Integration of digital mattepainting in film

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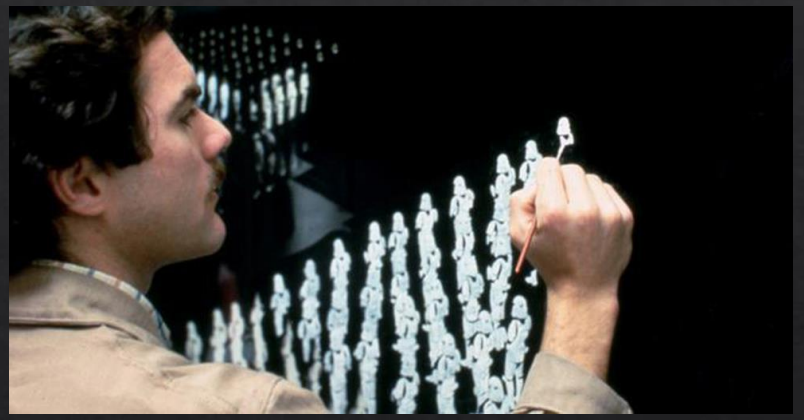
What is DMP and how does it work

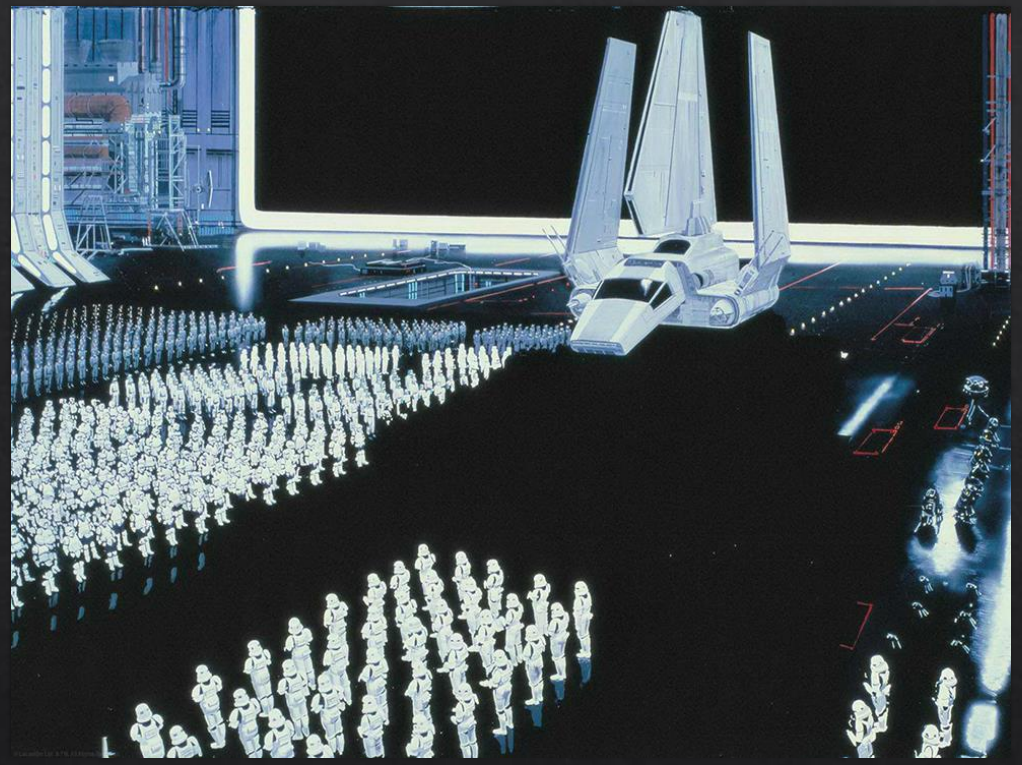
- Matte painting – creation of realistic or imaginary set (part or whole)
  - Traditional form
  - Digital form
- Combines a painting or other forms of art and live action
- Illusion of a setting
  - Too expensive, inconvenient, or impossible to film live on set
- Basic principle of matte painting
  - Part of a scene "masked off"
    - Black material
    - Green screens
    - Digital cropping

