

Character: Theodora Invicta
(Imperial fists Vanguard Veteran Sgt)

Game: Warhammer 40000

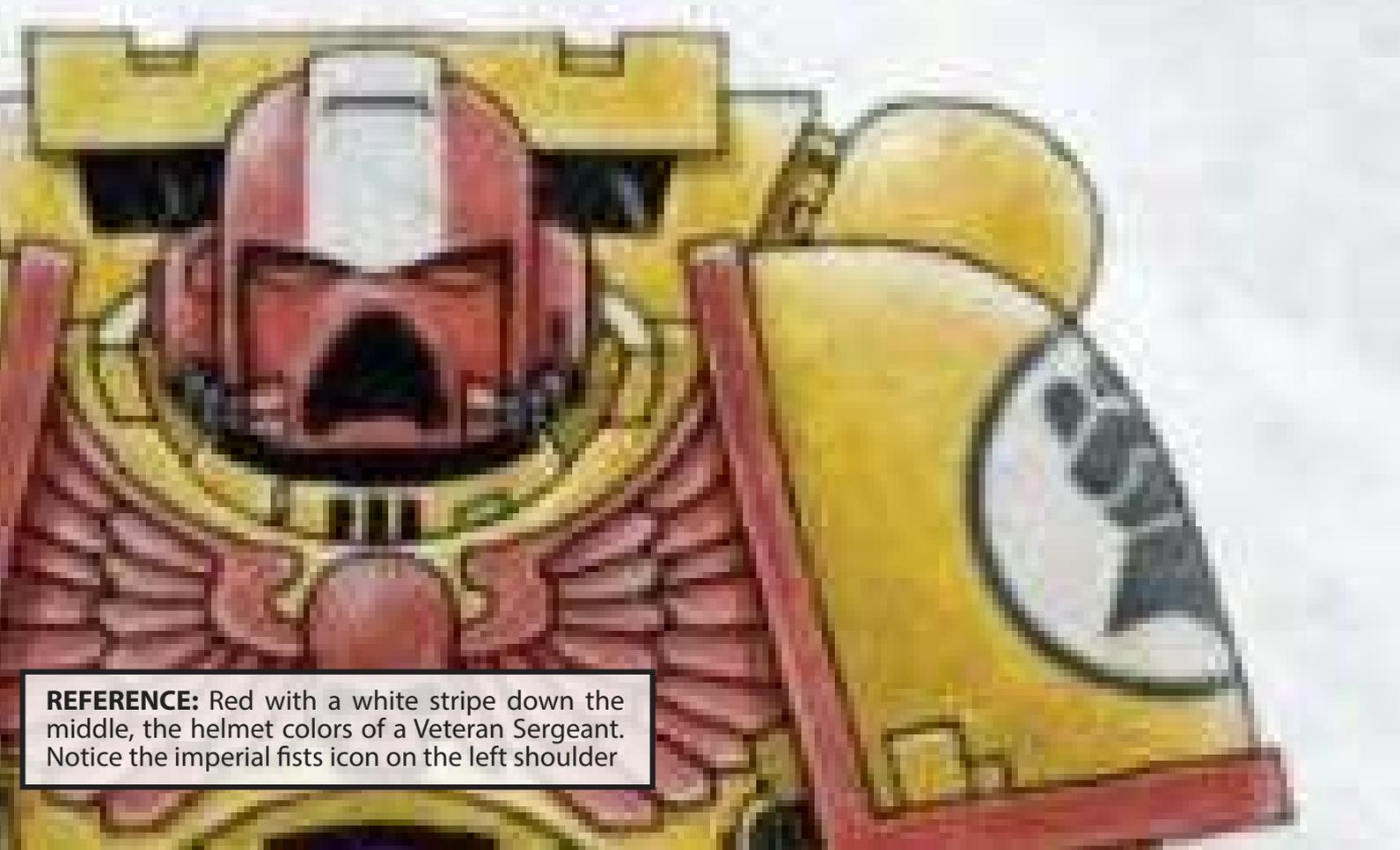
The Adeptus Astartes (Space Marines) are genetically modified superhuman knight-monks. In-game they are highly customizable miniatures, so I mixed and matched armor components and weapons.

