

# *Phytopolis*

## *Design Specification*

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## HIGH THEMATIC STATEMENT

*Phytopolis* is set in a world of juxtaposition between industrialization and nature. By cultivating a tiny sprout into a thriving vine, the player brings *balance* to a cyberpunk, dystopian metropolis that lacks greenery. Even within the polluted inner city, flickering neon signs bring light to the dark cityscape, signaling that *hope is not yet lost*.



## CHAPTER 1: MOOD



### **DARK, DYSTOPIAN, BUT OPTIMISTIC**

Dim, dull setting contrasted with bright, neon colors on the buildings inspired by the dystopian Cyberpunk world. Rusty textures, messy power lines, and dirty alleyways. Contrasting with the background are neon lights and a plant to signify hope, which will eventually reach the skyline with the player's help.



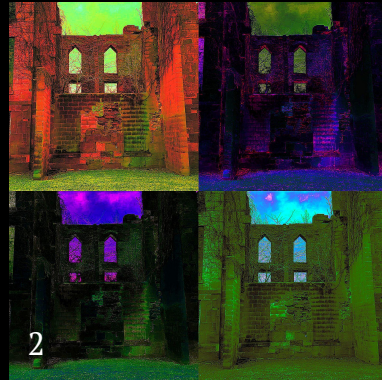
## CHAPTER 2: SOUND

### Inspirations

Calm music mixed with a growing sense of urgency and tension. Songs will be played on loop. Sound effects will be primarily field recordings, as well as synthesized sounds.



*Celeste* is a great example of the mix of calm and stressful the soundtrack should have. Tracks like “Golden” and “In The Mirror” demonstrate this well.



The song “Viridian” serves as the basis for the sound design of Phytopolis. It is composed with both handmade instruments and synthesized sounds.



The *Blade Runner* soundtrack provides some good examples of what the menu music should look like: ambient and dreamy.



Songs from *Cross* like “Waters of Nazareth” and “Stress” both use industrial sound design in a way that the more intense songs should as well.



# **CHAPTER 3: PHOTOS**



1



2



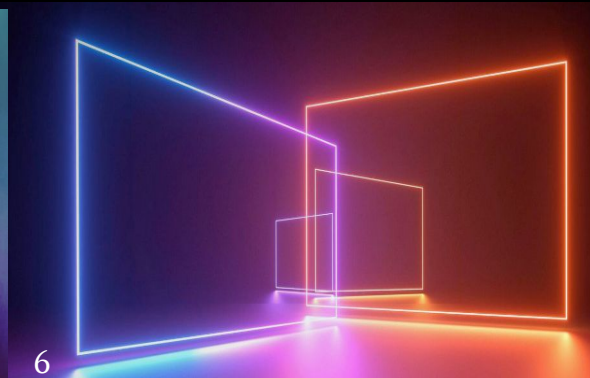
3



4



5



6

## WIRES AND NEON LIGHTS

Contrasting electrical wires and vibrant neon light signs are a decorative must to a cyberpunk world.





Texas Vine

1



Devil's Ivy

3



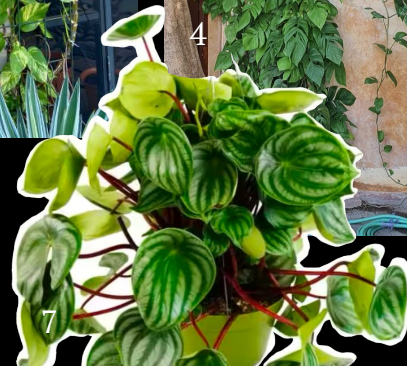
Monstera

4



Hoya

5



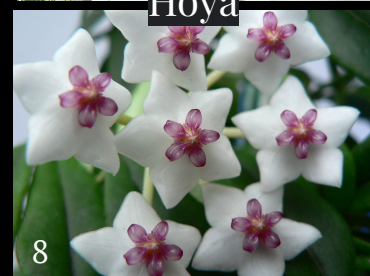
Watermelon Peperomia

7



Swiss Cheese Pothos

6



8

## FOLIAGE

Levels feature different plants to maximize player's interest. We selected various looking leaves for the platforms to possibly incorporate different functionalities.