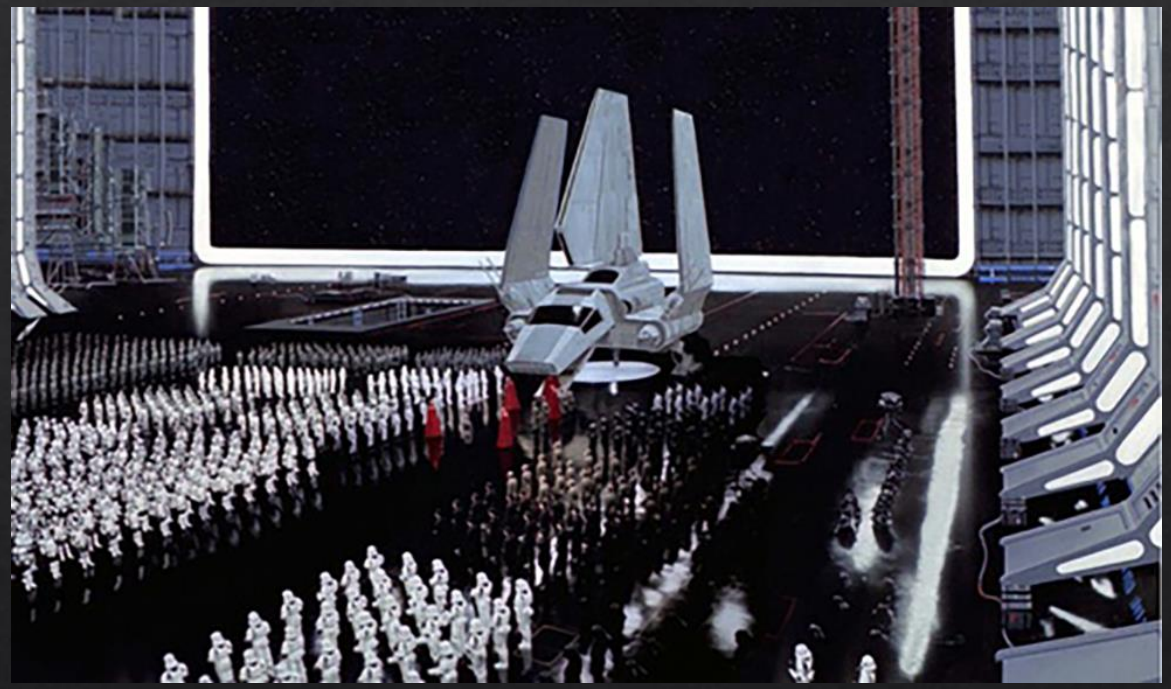
What is DMP and how does it work

- Most matte paintings digital and digitally composited
- The original technique was to paint a photorealistic scene on a sheet of glass
  - Paint
  - Pastels
- Leaving parts of the glass clear where live action would be inserted
- First step was to put a black covering behind the holes
  - Prevent light from getting into the camera
  - Creating blank spots



- Painting filmed with a stationary camera for the length of the shot
  - Often stabilized with tripod buried in ground so it wouldn't move – paintings finished on set