Armor: Standard Mark 8 Power Armor painted in Imperial Fists yellow. The left arm wields a powerfist, and is painted silver to represent this marine's time with the Deathwatch. It sports the standard deathwatch shoulder armor (pauldron). The right arm wields a Chainsword, and the pauldron bears the Imperial Fists icon.



WARHAMMER
40,000

SPACE MARINE



REFERENCE: Red with a white stripe down the middle, the helmet colors of a Veteran Sergeant. Notice the imperial fists icon on the left shoulder



REFERENCE: An imperial fists Space Marine from the side



REFERENCE: An ultramarine Space Marine from the back - jetpack reference shot, knee rubber gasket reference



REFERENCE: Diagram of a miniature, front back and side (credit: CreaLink Arts)

**CREA
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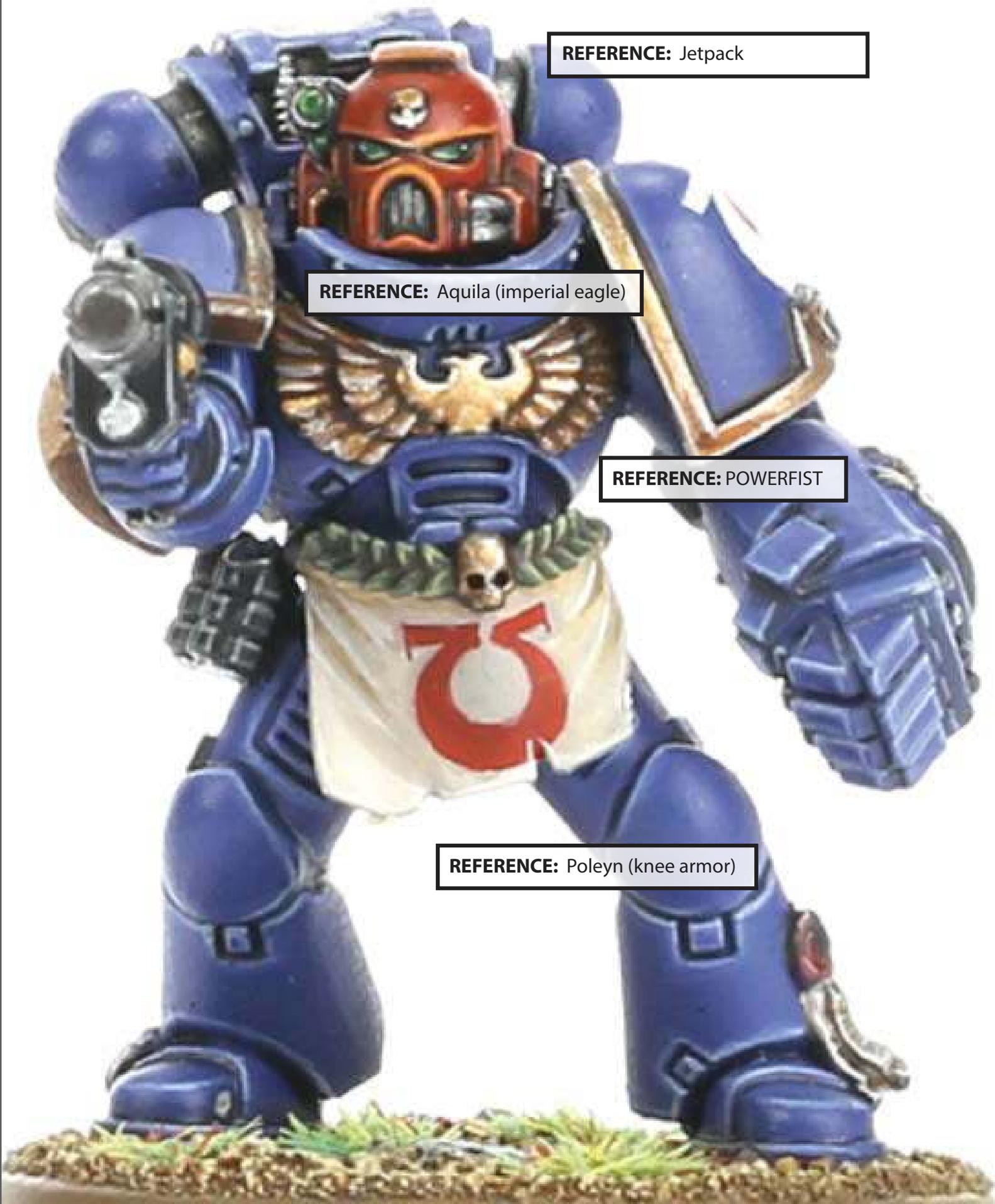
REFERENCE: Mark 8 "errant" power armor

