

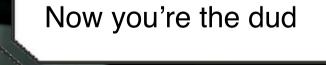
# Inspiration

Being passionate about CGI and VFX and inspired by films like Chappie and Finch, my teammates and I decided to do something cool for the last short film production assignment for the second year.



# Story Development

At first, the story was simple–75088, a dummy robot, decided to fight back in the chaos. After the first pitch with our instructor, we found the two characters lacked clear personalities and the humor wasn't strong enough. So we added a scene where the robot accidentally shoots the officer in the butt, followed by a sarcastic line as the ending.



# Location Scouting



1.An abandoned factory very similar to the one in Chappie.

·Pros: Looks really good

·Cons: 50 miles+ from school, no shooting permission, no restrooms nearby, nor any place to buy food or water.

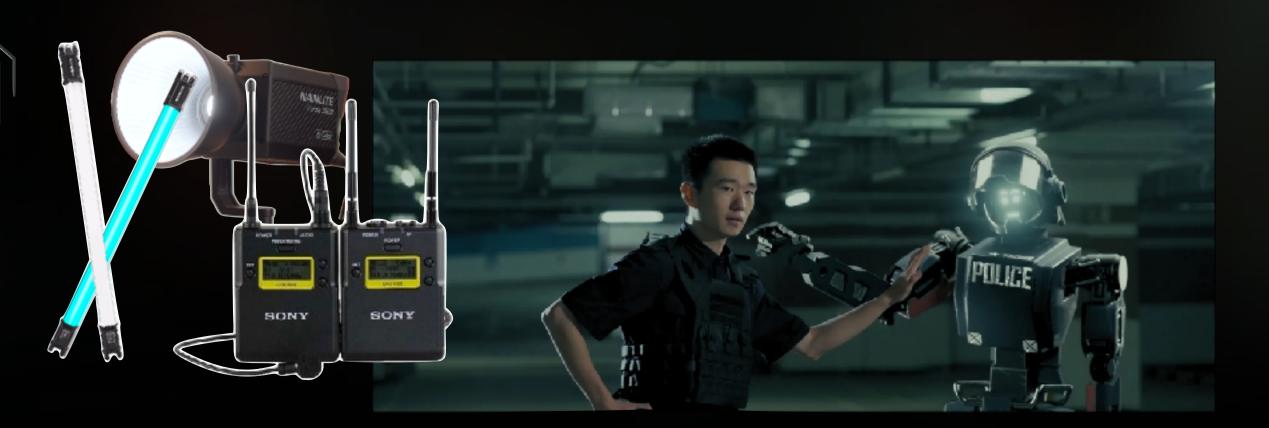
#### 2. School Garage B3 Level

·Pros: no car during weekends, shooting permitted, an open space with a strong sense of depth, lower production cost

·Cons: Low luminance, flickering light, noisy air-con system, alarm

#### Solution:

- ·Replacing Fluorescent tubes with LED tubes
- ·Boom & additional lavalier mic for clear dry sound
- ·A car introduced to enhance the storytelling.





## Scheduling For Production Day

As the producer, I consider scheduling the most challenging and rewarding part of this production. To ensure efficiency, I grouped the shots based on narrative continuity, lighting setup, and equipment constraints.

Group	SHOT NUM	Reasoning / Notes	Cam department	RIG/Cam		Bot	sters	Sound	Motion Capture
Police-Robot Dialogue		Needs Slider Motion Capture Team get ready at 8:30	FX6 on slider, Long shot Get slider ready before 9:00	Slider				2lavalier+Boo	m V
	4, 6,	Camera assistant	stabilizer ready for shot 2.	Handheld FX6	<b>✓</b>	<b>~</b>		lavalier+Boom	
	2, 3, 8	A7S3 on DJI Ronnie Stabilizer		Stabilizer	<b>✓</b>	<b>~</b>	Get ready	lavalier+Boom	
Start of Gunfight	9	Long shot, involve all actors		Tripod	<b>✓</b>	<b>~</b>	<b>✓</b>	lavalier+Boom	
Police in Cover	10, 12, 16, 18	Similar lighting positions, no Motion-tracking required		Tripod	<b>✓</b>	×	Rest	lavalier+Boom	data check
Robot Close-ups	11, 13, 15, 17, 20, 22	Similar lighting positions	Slider required Set frame rate to 120 for slow motion	Slider+Tripod	<b>✓</b>	×		×	<b>✓</b>
			13:00LUNCH BREAK						
Gunfire Close-ups	5, 7, 14, 19, 21, 23	Not that important, Time for main Actor to break & Motion tracking group to check data	to the second of	Handheld FX6				Boom	
Key Scenes (Robot Fight back & twist ending)	24, 25, 31, 33	24 Top Priority, Long shot, need time for lighting & production set-up		Tripod& Handheld	<b>▽</b>		<b>✓</b>	Boom	
			17:00 Dinner break						
	27, 30, 32, 29, 28, 26	Meanwhile: Tech group— data check up, shot HDRI (for post-production reference) / Color Chart		Tripod& Handheld	<b>✓</b>	Leave Before 18:00	<b>✓</b>	Boom	
			Wrap						7.500

