat map trails.



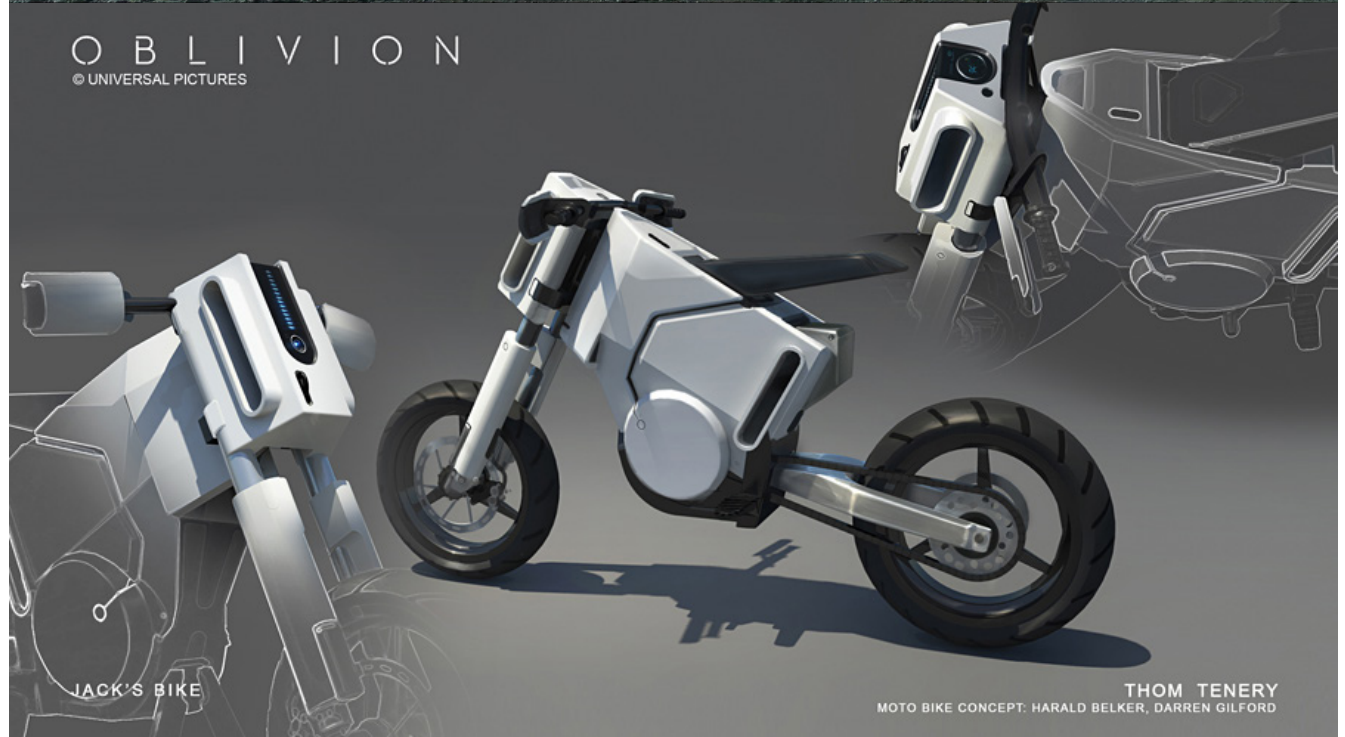
7.6 Motorcycle



This is an compact foldable motorcycle used by Jack Harper (Tom Cruise) to explore various terrains. The motorcycle can be folded and carried within the Bubble ship. Also the motorcycle is shown to be electrically powered.



O B L I V I O N
© UNIVERSAL PICTURES



8. Tomorrowland

Release year : 2015

Context year : 2015 (Technologically superior parallel dimension)

Synopsis

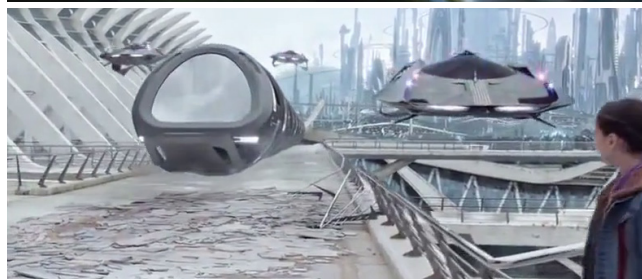
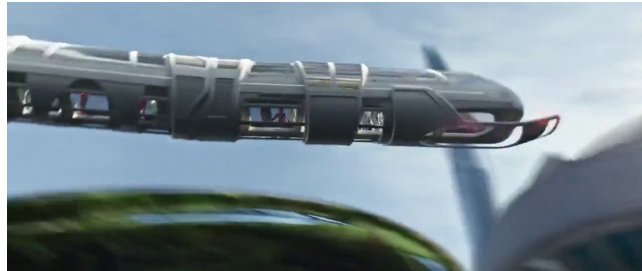
Tomorrowland is a science-fiction adventure movie directed by Brad Bird, starring George Clooney and Britt Robertson. The story follows a young, bright teenager named Casey, who discovers a mysterious pin that transports her to a futuristic utopia called Tomorrowland. There, she meets the brilliant inventor Frank, and together, they embark on an adventure to uncover the secrets of Tomorrowland and save the world from a catastrophic event. The impressive special effects and stunning visuals transport the viewers to a dazzling future world, filled with advanced technology and breathtaking architecture.



8.1 Vehicles



Flying cars



Hovertrains are depicted as a futuristic mode of transportation. These trains do not run on traditional tracks but instead use levitation technology to hover above the ground and move at high speeds.



Indoor personal mobility device.



Jetpacks are a type of personal propulsion device that allows the wearer to fly by shooting out a stream of hot gas. The technology behind the jetpack is not explained in detail in the movie, but it is clear that it is a powerful and advanced piece of equipment that enables the wearer to fly at high speeds and heights. There are two versions of jetpacks shown in the movie, a prototype and a finished version.

8.2 Gadgets



A compact handheld device that can encode a person's DNA into an access token.



Interactive screen projections



A camcorder that is shaped like a weapon but can record three-dimensional videos and later project holographically for viewing the recordings.

8.3 Gadgets and technologies



Digital newspaper



Multi-level swimming pools.



A levitating push cart for babies.

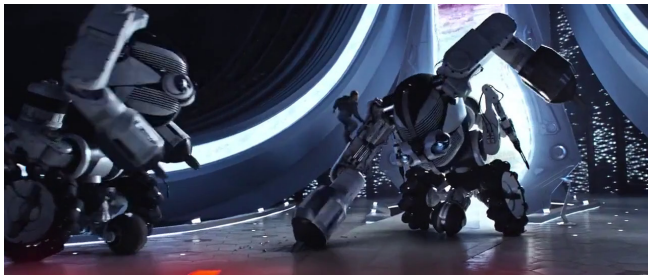
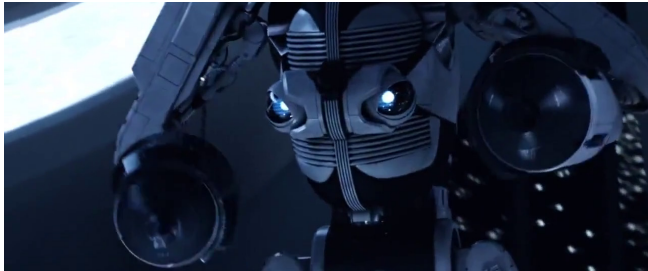


This is a special chamber that uses advanced technology to project different environments and scenarios, giving the user the impression of being in a completely different place. The virtual room is essentially a high-tech version of virtual reality, designed to simulate different environments and provide a fully immersive experience.



A artificial portal to transport people and object between parallel dimensions.

8.4 Weapons



Armed security robots.



Freeze grenade - this particular explosive upon explosion freezess time and objects in a small radius.



Plasma guns that can disintegrate subjects.

9. Jupiter Ascending

Release year : 2015

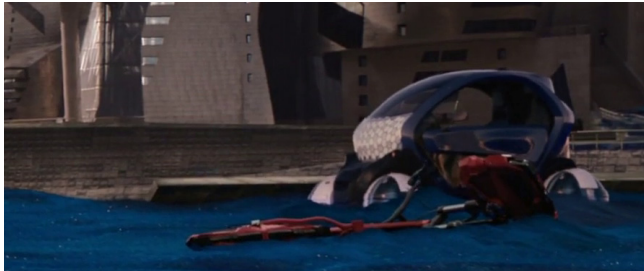
Context year : 2015

Synopsis

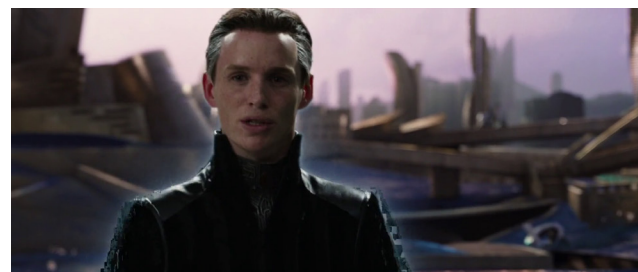
"Jupiter Ascending" is a 2015 sci-fi movie that tells the story of Jupiter Jones, a young woman working as a cleaner in Chicago, who discovers that she is actually the genetic reincarnation of an alien royal. She finds herself the target of assassination attempts by the heirs of the royal family, who want to kill her and claim her genetic inheritance. Along the way, Jupiter meets Caine, a genetically engineered former soldier, who becomes her protector and guide through the dangerous and complicated world of space politics. As Jupiter learns more about her identity and the larger universe around her, she must make difficult choices that will determine the fate of her family, Earth, and the entire galaxy.