## CITYSCAPE AND ALLEY

The plant roots and grows its first leaf in the dark and low alleyway. As the plant flourishes, the player climbs higher and higher to view the whole cityscape.





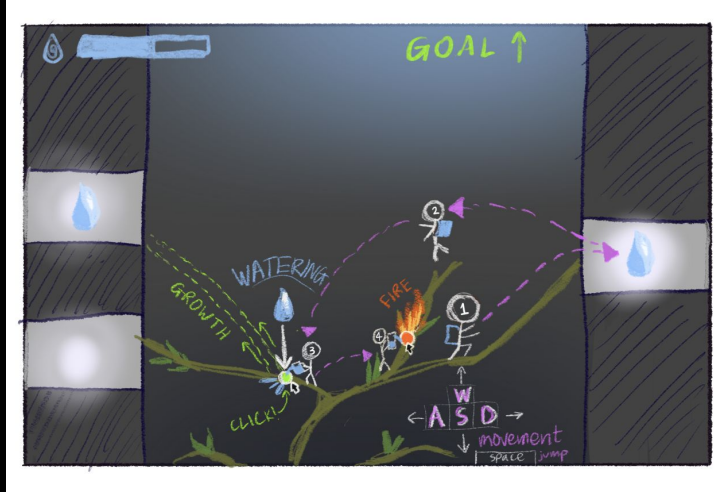
## FIRE AND DRONES

Hazards appear as the plant is growing, such as drone attacks and electrical fires.

# **CHAPTER 4: ART STYLE**



## 4: PERSPECTIVE



Note: This storyboard does not have updated resource bars or platform growing mechanics.

**2D vertical scroller** — Player progress in this game is linear and vertical. Having the camera be side-on allows the player to clearly navigate from the bottom of the plant to the top.

This choice will cause growth to take place in 2 dimensions, drones to move on a path in a straight line.

All of our artwork will be drawn from a side perspective which means platform leaves will appear flattened to allude to depth. There will not be a vanishing point.

## 5: COLOR SCHEME

essentials

outline  
#1B022B  
(pencil 8px)

shading  
#4C2986  
(multiply 50%)

highlight  
#EA6CDF  
(add 80%)

pink neon  
#EB5AF7

blue neon  
#73FBFD

background

#F3B6FA

#EB5AF7

#D239DE

#B530C0

#9D28A7

#66176D

#4D0F52

#39083D

#F8D8FC

#A27CDB

#4C2986

#422374

#3A1F65

#251442

#1B0E31

#150B25

plants

#CBFCD8

#75F978

#6EED95

#59C039

#4CA758

#419028

#D2EC4C

#67DE43

#4CA730

#2F6C1C

#225213

#173C0B

The game adopts the dark, primarily purple color scheme of the cyberpunk world. It consists of purple, pink, and some neon colors. Everything in the background follows the two rows from light to dark, and the pink and blue neons will be used for signs as decoration and highlighting.

The bottom two rows of this color scheme collection are used for the plants. While the branches will be using the darker colors, the platforms that players can interact with will be painted with the six colors on the left (as indicated).



## 5: COLOR SCHEME

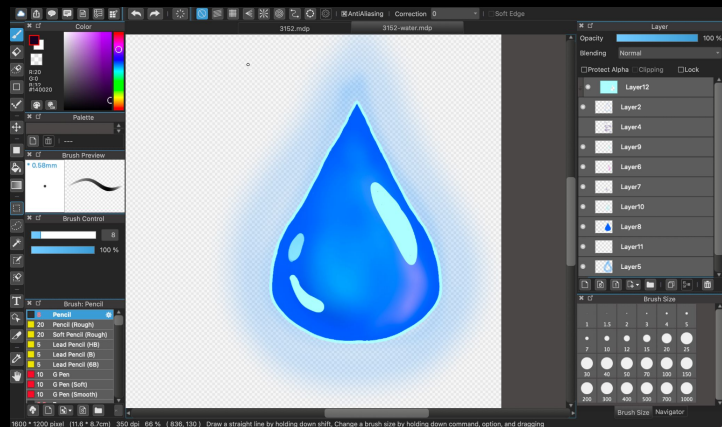
This page includes the color schemes for some secondary elements for the game: water, sun, and fire.

