

# MECHANICS 10

HOBBY JAPAN MOOK 1140

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SPECIAL  
FEATURE

MOBILE SUIT GUNDAM

# CHAR'S COUNTERATTACK

Mobile Suit Gundam Char's Counterattack

# HJ MECHANICS 10

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\* All prices listed are excluding tax.  
\* All prices are current as of  
November 2021.



This issue's special feature on Char's Counterattack is **NOT FOR SHOW!**

*Mobile Suit Gundam: Char's Counterattack*, an original theatrical film released in 1988, depicts the final battle between Amuro Ray and Char Aznable. Char, the newly formed Neo Zeon leader, unleashes "Char's Rebellion" in the year U.C. 0093. The plot revolves around the ferocious conflict between Neo Zeon and Londo Bell, a separate group of Earth Federation Forces led by Amuro Ray and Bright Noah. It's a timeless masterpiece, and fans still love it even 33 years later. In this landmark 10th issue of *HJ Mechanics*, we'll look back on the mechs in this anime through their 3D models, which include new Gunpla and full-scratch models as they convey the appeal of *Char's Counterattack* in every detail!

**SPECIAL FEATURE** MOBILE SUIT GUNDAM

# CHAR'S COUNTERATTACK

# The era of Char's Counterattack was a watershed moment in MS development

## Mobile suit Development

By the late U.C. 0080s, mobile suits with complicated variable mechanisms, large mobile armors, and expensive Psycommu weapons were common on battlefields. This all changed in U.C. 0093, the setting for *Mobile Suit Gundam: Char's Counterattack*. This year saw a complete cost reduction and model consolidation. What happened to MS development in the U.C. 0090s? To answer that, we need to take a look at the situation with MS development during that period.

Text by Hiroyuki Kawai



### "Disarmament" is a big word in U.C. 0093

Significant arms reductions occurred five years after the First Neo Zeon War, in the year U.C. 0093. Prior to that, the mobile suits that first appeared during the One Year War had seen great advancements, and factories producing these mechs flourished all over the world. Among them were the arsenals of Earth Federation Forces, Newtype Research Institute, Anaheim Electronics, Axis, and Jupitris. A new era of multi-party, large-scale MS development had begun. However, major conflicts involving the Earth sphere had gradually ended by the U.C. 0090s following the Neo Zeon War. As a result, the upper echelons of the Earth Federation Forces decided to liquidate their bloated MS arsenals. For the first time, they decided to outsource mobile suit development to Anaheim Electronics, an offshoring firm.

### A return to the fundamentals via model consolidation

Multiple specialized machines can be replaced by a single versatile, high-performance mobile suit. Because of the flexibility of its humanoid form, the first combat suit, Zaku, was a versatile weapon that could operate in a variety of situations. The Principality of Zeon, on the other hand, introduced a slew of special MS for specific uses as the One-Year War dragged on. In contrast, the Earth Federation Forces focused on a single mobile suit with superior versatility trying to catch up with the MS development of Zeon.

Developing multiple suits was common during the Gryps War, but in the trend of disarmament during the UC 0090s, the Earth Federation Forces eventually returned to the fundamentals of MS as a weapon with versatility.

### Neo Zeon had other reasons for that

This trend of consolidation and reduction was also visible in Char Aznable's Second Neo Zeon. However, this was due to a lack of funds following the Gryps War, and they had depleted all of Zeon's legacy during the First Neo-Zeon War. They lost most of their power, which had allowed them to nearly control the Earth Federation government during Haman Khan's reign. They asked Anaheim Electronics to make its mainstay machines because they could no longer manufacture mobile suits on their own. Anaheim Electronics hoped to continue producing mobile suits, and the Neo Zeon required mobile suits to fight. They appear to have shared an interest in this matter, which resulted in an unprecedented situation in which Anaheim Electronics began developing both the Earth Federation Forces' Jegan at the Von Braun Arsenal and Neo Zeon's Gears Doga at the Granada Arsenal.