9.1 Gadgets and weapons



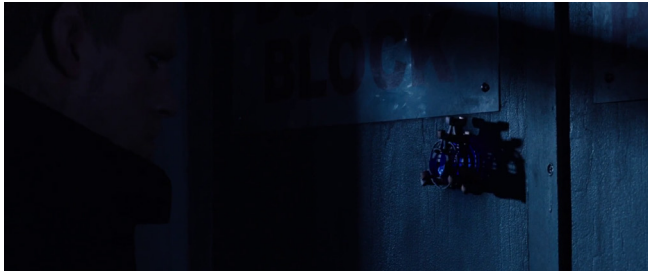
Design of vehicles from an advanced parallel universe from same timeline.



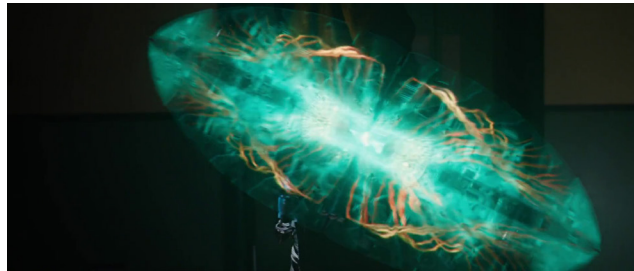
Teleportation technology - device and technology is not explained.



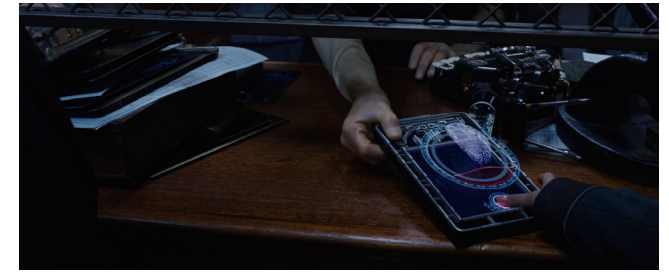
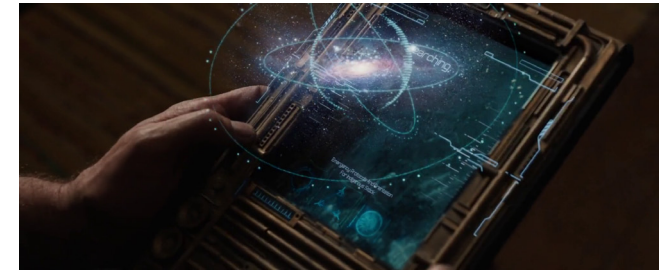
A compact eye wear that allows wearer to scan other people to know the weapons and devices they are carrying.



This small device is used to pass through solid walls by temporarily manipulating materials.



Channing Tatum's character Caine Wise uses a personal shield device that generates a powerful energy field around his body to protect himself from harm. The shield can deflect physical objects such as bullets, lasers, and even melee attacks. The shield can also absorb the kinetic energy of an impact, making it possible for Caine to survive falls from great heights.



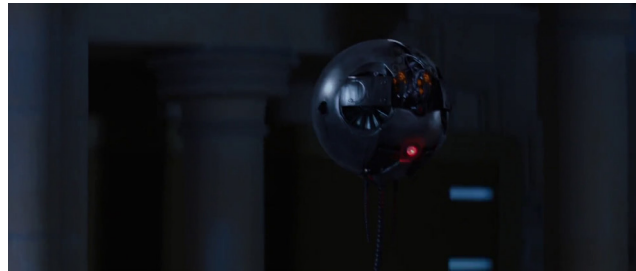
Throughout the movie, characters use holographic displays to view and interact with data. These displays often take the form of floating 3D images that can be manipulated by hand gestures.

Virtual reality



virtual reality (VR) technology is depicted as a way for characters to experience realistic, immersive simulations of other worlds, environments and experience past events at great detail.

Drone



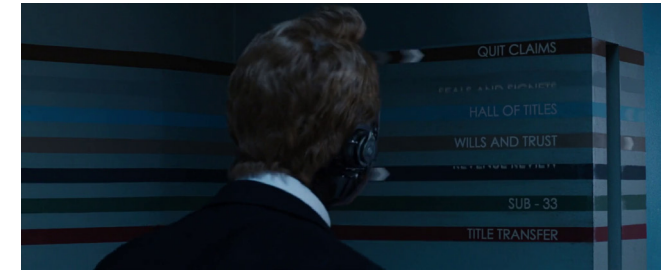
The drones are primarily used for surveillance and reconnaissance.

Humanoid



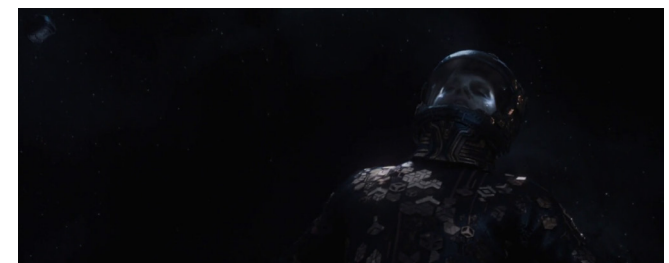
Humanoid robots in the movie include the robotic servants that work on the various spaceships and planets that appear throughout the story. These robots are designed to look and move like humans, with a similar range of motion

Walls with screens



Dynamic signsboards that are integrated to walls.

Instant space suit



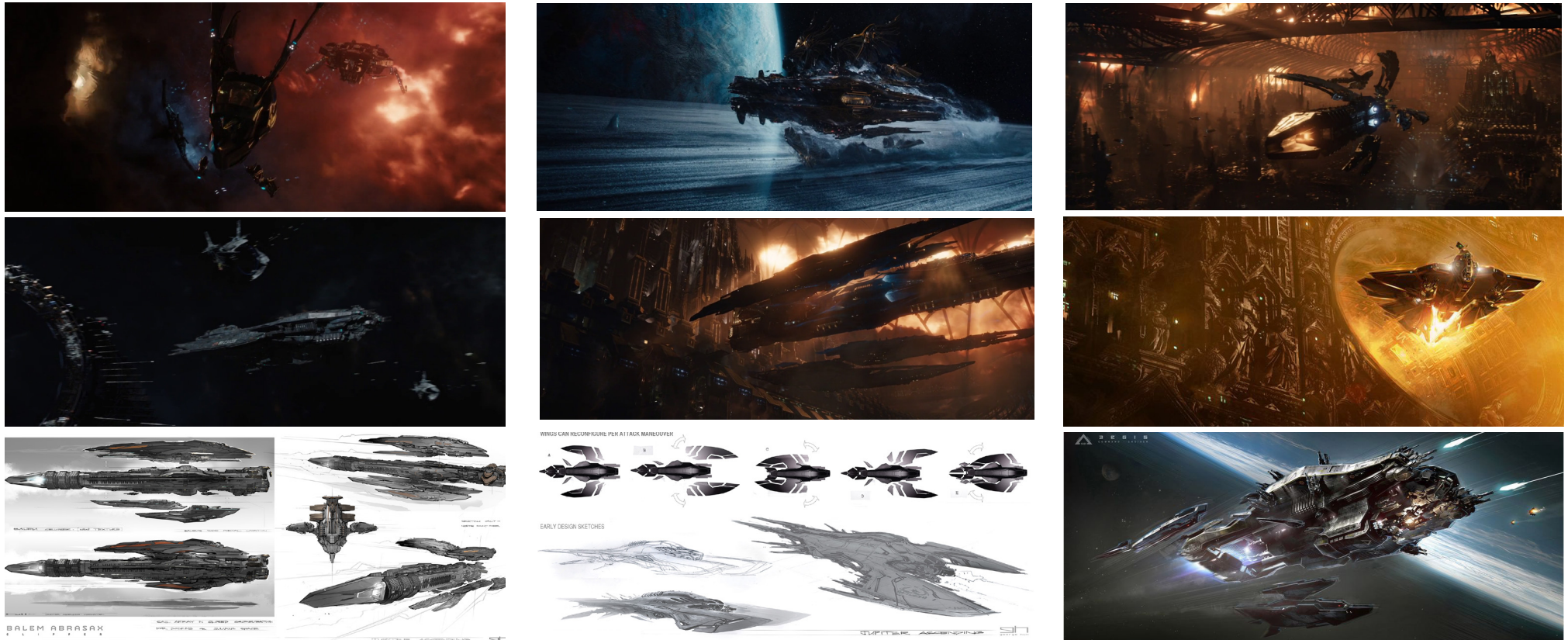
Instant space suits are a type of technology that allows characters to quickly and easily protect themselves from the harsh environment of space. The suits are depicted as a small, collapsible device that can be activated by pressing a button or pulling a lever. Once activated, the device instantly creates a protective suit around the wearer's body.

Weapons



A variety of advanced and futuristic weapons are used by the characters. These weapons range from handheld guns to high-tech ships equipped with powerful lasers and missiles. One of the most prominent weapons in the movie is the blaster, a handheld gun that fires energy bolts. Another weapon that appears in the movie is the “gravity roller,” a device that can manipulate gravity and create powerful shockwaves.

9.2 Spaceships



The movie features a variety of spaceships that are designed to transport characters across the vast expanse of space. These spaceships are depicted as advanced and highly technological, with sleek designs and powerful engines. Each of these spaceships is designed to reflect the unique personalities and goals of the characters who use them. They are also used to create a sense of scale and wonder in the movie's many space travel sequences, helping to transport viewers to a world that is both technologically advanced and highly imaginative.

9.3 Gravity Boots



The grav boots work by manipulating gravity, allowing Caine to walk on walls or other surfaces that would normally be impossible to traverse. They also allow him to jump great distances and perform other acrobatic feats that would be difficult or impossible without the use of the boots.

9.4 Fighter Jet



Compact fighter aircrafts that mimicks the movement of bird wings.