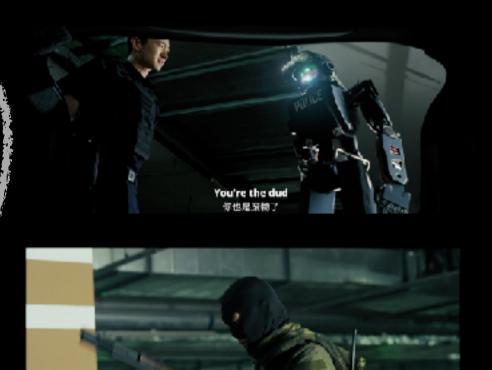
<sup>\*</sup>The table is a summarized one. The original one is noted in the story board and on my notebook.

#### 01/06/2025 Production Day

I had to face various unexpected issues—including a motion-capture technical failure.



To ensure the crew have full energy for the key scenes, I put gangster's close-up to the last shot while prioritizing key scenes of the robot's fight back.



# Production Day 01/06/2025

### The Motion capture suit

We used a rokoko suit for motion capture. It's wireless, doesn't require extra sensors like optical systems do, and is more cost-effective.

# Motion Capture Trolley

This is a trolley for realtime motion-capture monitoring, consisting of a PC, a battery and a Wifi-7 router.
We also have to take a detailed camera report of focal length, distance from cam to actor, lighting and any possible information needed for CGI.

LED tubes used to simulate gun fire flashes

### Photography & Gaffer

On set I rigged our Sony FX6 with Sony GM lens (35 mm, 50 mm and 85 mm) and let auto focus keep us moving quickly.

As the producer, I also took on gaffer duties. LED panels, COBs, and tubes saved us time since we were short-staffed, though the overall lighting still needs refinement.

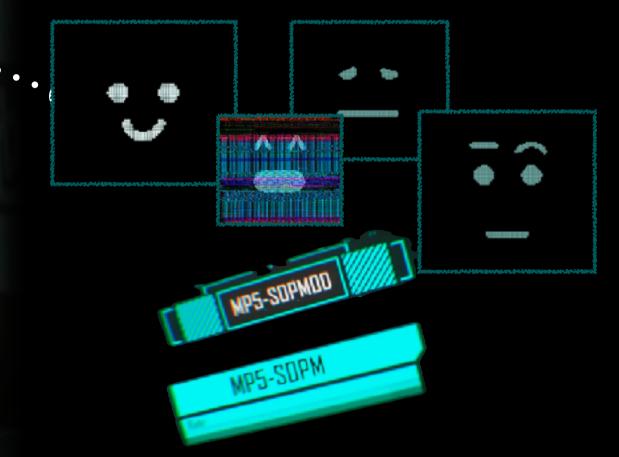
# Post Production

In post-production, I handled editing and color grading in DaVinci Resolve, and also helped with compositing.

In the Compositing stage, we first tried AE plugins like MOCHA, but failed in complex movements. Soon I turned to an AI tool called wonder studio to do ROTO & fill automatically. The adoption of Al tool makes the workflow much more efficient.

### Ul Design Ps Ae

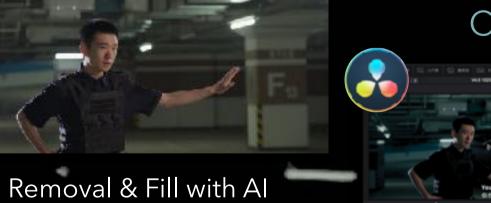
I collaborated with the director Jason to design eight dynamic facial expressions for the robot.