The primary color used for these elements is the one in the fourth column, as indicated by the outlined rectangle. The other colors will be supplementing the highlights and shadows of each asset.

From the plants to these three elements, the color schemes have higher brightness, contrasting with the background to show players that they can interact with these elements, also signifying that they are essential for the “hope” that they want to find.

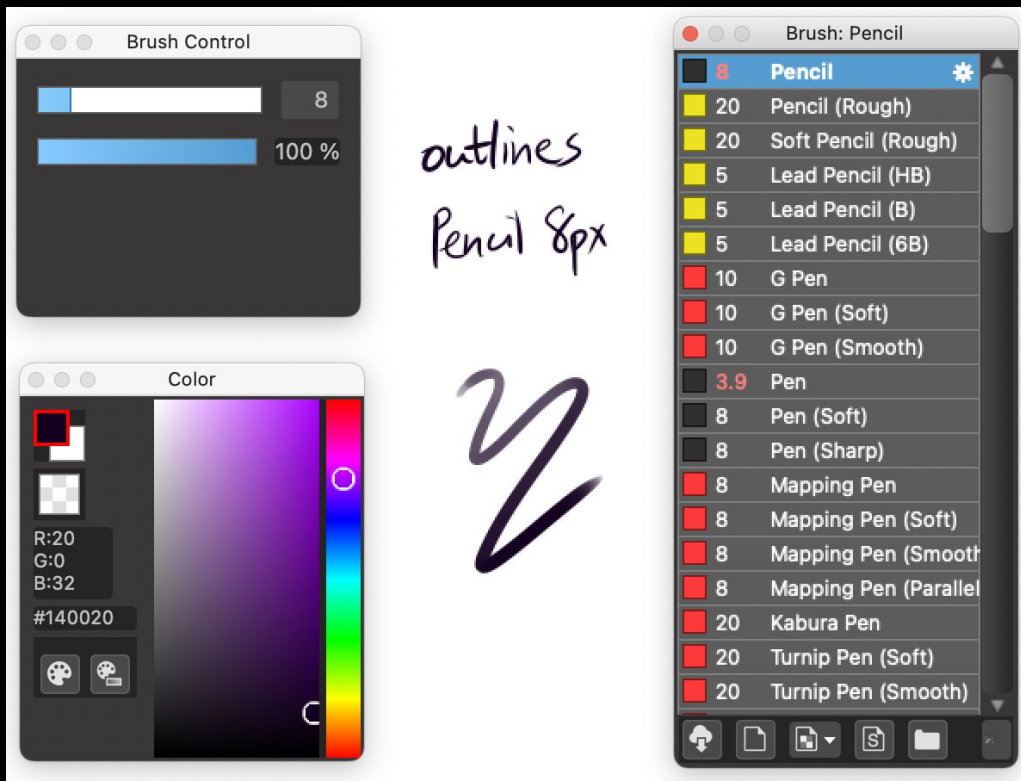
water	#C9FDFE	#73FBFD	#48AAF8	#3D94DB	#3480BF	#20547C	#163F5D	#0F2F45
sun	#FFFFB7	#FFC192	#FFEA61	#FFDD3C	#FFD400	#DFBA02	#C3A202	#9E8300
fire	#FDE4C6	#FFCC9F	#FFB669	#FF7D39	#FF6501	#E35900	#CE5100	#B14600
	#F5C6C4	#F6A09D	#ED7A76	#EC5750	#EB3D31	#DA3124	#B1271D	#952118