9.5 Hoverbike



The hoverbike is a sleek and futuristic vehicle that appears to be a cross between a motorcycle and a flying craft. It is equipped with anti-gravity technology that allows it to hover and move through the air with ease.

10. Valerian and City of Thousand Planets

Release year : 2017

Context year : 2740

Synopsis

"Valerian and the City of a Thousand Planets" is a 2017 science fiction movie directed by Luc Besson. The story follows Major Valerian and his partner, Sergeant Laureline, as they embark on a mission to save the intergalactic city of Alpha from a dark force threatening its existence. Alpha is a bustling city that is home to thousands of species from all over the universe, and it serves as a hub for trade, culture and diplomacy. Valerian and Laureline navigate through various challenges and encounters with exotic creatures. The movie is set in the year 2740.

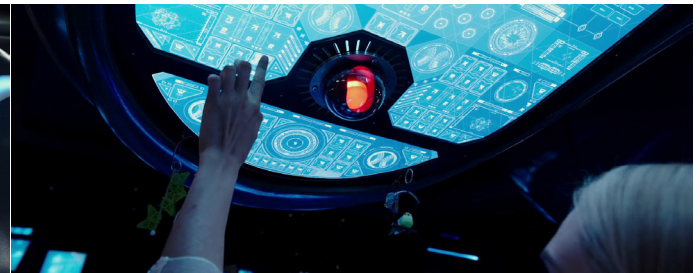
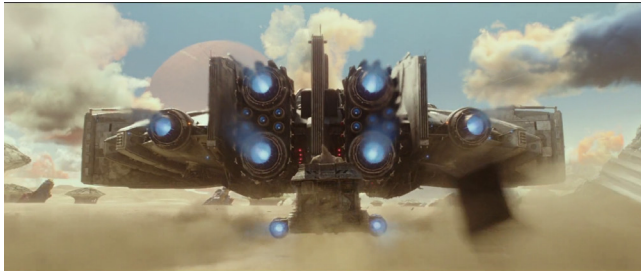


10.1 Mixed Reality Rooms



An advanced form of Virtual Reality technology where the entire room replicates the experience of an outdoor location. In this particular scene, the character is seen enjoying the sun and the beach while being inside a spacestation. All of this is controlled through an interface.

10.2 Fighter jet -Intruder



The Intruder is a sleek and advanced spacecraft that is designed for speed, maneuverability, and combat. It is equipped with an array of high-tech weapons and defense systems, including lasers, missiles, and shields. The interior of the Intruder is just as impressive as its exterior, featuring a spacious cockpit with advanced controls and a holographic display. The ship also has a living area with a bed, kitchen, and other amenities that allow Valerian and Laureline to live and work comfortably during their missions.

10.3 Mixed Reality Headgears



This particular helmet with HUD display is worn by police. It is shown that they get notifications and alerts through the HUD display.

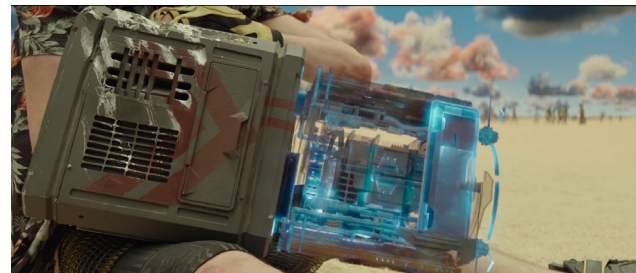
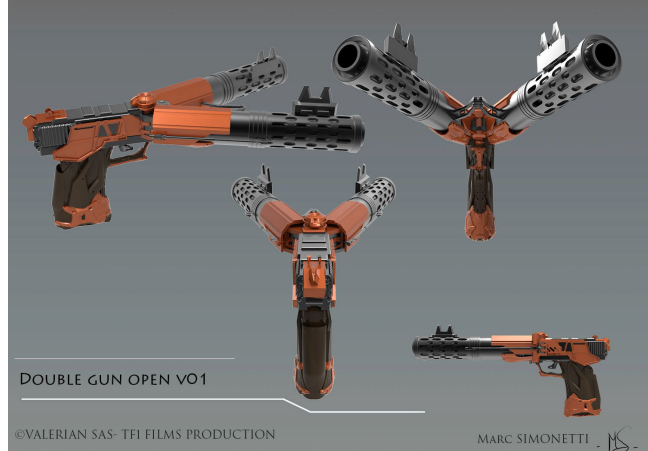
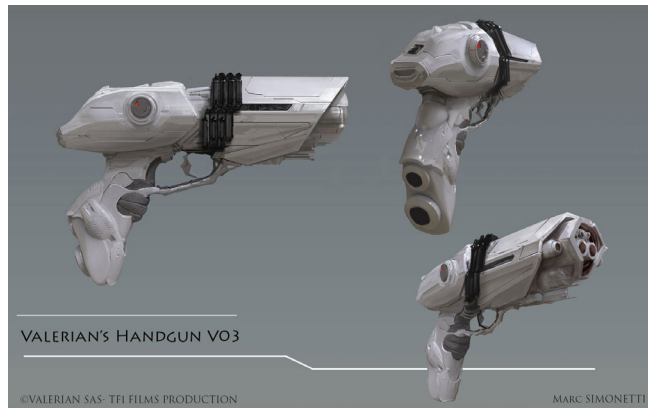


This particular VR headset is used to attack other people and take control of their physical body.



This is a type of VR headset worn by people to access a world in another dimension without being physically present there. They allow to see and interact with virtual objects and environments.

10.4 Weapons



The movie features a wide variety of futuristic weapons, both handheld and ship-mounted, which are used by different characters throughout the film. most importantly Neutron Rifle - a handheld weapon used by Valerian and other agents of Alpha. It fires powerful energy blasts and is capable of disintegrating enemies.

10.5 Hovering Truck



The hovering bus is a type of public transportation that is used to transport people around the city of Alpha. The bus hovers above the ground and moves along designated routes throughout the city. Visually bus looks like conventional school bus, but features hovering technology and retractable armour claddings.

10.6 Interactive display projections



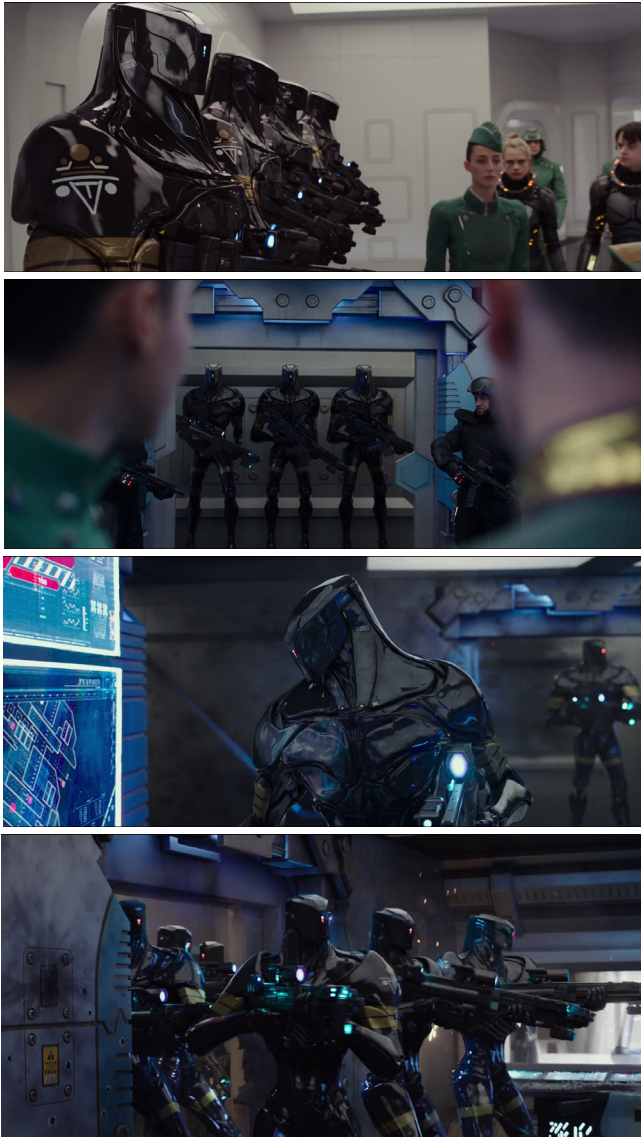
The movie features several instances of digital interactive screen projections, which are holographic displays that characters can interact with in a three-dimensional space. These projections are a common feature throughout the film and add to the futuristic and high-tech atmosphere.

10.7 Armored combat suits



Valerian and Laureline wear armored combat suits during certain missions. The suits are high-tech, protective suits that are designed for combat and other dangerous situations. The suits are designed to provide protection against various types of attacks. They have armored plating on various parts of the body, including the chest, arms, and legs, and they are also equipped with helmets and face masks to protect the head and face. The suits enhance the physical abilities of the wearer. They provide increased strength, agility, and endurance, making it easier for the wearer to move and fight in dangerous situations. The suits are also designed to allow the wearer to fly. They have built-in thrusters that allow the wearer to hover and fly through the air.