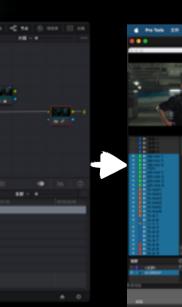
#### Al removing & filling



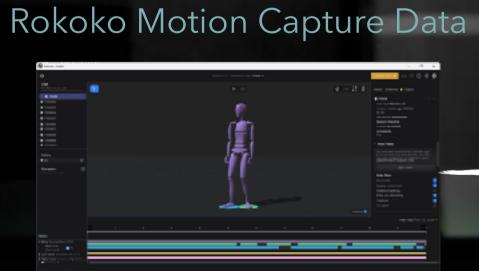
Original Clip



#### Color Grading



#### Sound Editorial



Editing

#### Scene rebuild and lighting

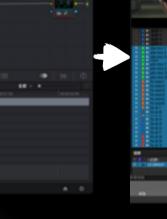
Camera tracking

blender





Compositing



Compositing, Relighting and effects

# Sound design

Passionate about sound, I also took on the role of sound editing and design after finishing the editing and CG part.

### Crafting 75088's Voice

Since the recording on set of the motion-capture actor's voice is very human like and distinctive for a strong Beijing accent, we couldn't directly use the production sound, even the emotion is just right. The director also felt the character's sound should be more sharp, funny and slightly higher-pitched

### Altering the robot's voice

My first approach was to layer multiple re-pitched tracks to create vocal harmonies. It sounds a bit too intentional.

melodyne

Eventually, I used the Melodyne plugin to manually adjust the pitch of each word, creating a 'melody' for 75088.

Combined with distortion and a reduced sample rate, the voice sounds emotional yet subtly artificial.

### SFX Design & Foley

To bring the futuristic yet clumsy robot to life, I drew inspiration from films like Finch and experimented with everyday objects for foley.



I combined sounds of a bicycle pump, my father's car trunk, and servo motors to create its awkward, low-tech movements, and used an electric toothbrush motor to capture the robot's stiff, helpless gestures. However, according to some feedback after a test screening, the overall tone felt a bit too dull and heavy, showing that there is still work to be done.

\*SFX Credits: Includes sound effects from the SF-CK pack by Boom Library and materials from the university's sound library