REFERENCE: Jetpack

REFERENCE: Aquila (imperial eagle)

REFERENCE: POWERFIST

REFERENCE: Poley (knee armor)



MATERIALS AND DESIGN

Background: Space marines are essentially religious knights in space. They may be the closest thing you get to a hero within the game universe, but Warhammer 40k (like many british sci-fi from the 80s, such as Judge Dredd) are a parody of fascism. Space marines fight space orks and other aliens, collectively called "The Xenos".

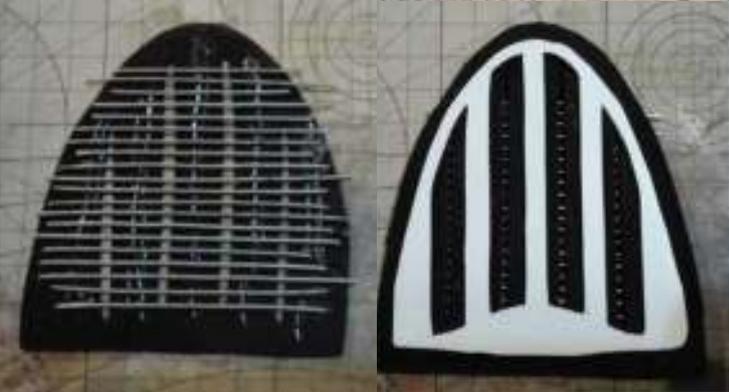
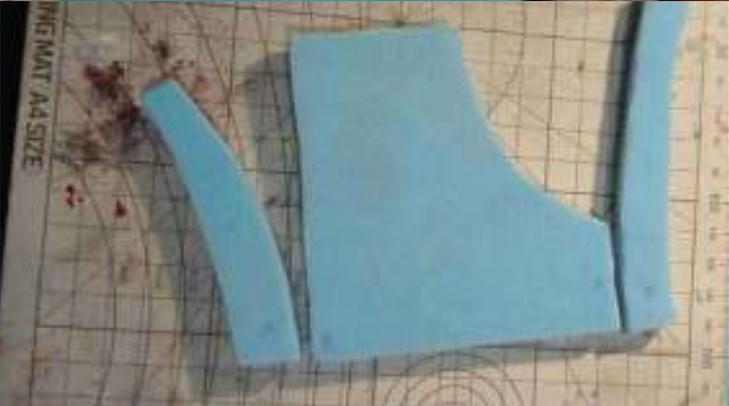
The marines of the Imperial Fists chapter are especially devout and xenophobic, loyal to the Emperor of Mankind. My space marine, Theodora Invicta, is an oddity, since there are no female space marines in canon after the 1st edition of the game. She has served with the Deathwatch which a "heroic" super-xenophobic military body fighting aliens at the fringes of the Empire of Man.

Theodora Invicta is therefore highly decorated, but still extremely humble, single-minded, blindly loyal to the Emperor. Her two prized possessions are a sacred book and the skull of her battle-sister Incaenda both of which she carries on her belt even into battle. She favors a powerfist (a powered augmented metal glove) on one hand, and a chainsword on the other.

Space marine chapters are sometimes "themed", like the Space Wolves being viking-inspired and the Ultramarines being somewhat roman inspired. The Imperial Fists are a Terran chapter, therefore it made sense for me that my space marine would be Byzantine/Roman themed.