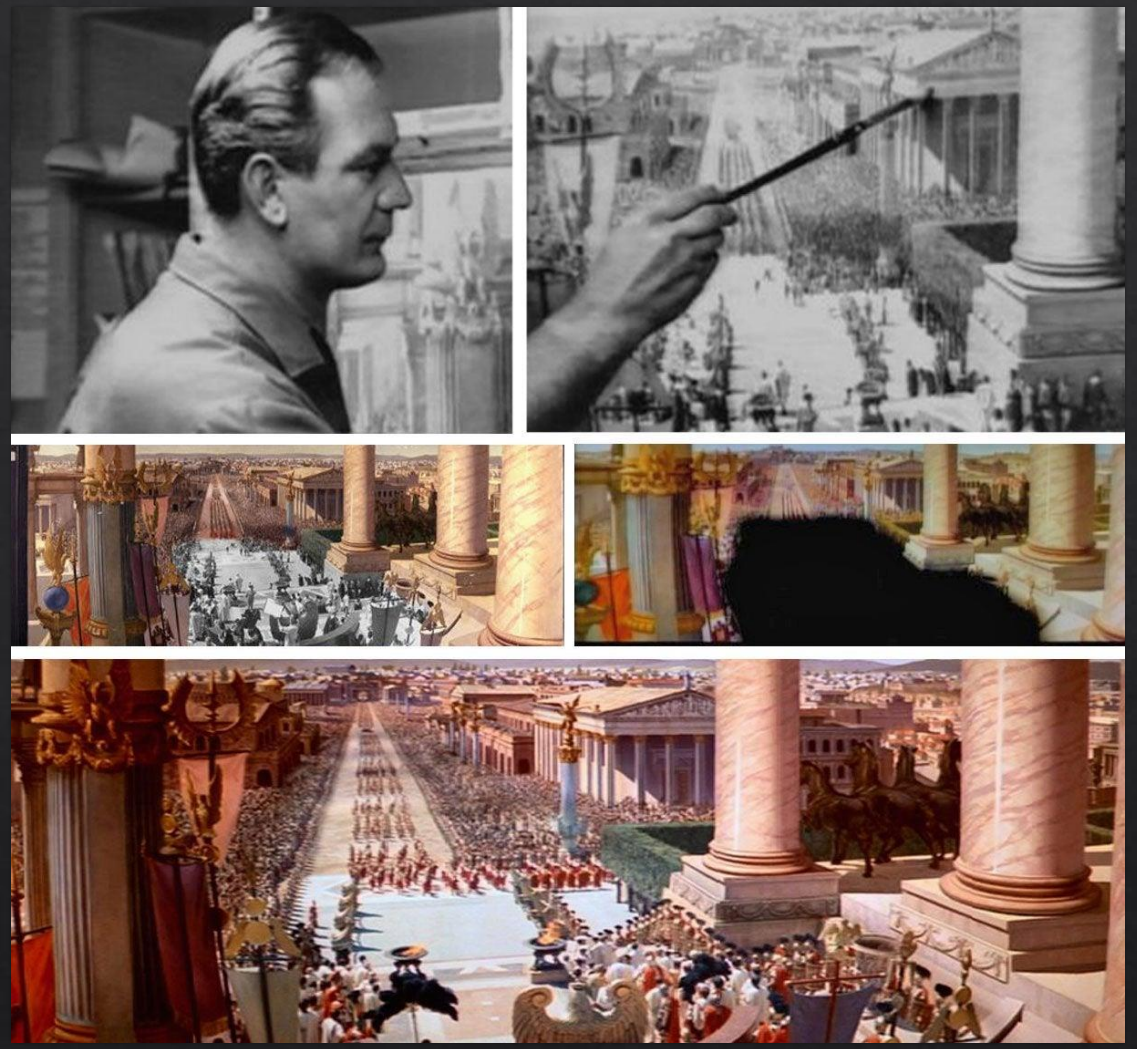


What is DMP and how does it work

- One of the oldest film techniques
- Mostly painted backgrounds

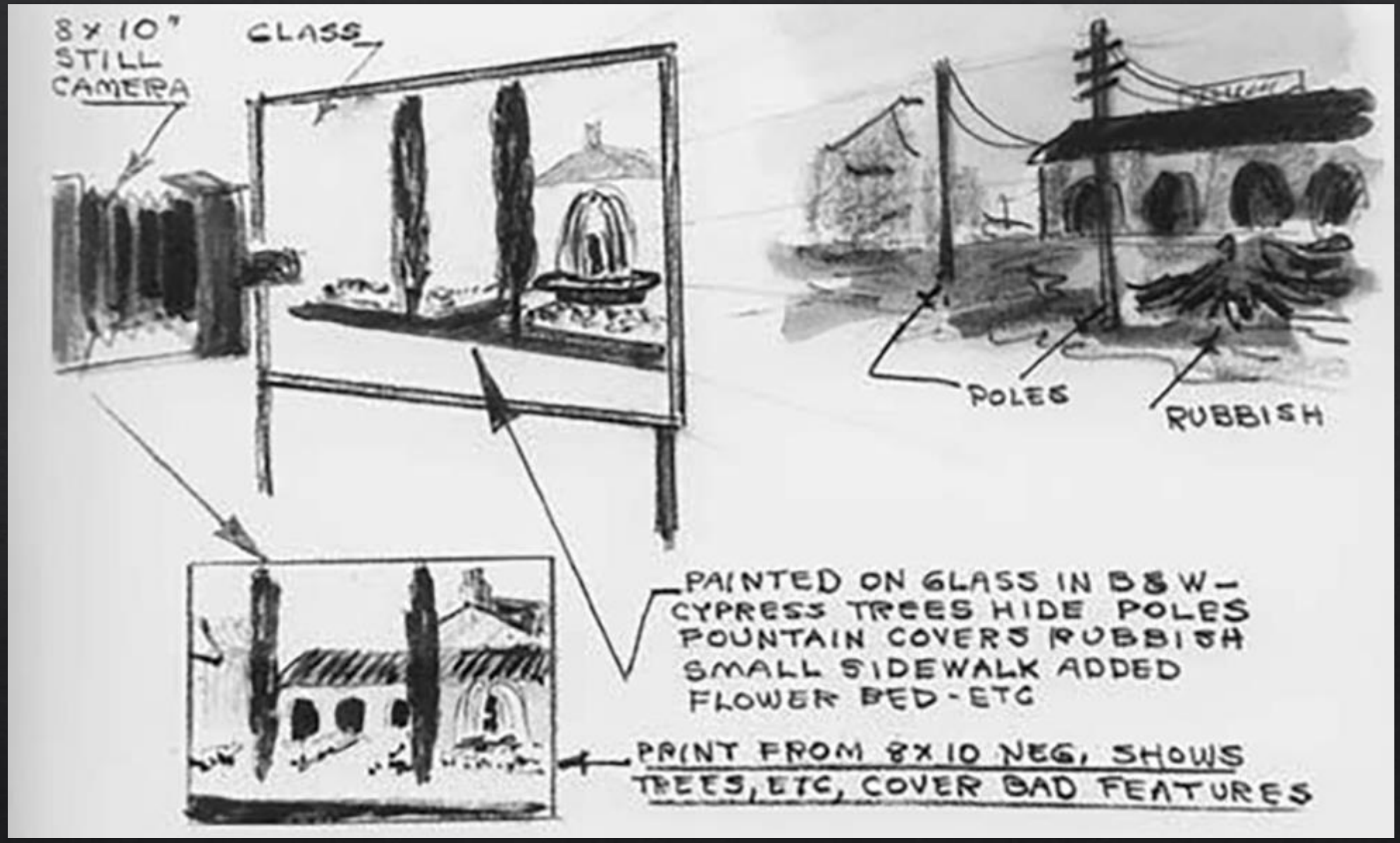
- While it originated as a photography technique, matte painting has been used by the film industry since the late 19th century and some of the most famous films in history used them to create fantastical worlds.
- Wizards of Oz, The Birds, the original Star Wars films, Mary Poppins, Titanic, and the Indiana Jones movies.
- Those films all used actual paintings on sheets of glass to create the illusion of an ewok village, a massive artifacts warehouse, a cliff face, or a night sky

- Georges Méliès
  - After inventing technique of masking film he used a painting in front of camera – similar to matte painting used later
- Mattepainters had to be skilled and create perfect photorealistic paintings
  - Even when painting fantasy/sci-fi elements out of this world – lighting had to match



What is DMP and how does it work

- Norman O. Dawn (1884 - 1975) is considered to be the first to come up with an idea to paint on glass to "edit" film
- Originally done in photography
  - Dawn was a photographer of real estate and used it there to retouch
- First movie where this technique was used is Missions of California (1907)
  - "Repairing" old destroyed buildings
  - Painted bell towers and roofs + extending scenes
- The painting process was troublesome at the start
  - Painter looked through camera on the glass pane and his assistant was marking the glass with dots/marks as starting point
  - They had to account for changes in lighting and weather
- Dawn later came up with an idea to shoot the scene first and black out the spots that needed matte painting
- After that he developed few stills and projected them onto the glass
- Dawn continued in his inventions and created back projection and did sequences with miniatures too


8 x 10"
STILL
CAMERA
GLASS
POLES
RUBBISH
PAINTED ON GLASS IN B & W –
CYPRESS TREES HIDE POLES
FOUNTAIN COVERS RUBBISH
SMALL SIDEWALK ADDED
FLOWER BED - ETC
PRINT FROM 8 X 10 NEG, SHOWS
TREES, ETC, COVER BAD FEATURES