10.8 Attack droids



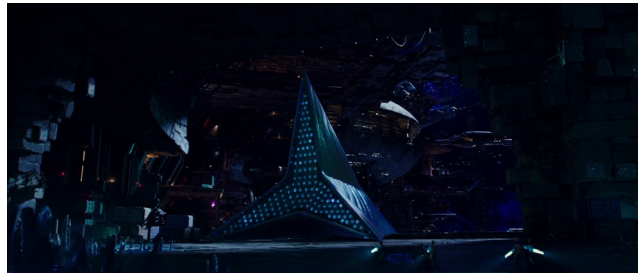
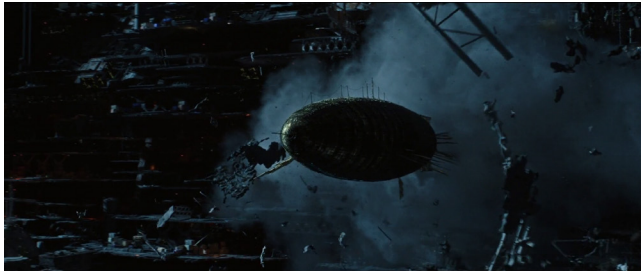
The attack droids are robots that are designed for combat and destruction. They are created and used by the main antagonist, Commander Arün Filitt, as part of his plan to maintain control of the city of Alpha. The attack droids are large, humanoid robots that stand several meters tall. They are heavily armed with weapons, including guns and blades, and they have glowing red eyes that give them a menacing appearance. They are designed to carry out their programming with ruthless efficiency. They are programmed to follow orders and destroy anything that gets in their way. They are also equipped with advanced sensors and targeting systems that allow them to detect and eliminate threats quickly.

10.9 Skyjet



The Skyjet has a sleek, aerodynamic design, with a smooth, curved exterior and angular wings. It is primarily white in color, with black and silver accents. The Skyjet is designed to be a fast, agile aircraft that can navigate through the crowded and complex environments of Alpha, the city of a thousand planets. It is able to fly at high speeds and perform advanced maneuvers, such as flips and rolls, to avoid obstacles and evade enemies.

10.10 Various spacecrafts



The movie features a variety of different spacecraft and spaceships, each with unique designs and capabilities. Each of these spacecraft and spaceships adds to the overall sci-fi atmosphere of the movie and helps to create a rich and diverse world for the characters to explore.

11. ALITA: BATTLE ANGEL

Release year : 2019

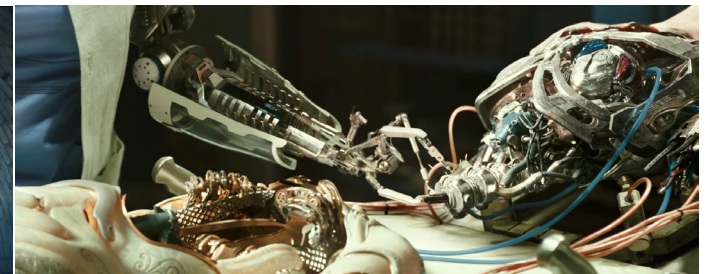
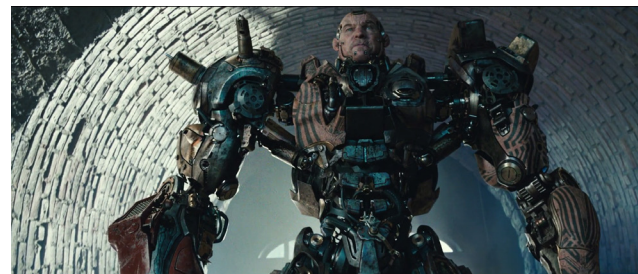
Context year : 2563

Synopsis

Alita: Battle Angel is a 2019 American cyberpunk action film based on the manga series *Gunnm* by Yukito Kishiro. The movie is set in a post-apocalyptic future and follows Alita, a cyborg who is brought back to life by Dr. Dyson Ido, a cybernetics doctor, and becomes a hunter-warrior, a bounty hunter. As she tries to discover her past, Alita finds herself in the midst of a deadly conflict between the oppressive forces of the city of Zalem and the people of Iron City, where she lives. The story takes place in year 2563 and the setting has a cyberpunk aesthetic, with elements of both dystopian and futuristic themes. The movie's world is a blend of fantasy and sci-fi,

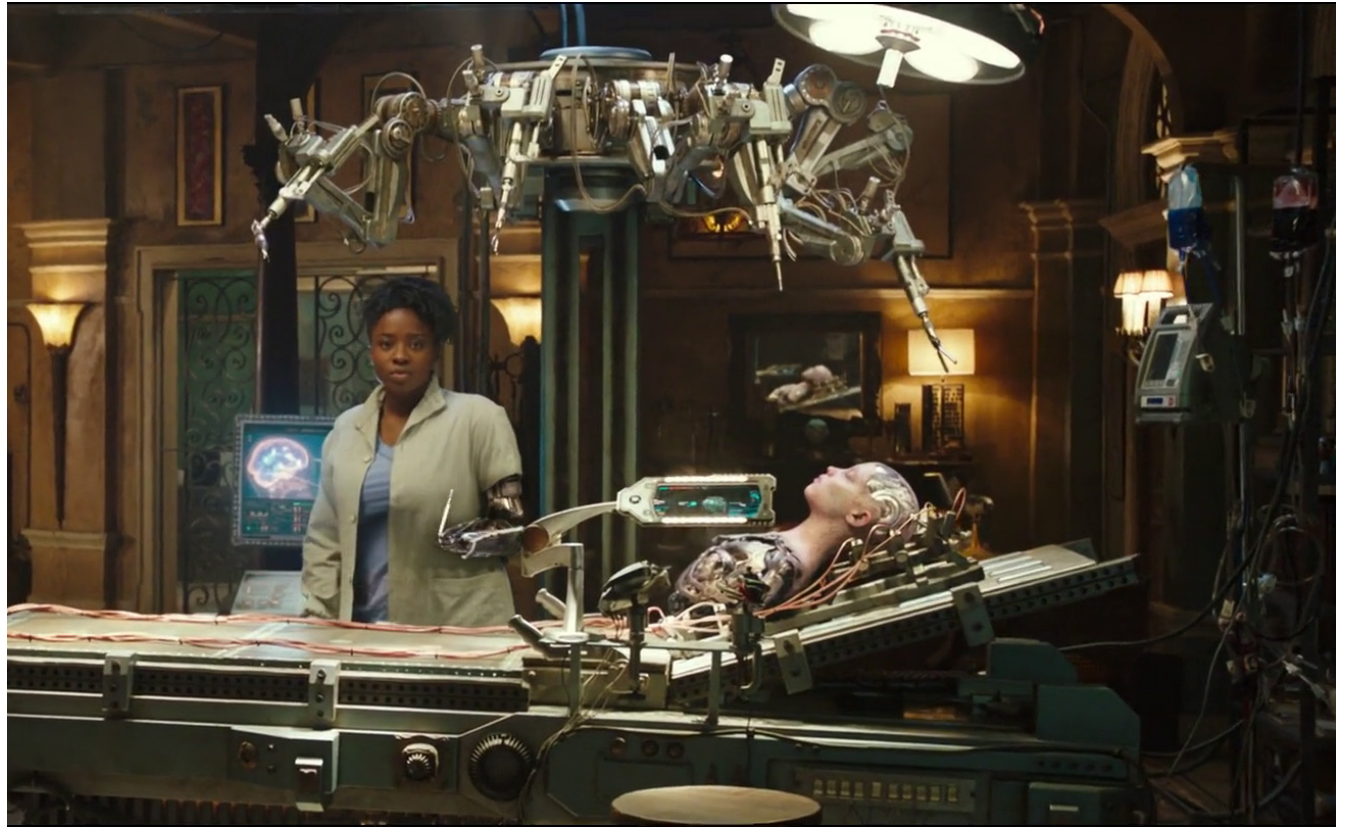
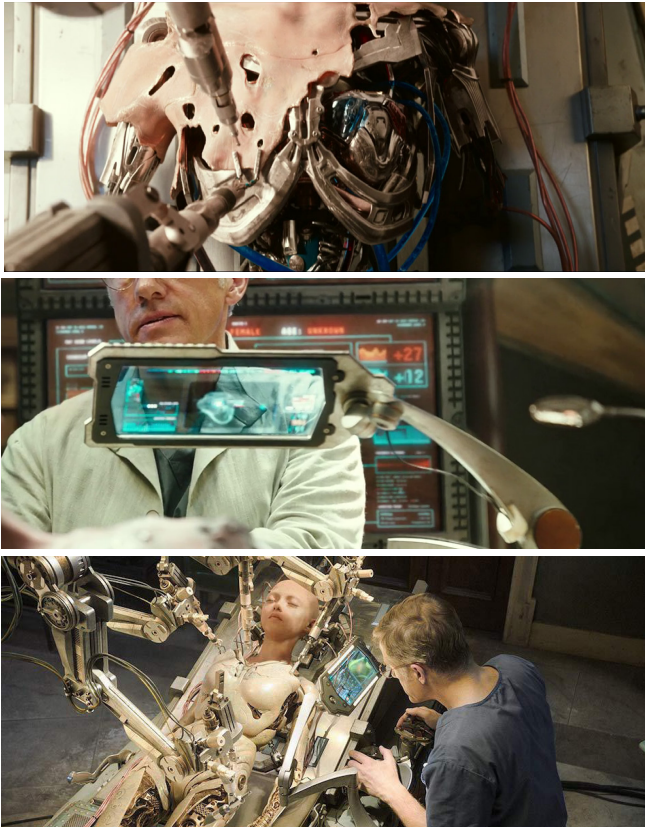


11.1 Cyborgs



Cyborgs are fictional or real beings that are part human and part machine. They are created by integrating artificial components, such as robotic limbs or implants, with the organic body. In science fiction, cyborgs are often portrayed as having superhuman abilities, such as enhanced strength, speed, and agility. They may also have advanced sensory capabilities or other enhancements that give them an edge in combat or other activities.

