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# RIT

## To Be Captured

By

Suien Ma

A Thesis Submitted in Partial Fulfillment of the Requirements for the  
Degree of Master of Fine Arts in Film and Animation

School of Film and Animation

College of Art and Design

Rochester Institute of Technology

Rochester, NY

December 8, 2022

## Committee Approval

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Peter Murphey

Date

Thesis Committee Chair, School of Film and Animation

---

Mark Reisch

Date

Assistant Professor, School of Film and Animation

---

Carl Dong

Date

Consultant at GEN Enterprise Management Co.

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I am lucky to find Qiuyu Wang as my composer and Bent Meng as the sound designer of this film, without whom this film could not have been as lively and complete as it is now. I want to thank Mohammed Rahman for his assistance in editing the final draft of this thesis.

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## ABSTRACT

*To Be Captured*, a 3D animated short, utilizes some toys as the film's main characters to increase the sense of artificiality, while trying to animate their movements as closely to the forces of the real world as possible.

It tells a story of a group of stuffed animals enclosed in a doll claw machine waiting to be captured. The main character, one of the smarter toys, is a seahorse who plays tricks to be captured when a little girl starts to play the game. Once out of the box, he despairs realizing that the girl is a fanatic who only cares about catching the biggest toy in the machine, which is the bear. While playing, she becomes furious when she fails to capture her prize. The bear in the box trembles with fear when he witnesses her ill-treatment of her previous prizes, the carrots and the seahorse, and he begs for help. The animals work together to protect the bear and then have to rely only on themselves to face the challenges of a truly free life.

This thesis short shows that the use of fictional narrative, artificial stage setting, and anthropomorphic dolls in an animated film featuring toy characters can still produce a strong sense of realism if viewed from Brecht's A-Effect perspective and balanced with the realistic representational approaches in animation, such as facial expression personification, varied camera angles, detailed movement analysis, expressive area lighting design, and texture parameter adjustment. This thesis presents a journey of exploration of how to create this fantasy short film and animate it in a realistic manner.

## INTRODUCTION

*To Be Captured* is a 3D animation short film about a group of stuffed animals enclosed in a doll claw machine waiting to be captured. Inspired by my childhood memory of the toy-catching craze, this thesis short turns that life experience into a fantasy narrative by changing the point of view from the catcher to the captured. Utilizing toy characters adds more artificiality to the film as compared to using real human characters; however, such artificiality can be relevant to the appreciation of “realism” as understood in Brecht’s A-Effect theory and can be compensated for with the realistic representational strategies in animation.

Brecht believes that adding artificial elements to the theater can increase the distance between the audience and the stage, and by doing so, the audience can acquire a new perspective when viewing the performance. This effect is called an alienation-effect (A-Effect) (Brecht 99-110). Therefore, changing perspective is crucial to see the truth of life rather than accepting the superficial “realism” on stage.

Similarly, the Czech surrealist director Jan Svankmajer points out that animation offers an unconventional way to make inquiries into reality:

*“Animation enables me to give magical powers to things. In my films, I move many objects, real objects. Suddenly, everyday contact with things which people are used to acquires a new dimension and in this way casts a doubt over reality. In other words, I use animation as a means of subversion.”* (Svankmajer, quot. in Wells 11)

In creating the story of this film, I chose to use the toys’ perspective for three reasons. First, it highlights a different reality when observed from the toys’ eyes. Second, it transports the audience to a time when they spoke to toys and animals and fantasized conversations between them. Those conversations with toys and animals are a necessary part of the mental reality of childhood. Third, this perspective is a metaphor where a wider scope of reality can be projected. The projection of this fantasy can be extended to people in the modern society, who may compete for a chance of release if trapped in a limited and depressing space. Seeking external rescue as the priority, they are often confronted with an uncertain future, rather than a true outlet. In sum, this fantasy film can still be

considered as a reflection of reality.

As for the production techniques, the development of animation industry shows a constant aspiration to high verisimilitude, represented by the hyper-realism pursuit of Disney films, where a host of unique techniques are developed to animate the fantasy characters in a realistic way, even though animation “does not use the camera to 'record' reality but artificially creates and records its own” (Wells 25).

Of course, experimental exploration in representational approaches investigates another facet of reality, in which the psychological probe goes deep into the human mentality. In *To Be Captured*, I focused my efforts on employing fundamental devices to make my characters move as close to reality as possible. Therefore, my work can be summarized in two phases in response to two main questions: how to build a reasonable storyline from the toys’ perspective and how to animate the story in a realistic style.

Three concerns were involved in building this animated short, namely, the dramatic development, the personification of toy characters, and the metaphoric projection of reality. It took a few turns to arrive at the current version of this story. The final version went through at least three rounds of revision. The protagonist has been changed from a snake to a seahorse and the setting has been moved from the house of the girl to the site of an evening playground where the claw machine is located.

The production process got more challenging where proper techniques of animation were employed to make toys move accordingly. In animated films featuring toy characters, toys perform with human temperament while maintaining their characteristics of being a toy, so the main problem is how to depict everything as realistic as possible in a hypothetical context.

The improvement of storyboard has benefited greatly from regular communication and discussion with Peter Murphey, my advisor. Besides doing research and surveys, watching animated films about toys has been another way to learn how toys move, and how emotions are expressed. I have collected plenty of claw machine videos to see how the catching claw works and how the toys



roll in the box. I recorded my own walking steps to give a close walking cycle analysis. I learned to arrange appropriate camera shots to highlight the main character while presenting other characters in the background, to exhibit the texture of each item more vividly in modelling, and to intensify an emotional atmosphere with a more expressive design of area lighting.

## REVIEW OF RESEARCH

The creation of this film has been inspired by the discussion of “realism” in theatre and animation industry. The story is a fantasy in nature, which is a response to Brecht’s dramatic theory of “A-Effect” (alienation effect), together with other several artistic works in the same spirit. As for the animation technique employment, this film follows what Paul Wells calls, “the hyper-realism” pursuits of Disney films (25), where efforts are devoted to animating toys as close to reality as possible.

I was encouraged to do more extensive reading in dramatic theory by my former professor, Stephanie Maxwell, who taught with great vision and passion and introduced me to some very inspiring experimental films. She pointed me to the German drama director, Bertolt Brecht (1898-1956), whose influence in Chinese theatre is enduring ever since he published his well-known essay, *A-Effect in Chinese Acting* (Brecht 99-110).

Brecht believes that a distance is necessary to keep between spectators and actors on stage in order to maintain an alienation effect (the A-Effect). He points out that the traditional naturalist theatre creates an illusion for the spectators that the story on stage is real so that the spectators can synchronize emotionally. “To show life on stage” thus sets the goal to achieve. Following such a realistic orientation, the audience would expect everything on stage, both the performance and the setting, getting as close to real life scenes as possible. However, Brecht believes such a reality is superficial and covers the true picture underneath. Only by defamiliarizing the life scenes we are used to, can spectators wake up from their comfort zone to gain a new insight. In this way, the audience can observe the stage from a critical point of view.

It is significant to look at the world from a new perspective. The novel *I Am a Cat* (Natsume 130) for instance, offers an observational narrative on human social life from the eyes of a cat. The reality of human life seems to be transformed under the gaze of the cat, yet another type of reality is upheld, the private portrait of a struggling and puzzling condition of the couple in this story. This book was a good reference when I worked to observe the scenes from the toys’ perspective. Later, I

learned to add more diversity with these perspectives by using different camera angles.

Inspired by the Chinese Opera, Brecht emphasizes several approaches to keep the audience awake and aware that this is a performance not reality, such as using signs on stage at the beginning of the performance, addressing the audience directly, preparing characters on stage, and so on. However, the application of A-Effect theory is not limited to stage settings and performance strategies, rather, the concept of defamiliarization can be manifested in many other domains. In *The Metamorphosis* (Kafka 3), a man was transformed into a huge bug. Enclosed in the body of an insect, the main character experiences the emotions of a caged existence. This story left a strong impact on me when I wrote about the caged toys in the claw machine.

Transformation is an efficient method to show the resulting contrasts and reveal the underlying truths. In the short film *Food* by Jan Svankmajer published in 1992, cruelty and impassiveness are explicitly manifested by presenting how a man is transformed to a vending machine, a cannibal, and a human figure as a food absorber. The fanatical greediness for food, the way of swallowing everything in, and the poker-faced characters, exhibit unfamiliar but reasonable assumption of human nature. This film flashed in my mind when I created the little girl player in my film, who is driven by her desire to catch the biggest toy.

Besides, such a story is based on the childhood experience of Svankmajer, who, according to his own words in his film exhibition catalogue of *Food* in 2004, was forced to eat a lot because of his skinny physical appearance (Stehlikova par.3). He does not present his childhood directly, instead, his inspiration has been instilled into a story with a broader vision and a more universal coverage. As my own story originated from my childhood memory, *Food* has convinced me that personal memory can be dealt with as a metaphor to uphold common values cherished by human civilization.

In the history of animation industry, Disney films have established “hyper-realism” standards in representational techniques. “The ‘completely real’ becomes identified with the ‘completely fake’. Absolute unreality is offered as real presence” (Eco 7, quot. in Wells 25). Later modernist artists and other experimentalists attempted to transform the regular sights into the abstract and abnormal, such as *L'homme Sans Ombre* by Georges Schwizgebel. This film, with flowing and rotating background, uses

a huge contrastive cube to show the countdown on its facets. The film transforms one shape of object into another, creating a dreamy continuum of events. Although I was totally aware of my capability in creative logic and animation techniques, and didn't venture to make such an attempt, I did benefit from the varied shooting angles in this animation. This 9-min short makes full use of camera movement effects in creating a poetic narrative as a running stream of consciousness. In terms of animation, these films are reserved as my future goals.

Another example is *Jumping*, published in 1984, a 6-min animation short by Osamu Tezuka, in which an innovative interpretation was created by applying a new perspective, namely, the audience's perspective. The audience becomes the actor, observing what the actor sees while jumping from one spot to another. Here, the prototype of jumping has been de-constructed in terms of unusual presentation of time, space, and the potentials of jumping. At the end, the jumping action accomplishes a circle, from life to hell, and then, transmigrates to the initial spot of jumping, which is appreciated as culture-loaded implication of the Japanese.

The *Toy Story* movie series (Pixar Animation 1995-2019) provided me with practical references on toy movements and character designs. The texture of toys and other items is a major concern for me and watching these movies helped me to have a direct sense of how the animation goes in to showcase these contexts. Moreover, as my story is set in a toy claw machine, it is necessary to learn how to present the game of catching toys. I watched many short videos of catching games to learn about the movement of the claw and the stuffed animals.

## PROCESS

### Pre-production

To present such a story in animation is a mission full of challenges, many of which started for me at the very beginning. I began this process with a totally different story that I ultimately dropped, after a lot of development, because it just wasn't working. Only then was the final narrative actually created, and I still had to go through many rounds of modifications to the storyboards to find a finished and viable story.

#### 1. Revision of the Treatment Proposal

##### First Story of Self-Inquiry

In considering the proposal for my thesis film, I want to create a story based on my life experience of self-inquiry. In the meanwhile, I want it to be a film embodied with fantasy elements because I believe animation has an advantage in telling fantasy stories. Initially, I chose procrastination as my concentration since I am troubled by being a procrastinator. The first design is woven with time travel and space shift to “wake up” a procrastinator. The logline goes as the following:

*A boy who is a procrastinator has to go to a deserted house in the town as punishment for failing to meet the deadline of his project and opens the door only to find him at home on the first day of his project.*

The feedback from my advisor on this idea is that the focus should be placed on procrastination rather than space alternation. After two rounds of revision, the story developed into a concept about two teenage boys who both love skyboard and suffered from procrastination. But they were in conflict because of a girl in their class named Lily. They struggle to overcome their problem and cooperate to win the design competition as a team. To keep the fantasy elements, I started the story with a peanut.

*A peanut (with a face of a teenage boy) is standing on a skateboard, followed by a*

*group of fruits and vegetables in a skateboard contest. Then a red pepper (with the face of another teenage boy) overtakes him.*

I couldn't help smiling when I looked back at this version and found how hard I tried to keep the fantasy part. However, the story cannot be told without sequential settings and rounds of character interaction. The feedback from the committee suggested that the story was too long and too complicated for an animated short. I found two problems with my work on the thesis proposal. First, it tried to cover everything related to the topic and had no focus; second, the details were not truly identified in terms of animation and it was very long. Luckily, the committee kindly offered me a second chance to cut it short.