## MECHANIC

### New Era Standard

#### Earth Federation Forces RGM-89 Jegan

Jegan is the Earth Federation Forces' mass-produced MS, developed by Anaheim Electronics, and the first mainstay MS developed and produced by an outsourced company. The philosophy of this model was to return to the fundamentals of MS by enhancing its capabilities as a humanoid weapon. They did this by increasing the generator's output and reducing Jegan's weight. As a result, the Jegan had been in service for over 30 years, making it one of the longest-serving MS.



Base Unit



#### Neo Zeon AMS-119 Gears Doga

Anaheim also developed and assembled Neo Zeon's mainstay MS, Gears Doga, at their Granada plant. It also advocated for a return to the mobile suit's origin, Zaku, to improve its capabilities as a humanoid weapon. Gears Doga shared the same concept as Jegan, but in a different way; Gears Doga was outfitted with a larger fuel tank to provide an extended operational capability because Neo Zeon was less affluent in their supplies.



Rezin's mech is shown on the right, with a blue personal color and blade antenna. Performance-wise, it was the same as the regular ones.



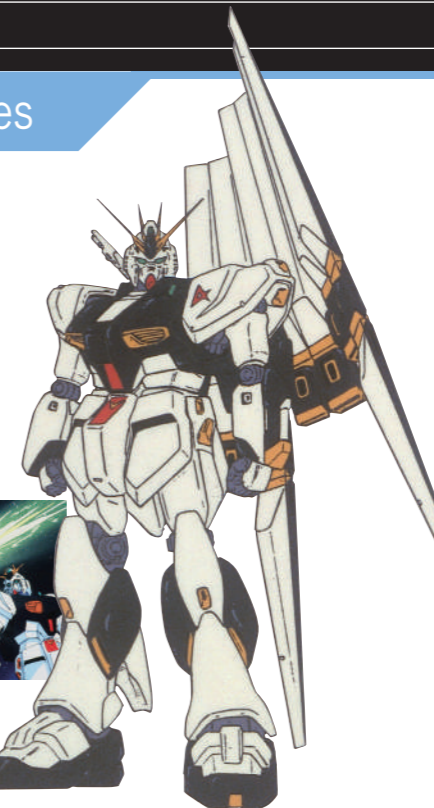
Rezin's Unit

### Innovative machines for aces

#### Earth Federation Forces

##### RX-93 ν Gundam

Amuro created and designed this one-of-a-kind machine. Amuro, a member of the Londo Bell taskforce who fought on the front lines, was well aware that the Jegan and Ri Gazi were insufficient to stop Char. As a result, he designed this high-performance machine solely for himself. It should be noted that for the first time, a machine known as "Gundam" was created specifically for the Newtype. The Psycommu system was downsized, and a new material, Psycho-Frame, was used, with the Psycommu chips embedded in the cockpit area, improving both operability and funnel reaction time. Char purposefully leaked the Psycho-Frame technology to the plant in charge of the assembly of this mobile suit, and Amuro only discovered it after it had been installed in the unit. It was outfitted with six larger-than-usual Fin Funnels, which resulted in increased offense and longer operation capabilities due to the built-in generators. The Fin Funnels could also be used as defensive weapons by creating an I-field barrier around the Gundam.