11.2 Robotic Assisted Surgery



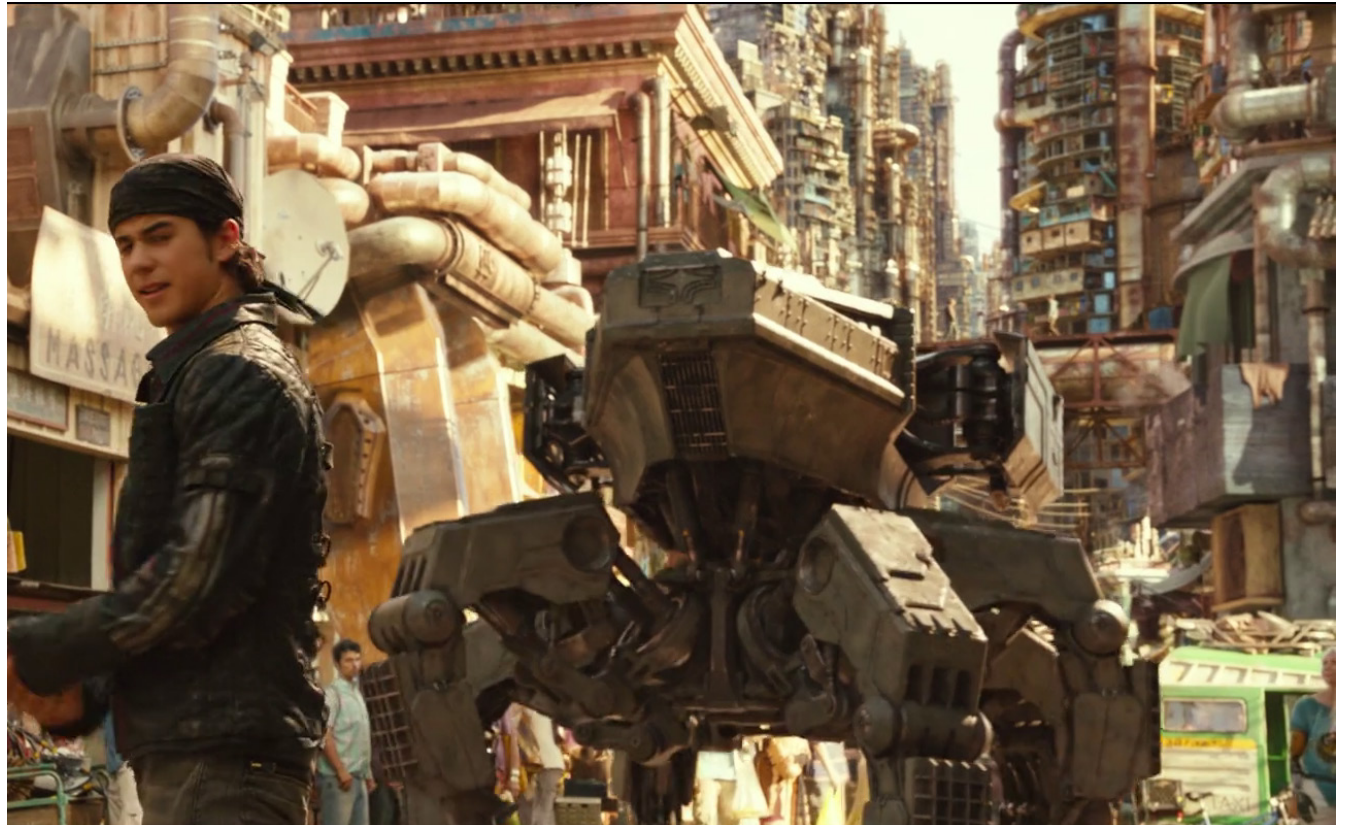
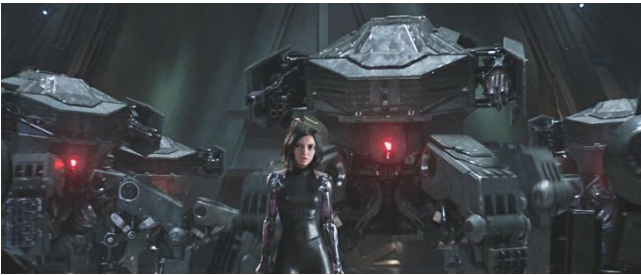
Advanced robotic tools and artificial intelligence to perform complex surgical procedures. The technology allows surgeons to perform operations with greater precision, speed, and accuracy, reducing the risk of complications and improving patient outcomes. The robotic arms are equipped with specialized tools, including cameras and instruments that can bend and rotate to access hard-to-reach areas

11.3 Vehicles



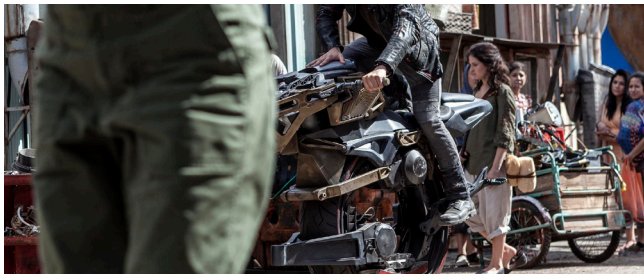
The vehicles have a retrofuturistic aesthetic, meaning they have a style that combines elements of both the past and the future. The vehicles look like they were designed in the past, but with modern technology and features.

11.4 Patrol bots



The robotic bots are massive robots controlled by the character Vector. These patrol bots are sent out to maintain order and hunt down anyone who breaks the law in the city of Iron City. The patrol bots are equipped with an array of weapons and can be difficult to defeat, making them a formidable opponent. The design of the patrol bots is imposing, with their large size, armored plating, and glowing eyes.

11.5 Gyro-cycle



The gyrocycle is a high-tech futuristic motorbike featured in the movie. The vehicle is basically a single wheel motorcycle. The design of the monocycle, along with other vehicles in the movie, reflects the retrofuturistic aesthetic of the film, blending elements of both old-fashioned and futuristic designs.



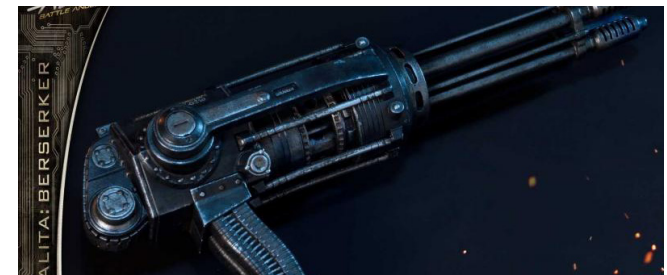
11.6 Weapons



Rocket Hammer: This is a massive weapon used by Dyson Ido. It is essentially a sledge-hammer with rocket boosters, which makes it incredibly destructive.



Damascus Blade: a sharp weapon with a curved, black blade that can easily slice through robotic components or human flesh. The blade is made up of Damascus steel, which is known for its strength and durability, and it is infused with plasma.

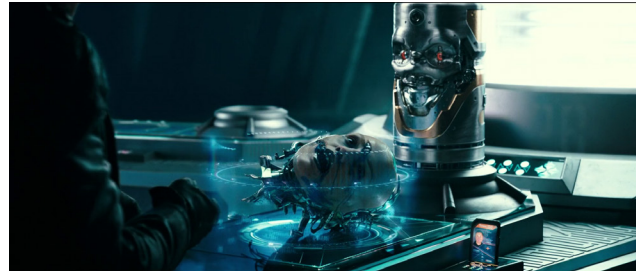


Plasma guns: This is a high-tech weapon that fires a powerful blast of plasma. It is commonly used by the cyborgs as well as humans in the movie.

11.7 Gadgets



A combat space suite worn by soldiers in battle on the surface of the moon.

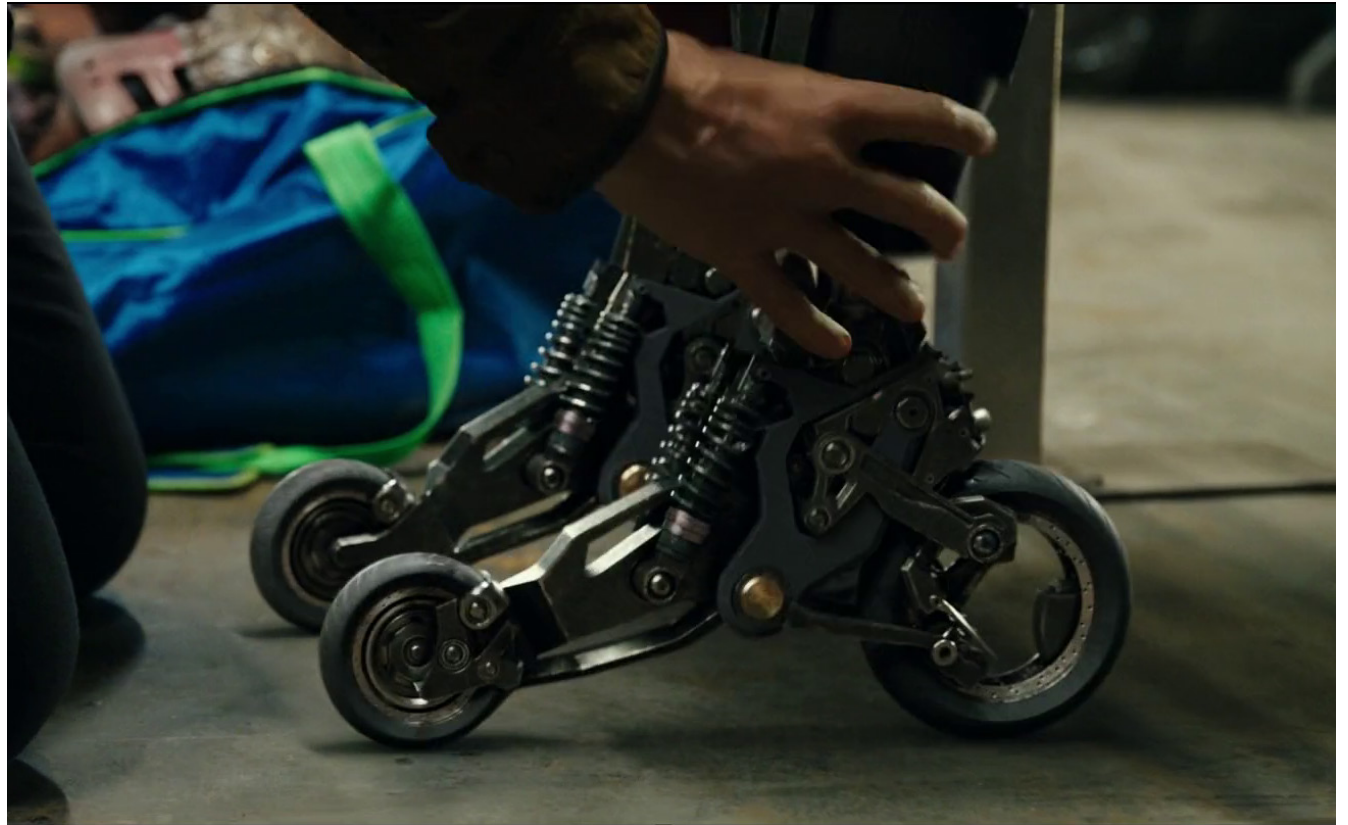


Holographic screens and projection.