## 6: LINE-ART

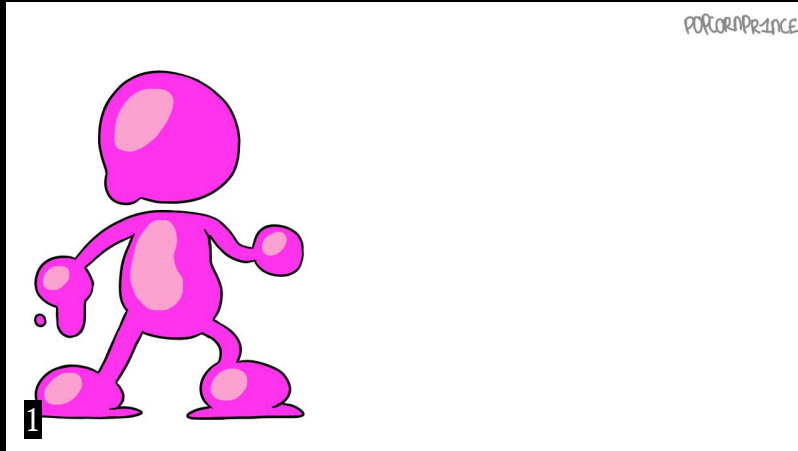


We decided to use MediBangPaintPro as our primary art platform.

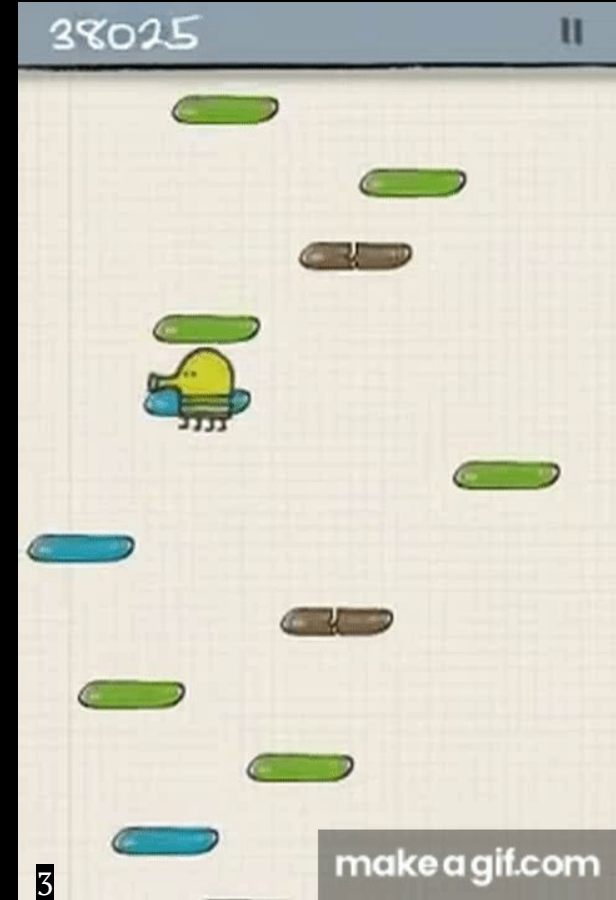
Art assets that the players can interact with have outlines, while anything else do not. The line is specified by 8px Pencil.



## 7: ANIMATION



These examples demonstrate the frame rate and style of animation that will be used in the animations of *Phytopolis*. Characters and platforms will have dark outlines, but hazards such as fire will not.





## 8: ADDITIONAL ELEMENTS – LOADING PAGE

The initial logo has a clear text with the name of our studio. An animation will be created to transform the text to an ambigram of our studio name with plants grown around the characters to fit the theme of *Phytopolis*.



## 8: ADDITIONAL ELEMENTS – SOUND EFFECTS

### CORE MECHANICS

#### Watering (0:10 - 0:12):

Used for when the player waters the plant to grow it or puts out the fire

#### Growing (0:00 - 0:02 pop 1):

Used for growing a normal branch, the pop is specifically placed when the platform –the one that the player can interact with – appears

#### Glitter growing:

Used for when the player grows a “special branch” by using the sun resource. Unlike the pop for normal growing, this is a prolonged sound effect that persists through the whole growing animation.

### HAZARDS

#### Warning (0:36 - 0:46):

Used as a notification for the player that a hazard is about to occur. We particularly like the slow to fast transition and the occurrence of fire.