### Building a Fantasy Story

While wracking my brain on the revision work, my mom sent me her a selfie one night where she was leaning against the long sofa, piled with a variety of stuffed animals. These are the trophies I won from the claw machines at different parks. A story about them hit me the moment I saw the crowd of toys.

I was a bit crazy about the toy-catching game when I was a child and collected many toys at home, until one day my mom took one of them, a doll in a green dress, dusted and crammed in the corner. She gave it the name "Coco" and told me that Coco was sad because I didn't pay much attention to her ever since I got new toys. I started to observe the game from Coco's perspective and stopped being a fanatical catcher.

If a story can be developed from the perspective of toys, it would be presented as a fantasy story. This idea reminded me of Brecht's Alienation-Effect, where artificial elements on stage are encouraged to create a distance from the audience to take a new perspective of inquiry. Fictional characters have already played a significant role in storytelling, such as the Chinese Shadow Puppets, characters in the style of brush painting or paper-cutting, and all the toy characters in toy films, where the audience know for sure that they are not real but still feel fascinated by them. However, my purpose was not just building a fantasy story, but creating a metaphor to project a wider scope of

reality beyond the toy-catching game.

The toy-catching game can be used as a metaphor to project several issues. It could be a discussion about the desire of the catcher, or an exploration of the caged existence of the trapped toys, or a depiction of the unbalanced relationship between the catcher and the captured. In the first draft of this story, I chose the third issue, as shown in the following paragraph, quoted from my previous thesis treatment:

*“The story starts with a room full of stuffed toys, and a snake is the biggest one among them. When a little girl, the owner of the room, returns home, she holds some new toys in her arms. She throws them to the floor and leaves to catch more. The snake decides to lead the animals out of the room. They do not want to be prisoners of a brutal owner.”*

I wanted to use this fantasy story to represent the relationship between a powerful authority and the subjugated group of people in modern society. The feedback from the committee suggested that there are too many characters and the audience would be waiting too long to be impressed with the dramatic climax. Therefore, I decided to move the setting from the girl’s room to the park where a claw machine is deployed. This new fixed setting of the catching game saved much time for other purposes.

### The Projection of Reality

I decided to establish personalities of characters to represent several types of people in a comparable situation. I changed the snake to a seahorse as the main character because a seahorse has a more positive cultural connotation than a snake. The seahorse is a character created to represent the type of people who would take the initiative to seek a solution when imprisoned in a difficult situation, as well as someone who knows how to win in a competitive world. Some people who are ambitious to get material success are like the seahorse, who would sometimes fight for his chance for victory, even if it was at a cost of someone else’s benefits.

In contrast, the bear is prominent but too passive to take any action. He is the biggest toy in the machine and becomes the target of the catcher for this reason. However, he has no intention of

competing or of attracting attention. He is not worried until he sees how brutally the girl treats the other captured toys. The bear represents the kind of middle-class people who are well-educated yet indifferent to social problems and would not fight until their lives were threatened.

The carrots are created to represent the type of people who drift with the current. They can be supportive if properly directed and activated.

The girl is a symbol of power whose hand holds others' fate. She can endow blessing and freedom, or misery and control. She could be the boss of a big company, the president of a community, or the authority of governance. She could also be a parent, an older sister, or a depressing critical look.

In many cases, people are trapped in difficult positions. They tend to seek outside assistance. When a group of people get trapped in one cage, competition for an outlet is quite common among them. However, when the outside assistance is unreliable, the only solution is to rely on themselves, that is, the most innovative ones, the seahorse in this film, get rid of their selfishness and unite the other groups of people to find a truly free life.

Another reason to use the seahorse instead of a snake is practical. The movement of a snake is much harder to animate. I could devote more energy in character design, such as endowing the seahorse with a personality of being eager to compete and clever to play tricks at the same time. For the same consideration, I designed a group of carrots with the same shape and color, and a bear that has a classic teddy bear look formed the cast. This version of the idea was worked out and approved. The revision process of my thesis proposal has taught me how to focus on the development of a story and its metaphorical implication, rather than cramming the story with fantasy elements.

## 2. Revision of the Storyboard

The first draft of my storyboard was a simple and direct presentation of the storyline, in which every action was sketched according to my imagination. The evolution of my storyboard benefited from frequent communication with my advisor. I devoted most of my energy to the study of camera angles, details enrichment, and tension reinforcement.



## Working on the Camara Angles

Many rounds of discussion with my advisor were focused on which camera angles would be the most accurate and expressive to capture actions or facial expressions of the characters in the film. The improvement of the storyboard can be illustrated by the following three examples from this report's limited length.

Example 1. The observing angle of the girl coming into the park has been modified. In the first version, the passing girl is viewed from the eyes of a toy in the glass box, while the revised version sees her walking towards the machine. This change depicts her eagerness to play the game rather than happening to be the player. Besides, the toys in the machine have been observed in more varied angles.



Fig. 1. *The Girl Passing the Doll Machine (First Version)*

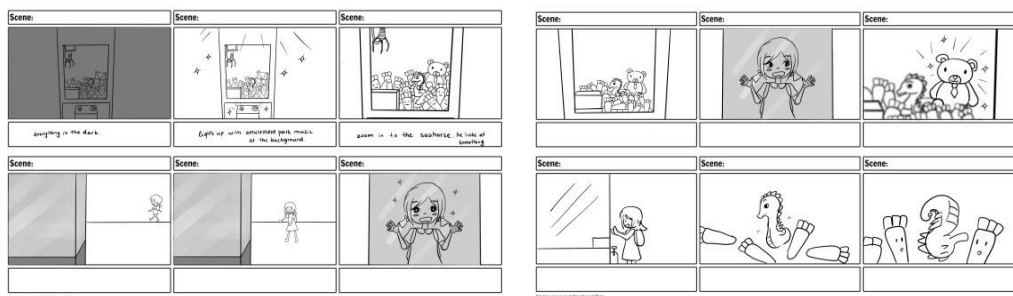


Fig. 2. *The Girl Walking Towards the Claw Machine (Revised Version)*

Example 2. There are several occasions where the carrots are captured, presented only in eye-level shots from the viewer's perspective in the first version.

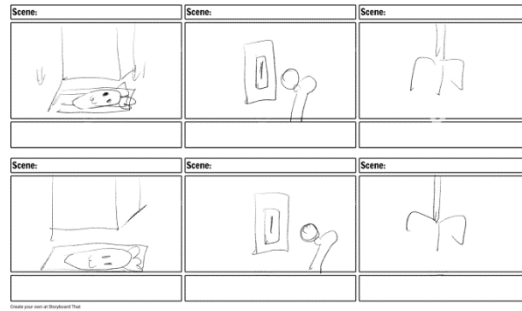


Fig. 3. *Catching the Carrots (First Version)*

In fact, the carrots are captured in different contexts. Different camera angles are thus employed to show a variety of ways of the carrots were captured specific to the context. For instance, a low-level shot is used to present the claw moving to grip the camera, while a shoulder-level shot is taken from the carrot's perspective to view the claw moving closer, increasing the intimidating perception.

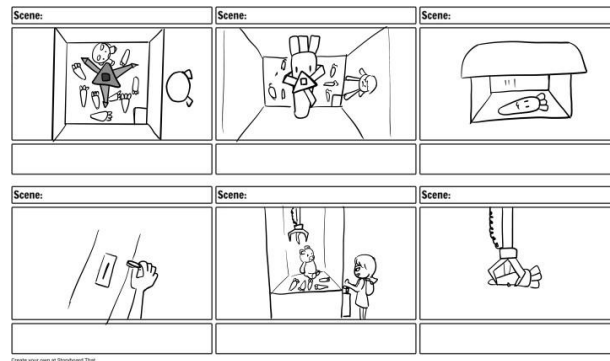


Fig. 4. *Capturing the Carrots in Different Contexts (Revised Version)*

In the actual film, there is an occasion when a carrot rolls itself to the foot of the bear in order to be captured by the claw. As the carrot is much smaller than the bear, high-level shots are used to show the whole scene while close shots are used to show how the carrot rolls and what it feels. This detail is added to show its willingness to being caught. In the actual film, more details were added to make the action a coherent process.

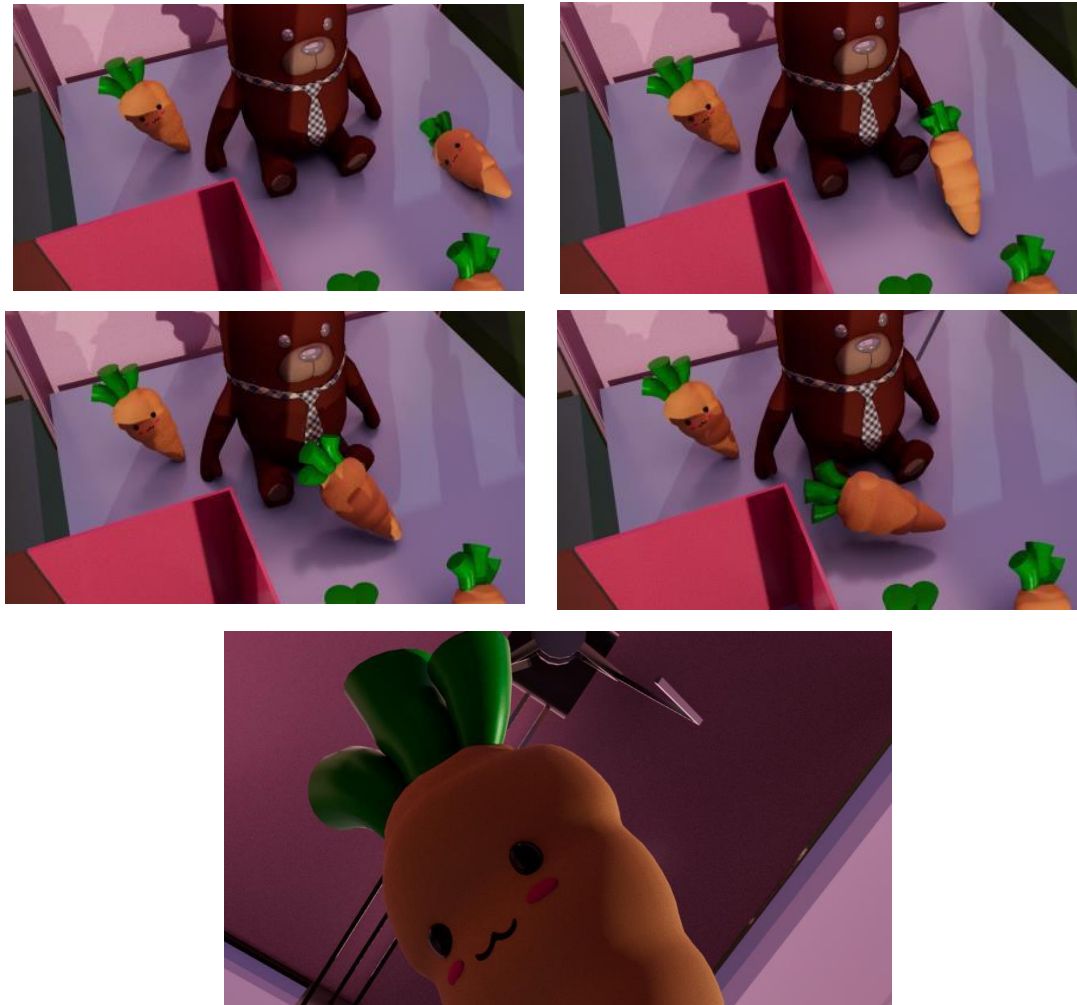


Fig. 5. *The Process of Capturing a Carrot in the Actual Film*

Example 3 In the initial design, the girl gets angry when she fails to capture the bear. She pulls a carrot out of her schoolbag and hits the glass box with it. To reduce the time, it is revised as throwing the toys on the ground, followed by her tramping steps.

