

CAMIE M11 Construction Mecha

The CAMIE M11 is a Construction Mecha that is 20 feet tall and intended for Military and Civilian use alike. Its simplicity and ruggedness allow it to function reliably in this capacity, though it is not fit for combat. It has a modular system for tools, cranes, trailers, and other such hardware with which it can do an array of jobs. The design is so simple that a Star Army of Yamatai craft can even construct this unit in a Fabrication Area if needed.





History and Background

In YE 32, [Kage Yaichiro](#) was sitting on a multitude of technologies developed by his research with [Project THOUGHT](#), not all of which were military-grade. When trying to consider ways to utilize this technology, he noted that [Nishitama](#) City was having several additional buildings installed, but were short on construction equipment. A niche became open to Yaichiro as he considered the reconstruction of both military and civilian infrastructures during and after wartime, and the Constructor Prototype was born. Eventually, the idea was sent to KFY for both Military and Civilian production under a new name: the Construction Assistance Mecha for Infrastructure Expansion, or CAMIE to fit into KFY's naming scheme.

About the CAMIE

The CAMIE is built to be cheap, rugged, reliable, and last for decades. As Yamataium is at a premium due to the war effort, [Durandium Alloy](#) has been used instead for this mecha's construction. The end result stands 20 feet tall, and is made of simple technology reapplied with Project THOUGHT research. It is effectively combat incapable as far as Armor and Mecha combat go, though police forces could plausibly

use it in an Anti-Personnel role with projectile and kinetic weaponry. The unit's small Aether generator can keep it and any approved hardware connected to it constantly powered, but will not permit the CAMIE to drive any powerful energy weapons or fast engines – though the Mecha can function on the ground, in space, and even hover while under load with its modest gravitic engines.

The most obvious deviation from normal Mecha design is the lack of a head. As a head would likely be the most likely component damaged when struck by falling debris, it has been fully omitted, with armor plate used instead to protect the cockpit. The traditional head sensors are instead distributed across the machine. There is a removable panel on top of the body, however, which allows access to a mounting system for things like small cranes. There is a similar such panel in the backpack for connecting other support hardware, like the trailer option. It should be noted that the CAMIE can lift a substantial weight on its own, and it can accomplish even more when the graviton beam projectors in its hands are utilized.

Assorted simple tools can be constructed and fit over or even replace the existing arm units, to aid in construction. There are strict power draw limitations, however, to prevent the mounting of energy weapons. Supported and released add-ons include drills, welders, grinders, jackhammers, and other such equipment. Missile launchers, machine guns, and other components could easily be installed if needed; though not with any manufacturer support. Recoil is not so much an issue, as the unit is designed to utilize tools such as jackhammers to begin with. Due to this, the cheap machine might find its way into police forces unable to afford or utilize true combat mecha technology. After market armor upgrades can easily be installed to the boxy cockpit as well.

Statistical Information

- Government: [Yamatai Star Empire](#), Civilians
- Organization: [Nishitama City Government](#), [Project THOUGHT](#), Civilians, possibly others
- Type: Construction Mecha
- Class: PT-M1-1A, Ke-M11-1A
- Designer: [Kage Yaichiro](#)
- Manufacturer: Nishitama City Government (Prototypes), [Ketsurui Fleet Yards](#) (Mass Production)
- Production: Mass Produced

- Crew: 1
- Maximum Capacity:
- Appearance: Typically Yellow and Orange, has a boxy cockpit with simple arms and legs. Thrusters are present on legs, headlights on upper chest, cockpit hatch on lower chest. Lacks any kind of head.

- Width: ~3.96 meters (~13'), standing naturally
- Height: 6.09 meters (20')
- Mass: 907 kg (2,000 pounds/1 ton)

Speeds

- Ground speed: 70 km/h (43.5 mph)
- Air speed: 200 km/h (124.3 mph)
- Zero Atmosphere (STL): 0.1c

- Zero Atmosphere (FTL): None (1500c with trailer)
- Range: Life Support can support pilot for 20 days
- Lifespan: 30 years, overhauls every 5 years

Damage Capacity

See [Damage Rating \(Version 3\)](#) for an explanation of the damage system.