#### Drone (0:44 - 0:46):

\*\*specifically the sound when it passes

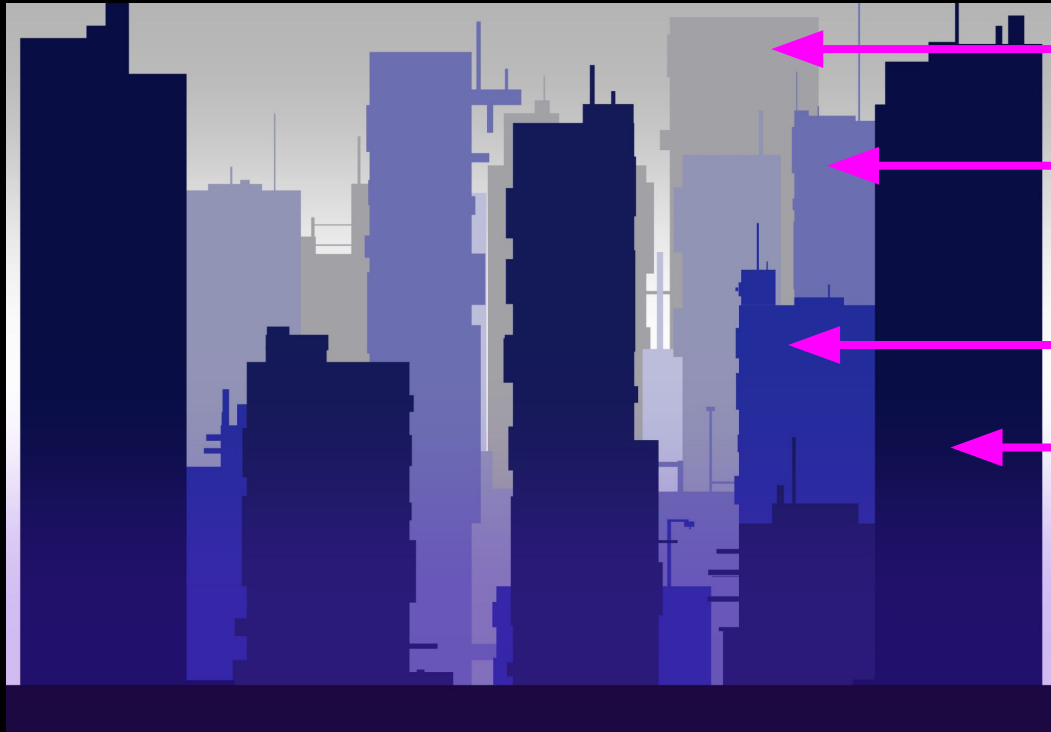
Used for the drone when it’s flying in the air, either as a background sound effect or hazard

#### Drone Crashing (0:05)

#### Fire:

Used for the fire hazard occurrence

## 8: ADDITIONAL ELEMENTS – PARALLAX BACKGROUND



Layer 1 (slowest)

Layer 2 (slow)

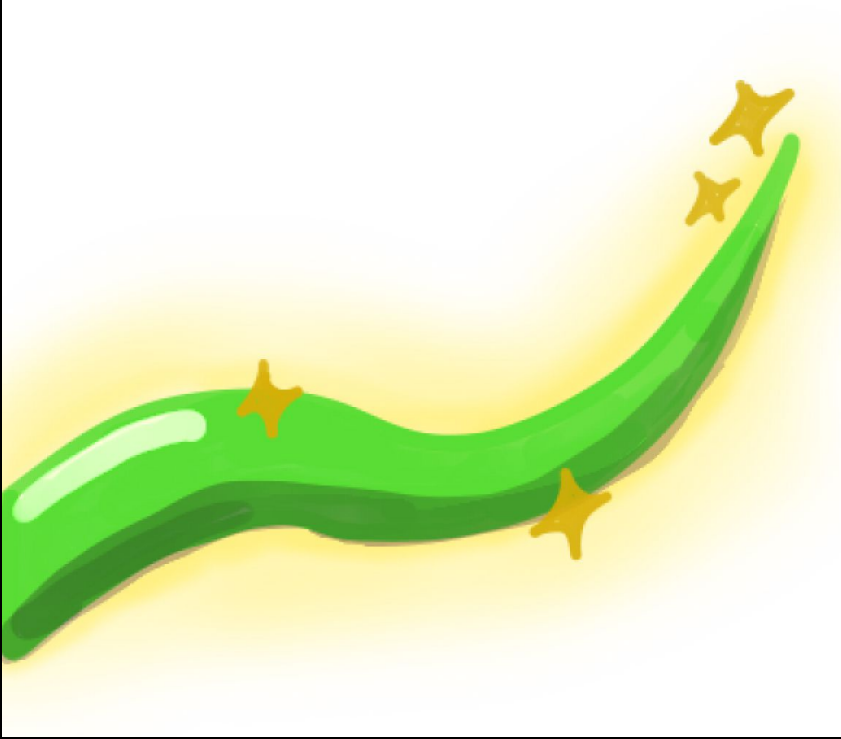
Layer 3 (fast)