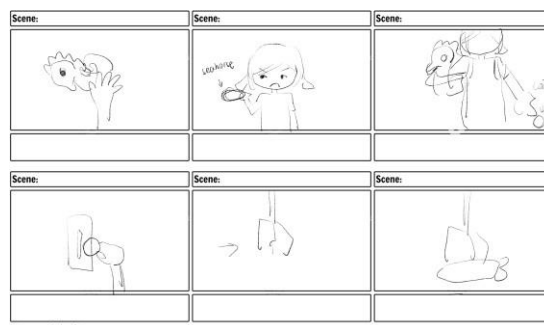


Fig. 6. *The Use of a Schoolbag (First Version)*

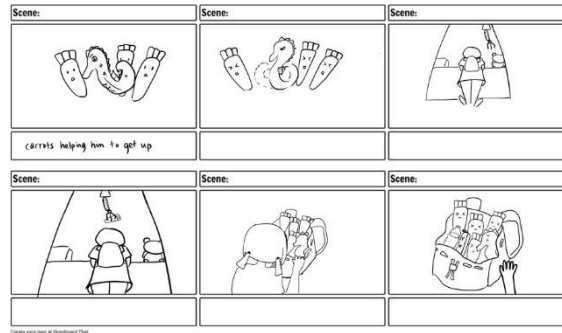


Fig. 7. *The Use of a Schoolbag (Revised Version)*

In the actual film, extreme close shots from a low-level angle are given to show her intimidating back and the moving shoes until the shoe sole is shown to present the stamping-down foot of the girl. This is a sequence of shots from the view of the toys.

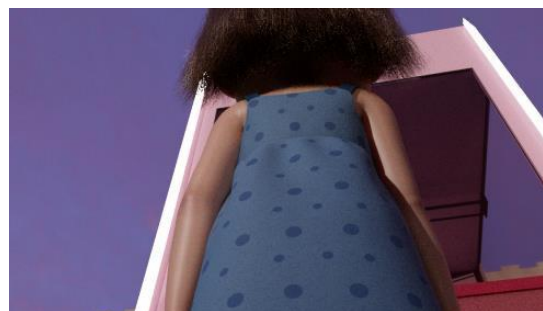




Fig. 8. *The Stamping Movement of The Girl in the Actual Film*

### Enriching the Details

The point-of-view shots were also applied when I depicted the process of the seahorse's jumping to hook the tie of the bear with his tail as a way of getting captured. But most importantly, to exhibit the point of view shot successfully a composition of shots is more functional. It should be considered as a process, rather than a single shot, as explained by Gayane Sargsyan (Movavi Blog "Camera Shots and Angles"):

*"The viewer sees the scene through the eyes of the character, making them feel like they are the character themselves. Before transitioning to point-of-view, make sure to include a shot of the character that you are about to transition into. That way that the viewer knows whose eyes they are looking through. Similarly, after the end of a point of view scene, also include a shot of the character. Otherwise, it won't be clear that the following scenes are no longer in point of view."*

(Gayane "Camera Shots and Angles")

Therefore, the trick-process has been parsed in a more detailed manner. In the initial design of my storyboard, there are only six shots to show this process, but 12 shots in the revised version.



Fig. 9. *The Seahorse Playing a Trick to be Captured (First Version)*

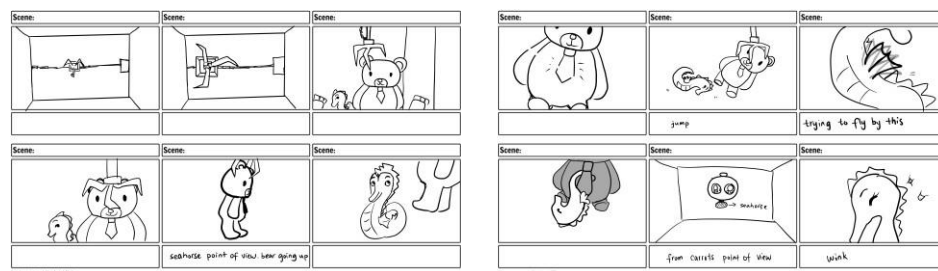


Fig. 10. *The Seahorse Playing a Trick to be Captured (First Version)*

In the actual film, this process is presented with different camera angles:

- (1) an eye-level shot shows the look of the seahorse
- (2) a close shot of the bear's tie
- (3) an eye-level shot of the seahorse looking around and thinking
- (4) a close shot of the tail
- (5) a long shot is given to show the seahorse watching the bear hanging up towards the outlet.

And the seahorse patting his wings anxiously.

- (6) a close shot of the seahorse jumping up
- (7) a close shot of the tail hooking the tie.

- (8) the camera moves to show the outlet entrance getting closer to the eyes of the seahorse.
- (9) an eye-level shot of the seahorse slipping out of the channel
- (10) an over-the-shoulder shot shows the girl taking the seahorse
- (11) an eye-level shot showing the girl standing before the machine with a disappointed look, holding the seahorse in her right hand.

Details are crucial also in presenting character emotions, particularly facial expressions. The movement of eyebrows, the blinking of eyes, the movement of mouth and other facial muscles have been considered while working on a better storyboard. The fear of the bear to be captured is shown by making the bear move on his back, hiding from the sight of the girl.

#### Intensifying Dramatic Tension

Instead of unplugging the power cord with one effort, another two attempts were added, interlaced with the bear's face in fear, to intensify the urgency and create the climax. However, building the tension cannot sacrifice the number of camera shots, because a fine arrangement of camera shots is needed to present just one change of movement or facial expression in a realistic way. Ultimately, the seahorse's climb up the power cord was depicted with more angles of camera shots in the final film, within a more condensed time frame. A head-shot, a shoulder-shot, and a close-shot with eye movements are used to show the climbing action, and an eye-level shot is used to show how it drops to the ground. When the claw comes down to capture, a low-angle shot is given from the bear's view, and then it lifts the bear to the outlet. A close shoulder-level shot is employed to show how the seahorse hooks the cord successfully.

The ending is different from the approved thesis proposal. The toys do not go back to the glass box, instead, they run away to seek their own future.

### 3. Animatic

After the revision of storyboard, I continued to work on the animatic and the length of the film turned out to be more than 6 minutes. To reduce the number of actions, I got rid of the schoolbag

setting as mentioned in the previous section, together with the action of pulling the toys out of the schoolbag, as used in the revised storyboard. I also added one shot of a boy character to the ending to help add clarity and drama. This was to help resolve the toy's hesitation about what to do after being released. Should they go back to the machine to wait for another player, who might be a sympathetic one? At this moment, the camera shows a boy character kicking away a toy he won in another machine, which helps them make up their mind to run away.



Fig. 11. *The Boy Kicking a Toy Away in the Actual Film*

Pre-production was a hard yet fruitful journey of creation, embodied with moments of thinking, communicating, reflecting, learning, and creating, necessary for producing this film.



## Production

### 1. Character Design & Modelling

#### The Carrots

In this film, a group of carrots act as the supporting cast. To reduce the amount of work for modeling, all carrots are modeled of the same shape and color. I started the work of character design with the carrots since an image of carrot came to my mind very quickly.

Being a positive promoter for a successful escape, they should look cute and affable. A real carrot has smooth skin with bright orange color, so I kept the orange color and chose a rubberlike feel to show that it is a toy. The following is my design of the carrot using the software of Autodesk Maya.

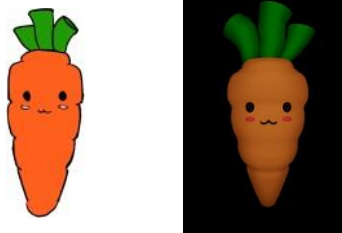


Fig. 12. *Carrot Character Design and the Final Model*

To build the skeleton of a long V-shaped carrot was not stressful work. The central line ran through the whole root to the top, connecting with three sprouts. In constructing the facial organs, proper sequence was followed against the central line. To be noted, little joints were added to each curve of the mouth to express emotions.

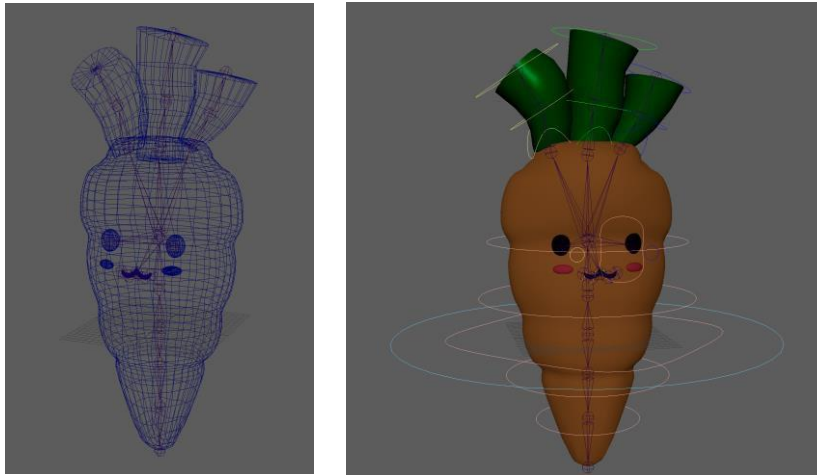


Fig. 13. *Modeling the Carrot*

### The Seahorse

The seahorse is the main character in this film and I made several sketches and turned to some online references to understand the characteristics of seahorses.

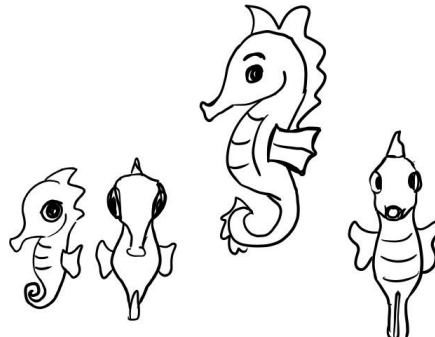


Fig. 14. *My Sketch of the Seahorse*

Having made the design, I searched *cgtrader*, an online marketplace where computer-generated models can be bought from designers and used legally. I found a seahorse model of a similar appearance except for the color. I decided to buy it and started to build its skeleton.



Fig. 15. Baria3DAsset, *Seahorse 3D Model*, 2018

It is more complex to build the skeleton of the seahorse than the work for the carrot. BlendShape could be a possible tool to deal with facial expressions, but both my advisor and I believed that movable skin around the eyes could work for more facial expressions. Therefore, I added a loop of joints around the eyes and allocated certain controllable parts to each joint when painting the skin weight.

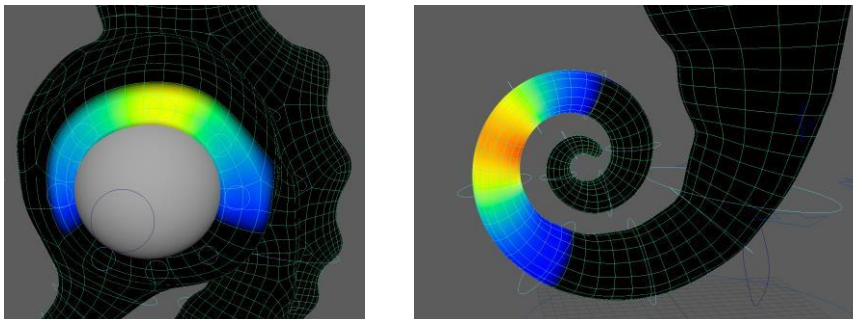


Fig. 16. *Skeleton Building of the Head and the Tail of the Seahorse*

To promote the skeleton building, Advanced Skeleton was applied as a skeleton plugin. Bones were added to its coronet and dorsal fin to achieve a more realistic movement. Four joints were used in its snout for the bending gesture. Working on the tail was the trickiest part because the original model had a coiled tail. As the tail of the seahorse plays a crucial role in the story, it should be flexible. In order to use the model in the subsequent animation, I added 11 pieces of bones to the tail to make sure that it can be fully functional.

As for the color, I changed the orange of the original model to the color of purple. Otherwise, the seahorse, the main protagonist, would not stand out amongst the carrots in terms of color. As a matter of fact, I have tried yellow and blue as the options, but only purple had the best visual effect when the seahorse was placed together with the other toys.

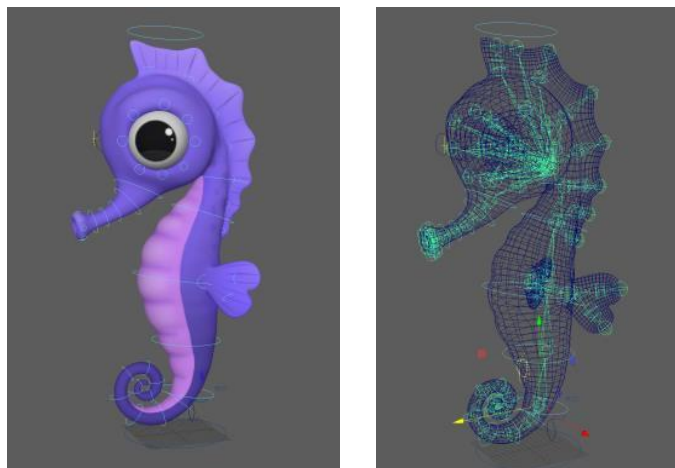


Fig. 17. *Building the Seahorse Skeleton*

### The Bear

I bought two bear models from *cgtrader* to choose between. But I had to rebuild the skeleton since they only have a model in the format of 3dsmax and were not compatible enough to be applied in Maya. One of the models was abandoned because its head was too big and its arms too short, making it difficult to accomplish some actions in the follow-up animation work. The bear model I finally chose has a more regular body shape with long arms, leaving a space for a tie, which fits the story plot well.