#### Neo Zeon

##### MSN-04 Sazabi

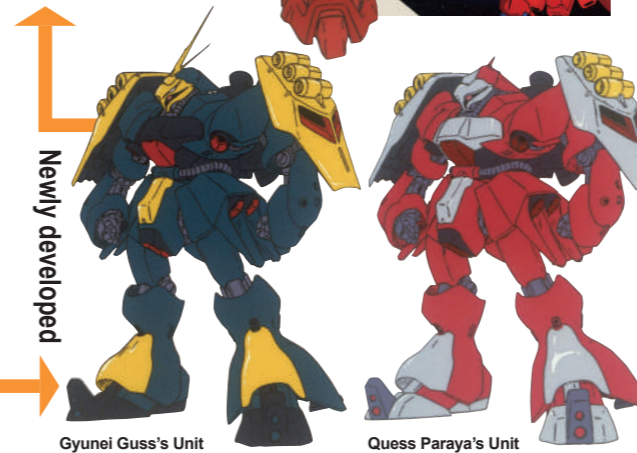


Char, Neo Zeon's leader, created this flawless mobile suit as his machine, incorporating the new "Psycho-Frame" material developed at Anaheim's Granada Plant and outfitting it with a downsized Psycommu system, making it the pinnacle of Zeon technology. Meanwhile, in order to avoid putting Amuro at a disadvantage in a subpar machine, Char purposefully leaked the Psycho-Frame technology to the Von Braun facility, which was developing the ν Gundam. This was most likely due to his aesthetics.

#### Neo Zeon

##### MSN-03 Jagd Doga

This Neo Zeon Psycommu-equipped, Newtype-use mobile suit was initially designed as the Sazabi, using Gears Doga's structure as its foundation. Its performance was significantly superior to that of the Gears Doga thanks to the Psycho-Frame, funnels, and a sizable generator, but it fell short of Char's expectations.



Newly developed

Gyunei Guss's Unit

Quess Paraya's Unit



### Vanishing Legacy of an Old Generation

#### Earth Federation Forces

##### RGZ-91 Re-GZ

Re-GZ is a simplified variant of the MSZ-006 Z Gundam created as part of "Project Zea." The Z Gundam's distinctive transformation feature was removed. Instead, they sought to enhance its performance solely as a MS in its development. Instead of the transformation mechanism, it was outfitted with a special Back Weapon System (BWS). The BWS included a Mega Beam Cannon as well as two regular beam cannons, which increased its offensive capabilities. It did, however, have an operational flaw in that it could not be reattached to the body if it became detached during combat. The Re-ZEL, as its successor, reintroduced the transformation system in a more simplified form. Nonetheless, as time passed, the MS transforming mechanism became obsolete, and independent sub-flight systems such as Base Jabber became more common.

#### Back Weapon System (BWS)



#### Neo Zeon

##### NZ-333 α Azieru

α Azieru was a humongous mobile armor over 100 meters in length, a rarity in this era. Instead of legs, it had large propellant tanks in its lower body. It had nine funnels in its waist armor.



### Dissatisfaction of ace pilots accelerated development of superior MS

Despite the fact that the Jegan and Gears Doga were excellent mass-produced machines, some ace pilots were dissatisfied with them. Despite the improved performance of the mobile suit, integrating various models to accommodate all pilots with a single model will eventually result in a performance plateau. You may get a sense of this by thinking about how race cars and household cars compare. Ace pilots have played an important role in the history of mobile suit development, and some of them were dissatisfied with mobile suit performance standardization. Furthermore, there was a significant difference of opinion between the Londo Bell on the ground and the upper echelons of the Earth Federation Forces during *Char's Counterattack* era. As a result, it was only natural for Amuro to decide to build the Gundam himself. Even Amuro thought that the suit's actual performance was more important than flashy gimmicks like a transformation system, powerful armament, or Psycommu weapons, which were used to represent superior mobile suits. His idea appears to reflect the era in which he lived.

### Changes to the funnel weapons' operational procedures

The funnels on the ν Gundam and the Sazabi were used differently than in the past. Previously, funnel-equipped machines were capable of dominating the battlefield. However, as the existence of funnels was widely known, their superiority began to fade. In U.C.0096, we can see how Stark Jegan deflected Kshatriya's funnels using shotgun shells. To put it simply, funnel weapons were no longer a game changer in combat. Instead, they began to use them as secondary armaments, relying more heavily on the performance of the mobile suits. The Qubeley originally had up to 20 funnels, but this number was reduced to four to six for machines with funnels at the time. This appears to be due to a performance optimization of maneuverability and firepower.