Layer 4 (fastest)

The game is a 2D vertical scroller, with a parallax background behind the primary gameplay assets.



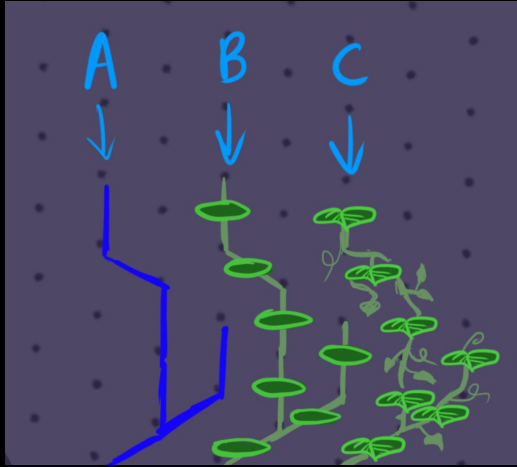
## 8: ADDITIONAL ELEMENTS - PLANT GLITTER



Another additional element we are considering is adding a glitter effect to the “special branch” when it is being grown.

A special branch has additional features that helps the player navigate through the level faster, and having this effect, along with the different sound effect, will help the user identify the uniqueness of this branch than others.

# **CHAPTER 9: CONCEPT ART**



This game features a platforming system with leaves. Leaves are served as platforms for the user to interact with. The stems of the plants will also be drawn, but only for artistic purposes, there will be no collision with the stems.



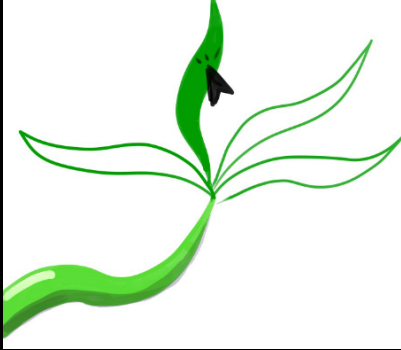
Neon colors on outfits resonate with the cyberpunk theme, with glowing floral elements to match the plant growth.



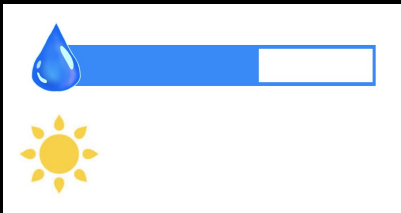
Neon cat kabuki mask

Artificial leg

**Growth Preview:** When the player hovers their mouse over the range where they can grow the plant, a preview shows the options.



**Resource bar:** Water is measure by a continuous scale, sun is counted by the number of pedals



**In-level Menu:** The menu shows up when the player pauses the level, it provides the options to exit the level, resume, and to view the controls for the game.



## 10: File Formats

All art and UI assets will go into the “Design > Assets” folder in the “Team 10” folder. The main file type of image files will be .png and the naming conventions will be as follows:

- ▣ UI elements: UI\_[descriptor]-[number] (e.g. UI\_sun-1)
- ▣ Resource elements: Resource\_[descriptor]-[number]
- ▣ (add more)

The standard sizes of assets will be as follows:

- ▣ All tiles and UI elements: 600 by 400 pixels
- ▣ Standard background size: 1920 by the multiple of 1080 pixels
- ▣ Filmstrips: the multiple of 600 by 400 pixels

The background height can be the multiple of 1080 pixels to preserve a 16:9 ratio and provide flexibility to the height of a level. All animation assets will be on one single filmstrip; hence, the height will be consistently at 400 pixels with width being the multiple of 600 pixels.