Fig. 18. Baria3DAsset, *The Bear Model*, 2018

The skeleton of the bear was also built with Advanced Skeleton plugins, adding two more joint chains to move the tie.

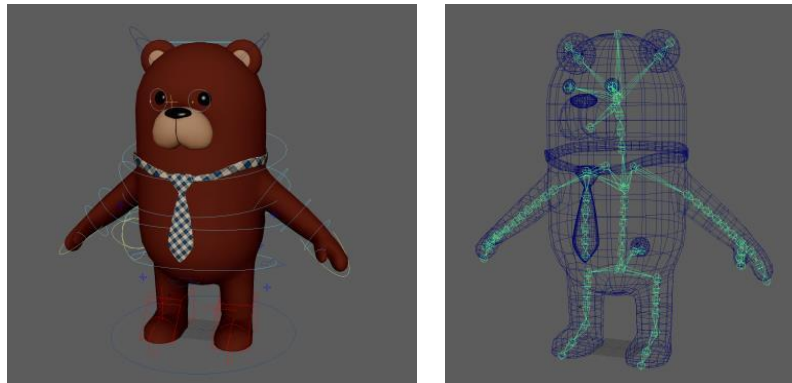


Fig. 19. *Building Skeleton for the Bear*

### The Little Girl

I made a detour in the character design of the little girl. The girl in the story is impatient, inconsiderate, and ill-mannered when she fails to get what she wants. In my imagination, she is a spoiled girl who considers herself a little princess. She is energetic but arrogant. In my original design, she wears a pink dress with two ponytails. There is also a school bag in the shape of a bear to show how much she likes bear toys. My design is shown as the following.



Fig. 20. *My Design of the Girl with a School Bag*

Corresponding to such an image, I bought a girl model on *cgtrader* shown below:



Fig. 21. Incomstudio, *3D Girl Model*, 2019

I was fully aware that one problem still existed with this model. She was attired in a typical Asian style of cheongsam and shoes, wearing her hair in a high bun. I tried to avoid any iconic cultural symbols because this role does not have a positive image in the film. Therefore, when I bought this model, I planned to change her cheongsam to a simple pink dress and removed the bun to be closer to my imagination. The following picture shows my revision.



Fig. 22. *My Revision of the First Girl Model*

However, in the actual work, I found that it was so difficult to operate the model after the dress was replaced by a new one because the original clothes are extensively connected to the body skeleton. Besides, the model is too large to run smoothly during the animation process. I continued to search for a new model until I found the following one as shown in Figure 23 and bought this model. This process took much longer than expected and left little time for me to make big changes in her

dress and hair style. The girl model of the final version is shown below.



Fig. 23. 3DCartoon, *Cartoon Girl Rigged 3D Model*, 2018

## 2. Setting Design

### The Evening Playground

Before the semester started, I confirmed the overall background with my thesis committee, which was built on basis of a model complex of Cartoon Park I bought in *cgtrader*.

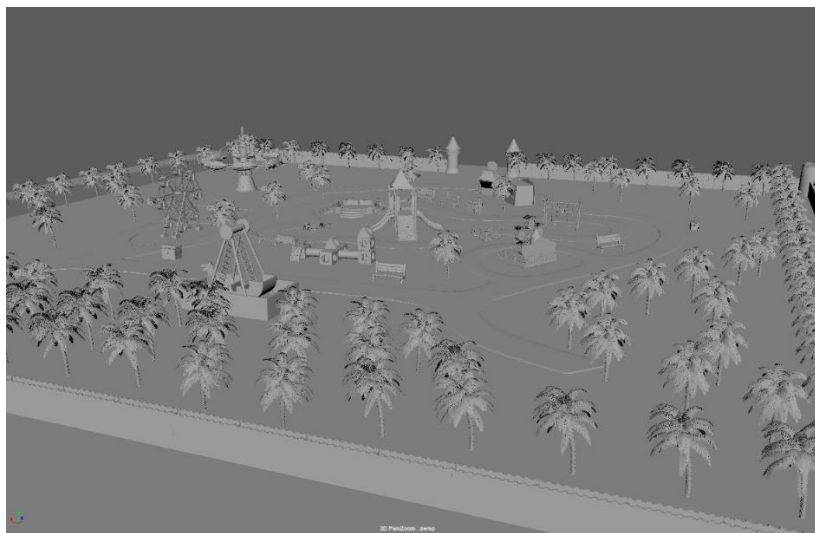


Fig. 24. Alexsusu, *Park Cartoon 3D Model*, 2020

I had recalled some small-sized amusement parks open in the evening when I traveled to some cities with my parents, where Ferris Wheel and airships serve as the main rides for entertainment, spotted by slides and swings that are targeted at younger children, with no intense games like a roller

coaster, scrambler or rotor. As the film is set in the evening with the claw machine as a focus, this park model complex perfectly met my needs for all the necessary facilities as an environment setting.

Next, I made some changes in the layout of the facilities so that the toy machine could be integrated without any sense of incompatibility. For instance, I removed most of the palm trees. Normally, there are no palm trees planted in a small-sized evening playground like this. I adjusted the size of the castle and added two gateposts to have an entrance. In addition, I erected a wall to enclose the entire site, so that the whole scene could be isolated from the outside world. Such a setting could deviate it from reality and contain it like an artificial stage or a dream.

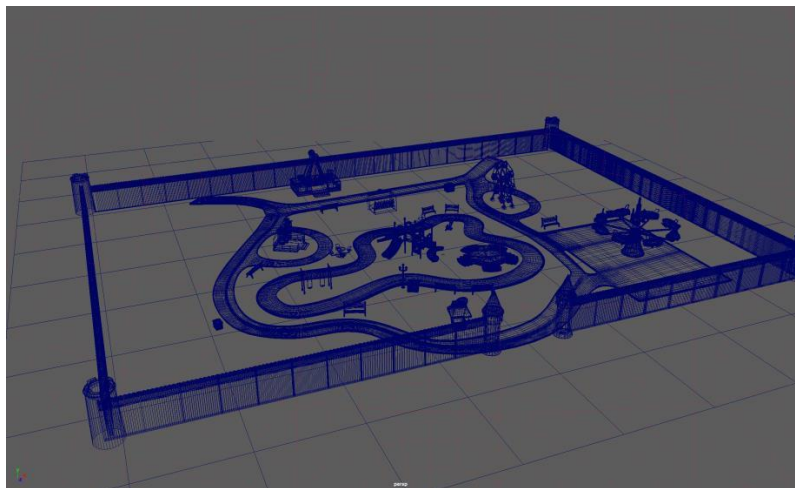


Fig. 25. *Revision of the Park*



Fig. 26. *A Close Look of the Revised Park in the Actual Film*



## The Doll Claw Machine

At first, I found a suitable claw machine model on *cgtrader* and bought it, but it consisted of fragmented files and could not be used as an integral in my software. I decided to build a new one based on the original model.

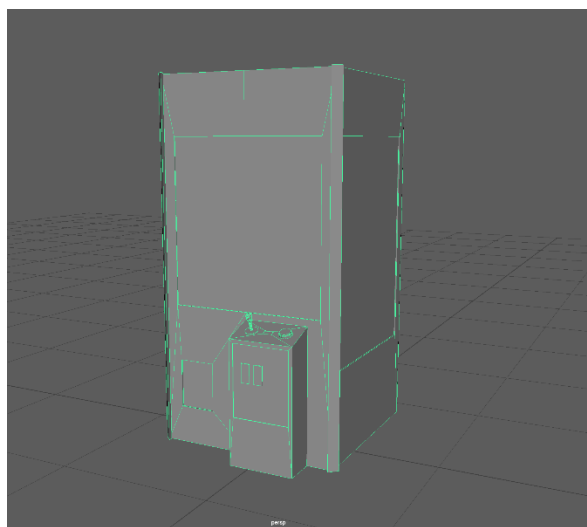


Fig. 27. Abdelrahman-Ahmed, *Claw Crane Machine 3D Model*, 2020

After finishing the model, I added bones of the claw and buttons of the machine. The crucial part of this work was to make the claw stretch out and draw back freely. I went to YouTube for tutorial videos and learned how to make claw bones for this purpose.

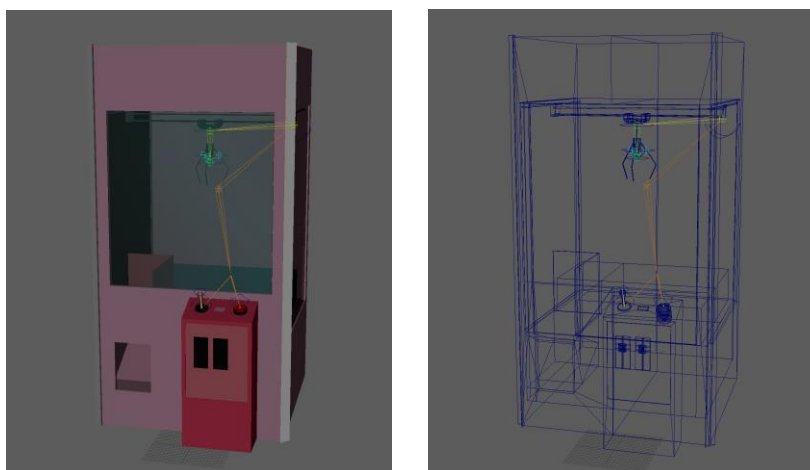


Fig. 28. *Building the Skeleton of the Doll Claw Machine*

I chose pink as the color for the doll machine, as it is the girl's color. When the girl enters the

park, the pink machine would stand out among many other gameplay settings and attracts her eyes immediately. I have made many adjustments to the shader of the machine glass. If the light is strong, the transparency of the glass becomes vital. Extremely high transparency would result in a failure to show the glass. In contrast, low transparency of the glass would lose a clear view of the toys in the machine. Though the iterations took some time, I was really happy with the final results.



Fig. 29. *The Effect of Glass in the Doll Claw Machine*

### 3. Animation

#### Blocking

The blocking process started with a camera test, where each frame of the animatic results was aligned with the 3D scene to achieve a general action. However, I had to work on blocking and spline at the same time, because I became easily distracted indulging in the details when I focused on the presentation of a specific action. Since the whole scene of the film was quite large, and there were many characters, I divided the animation into 20 files, each of which consisted of about 300 frames. During the blocking process, many adjustments have been made to the original animatic. I changed the girl model in the middle of the blocking process, which delayed my working pace.

As mentioned in the animatic section, the schoolbag was deleted, together with the scene of the toys being pulled out of the schoolbag. A boy character was added, with the movement of kicking the toy away. More details were supplemented to show richer facial expressions, and some close-up shots were employed for the same purpose, for instance, when the seahorse thinks over before jumping up to hook the bear's tie, and when the little girl hits the machine with a toy angrily.

### Spline

In the spline part of work, I mainly concentrated on producing the little girl's walking cycle.

As she is a very young girl, I paid special attention to the design of her walking steps, allowing her to have a relatively bigger swing, from side to side, or up and down. In the meanwhile, her hair was made to flap more actively along with her walking steps to achieve a lively and energetic effect.



Fig. 30. *The Walking Cycle of the Little Girl*

As for the claw of the doll machine, I have surveyed a lot of videos by searching the keyword “People Playing with Toy Vending Machine” on the Internet to study the dynamics of the claw. I made several interesting observations. Whenever the claw is activated, it would jitter slightly in situ before moving ahead, lean backwards a little bit due to inertia during its travel, and would be thrown out a little bit when reaching the position. I really enjoyed making this part of animation and tried my best to make it more realistic.