# Sound design

### The robot's struggle

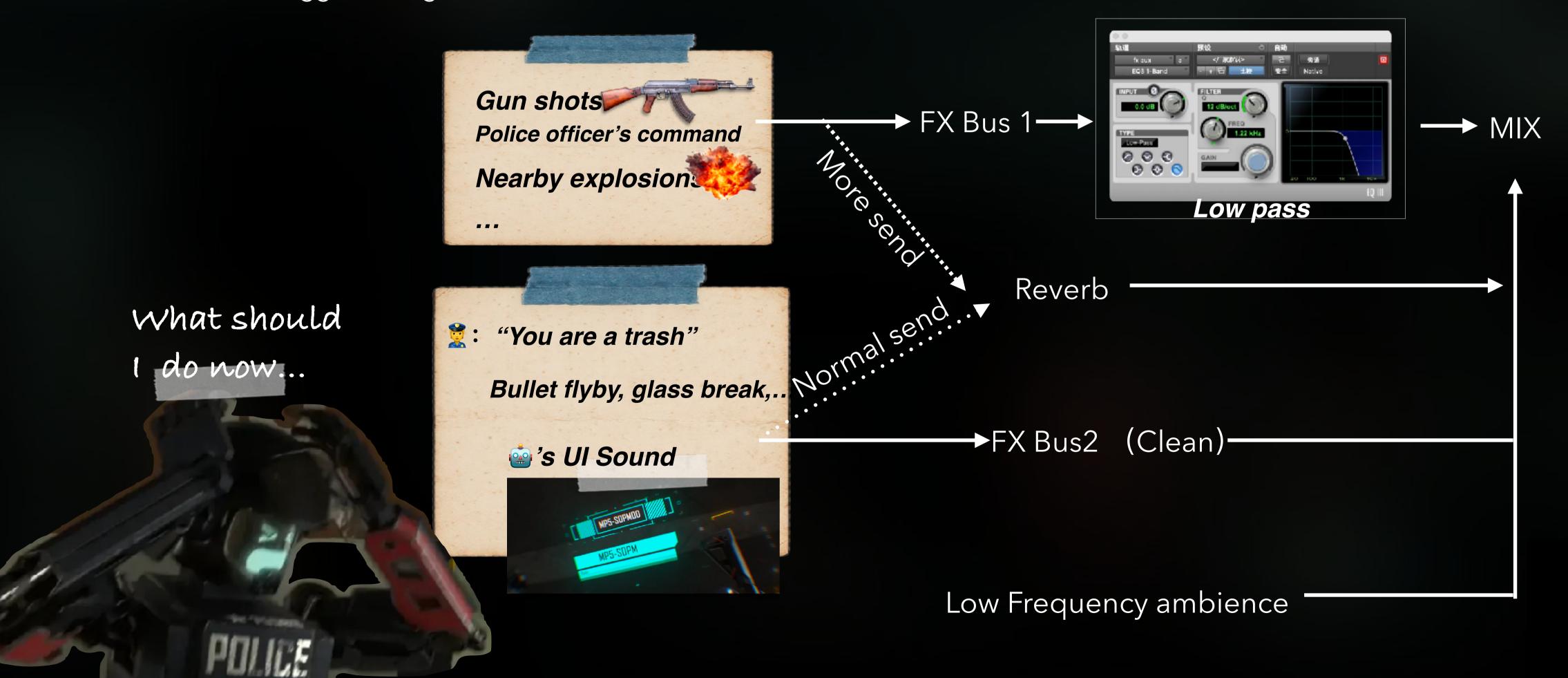
To express the robot's inner struggle and the fight's intensity, I drew inspiration from Adolescence S1E4 and Breaking Bad S5E13, where sound design creates an ethereal, underwater atmosphere to convey emotional tension and loss of control.





#### What did I do

I used a low pass EQ filter for some effects and low frequencies to express the robot's inner struggle during the chaos.