Modern DMP

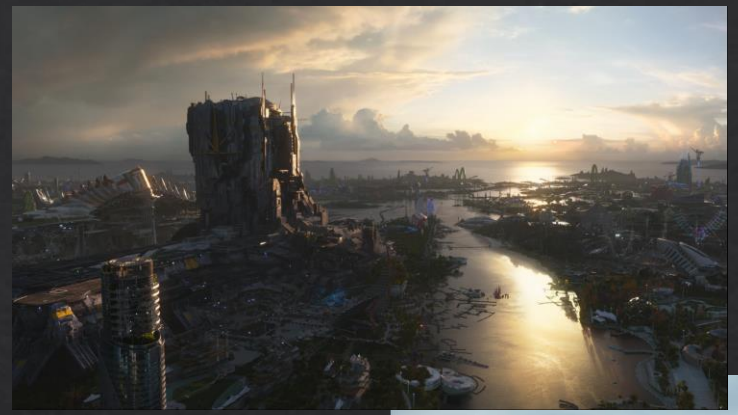
- Inserting live action shots into a painted fictional world is still used in nearly every film made today
- Often called environment artist, set extension artist, concept artist
- The first ever digital matte painting created by painter Chris Evans
  - 1985 film Young Sherlock Holmes
    - He scanned a photographic image and layered it with a digital drawing to create a scene
- Fun Fact: Chris Evans also did a lot of the matte paintings for the Star Wars films, including the spaceship hangar in the famous imperial march sequence.
- Though digital renderings are the new bread and butter of VFX actual painting still has a place in the film world.

Modern DMP

Work of an amazing matte painter Steven Corman on a cinematic trailer for Star Atlas

Modern DMP

- Sometimes pastel drawings or actual paintings are used as concept references
- Or photographed and scanned into a computer as a base
  - Later to be digitally altered and layered with other images to create the final setting
- Common types of matte painting
  - Set extensions
  - Sky Painting
- Modern matte artists use a variety of digital painting techniques to create digital matte paintings
  - Scanning photographs
  - Images of handmade artwork
  - Collaging images - Photobashing
  - Pure digital painting techniques
- Sometimes matte paintings are even turned into **actual canvas backdrops**!
  - This technique was used in Harry Potter and the Prisoner of Azkaban when paintings were printed onto six 100″ canvases and stitched together