## 10: File Formats

Sound files will be .wav files.

Songs are normalized to -14 lufs, sound effects are balanced in Ableton Live 11.

- ▣ Bit rate: 48kHz
- ▣ Bit depth: 16bit

Songs will loop.

## Citations

### **Title Slide:**

- 1: <https://i.pinimg.com/originals/c0/62/fc/c062fca0e7f3dce303b733da12ebc861.jpg>
- 2: <https://www.pinterest.com/pin/553098398004109017/>
- 3: <https://artplanet.store/products/neon-fern/5711>

### **High Thematic Statement:**

- 1: [https://pngtree.com/freebackground/plant-glass-neon-lights-background\\_1428166.html](https://pngtree.com/freebackground/plant-glass-neon-lights-background_1428166.html)

### **Chapter 1 – Mood:**

- 1: <https://playgroundai.com/search?q=large+plan+with+neons+in+the+distance>
- 2: <https://www.pinterest.com/pin/462744930480017507/>
- 3: <https://cubebrush.co/korboleevd/products/arweew/cyberpunk-buildings-pack-and-scene>
- 4: <https://80.lv/articles/building-cyberpunk-urban-setting-in-unity/>
- 5: [https://www.123rf.com/stock-photo/lampyris\\_noctiluca.html](https://www.123rf.com/stock-photo/lampyris_noctiluca.html)

### **Chapter 3 – Photos:**

#### **Wires & Neon Lights:**

- 1: <https://bnblegal.com/wp-content/uploads/2021/01/Delhi-High-Court-directs-agencies-to-remove-hanging-wires-cables-in-Chandni-Chowk.jpg>

## Citations

- 2: <https://assets.thehansindia.com/h-upload/2020/02/19/482541-central-electrocution-deat.webp>
- 3: [https://cdn.shopify.com/s/files/1/0600/6318/7116/files/2\\_02235931-e8b9-40c3-af92-56445c689a4f\\_480x480.jpg?v=1680701512](https://cdn.shopify.com/s/files/1/0600/6318/7116/files/2_02235931-e8b9-40c3-af92-56445c689a4f_480x480.jpg?v=1680701512)
- 4: [https://www.loupiote.com/photos\\_lw/tangled-power-lines-messy-electrical-wiring-in-street-delhi-india-370015454.webp](https://www.loupiote.com/photos_lw/tangled-power-lines-messy-electrical-wiring-in-street-delhi-india-370015454.webp)
- 5: <https://images.photowall.com/products/58428/bright-neon-lights.jpg?h=699&q=85>
- 6: <https://images.photowall.com/interiors/83228/landscape/wallpaper/room48.jpg?w=4000&q=80>

### Foliage:

- 1: <https://www.invasive.org/eastern/srs/EI.html>
- 2: <https://www.invasive.org/eastern/srs/EI.html>
- 3: [https://media.istockphoto.com/id/1370550494/photo/golden-pothos-plant.jpg?s=612x612&w=0&k=20&c=B\\_DP\\_W9hgk2f\\_gIx1umi0q11Ldr7LAAufE0PduI5Kvmg=](https://media.istockphoto.com/id/1370550494/photo/golden-pothos-plant.jpg?s=612x612&w=0&k=20&c=B_DP_W9hgk2f_gIx1umi0q11Ldr7LAAufE0PduI5Kvmg=)
- 4: <https://i.pinimg.com/736x/c0/ae/b3/c0aeb3787fed89e712740fd862f07fd4.jpg>
- 5: <https://thursd.com/storage/media/36254/Hoya-carnosa-krimson-queen-flowering---credits-pottersjungle---on-tHursd.jpg>
- 6: [https://www.mydomaine.com/thmb/\\_PytGbx73DzvV2uFjBOcI\\_5XvE=/2121x0/filters:no\\_upscale\(\):strip\\_icc\(\)/swiss-cheese-plant-monstera-adansonii-care-db7a5055bb604bb18de8ec5eab610bcb.jpg](https://www.mydomaine.com/thmb/_PytGbx73DzvV2uFjBOcI_5XvE=/2121x0/filters:no_upscale():strip_icc()/swiss-cheese-plant-monstera-adansonii-care-db7a5055bb604bb18de8ec5eab610bcb.jpg)
- 7: [https://images.thdstatic.com/productImages/4ab2492b-5679-4a0d-bc3d-9e93239b8573/svn/house-plants-6-peperomia-watermelon-64\\_1000.jpg](https://images.thdstatic.com/productImages/4ab2492b-5679-4a0d-bc3d-9e93239b8573/svn/house-plants-6-peperomia-watermelon-64_1000.jpg)