### Stagnation of MS development for more than 30 years

There were sporadic local conflicts after the Second Neo Zeon War, but no large-scale conflicts like the One Year War, and the trend toward disarmament had continued. But, behind the scenes, the innovative concept of "downsizing the MS" was being pursued, and the Earth Federation government's Formula Project was also based on this concept. Meanwhile, the Crossbone Vanguard created a practical, compact MS. Thanks to new innovative concepts, MS development finally entered a new phase.

### U.C.0093 Technical Topics

#### Psycho-Frame

A structural component in which a Psycommu's computer chips are cast at the metallic particle level. It helped to significantly reduce the size of the Psycommu System.

#### Arm raker

An innovative control system first introduced in the U.C. 0090s. It provided pilots with unprecedented control over a mobile suit through hand and finger movements using a spherical controller.

#### Funnels

Previously, funnels were small, and mobile suits had 10 or more units. During this time, however, they grew in size due to the built-in generators. As a result, they functioned more like subweapons.

#### Sub Flight Systems

Transformation gimmicks were popular during the Gryps War in an attempt to enhance the mobility of mobile suits. They declined, however, due to cost concerns, and people began to focus on ways to improve mobile suits rather than their armaments. To increase mobility, various sub-flight systems were introduced in their place.

The Newtype-use Gundam Amuro Ray designed and developed for himself!

## RX-93 νGUNDAM

Amuro's last sortie ◀ U.C.0093.0312

The thermonuclear thrusters on Axis fire, propelling it toward Earth. At the expense of Kayra Su and others, the Londo Bell taskforce makes one last attempt to stop Axis. Amuro Ray, the leader of the Londo Bell, senses that this is his final confrontation with Char and informs Chan Agi of his resolve. His ν Gundam, outfitted with the Fin Funnels, takes off to put an end to everything.

Incorporation of the anime elements into a custom kit based on the Ver.Ka model

Captain Amuro Ray designed and built the ν Gundam, a Gundam-type mobile suit, for the Newtype at Anaheim Electronics' Von Braun factory. It used a new material called "Psycho-Frame" and was the first Gundam type to have a Psycommu weapon (Fin Funnels). It had an orthodox design with no transforming or combining features; it fought brilliantly during "Char's Rebellion," thanks in part to Amuro's exceptional piloting skills. This custom kit is based on the MG Ver.Ka masterpiece kit. It incorporates elements of official anime designs in many places, attempting to create a new image of the ν Gundam!

BANDAI SPIRITS 1/100 scale plastic kit  
Using "Master Grade" V GUNDAM Ver.Ka

**RX-93 ν GUNDAM**

Composition and text by NAOKI





▲ A shot of the model during production. It has been modified to include anime design elements. We'll go over the changes in great detail beginning on page 14. Before we continue, let's review the following points.

TOPICS

Anime design characteristics

- A long, tapered chest with a broad top
- Horizontal, broad shoulders
- Vertical crotch block
- Appearance of long forearms
- Thick waist armor
- Surprisingly robust rear armor
- The legs grow from different points
- Thigh length and placement
- Front and knee armor placement
- Distinct line running from shin to instep
- The distinct shape of the shoes
- ...and more (according to the author)



COLORING DATA

- Body White 1 = Neutral White (NAZCA)
- Body White 2 = Neutral Gray II (Gaiantes)
- Body Dark Blue = Color being developed for release at NAZCA
- Body red = Flame red (NAZCA)
- Body yellow = Color being developed for release at NAZCA
- Joint color 1 = Mechanical Surfacers Heavy (NAZCA)
- Joint color 2 = Sinai Gray 1 (Model Kasten)
- Sensors = Prism Blue Green (Gaiantes)

It has both traditional MS weapons and the latest Psycommu weapon, the Fin Funnel!