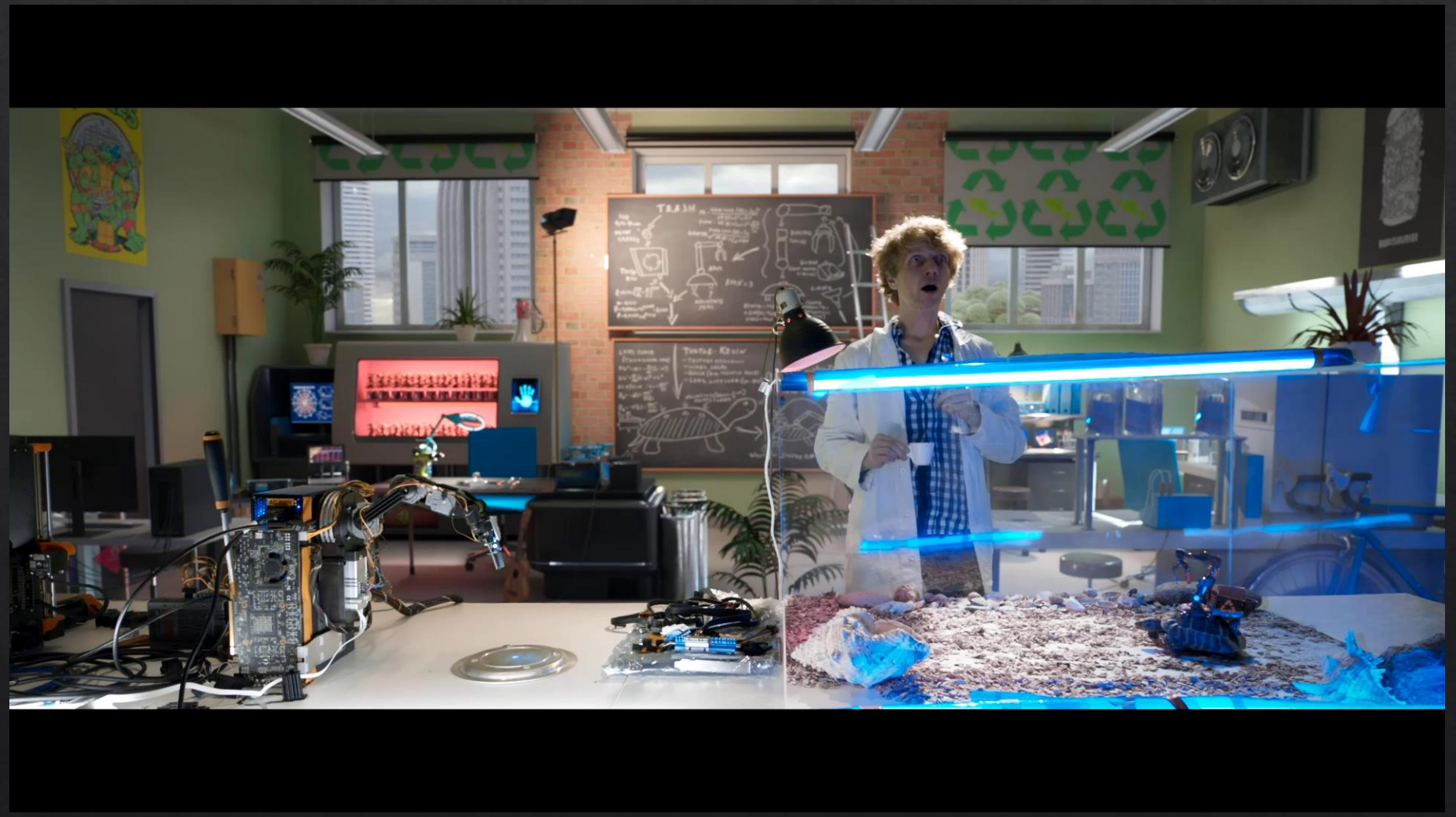
Background DMP and paintover

Foreground DMP setting extension

LOVE
DEATH
+
ROBOTS
NETFLIX

HUXLEY

My process



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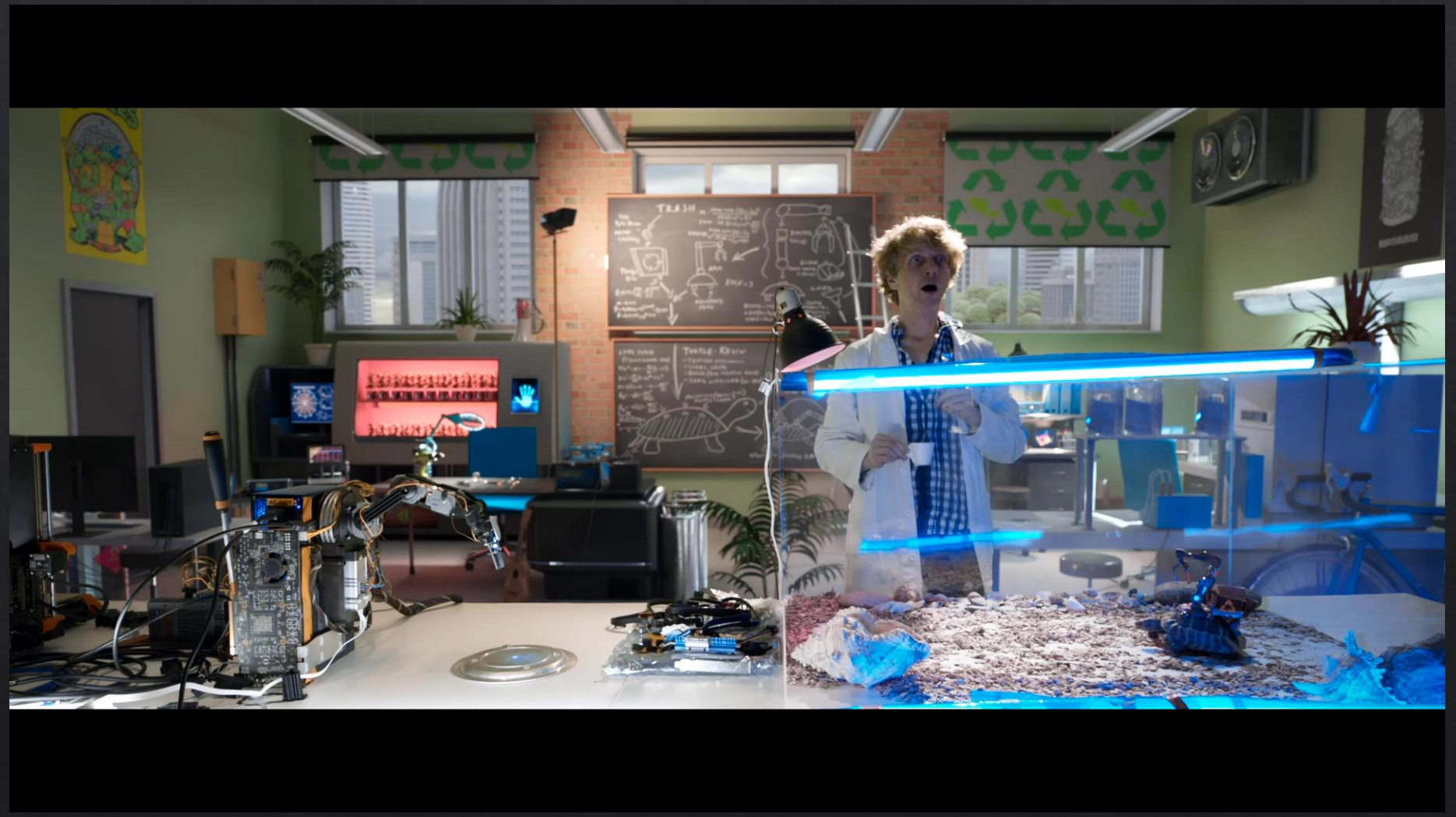