- Hull: Tier 7 (Light Mecha)
- Shields: Tier 7 (Light Mecha)

Recommended Prices

- Base Constructor: 6000 KS
- Set of 6 Tools: 1200 KS
- Crane Attachment: 2400 KS
- FTL-capable Trailer: 3000 KS
- Backpack Towing Winch: 1500 KS
- High Capacity Salvaging Net for Towing Winch: 500 KS
- Backpack [Scalable Graviton Beam Projector](#): 2300 KS

Systems Descriptions

The CAMIE M11 comprises the following systems:

Armored Hull, Frame, and Integrated Systems

The frame and armor of the machine is [Durandium Alloy](#) with a few titanium elements in select places. The titanium elements are placed in the limbs so that if the unit encounters forces strong enough to warp the Durandium, the Titanium will give a bit before that point and relieve the stress before more permanent or injury-causing damage can be done. The unit is as flat as possible on top to spread the surface area of any debris striking from above, and is heavily armored. Two headlights are mounted to the upper half of the torso block's top slope, while the cockpit hatch is on the bottom slope of the torso block.

Rather than using ball joints, some nested rotary and hinge-type joints are utilized to provide a facsimile of human movement. While not perfect, it is more than adequate for most construction tasks, and allows a notable degree of precision.

Computers and Electronics

The CAMIE Mecha is equipped with audiovisual sensors on various points on the exterior of the machine, with some redundancy, to compensate for the lack of a head. It also has standard subspace sensors, thermal scanners, and detailed Mass and Gravitational sensors for calculating the optimal way to manipulate loads and frame elements for construction. The sensors are likely among the most advanced elements in the Constructor.

These sensors are fed into the computer, which is a very small scale quantum computer – necessary due to the Faster-Than-Light option for the Trailer. It should be noted that this is a civilian grade quantum computer, not even capable of running AES. The bulk of the Quantum Computer's processing power is dedicated either to FTL course calculation, or more often, calculating the sensor data and processing it to achieve multiple specific goals. Audiovisual data is calculated and processed for form a simulated full panoramic display complete with audio source tracking. Mass and gravity sensors are used to determine the best angle for holding a load and keeping steady footing, or inspecting a load-bearing structure for failure points. Thermal sensors detect the temperature of welds and protects against cold or incomplete welds. On top of this, the computer controls standard things like ventilation, motor control, interfacing with tools, navigation, etc.

The communications package of the CAMIE contains laser, radio, and subspace – though the headlights can send out Morse Code or Binary in a pinch.

It should be noted that each hand has one [Scalable Graviton Beam Projector](#) installed, both for better gripping and for pulling things toward it, such as salvage.

Cockpit and Systems

The Cockpit is the blocky structure that makes up the core of the craft, and is accessed via a cockpit hatch in the lower part of the block. A zipline with a foot loop can descend to the ground for the pilot to ride up into the cockpit, or the pilot can just hop in if the mech is on its back. The pilot sits in a seat and buckles in, then pulls down a full-wrap around control console down from above their head 90 degrees to a usable position. The cockpit's interior walls and even the cockpit hatch's interior is lined with a full volumetric display, which uses the sensor data to show the full environment to the pilot.

Emergency Systems

The CAMIE has a subspace beacon to send distress calls. It can also eject limbs or even its torso from its torso block if needed, to escape situations in which part of its body is trapped. Aside from this, it has few emergency systems, due to the fact that it uses decentralized sensor and propulsion systems and is not intended to be used anywhere near combat.

Note that sometimes everything on the lower body is ejected just to leave the arms and cockpit, to allow the unit to operate in smaller areas while hovering to work. Making the unit 1.5 meters tall allows it to fit readily inside a floor or deck of a building or a craft.