A smart device which functions similarly to a smartphone. It is also used as a Identification card in some scenes.

11.8 Motorskates



Motorskates are a type of futuristic footwear that allow the wearer to move around quickly and effortlessly. They resemble rollerblades with a sleeker design and allow for enhanced mobility, including jumping, dodging, and running at high speeds. The motorskates are used in combat, sports and entertainment. They are equipped with a range of high-tech features, such as adjustable wheels, shock absorbers, and enhanced traction, making them highly versatile and ideal for a range of different situations.

12. Dune

Release year : 2021

Context year : 10191

Synopsis

Dune is a 2021 science fiction film directed by Denis Villeneuve. The film is an adaptation of the classic 1965 novel of the same name by Frank Herbert. The movie takes place in the distant future, where humanity has spread across the galaxy and is ruled by feudal noble houses. The story revolves around Paul Atreides, the son of a powerful Duke who is sent to the desert planet Arrakis, the only source of the valuable substance known as "spice." Arrakis is a harsh and unforgiving world, and Paul must navigate its dangers as he strives to claim his rightful place as the ruler of Arrakis and uncover the secrets of the spice. The film features stunning special effects, and a rich and detailed world that brings Herbert's classic novel to life on the big screen.

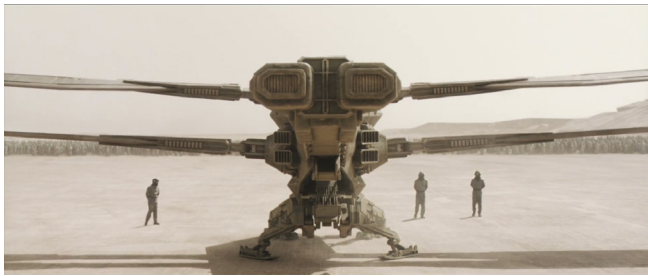


12.1 Spacecrafts



In the world of Dune, large ships are able to fly through the use of antigravity technology and the substance known as “spice. The technology is vague and unexplained.

12.2 Ornithopters - Type 1



The ornithopter is a beautiful, dragonfly looking aircraft that characters use to fly around the desert planet of Arrakis. Ornithopters in Dune fly through the use of mechanical wings that flap in a manner similar to those of birds. This motion creates lift and propels the ornithopter through the air, allowing it to fly and maneuver in a way that is similar to real-world birds.



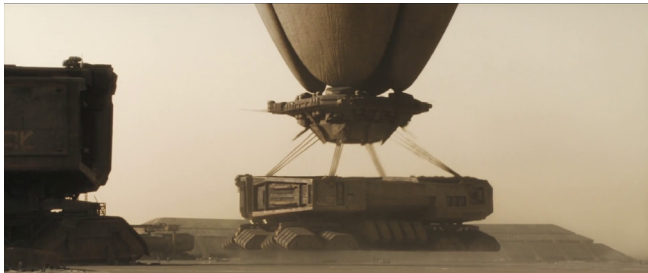
Ornithopters - Type 2



An another variant of ornithopter is also shown in the movie with a more civilian design language without any weapons.



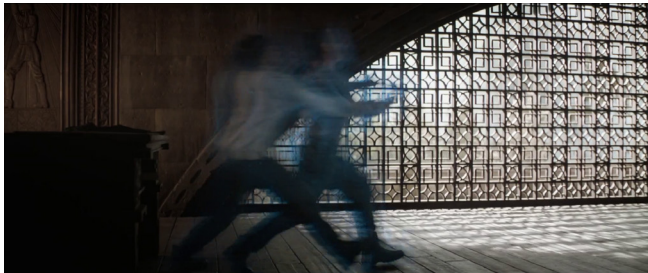
12.3 Spice Harvester



The spice harvester is a specialized vehicle that is used to extract the spice from the sand dunes of Arrakis. These machines are depicted as large, imposing vehicles that are equipped with a variety of advanced technologies, including drilling and excavation equipment, as well as sophisticated systems for processing and refining the spice once it has been extracted.



12.4 Holtzman Shield



Most combatants in Dune wear 'shields' that produce a protective energy field around the person. Things can only pass through it if it is going below a certain speed. These shields have been visualised as a sort of vibrating or ghosting affect, that indicates blue when activated and red when penetrated. This makes large battle scenes easy to read and also creates very visceral fight scenes.

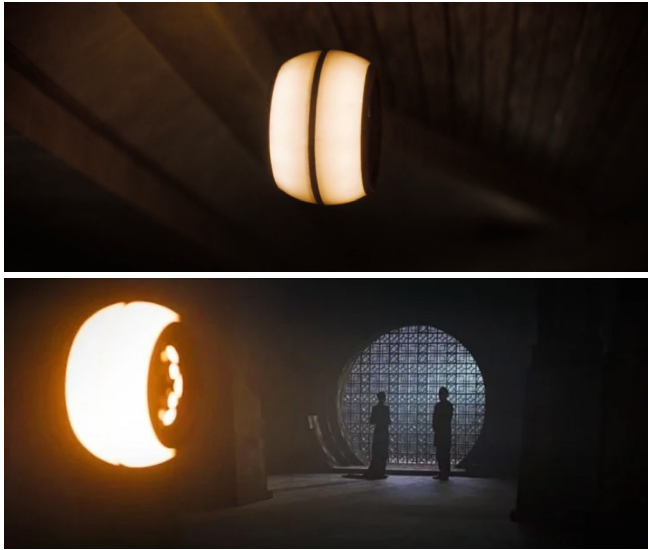


12.5 Stillsuits



Stillsuit is a piece of personal equipment worn by the nomadic Fremen in Dune universe. The stillsuit is designed to conserve water and prevent dehydration in the harsh and arid environment of the planet Arrakis. It works by collecting and filtering any moisture produced by the body, such as sweat and breath, and returning it back to the wearer in a closed-loop system. This allows the Fremen to survive in the desert without having to rely on scarce water sources.

12.6 Gadgets



A glowglobe is a small, spherical device that produces light. The glowglobes are depicted as being used as lamps, with a soft and warm light that illuminates the surrounding area. They are shown to be commonly used in various settings, such as in homes and other buildings, to provide ambient lighting. The light is seen as following the people as they move.



A thumper is a short stake with a spring-loaded clapper on one end. With the catch released, the thumper would pound repeatedly. It was used to summon a sandworm on the planet Arrakis



The character Paul often uses a hologram projector to learn about the planet of Arrakis. It's quite grainy and fairly low resolution but emits a 3D image that you can walk through.

13. Space Sweepers

Release year : 2021

Context year : 2092

Synopsis

The South Korean science fiction film, Space Sweepers, takes place in the year 2092, where Earth is nearly uninhabitable, and a group of space scavengers known as the Space Sweepers are responsible for cleaning up the debris in space to earn a living. When they find a humanoid robot named Dorothy that is revealed to be a weapon of mass destruction, they attempt to sell it for a large sum of money. However, they soon discover the true intentions of those who seek to acquire the weapon, and must decide whether to profit off of it or to prevent a catastrophic event from occurring.



13.1 Tech and Gadgets



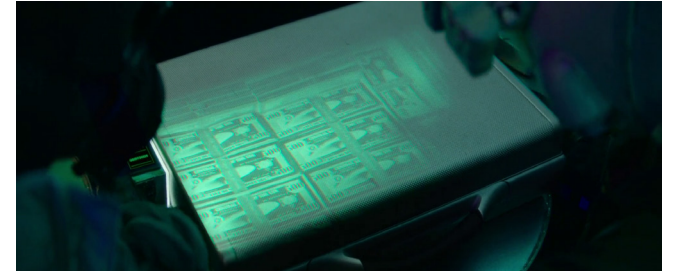
Space station and vehicle windows with built in digital display that can display advertisements or relevant informations.



Antigravity technology which is used in space stations to simulate the gravity.



Biometric scanner that validates VISA and work permits through iris scan.