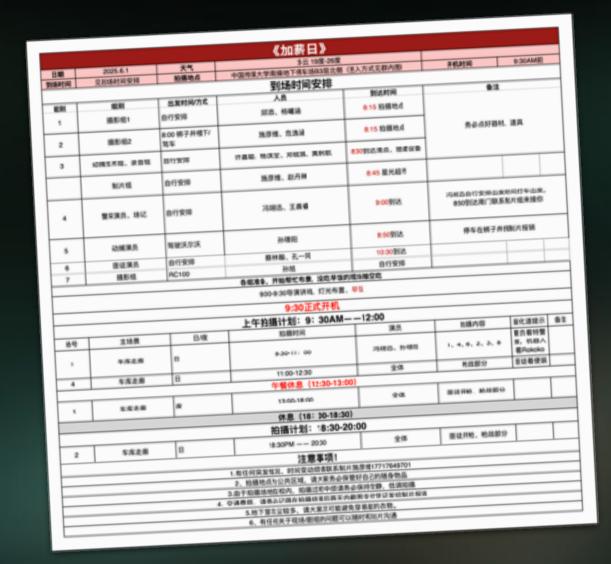




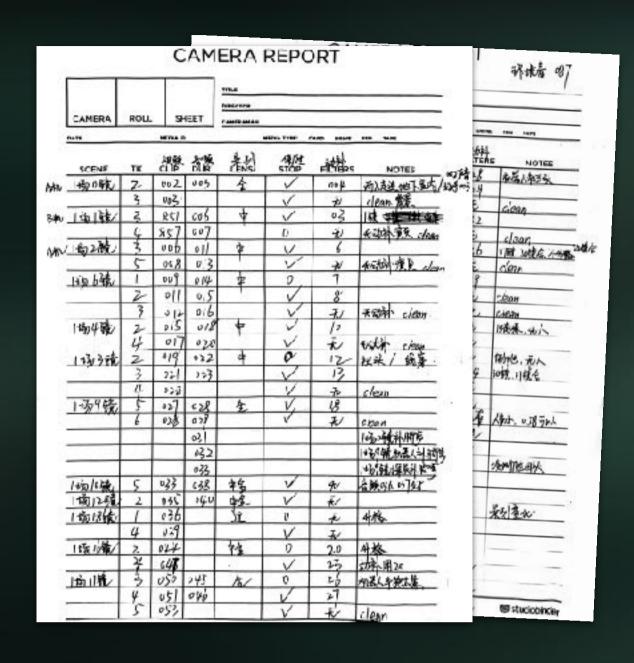




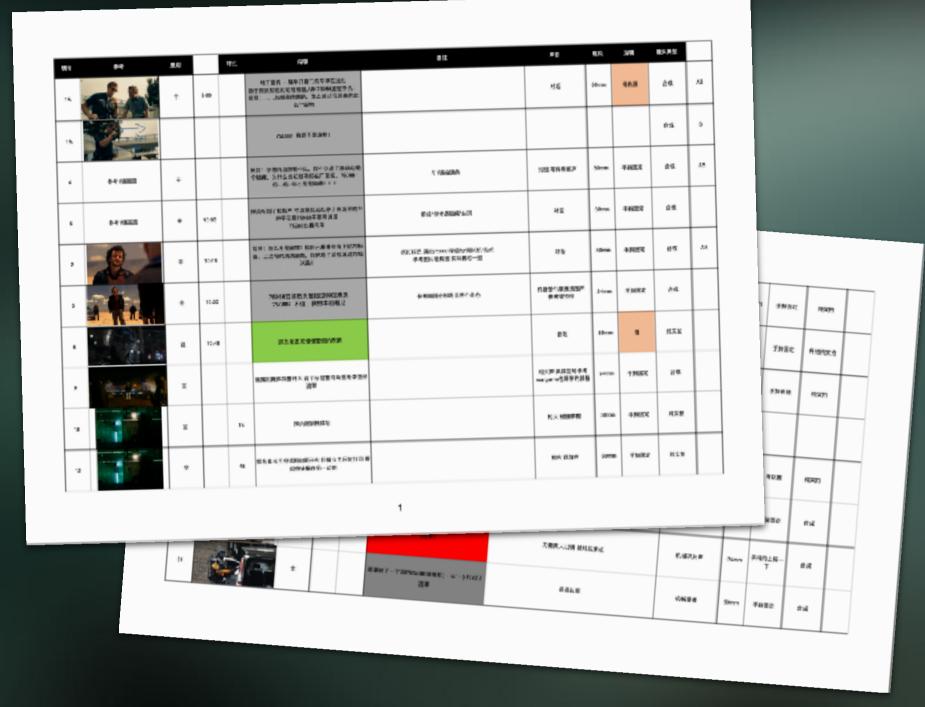
# Extra Documents



Call sheet



Cam Report



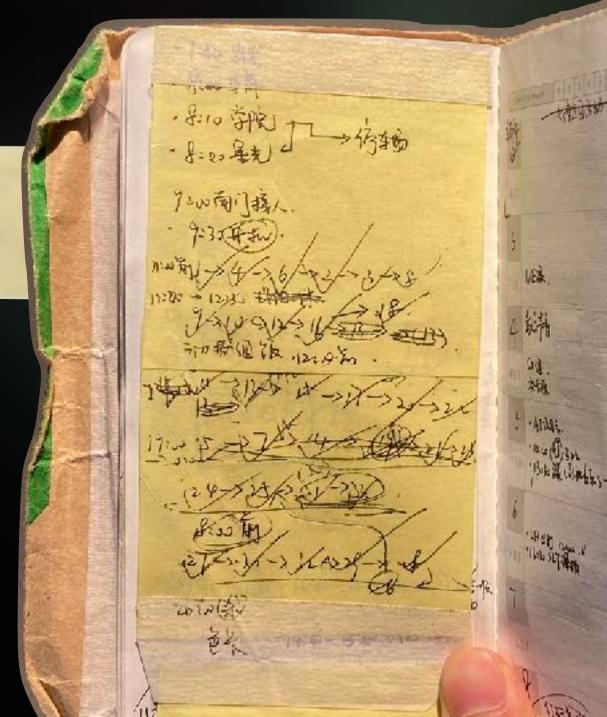
Story board in shooting sequence

### Budget Control





My notebook
On shoting day



This is a financial analysis system I built on Feishu for precise budget control and real-time expense tracking according to data from a quick-fill form, allowing me to have a cost breakdown report on wrap day.