The v Gundam has a traditional silhouette similar to the first Gundam, RX-78-2, and is armed with traditional weapons such as a Beam Saber, Beam Rifle, and a Bazooka. Furthermore, the addition of the Fin Funnel, a Psycommu weapon used for both offense and defense, elevated it to the ranks of the most powerful machines in U.C. 0093.

Armaments



▲ The basic armaments consists of a shield, a Beam Rifle, and a New Hyper Bazooka.



Head unit

▲ The head has long and short dual V-Fin antennas, as well as composite sensors on both cheeks. The Vulcan cannon discharges shells, and there are casing outlets on both sides of the head.

Beam Saber



▲ The backpack and left arm rack both have a Beam Saber. The one in the backpack can be used to create a beam blade on the tail.



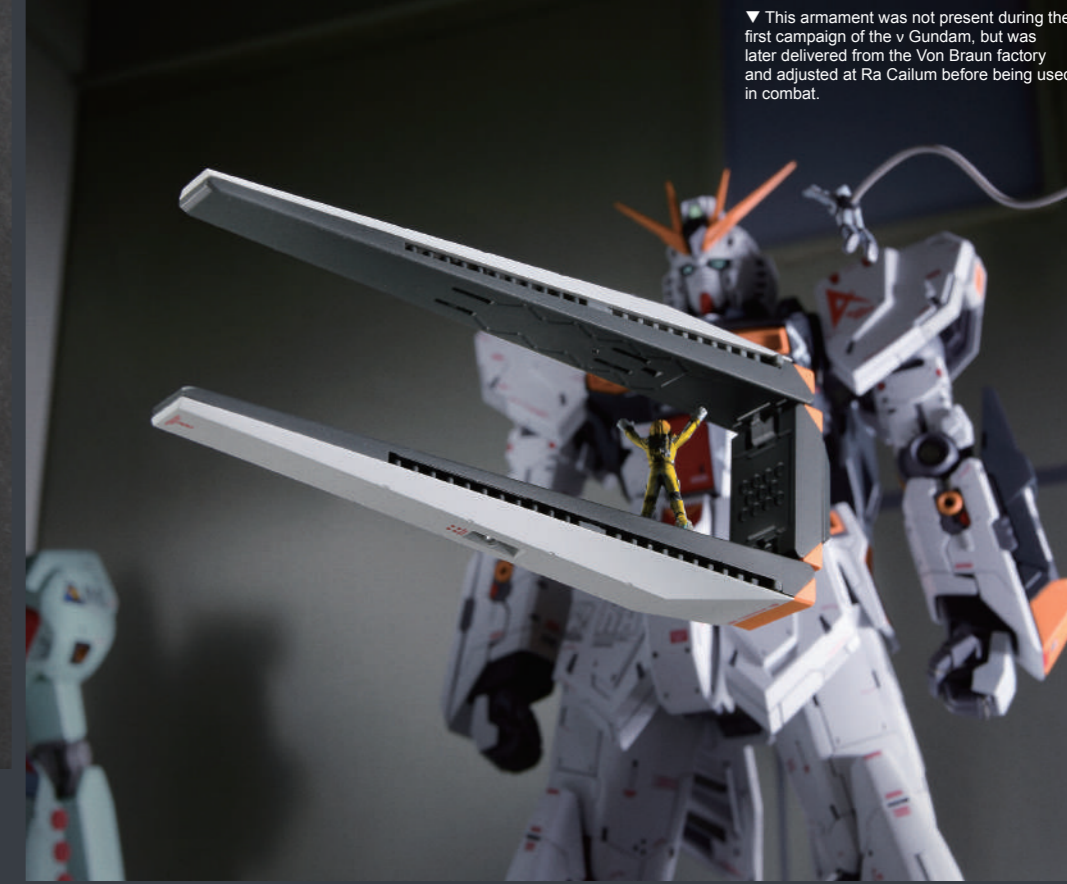
▲ The New Hyper Bazooka can be mounted and fired from the backpack.