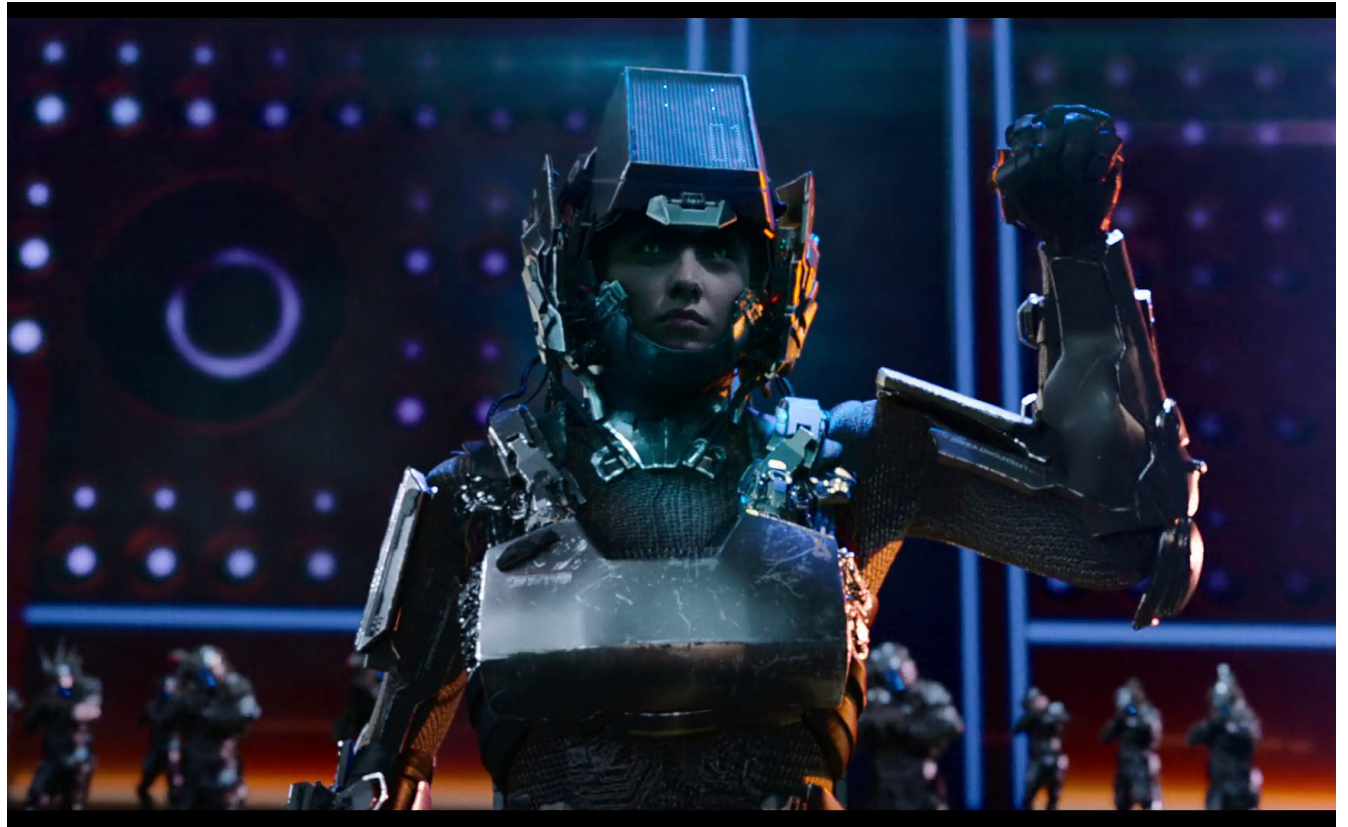
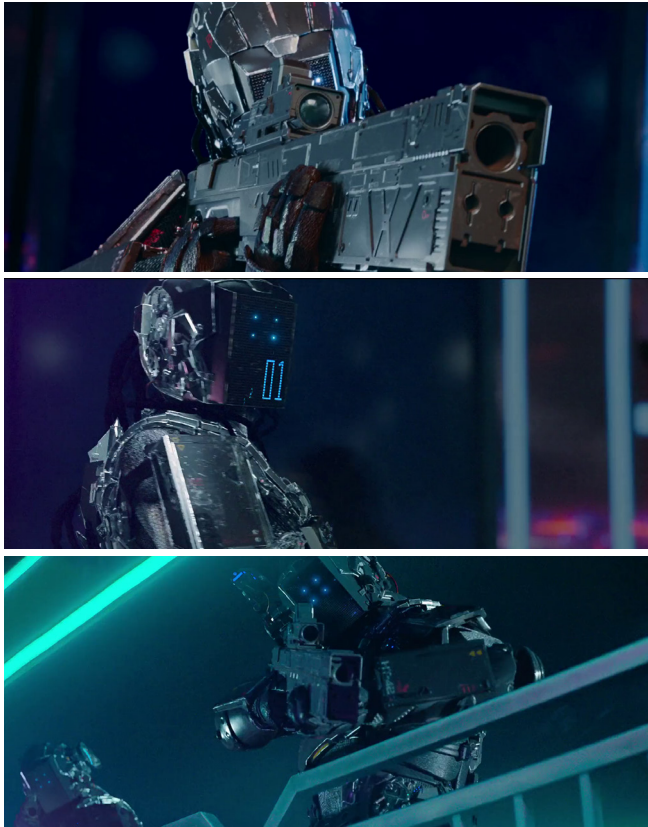


A device that can scan and accurately count money stored in a closed suitcase.



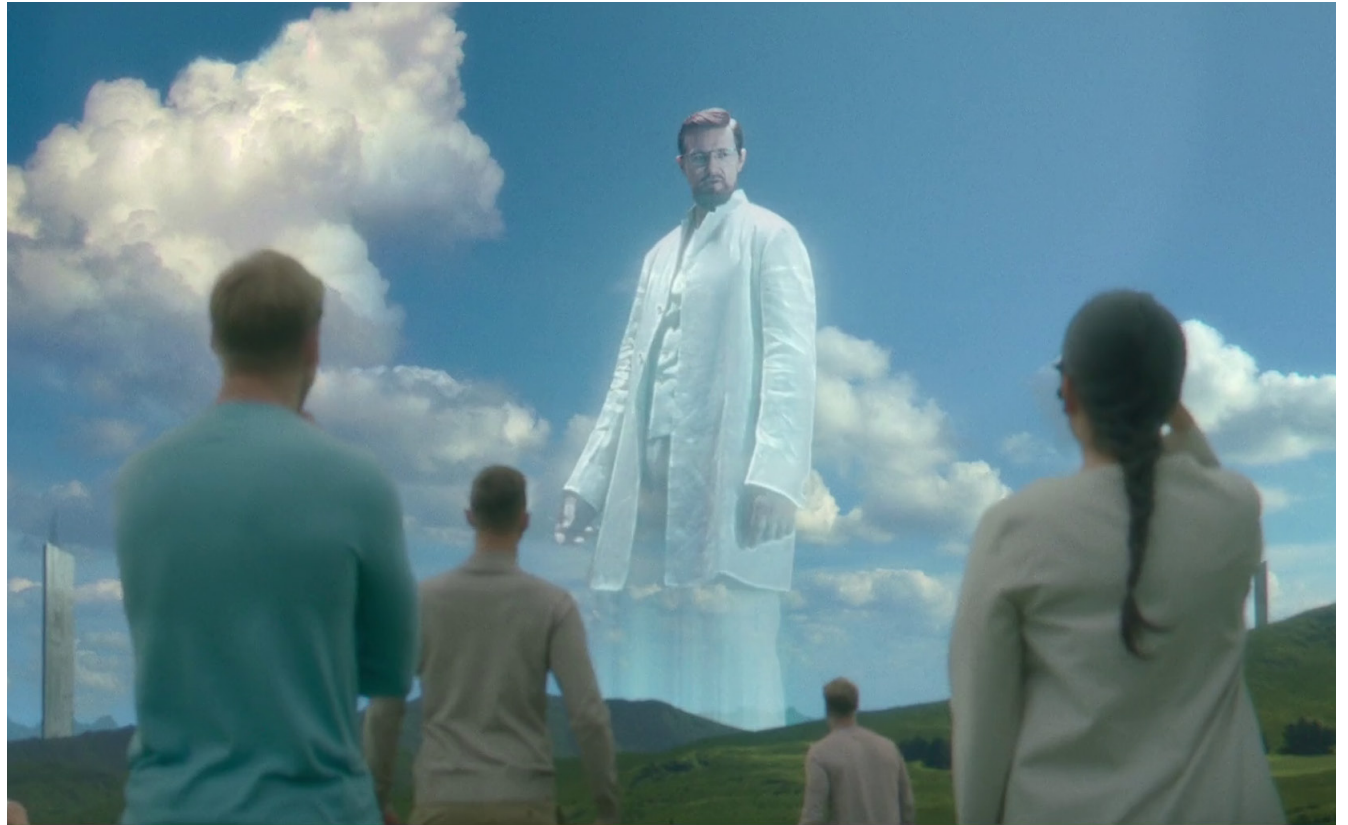
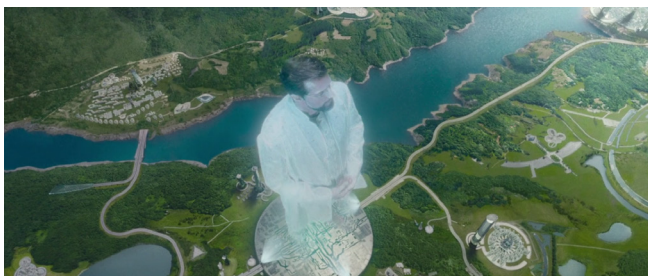
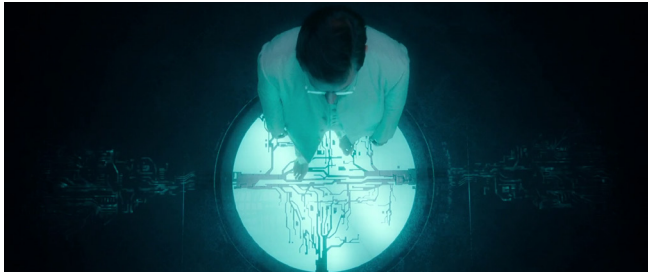
Magnetic boots that allow user to stick to metallic surfaces.