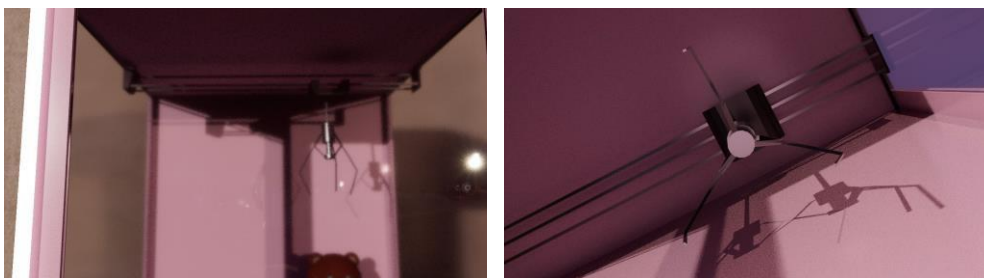


Fig. 31. *The Shots of the Claw*

In addition, during the spline process, I adjusted the frames between each action of the characters and established correlations between each of my files.

### Polish

The polish work mainly dealt mainly with squash and stretch. Adjustments have been done on many occasions: when a seahorse moves its head from side to side, its snout moves along with it; the carrots bounce slightly when they drop to the ground; a sense of suspension emerges when the seahorse swings its dorsal fin. The little girl's hair and dress are adjusted to move with her steps all through the film. Micro-expressions such as blinkering have also been refined.

One scene was added to show the fear of the bear when it is nearly caught. Shivering in the doll machine, the bear moves on his back to hide from the girl's gaze. These actions were adjusted several times by locating the proper frequency in the Graph Editor.

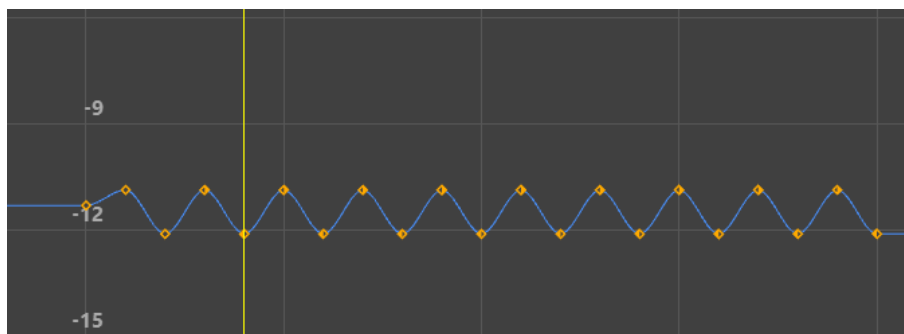


Fig. 32. *Working on the Frequency of Body Moving*



Fig. 33. *The Bear Moves on His Back in the Actual Film*

#### 4. Lighting

Lighting is the most enjoyable part of work in the film making process. I would like to use some examples to highlight my considerations of lighting design. For instance, the sky dome light is applied to show the park in the evening, which is slightly dim.



Fig. 34. *The Lighting Effect of the Park in the Evening*

When the claw machine turns on, two long strips on both sides of it would glow. I used bright pink light to form the contrast. Such a color agrees with the main color of the machine.

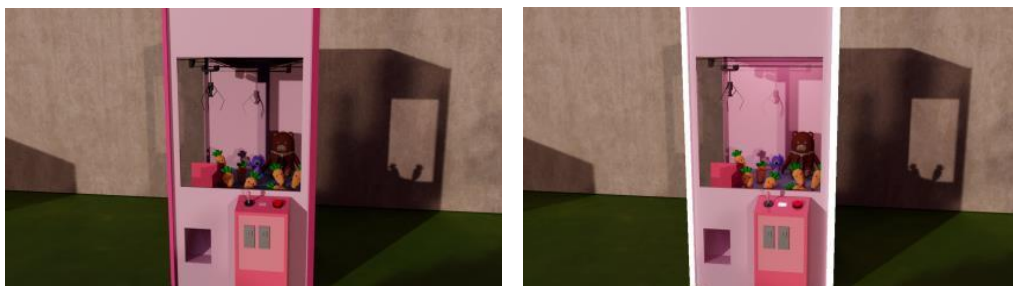


Fig. 35. *The Lighting of the Shining Strips*

Inside the machine, a light pink one is chosen for two reasons. First, when such a light is reflected on the toys, the influence is much less than a deep color light. There is little color contrast to dealt with. Second, as the machine is activated at the beginning of the story unexpectedly, the bright pink strips would be prominent in contrast with the interior pink light.



Fig. 36. *Lighting Inside of the Claw Machine*

Moreover, after the seahorse falls to the ground, it is surrounded by the carrots. A low-level shot is given from the seahorse's point of view. A backlight is used for the three carrots, accompanied by an area light in front of the carrots with low-degree intensity and exposure. Such a lighting design can show the faces very clearly even when they are standing against the light.



Fig. 37. *The Carrots Standing with a Backlight*

A comparable situation occurs when the little girl turns to face the doll machine against the sunlight. At this moment, the seahorse and the carrots are devoting their efforts to save the bear. The rescue scene also needs the backlight effect, and the light before the girl needs to be adjusted in a proper way. The backlight for her can be distinguished between two contexts.

When the doll machine is activated, the light inside the doll machine is turned on. The reflected light on the glass becomes more intense, and as a result, the little girl's face is relatively brighter. When the power cord is pulled out, the doll machine stops working and the interior light goes out, the girl's face can be seen clearly when she is looking behind the window, but the light turns to

be much darker in this case.



Fig. 38. *The Lighting Effect of the Girl Hitting the Machine with a Carrot*



Fig. 39. *The Lighting Effect of the Girl when the Machine is Powered off*

When one of the carrots is grasped by the girl to hit the machine box and is thrown to the ground afterwards, it is surrounded by the other toys. I chose to keep the overall background in a dim light to express the mental state of the group at that moment--- a heartbreaking and uncomfortable situation. Although the characters are in the light, they are enclosed by a shadow, indicating that they are only one step away from darkness. It is after this incident that the seahorse begins to change his mind and resists being taken away by the little girl.



Fig. 40. *The Lighting Effect to Show the Sadness of the Toys*

Auxiliary lights are used to reveal the shadows or the side projections of objects. For instance, when the doll machine falls to the ground at the end of the film, auxiliary lights are employed on the side of the machine because it is in the shadow and a sky dome light will not be a desirable choice.



Fig. 41. *The Use of Auxiliary Light to Reveal Shadows*

In general, I am very satisfied with the lighting effect in the actual film. Every detail is clearly presented, and the contrast is reasonable, that is, no part is too dark or too bright. The metal texture of the claw is strengthened under the proper lighting effect presented, despite certain noise points remained to be refined due to the lack of time.

## 5. Music & Sound Effect

I invited Qiuyu Wang to be the composer for the music of this film. When I finished the first animatic, I sent it immediately to her so that she could have a general idea of what kind of music



would be suitable based on the storyline. The result of her first attempt has an upbeat tempo in general but was too smooth for this film. There should be ups and downs to express the variety of emotions represented, such as expectation, excitement, rage, and anxiety. Therefore, I communicated with Qiuyu at once and explained the storyline more explicitly to her. She became aware of the parts of the dramatic conflicts and was ready to create a corresponding musical effect. I left some time for her to think about the revision.

Having made certain adjustments, the second version of animatic offered a relatively fixed time frame for the entire film. Based on that time frame, the composer specified the mood of music in response to each part of the current flow. Meanwhile, I have been in contact with Bent Meng, who is the sound designer of this film, and made a list of the sound effects needed in this film: the mechanical sound when the doll machine is activated and when the claw moves, the shattering sound when the glass is broken, the sound of a squeezed toy when the girl's shoe stamps on the seahorse, and the sound of inserting a coin into the slot, etc.

The third version of the animatic came out in the 3D format and thus revealed many details much closer to an actual film. I made appointments with the music composer and sound designer respectively to have further discussions about adjustments. In the third meeting, the composer gave me a complete version of the music for the film, fitting nicely with the development of the story and the turning of emotions. The overall effect was satisfactory. The sound effects worked well too. When the film was completed, the composer made the last change, but the sound designer and I had to wait for the result of the film rendering, which took longer time than I had expected.

## 6. Problems in Editing and Subtitles

I chose to pay for an online rendering service instead of using the rendering farm of the university, because I do not live in Rochester and it takes an hour and a half to drive there. Besides, I needed to revise the scenes whenever the rendering results revealed any problem of the scene production. There were 18 scenes to be rendered. The number of key frames in one scene ranged from 200 to 1000. Because of the revision work, the rendering process was repeated three times, which

accounted for its delay. When the rendering process was completed, it was the last day before the deadline for submission. My computer processed very slowly and stopped working periodically because of the large file. I worked in a hurry and chose the wrong frames, 30 instead of 24 frames, when I exported the rendered film. The sound and image failed to synchronize as a result.

With the time pressing and the pressure building, I was reminded of the procrastination story I created as the first thesis proposal. I had no time to regret and spent every minute in the checking and adjusting work. Finally, the problem was solved but no more time could be spared to double-check the editing work. In the actual film, as pointed out by my advisor, there was 1 second lag between sound and image.

As there are no dialogues in the film, I did not add subtitles to the film, which should have been revised. As pointed out by my advisor, having captions is a SOFA policy and the subtitles can be helpful for some audience who may not hear the sound and music. I worked on these problems after the Screening Day and uploaded the revised version of the film to my Youtube channel (“To Be Captured”).

## EVALUATION

### Feedback from my advisor and other committee members

Besides the problem of editing and subtitles, the comments from my advisor on my work have been quite positive. Peter Murphey and Mark Reisch congratulated me for a successful completion of this thesis short and continued to offer precious advice on the thesis writing. I have received quite warm and encouraging comments from Carl Dong, quoted as below:

*“Throughout the thesis, Effy demonstrated adequate understanding of the principles and rudiments of animation as a storytelling form, the proved production management skills through the entire making of her animation film, as well as the passion and eagerness to edge in further in the field of animation.*

*As a mentor and a friend, I’ve seen Effy, in all her effort, laboring on the project almost all day and night over, polishing and re-inventing her storytelling techniques in the pursuit for a better viewing experience. Her film went through a series of check points, modification and re-dos. In witnessing the entire process, I discovered Effy’s persistence in advancing the skills and tech needed for producing convincing animation films and storytelling media. And I sincerely hope this determination would carry on with her in her journey as a digital artist.*

*In summary of this animation project, I found that Effy had great interest in discovering visual storytelling strategies, as her story showed a great amount of maneuvers in camera actions, exploring and presenting the characters both in emotion and story. The acting choices, on the other hand, is sufficient and best in efficiency, presented the limited budget and time for production. Although, given the limit of production experience, and resources, the work still had plenty of room to inch forward in presenting better animation actions, the fundamental animation rules etc. To give an honest review, it has a great potential to work on.*

*I’d like to thank Effy for this opportunity to sign me up as a committee member. It’s great to discover the passion and eagerness of animation students ready to make a move in the animation filed.”*

### Feedback from the audience on the Screening Day

On the screening day, I have received congratulations and encouraging words from the

audience after my film was shown. Positive comments such as “the movement is quite real when the seahorse tosses his head” “the design of the girl’s walking steps fits the character well” “the color and lighting design is excellent in creating a dreamy, surrealistic atmosphere” and so on. There are some comments from the audience stating the following problems that need to be resolved. I will write my response under each point.

a. *There is a shot in which a carrot inside of the doll machine floats in the air.*

This carrot hid from my attention during the animation process and emerged when the rendering was completed and the lighting was made. I will be more careful in my future work.

b. *It seems strange to have only one child playing in a playground on such a dim evening.*

As I have mentioned, this film is made as a metaphor, a fantasy, or a dream. An unrealistic atmosphere is not a problem if you agree with the A-Effect drama theory advocated in this film.

c. *The film is still a bit long and some parts are not necessary.*

I want to exhibit the details of actions and probably some of them should be created in more efficient manner. I hope I can do better in my future creative works.

d. *Film rendering could be better as there remains some noise points.*

I will do better in this respect in my future projects.

### Summary of Response

I am grateful to all the feedback about this thesis short. I am happy that my efforts have proved to be worthwhile and my creative works can be appreciated. In the meanwhile, I am fully aware of my weakness in time management and story-telling. I have made some revisions in terms of editing and subtitles and uploaded the latest version to my YouTube channel (“To Be Captured”). This film is a fresh start and my pursuit of creating hyper-realistic fantasy will continue.

## CONCLUSION

The film making process of this thesis short film is a journey of exploration of “realism”. In line with Brecht’s A-Effect dramatic theory, this film takes the toys’ perspective to build a fantasy narrative metaphorically and animate it realistically.