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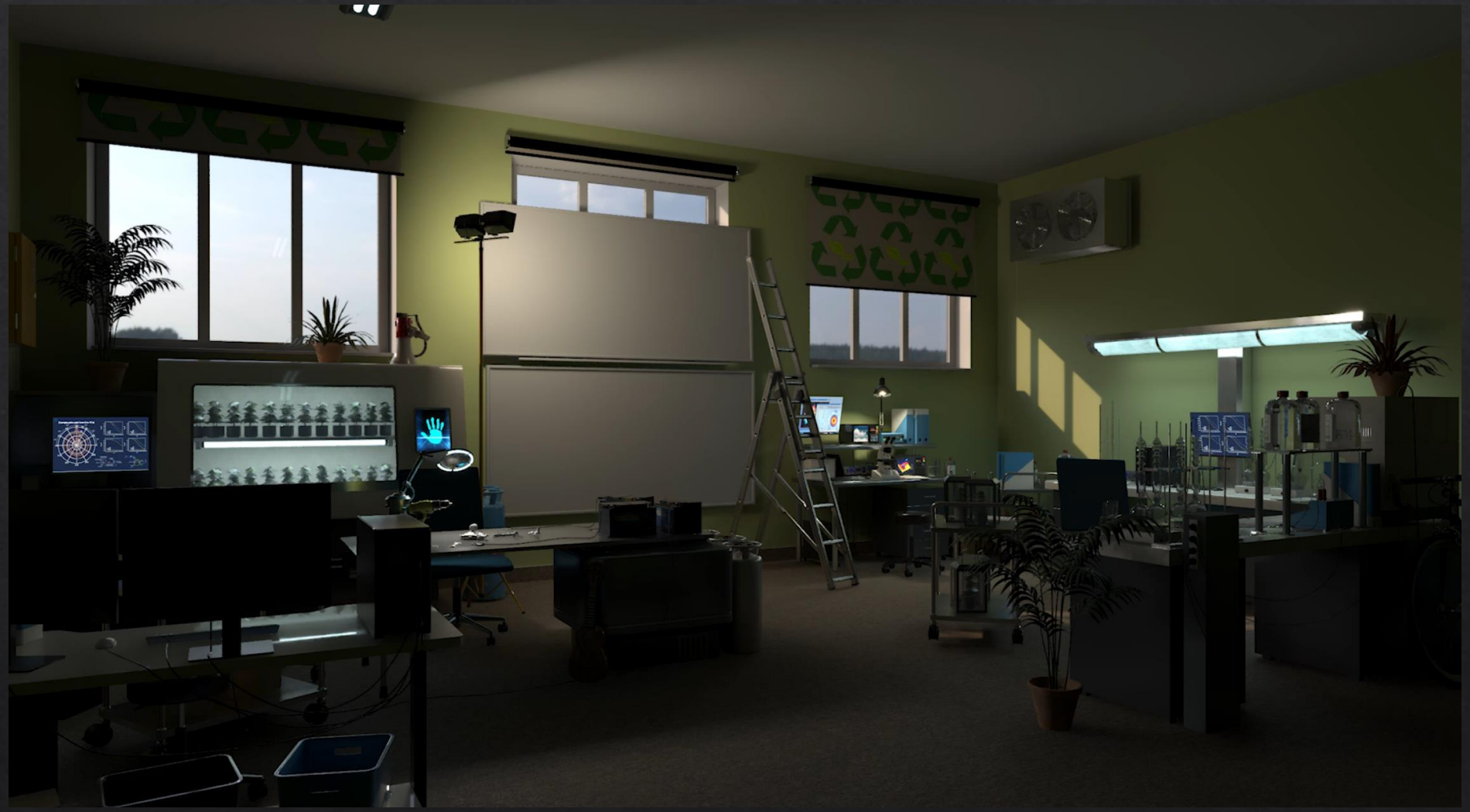