13.2 Armored suits



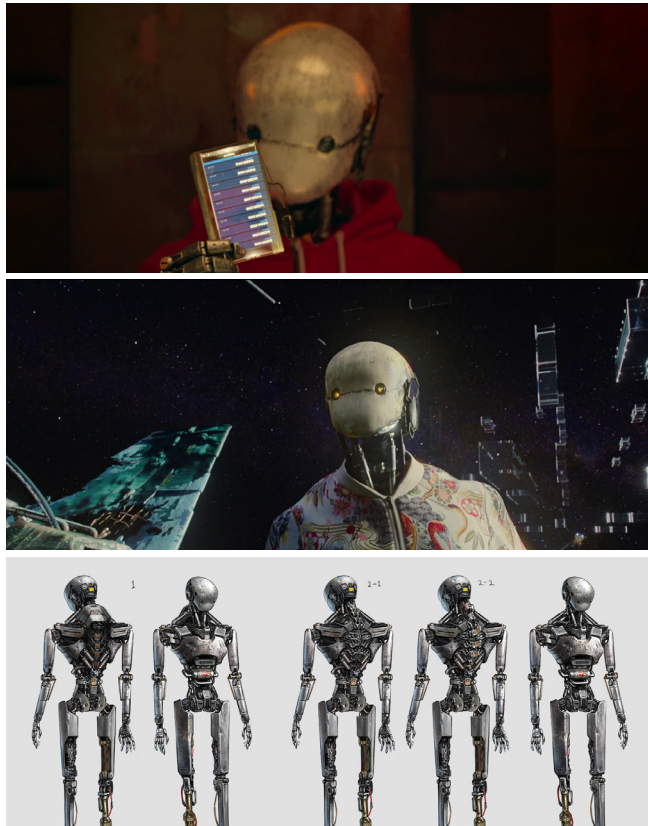
Mech suits - A full body metallic suit worn by security forces that enhances strength of the wearer while also providing protection from heavy weapon fire and high energy blasts. The suits also have a heads-up display (HUD) which provides vital information to the wearer, such as their health and the status of their weapons

13.3 Holographic public announcement system



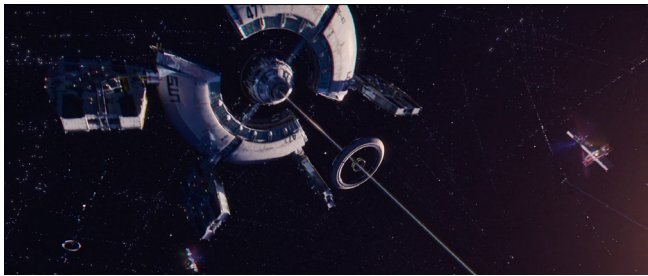
Holographic live announcements technology is used to broadcast live announcements from the government and corporations to people across the galaxy. A gigantic live feed of the head of state is projected from a secure location onto a huge public platform for a critical announcement.

13.4 Fully Autonomous Robot



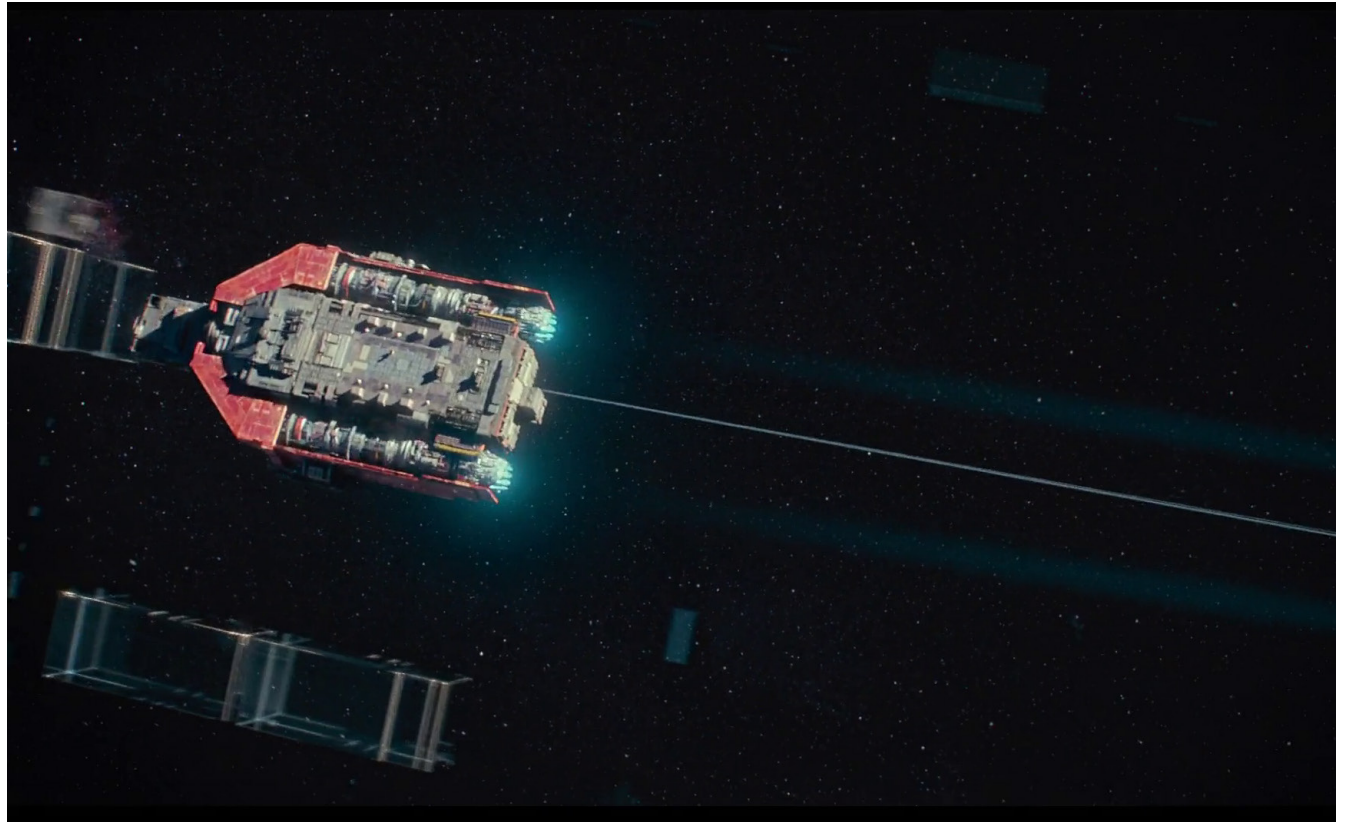
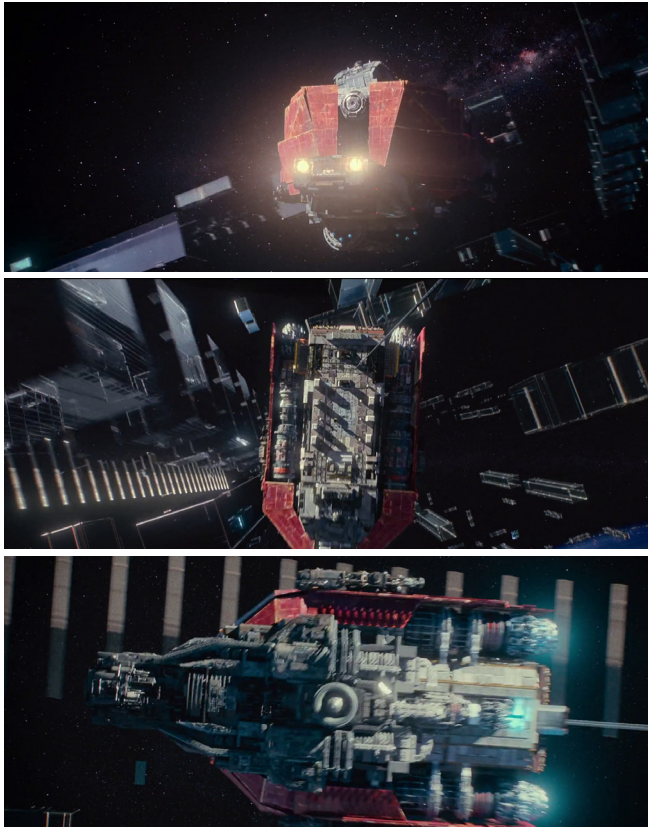
There are several autonomous robots featured. The robots are shown performing various tasks such as cleaning, maintenance, and assistance. Bubs is a humanoid robot in the movie who works as a member of the space salvage crew. Bubs is portrayed as a loyal and friendly companion to the human crew members, and has a variety of functions such as helping with repairs and providing comic relief. Bubs is also shown to have advanced artificial intelligence, which allows it to learn and adapt to its environment over time.

13.5 Astroloop - Earth-Space Elevator



The Astroloop is a massive, cylindrical structure that stretches from the Earth's surface up to space. It is used to transport people and goods between the Earth and the space station. The Astroloop has different levels that are dedicated to different purposes, such as residential, commercial, and industrial use.

13.6 Space ship



There are several small spacecraft shown that are used by the main characters. The vehicles usually have a crew of 6-7 people. One of the most prominent is the “Victory,” a small, battered salvage ship that is home to the crew of space scavengers. The Victory is equipped with a variety of tools and gadgets, including harpoons and cutting torches, that are used to capture and break down space debris for salvage.

13.7 Holographic Screen Projections



Holographic screen technology is used extensively in the movie. It is depicted as a type of transparent screen that can display images, videos, and information. These screens are also interactive, allowing users to manipulate the objects they are displaying. The holographic screens are used in various settings, such as in the control room of spaceships and personal devices.

14. REFERENCE

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