The seahorse is personified as the leading role who takes the initiative to be captured and changes his mind when he sees the brutality of the girl who would capture him. He represents those people who surrender to a higher authority for a better life. The girl depicted as being powerful and indifferent represents such an authority. The bear appears numb and passive until his life is threatened, representing most people who just follow a routine social life without thinking too much. The carrots are helpers, indicting the group of people who could be activated when they are enlightened. The escape attempt and the final choice show how people seek their own outlet for an independent and free life.

This film shows that by using fantasy characters to represent people groups in modern society, and a fictional narrative to reveal social issues, a wider scope of reality beyond a toy-catching game can be projected.

To animate the toys’ movement in a realistic style, I followed a detail-optimization working plan to achieve the effect of personification and verisimilitude. In the revision of the storyboard, the character movements and expressions were analyzed in a more detailed way, employing varied camera angles, while the storyline was edited to intensify the dramatic conflict. For this reason, the time control was managed in the animatic process. In the animation phase of work, movement analysis was carried out to capture the lifelike walking steps and the facial expressions. Texture adjustment was applied to create an eidetic look of the claw machine and the toy characters, while expressive area lighting was set up to present personified emotions of the toy characters. The animation techniques employed in this film show that inanimate toys can be generated in a lifelike manner.

This short film affirms that a strong sense of realism can be produced if the perspective of a

fictional narrative can be extended to reality and the non-human characters can be animated with realistic representational approaches.

This journey, full of white nights of modifying and revising work, has drawn a successful conclusion of my study in RIT. It is a journey of self-reflection as well. When I started the work, I was too ambitious to take care of all the reasonable details. The regular communication with my advisor and thesis committee has been very instructive and what I have garnered is not only the practical techniques in animation but also the psychological understanding of my characters.

There is much room for improvement in every aspect of the film making process, especially in editing, however, I feel excited to have accomplished my first animated toy film as it is. I am satisfied with the efforts and the fruitful process of learning in achieving such a goal, that is, to create a “completely fake” work about “reality” (Wells 25), which gives all the contents of this thesis.

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[models/character/child/cartoon-girl-rigged-1828d416-f68a-4857-8c4d-6a868ade29f2.](http://www.cgtrader.com/3d-models/character/child/cartoon-girl-rigged-1828d416-f68a-4857-8c4d-6a868ade29f2)

Accessed 13 Jan. 2022.



# APPENDIX

## THESIS PROPOSAL

### **To be Captured**

By

Suien Ma

Graduate Thesis Production Proposal

School of Film and Animation

Rochester Institute of Technology

Approved for submission by: \_\_\_\_\_

**DIRECTOR:**

Suien Ma

**KIND OF FILM:**

3D Animation (4 mins)

**LOGLINE:**

A seahorse doll plays tricks to get out of the doll catcher only to find the reality against his expectation.

**THESIS STATEMENT:**

It takes time to see the truth, especially when you blur your eyes with a rosy dream.

**RATIONALE:**

This 4-minute film is based on my experiences of doll catching. I was a bit crazy about this game and collected many dolls at home. My collection was getting bigger and bigger, and our house was almost filled with my dolls everywhere. One day, my mom took one of them, a cloth doll in green dress and gave her a name "Coco". She told me that Coco was sad because I did not pay attention to her since I kept getting the new toys. I started to play with Coco and placed her at my bed for many years. Many players of doll catching do not treasure the dolls they have captured. The dolls are like homeless pets that are waiting to be captured and they would be excited to see the chance of getting a home. They have little choices for their future. They expect good luck. However, in many cases, their rosy dreams are broken by the reality. If it is possible, I believe they will fight for a better future when this happens

**TREATMENT:**

The light is casting on a stuffed seahorse sitting in the glass box of a doll catcher. He has a light green body with golden coronet and a curly tail. Around him are a pile of stuffed carrots with green leaves on their heads, and on top of the carrots lies a big stuffed white bear with a red tie. A girl comes over. She is around 10 years old in a pink dress. The seahorse stands on his tail to have a look, finding the girl's eyes fixing on the big bear. The seahorse gets jealous and stands on his head (upside down) to attract the girl's attention, but in vain. When she inserts a coin, the carrots start to blink with their leaves and the bear starts to blink with his red tie. Then the seahorse stands up on his tail pushing the carrots impatiently to make a way out. When the claw grasps the bear, the seahorse jumps forward and hooks the tie of the bear with his tail. The claw moves to the outlet, but gets loose in the air, and the seahorse "kicks" the bear aside with his tail and then he ends up rolling into the outlet.

The seahorse now stands in the arm of the girl and makes a condescending face at the bear who is looking at him annoyed. The girl continues to play but starts to lose her patience when she is only able to get two more less desirable carrots. She leaves the three dolls on the ground to free both of her hands to play. The two carrots are sad, but the seahorse jumps up to please the girl, only to be stamped on by the girl's foot as she moves to insert another coin. The seahorse is wounded in his coronet and has a dirty footprint on his chest. The carrots come to help him stand, but he gets rid of them, trying to climb up the platform of operation so that the girl can get a glimpse of him. The girl does see him and foists him into her backpack rudely. He struggles to stick out his snout to breath and the two carrots drag him out of the bag.

At this moment, one of the carrots is taken suddenly by the girl who is getting more and more impatient. The girl hits the window with the doll carrot and throws it to the ground. The seahorse comes over to help the carrot stand, and he gets irritated. The bear and carrots inside the glass cabinet are scared. They can see that being caught by this girl is not the prize that they were imagining. The bear searches for a way to escape and notices the power plug for the machine on the wall behind them. The bear points and signals to the seahorse. The seahorse and the two carrots find the power line. The carrots form a "carrot ladder" and the seahorse climbs to reach the cord, but he slips and rolls down, hurting his snout. At the

same time, the girl sets the claw to grasp the bear and succeeds in taking him to the outlet.

The bear signals for help. He drops and stays at the edge of the outlet. The claw lowers to grasp him again. The seahorse urges the carrots to connect with each other to form a rope and he attaches himself on the very end. They swing hard so that the seahorse can fly high. The seahorse succeeds in hooking the cord with his tail. Then the three dolls yell and pull forcefully and eventually, and they are able to pop the plug out of its socket. Suddenly, the light is off and the girl is startled with an annoyed face. The girl looks around, and the seahorse covers the carrots under him. The girl looks at the dirty seahorse and walks away.

The dolls inside the machine are jubilant and pull the seahorse and the carrots back to the catcher glass cabinet. The carrots blink their leaves in the darkness and the bear, takes off his tie and circles it around the neck of the seahorse.

## SCHEDULE

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
<b>Development:</b>										
Treatment										
Storyboard										
Animatic										
Character model										
Model texture										
Buy models										
Blocking										
Spline										
Polish										
Lighting										
Rendering										
Sounds										
Title & Credits										
Screening										

## BUDGET

Supplies	Cost	Notes
<b>Software</b>		
<b>Autodesk Maya</b>	\$0	In-kind
<b>Adobe Creative Cloud</b>	\$264	\$22/month, 12month
<b>Hardware</b>		
<b>Desktop</b>	\$2100	In-kind
<b>Double Monitors</b>	\$600	\$300/each, In-kind
<b>Animation Required Items</b>		
<b>Characters Models</b>	\$300	
<b>Environment Models</b>	\$200	
<b>Sound Effects</b>	\$100	
<b>Composer</b>	\$200	
<b>Festival Fee</b>	\$200	
<b>Total</b>	<b>\$3724</b>	(actual) <b>\$1264</b>

REFERENCES





## **PRODUCTION NOTES**

I have revised my story “Lear and Tim” following the suggestions of the proposal committee members. However, when I finished my first revision after the proposal meeting, I came up with another story about dolls, which involves more imaginative elements. I showed both treatments to my thesis chair, and we both agreed that the second story is more interesting. It is a story which brings me back to my childhood. Giving life to dolls and making them speak and act, is the realization of my old dream about them.





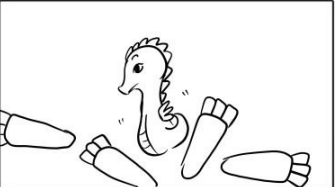
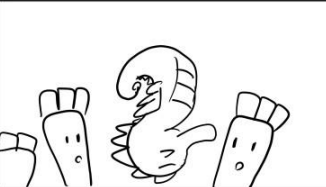
In my treatment, there is a group of characters but I am very confident to accomplish the animation of them. The reference photo about a doll catcher shows that most of the dolls are of the same type, which is the reason why I chose to have many carrot characters in my treatment. The carrots are easy to model, and not very hard to animated either, since the construction of their bones is not complex. In this case, I can focus on the modeling work of the bear and the seahorse. I plan to build some models by myself, for instance, the girl, the seahorse and the carrot, and for all the other assets I’m going to buy them (I already have some choices). There is going to be only one scene which is the park place with one doll catcher. I’m pretty sure this new story is doable in 4 minutes.



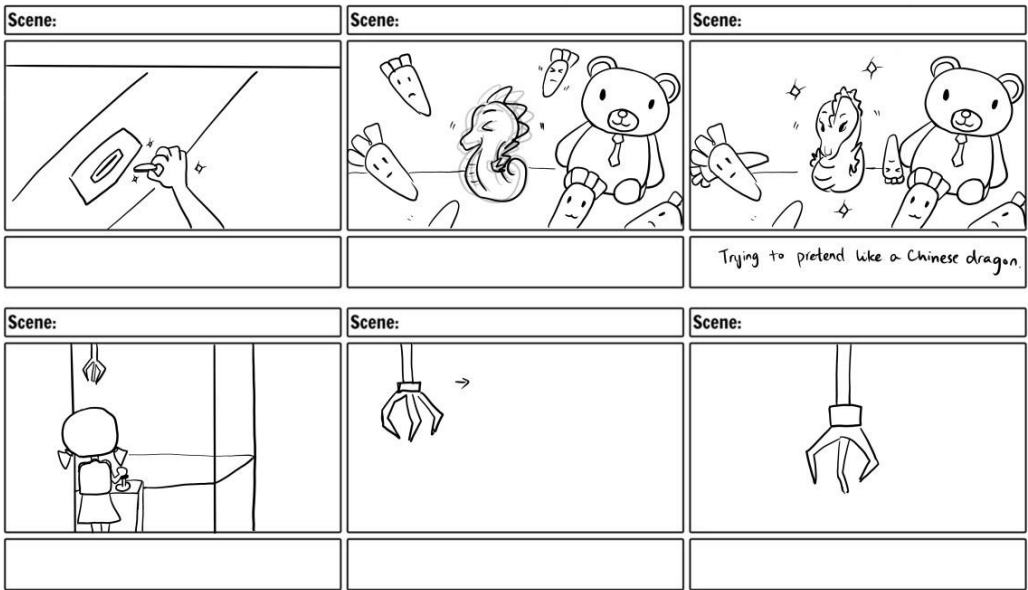
# STORYBOARD

<b>Scene:</b> 	<b>Scene:</b> 	<b>Scene:</b> 
everything in the dark.	Lights up with amusement park music at the background.	zoom in to the seahorse, he looks at something
<b>Scene:</b> 	<b>Scene:</b> 	<b>Scene:</b> 

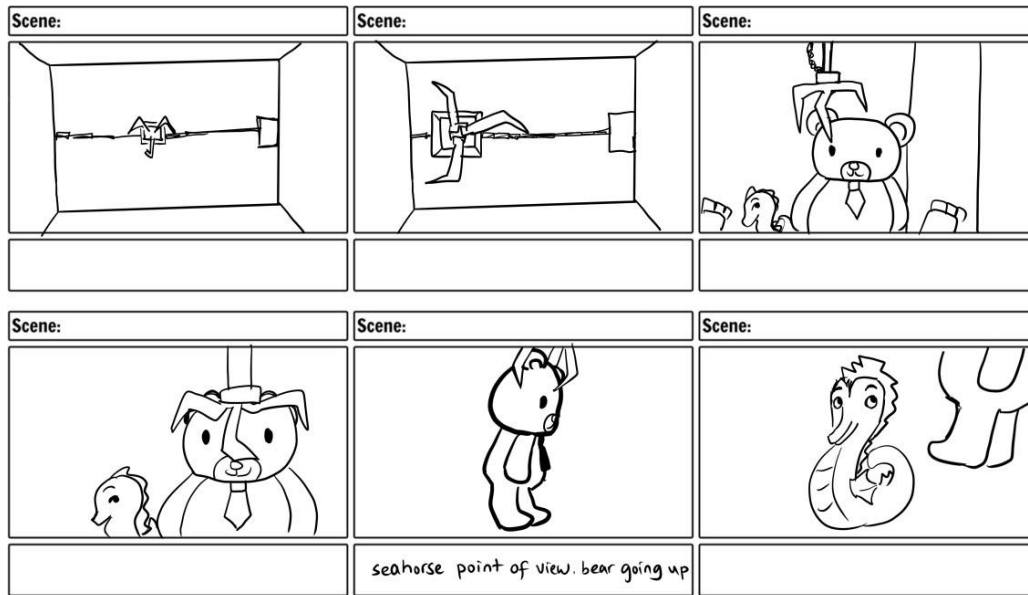
Create your own at Storyboard That

<b>Scene:</b> 	<b>Scene:</b> 	<b>Scene:</b> 
<b>Scene:</b> 	<b>Scene:</b> 	<b>Scene:</b> 