Life Support Systems

The cockpit has enough air for 20 days' worth of air and water, as well as 60 [Star Army Emergency Ration Pills](#). This can be roughly tripled if stocked with extra tanks and pills inside the cockpit. It also has basic shielding found in all spacecraft, such as electrostatic, electromagnetic, gravitic, and radioactive threats. The CAMIE has a simple-yet-effective PSC Device equipped, to prevent the pilot from falling under the manipulation of a malicious being. The cockpit, naturally, is airtight through multiple levels of armor, allowing it to function in hard vacuum even in rough construction conditions. It also has air conditioning and a heater for thermal control, connected to the air cycling system.

The seat can also be lifted up to reveal a toilet, which leads to a small tank in which special bacteria work to break down bodily waste. The broken down waste is then sent to a larger tank, where the Gravitic Engine in the cockpit is actually used to compress the broken down material. It can hold a fair deal of waste, and can hold roughly 70 days of waste assuming the user is consuming Emergency Ration Pills. It can be purged into space, though this naturally is not the most desirable option.

Propulsion

In addition to its walking speed, which is a maximum of 70 kmh stock, The CAMIE uses three small Gravitic Engines in its stock configuration. One is concealed inside the rear of the Torso Block, and can operate even when all other parts of the craft have been ejected. It is this that acts as the main system when in atmosphere, though the ones in the legs can take over if needed. This allows the craft to hover and fly, while the engines in the legs are used to keep unwieldy loads stable by using sensor data and computer calculations. In space, all three engines are used, bringing the top speed to 0.1c.

It should be noted that while these maximum specs exist, it is possible to upgrade the unit to notably exceed them, especially atmospheric flight and STL speed. Units repurposed for police use tend to have flight speeds which can exceed those of most cars available, and some can conceivably have rebuilt legs which can boost its STL speed to as much as 0.425c.

The optional trailer adds a 1500c FTL engine, allowing the craft to travel 4.1 lightyears in 20 days. This FTL system is best used only for travel within a star system and the surrounding area for construction purposes, though it can allow a craft to leave a star system and try to reach aid if necessary.

Shield Systems

The Shield system is a very simple matter deflection shield which is designed to protect the CAMIE both from falling debris at ground-based work sites and from space and construction debris when out of the atmosphere, so it can take most kinds of non-combat punishment. It is designed to be easily repaired in the field by a suitable technician.

Trailer





The trailer is an optional add-on that contains room for additional tools, parts, and comes with a civilian-grade 1500c FTL system which draws power from the Aether Generator of the main unit. It is a no frills option that allows the hauling of assorted parts, and has six small compartments and one medium one. It can detach freely from the unit and is only to be used in zero-G environments – due to the fact that it would make the CAMIE topple backwards.

Additional Tools



The CAMIE can utilize a myriad of tools; which can be handheld, fit over the arm, or actually replace the arm of the mech. Tools such as drills, jackhammers, shovels, welders, cutters, and most other construction tools can be easily purchased or fabricated. It is also possible, however, to adapt weapons to the limbs, though this is not supported by the manufacturer. Due to its low energy output, energy weapons are not usually a viable system, though some police stations may attach anti-personnel and anti light-armor solutions to their machines. The top of the torso block even has a point intended for attaching a standard lifting crane with a hook or a graviton beam projector tip, but this can also be used to mount things like cannons or missile launchers. The backpack mount for the trailer is also quite adaptable - often seen with a winch or a [Scalable Graviton Beam Projector](#) for towing, and even tow nets or other containers for storing salvage.

No number of weapons and upgrades, however, will make it truly as good as a bonafide combat mecha, or even a Power Armor.

OOC Notes

Created by [Toshiro](#). [Approval Thread](#).

Yuuki updated this article for [Damage Rating \(Version 3\)](#) on 2020/03/07 03:25.

Products & Items Database	
Product Categories	mecha
Product Name	CAMIE
Nomenclature	Ke-M11-1A
Manufacturer	Ketsurui Fleet Yards , Yugumo Corporation , Yugumo Fleetworks
Year Released	YE 32
Price (KS)	6,000.00 KS
Mass (kg)	907 kg

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