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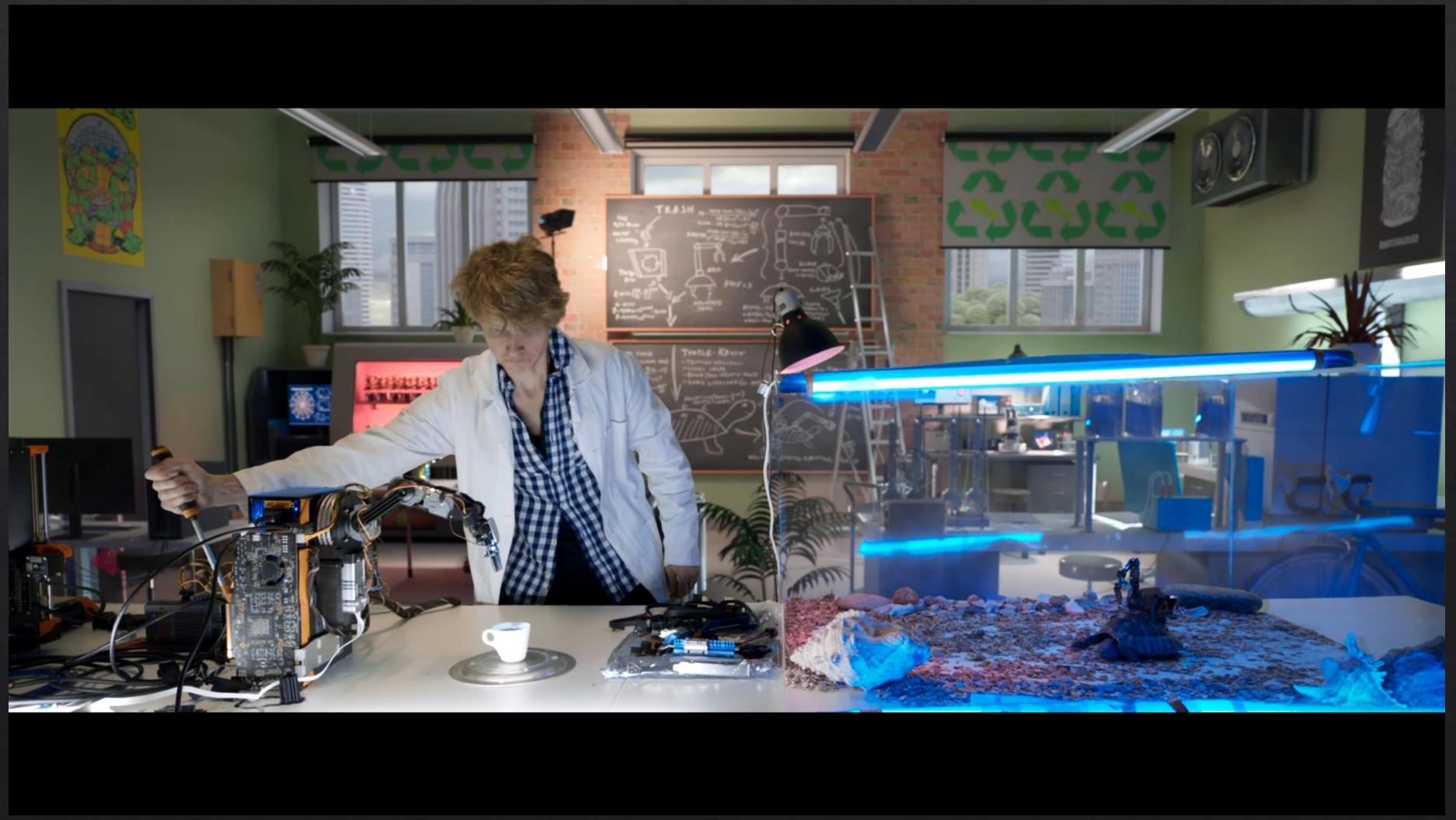

My process

Thanks for your attention