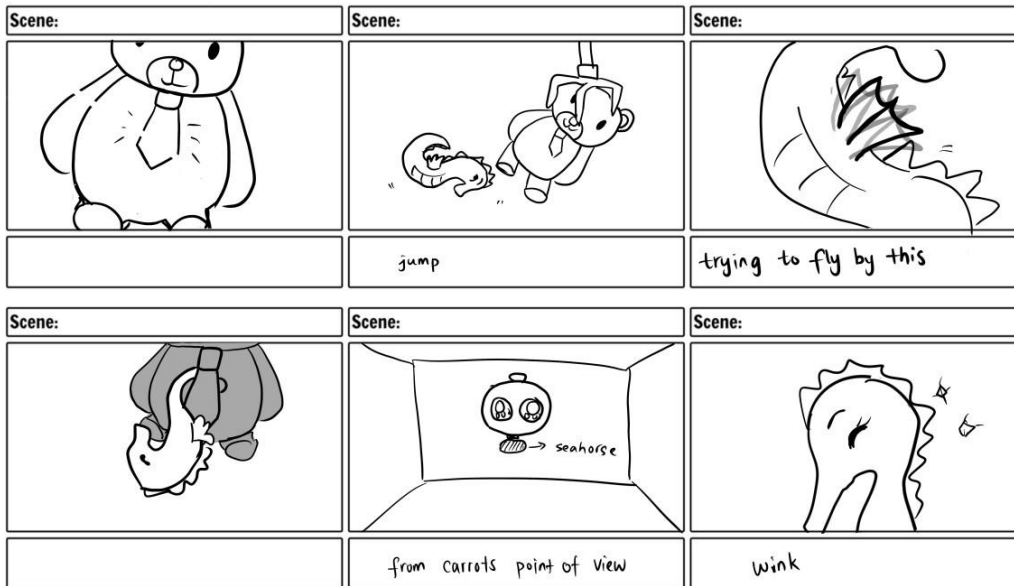
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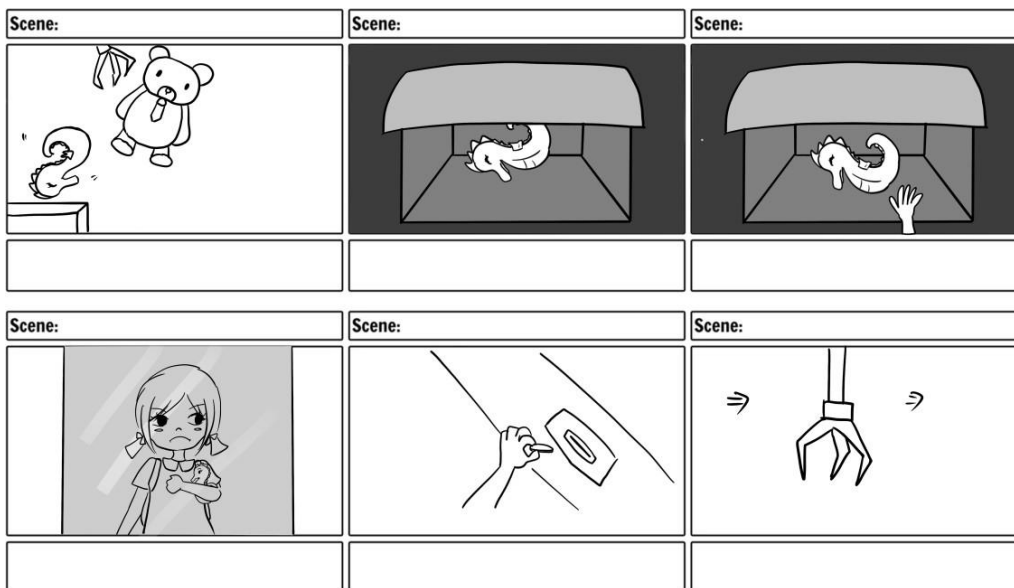
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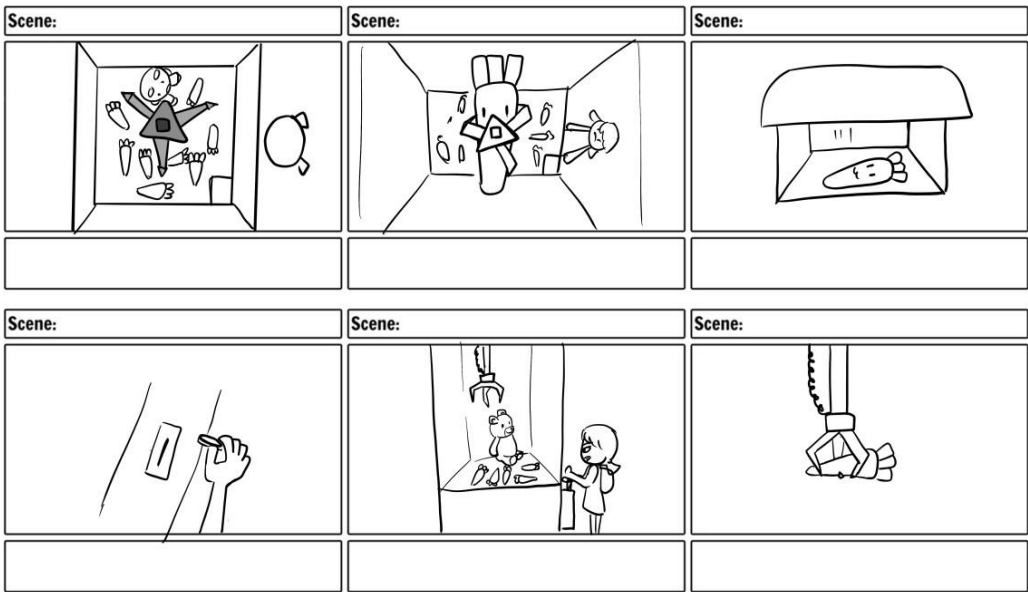
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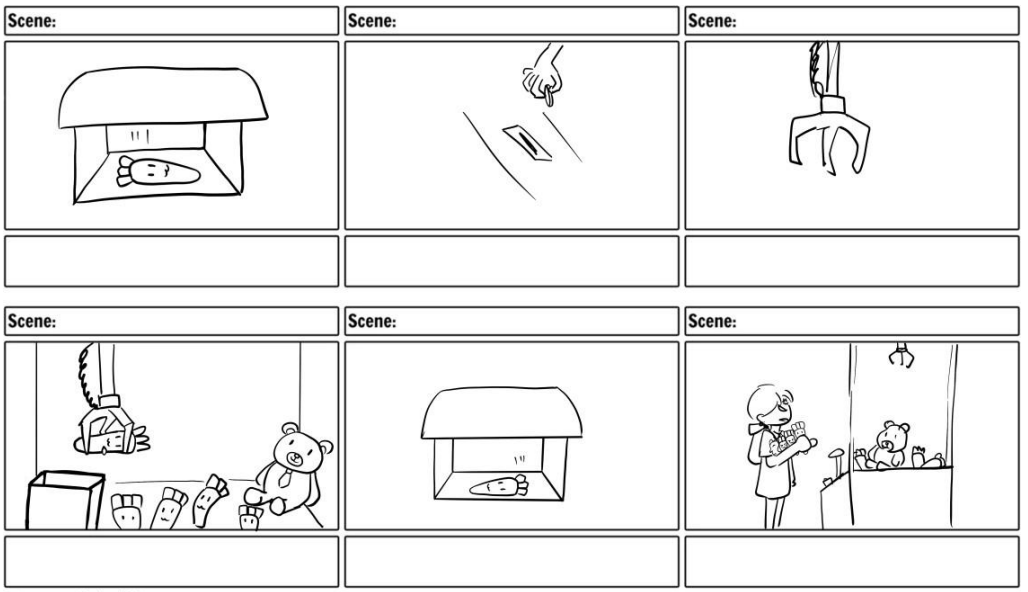
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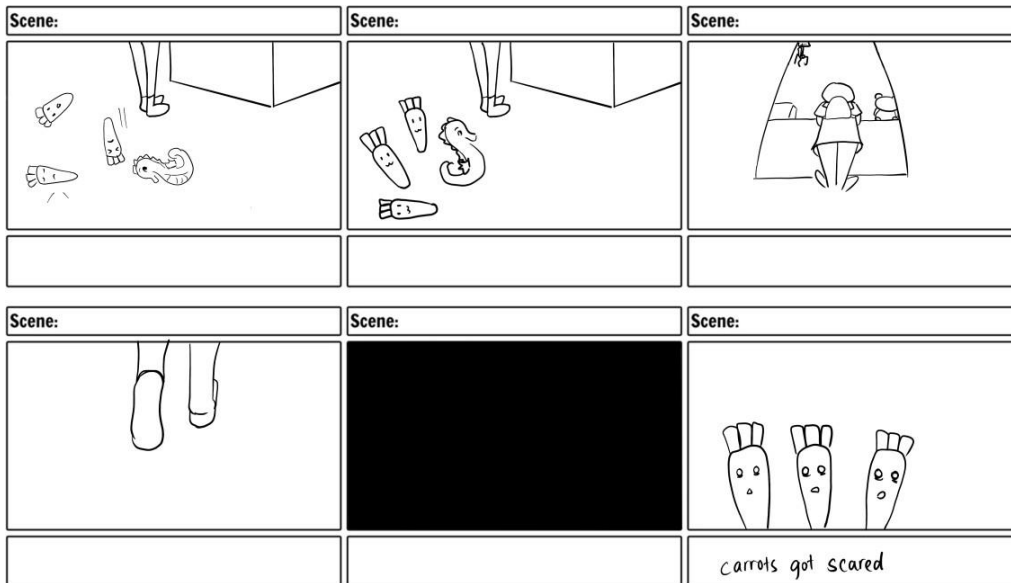
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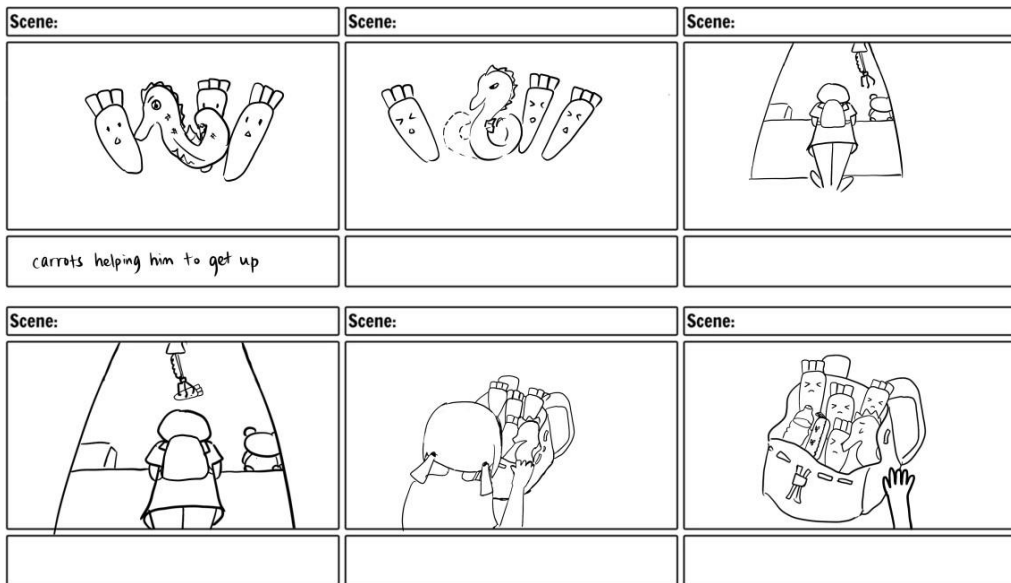
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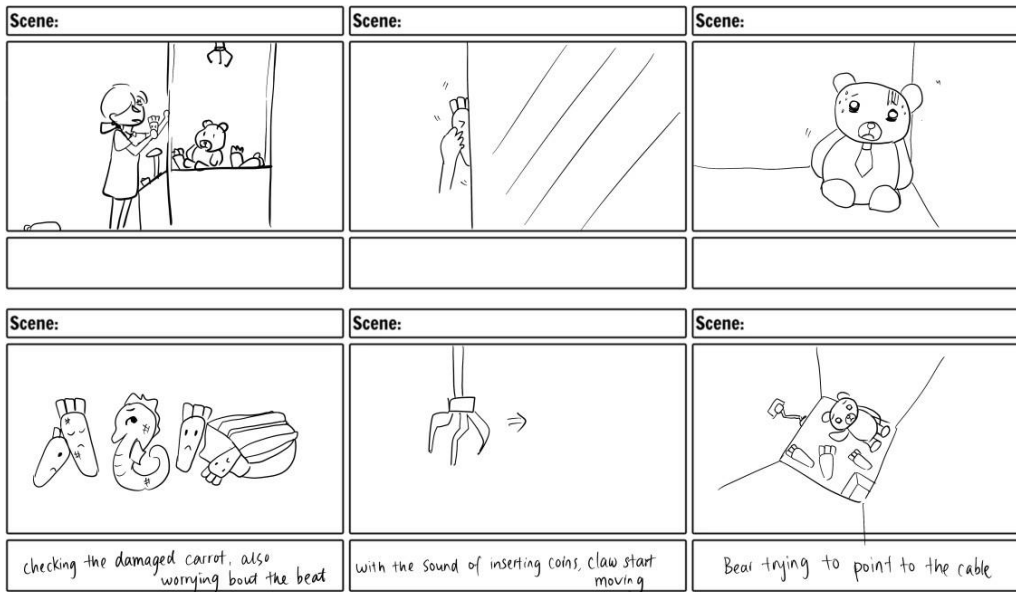
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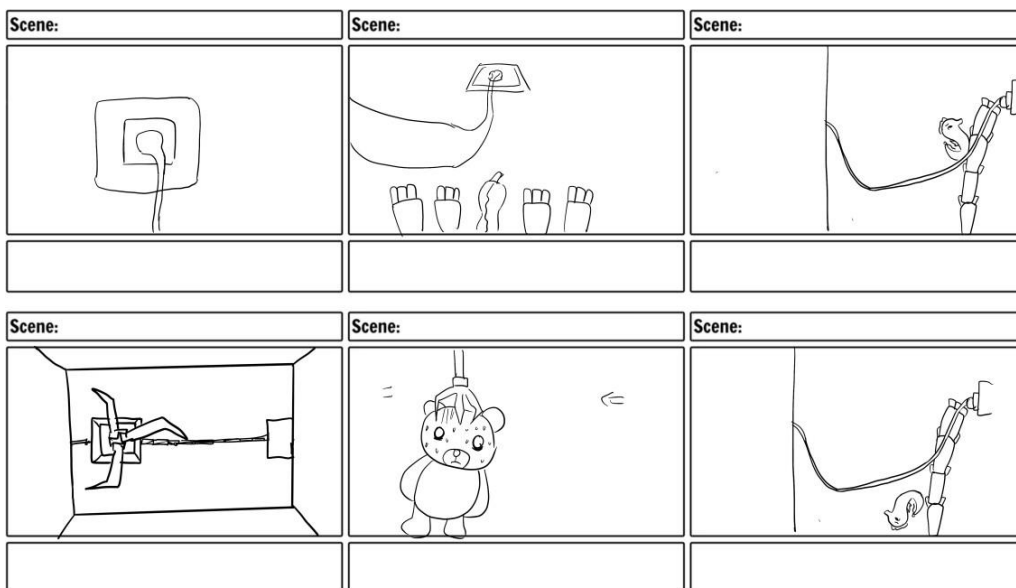
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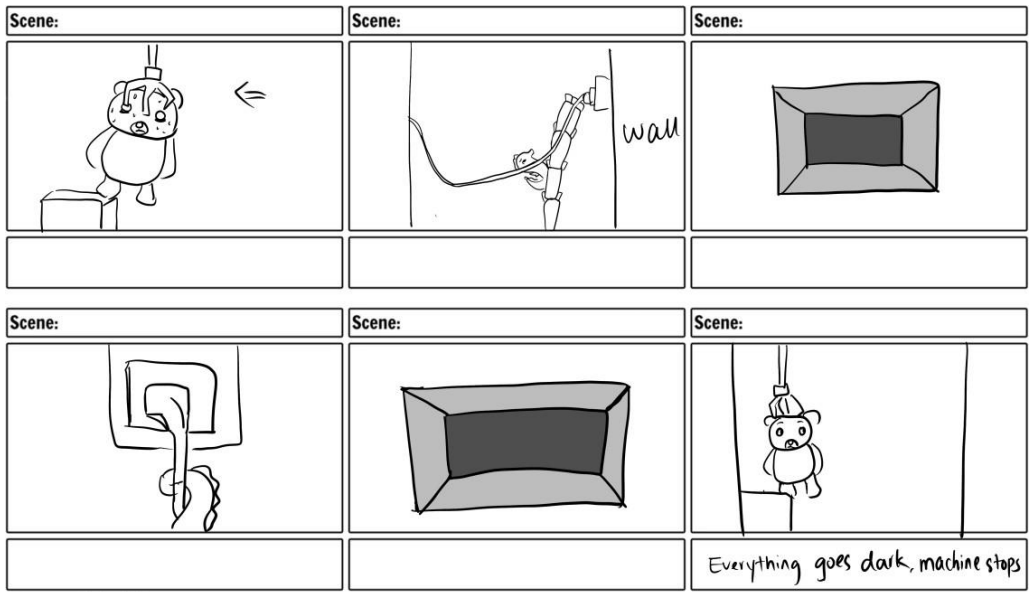
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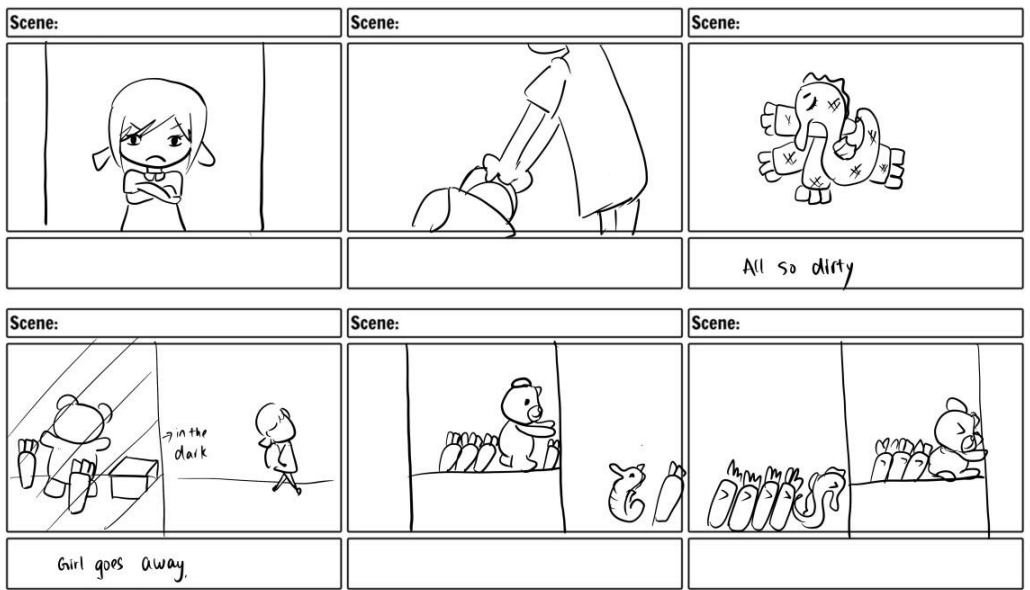
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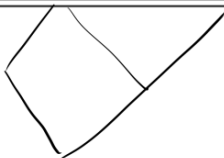
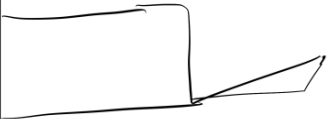