▲ It has a single beam cannon and four small missiles on the back of the shield.

Fin Funnel



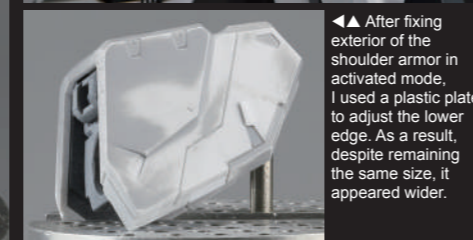
▲ The Fin Funnel is a unique Psycommu weapon that can be used both offensively and defensively. Although it appears to be a heat sink, when activated, it folds into a U-shape, accelerates the mega-particles inside the folded panels, and emits them as a beam. It also uses the beam to create a barrier around the mobile suit.



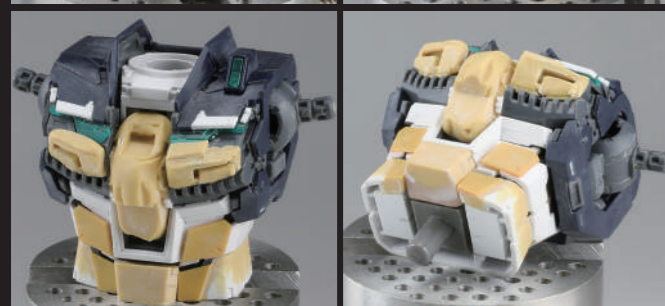
▼ This armament was not present during the first campaign of the v Gundam, but was later delivered from the Von Braun factory and adjusted at Ra Cailum before being used in combat.



◀▲ By shaving the jawline, I reduced the size of the head. I trimmed the twin eye and changed the width and angle of the black border around the eyes. The width and angle of the vertical lines on the mask were also changed. For the helmet, I re-carved the slits on the cheek pads and made the lines by the eyes shallower. I changed the angle of the crest while attempting not to raise its height. Finally, the back of the head's contour has been altered to create a smooth transition from the back of the head.



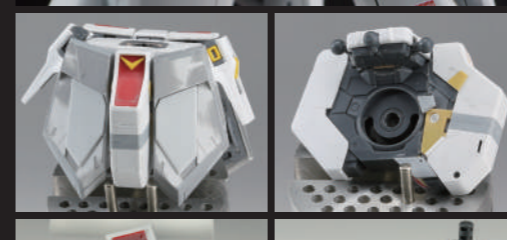
◀▲ After fixing exterior of the shoulder armor in activated mode, I used a plastic plate to adjust the lower edge. As a result, despite remaining the same size, it appeared wider.



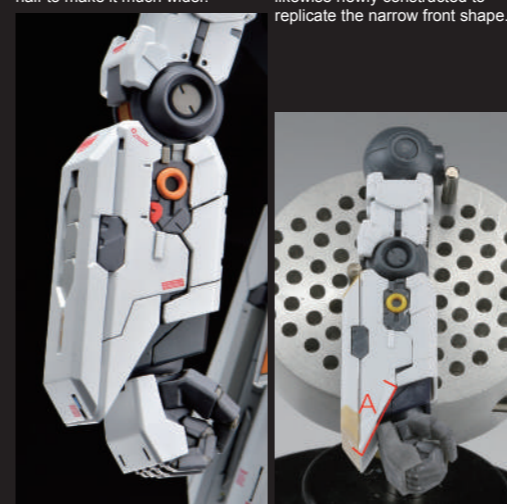
▲ I altered the upper body into activated mode. The chest ducts have been slightly angled. The white U-shaped block in the center of the abdomen has been repositioned and angled forward to keep its length while also reducing overhang in the front. Using the design of the activated mode, I was able to extend the abdomen. The upper block's exterior was lowered and fixed, and the upper portion of the lower block was extended. The front of the exterior was rebuilt with plastic plates to reduce the number of details.