## Citations

8: [https://upload.wikimedia.org/wikipedia/commons/thumb/e/ee/Hoyabella\\_092005.jpg/1600px-Hoyabella\\_092005.jpg](https://upload.wikimedia.org/wikipedia/commons/thumb/e/ee/Hoyabella_092005.jpg/1600px-Hoyabella_092005.jpg)

### Cityscape & Alley:

- 1: <https://images.pexels.com/photos/169647/pexels-photo-169647.jpeg?auto=compress&cs=tinysrgb&w=1260&h=750&dpr=2>
- 2: <https://www.pexels.com/photo/dark-alley-with-turned-on-street-lamps-2376799/>
- 3: [https://as2.ftcdn.net/v2/jpg/02/21/92/63/1000\\_F\\_221926318\\_9JkLaAlsODKWzZ5fgBhdxpcWyaTok4dk.jpg](https://as2.ftcdn.net/v2/jpg/02/21/92/63/1000_F_221926318_9JkLaAlsODKWzZ5fgBhdxpcWyaTok4dk.jpg)
- 4: <https://images.ctfassets.net/3s5io6mnxfqz/7dxh3CNOuiHtYAZonRSrxO/f9f154ca1b8bab19c73ef8bb7d5c888f/pexels-sanaan-mazhar-2989727.jpg>
- 5: <https://www.pexels.com/photo/empty-concrete-building-2105239/>

### Fire & Drones:

- 1: <https://www.cnet.com/a/img/resize/d6f50c5b94dd57903465e08b44b201f5adbc3b17/hub/2024/01/11/8d842dc3-932d-467d-a711-87ac80b1f82c/dji-flycart-30-drone.jpg?auto=webp&fit=crop&height=675&width=1200>
- 2: [https://hips.hearstapps.com/hmg-prod/images/dji-avata-0040-6516d6ea82027.jpg?crop=0.738xw:0.555xh;0.124xw,0.208xh&resize=1200:\\*](https://hips.hearstapps.com/hmg-prod/images/dji-avata-0040-6516d6ea82027.jpg?crop=0.738xw:0.555xh;0.124xw,0.208xh&resize=1200:*)
- 3: <https://stormsendl1.djicdn.com/stormsend/uploads/f0739a7bb087b53254e88c1d0ae7dc45.png>
- 4: [https://th-thumbnailer.cdn-si-edu.com/cbDucicq0e2NkcZP9lyR9Lfjry8=/1000x750/filters:no\\_upscale\(\)/https://tf-cmsv2-smithsonianmag-media.s3.amazonaws.com/filer/17/fe/17fe402e-ffbe-4879-b2f9-3684ca6fee6b/h6jf46.jpg](https://th-thumbnailer.cdn-si-edu.com/cbDucicq0e2NkcZP9lyR9Lfjry8=/1000x750/filters:no_upscale()/https://tf-cmsv2-smithsonianmag-media.s3.amazonaws.com/filer/17/fe/17fe402e-ffbe-4879-b2f9-3684ca6fee6b/h6jf46.jpg)
- 5: <https://www.coopersfire.com/wp-content/uploads/2021/03/raquel-raclette-MYjFOiVWWT8-unsplash.jpg>



## Citations

6: <https://www.news10.com/wp-content/uploads/sites/64/2021/08/Fire-arson-fuego-flames-house-fire.jpg?w=869&h=489&crop=1>

### **Chapter 7 — Animation:**

1: <https://wifflegif.com/gifs/614481-character-animation-digital-animation-gif>

2: <https://tenor.com/view/fire-flame-burn-bonfire-camping-gif-3132532434632257613>

3: <https://makeagif.com/gif/doodle-jump-new-record-113k-H12aAz>