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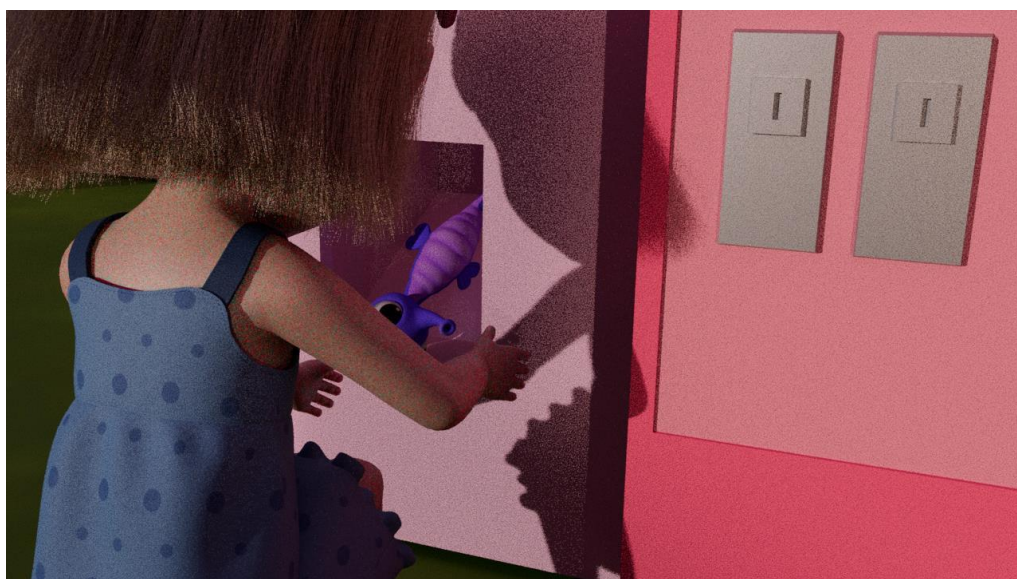
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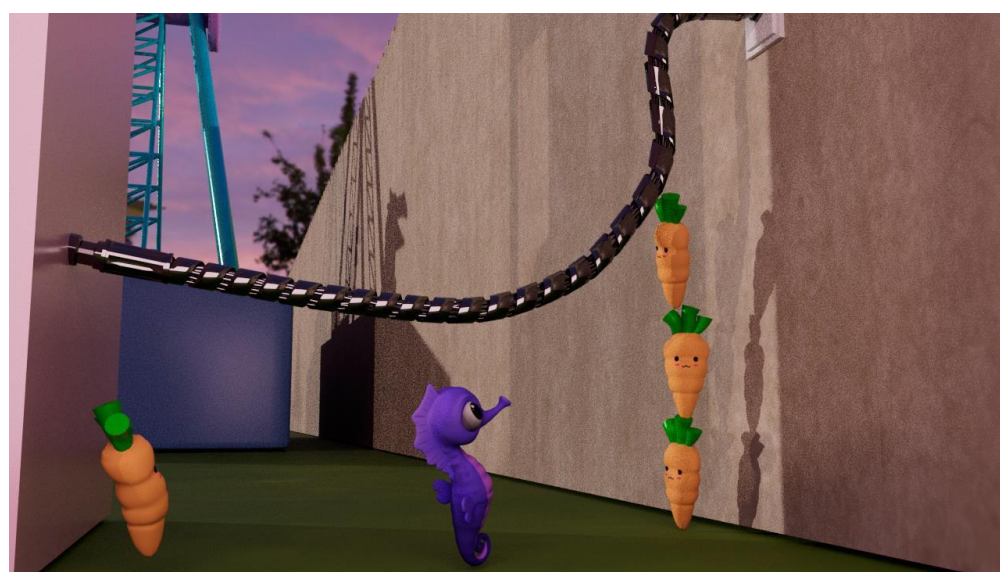
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Create your own at Storyboard That



SCREENSHOTS





Film by:  
Suien Ma

Committee Chair:  
Peter Murphey

Committee:  
Mark Reisch,  
Carl Dong

## Models&Rigging:

Suien Ma,  
CgTrader authors:3D Cartoon,  
Abdelrahman-Ahmed, AlexSusu,  
Pressformer, Darkstudio,Baria3DAsset

Composer: Qiuyu Wang

Sound Designer: Bent Meng

Render Service:  
Satellite No.6