◀ I extended the top of the thigh's exterior armor with epoxy putty as much as the part's strength allowed. This way, I could make the whole leg look longer without changing the actual length. Also, the top of the knee has been extended, and the front of the shin has been modified by shaving off the front and lengthening the lower end.



▲ I cut the crotch frame block and reattached it at a lower position. I also extended the exterior of the crotch downward. Finally, I enlarged the front armor to align with the bigger crotch block and cut the rear armor in half to make it much wider.



▲ The forearms have been altered to highlight the length of the section labeled "A" in the photo, bringing them closer to the official design. For the same reason, I also lengthened the Beam Saber mount on the left arm.



This time, I had the pleasure of building the v Gundam Ver. Ka kit. The v Gundam Ver.Ka kit is a well-known masterpiece. Despite having assembled quite a few, I am always in awe of them because the v Gundam is a one-of-a-kind machine. As a result, I spent a significant amount of time planning how to put together this masterpiece kit for this article. The MG Ver. Ka and RG kits have already successfully expressed the charms of the v Gundam in 3D, and because the v Gundam is such a popular mech, many people have built cool customs based on these kits. I considered how I could create something new for this article. As a result, I decided to go back to its roots, using official design drawings, and try to incorporate elements from the anime into this already cool

v Gundam kit. However, "reproducing the official design" was not my intention here. Instead, I wanted to create something unique by incorporating elements of the official design into the Ver. Ka kit, while making the most of it. However, after inspecting the official design, I realized it took a lot of effort to achieve the proper proportions for the v Gundam, even more so for its simple design! It was difficult to position the chest and waist pieces to achieve the desired balance! I'd be thrilled if you could feel my agony through this article (laughs)!

■ Head

Sorry for making such a big deal about the construction method above, but as for the head, I just made something I thought looked nice (laughs).

■ Chest

Reviewing the official design, I discovered that the chest had a broad and vertically-wide top surface and a somewhat sagging shape. You can see how it looks long in the white area in the center. I reproduced this shape by setting the exterior in the activated mode.

■ Waist

The most significant change in proportion balance in this custom kit is at the waist. The large crotch block, angled front armor contour, and placement of the leg extensions in the official design draw our attention. When contrasting the crotch block and thigh position, the thighs begin high up. More information on this will be provided later. The frame of the crotch block is separated, fixed downward, and the exterior of the crotch block is

further extended downward to replicate the design in this custom kit.

The front armor appears to be tall, but it is not. This is most likely due to the angle of the lower outline. I enlarged the front armor to align with the crotch block and changed the outline angle to achieve this look. As the front armor doesn't extend down very far, I added plastic plates to the upper and lower sides to round it out. The side armors are painted and shaped in accordance with the official design.

■ Legs

The legs, like the waist, play an important role in balancing the silhouette. The upper thigh is built with a horizontal rolling-axis structure. This novel structure replaced the long-used ball joint in the legs in Gunpla. This is a welcome change

because it has a wider range of motion and is ideal for positioning with subtle angles. This structure, however, has a drawback. In some cases, the clearance for movement may make it difficult to place the exterior parts, affecting the appearance of the thigh. There is no issue with recent kits designed with this structure. However, because this v Gundam is not the most recent kit, the adaptation of this structure may have an effect on the overall appearance by allowing the thighs to peek through the gaps in the waist armor. As a result, the position of the top of thighs became critical.

■ Arms

I used 3D modeling to create the parts for a clenched fist and rifle-grip hand this time. These parts are currently being developed commercially

as general-purpose plastic hand parts. In terms of overall details, I am aware that the original kit's details and part divisions reflect the activated mode, which I removed from this custom kit. As a result, I had to add new details and panel lines by removing or reusing the original details and panel lines. This is all I have to say about completing v Gundam. I may not have conveyed all of the nuances of my work, but if you like the finished kit, I'm overjoyed!

**NAOKI**  
Multi-creator with expertise in mech design, modeling, and 3D product supervision.