Notable costume features: the helmet and chest are cooled by 5 and 12v blower fans and hand-made ice packs (baby diaper lining, water and rubbing alcohol). I wired a microswitch on the top of the helmet which powers the fan automatically whenever I put the helmet on. There's a holographic screen on her collar, that displays information about the suit and the environment. The suit also features a loudspeaker and loud metallic noises can be heard when Theodora Invicta walks. I wrote a piece of software (open source and available for inspection) that displays the holographic visuals and detects steps using a mobile phone's accelerometer. I also animated the holographic screen visuals, based on in-universe computers ("Cogitators").

The powerfist is functional, based on actual hard linkages (not string). The chainsword is also functional, using a super light frame and blades, and a powerful motor. The rubber joints of the arms and legs are faithful to the miniatures (same number of creases) and they stretch naturally, owing to their bellows-like engineering. The armor is entirely scratch-built, with only some 3D topography copied from 3D models from the games. Eva foam is used throughout, plastidip and mod-podge for sealing and hand soldered electronics.



CONSTRUCTION: Helmet. Eva foam

Blower fan switch (a piece of styrene held in place with hot glue over a microswitch)



Blower fan

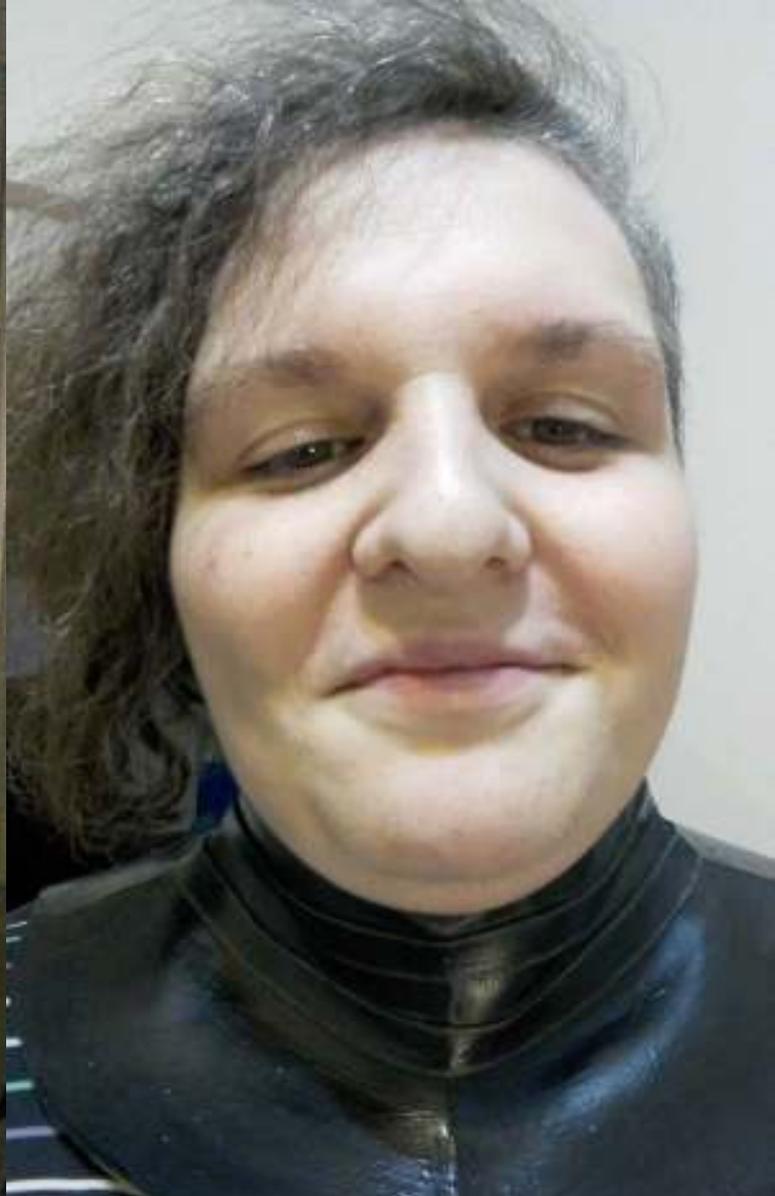
Powerbank

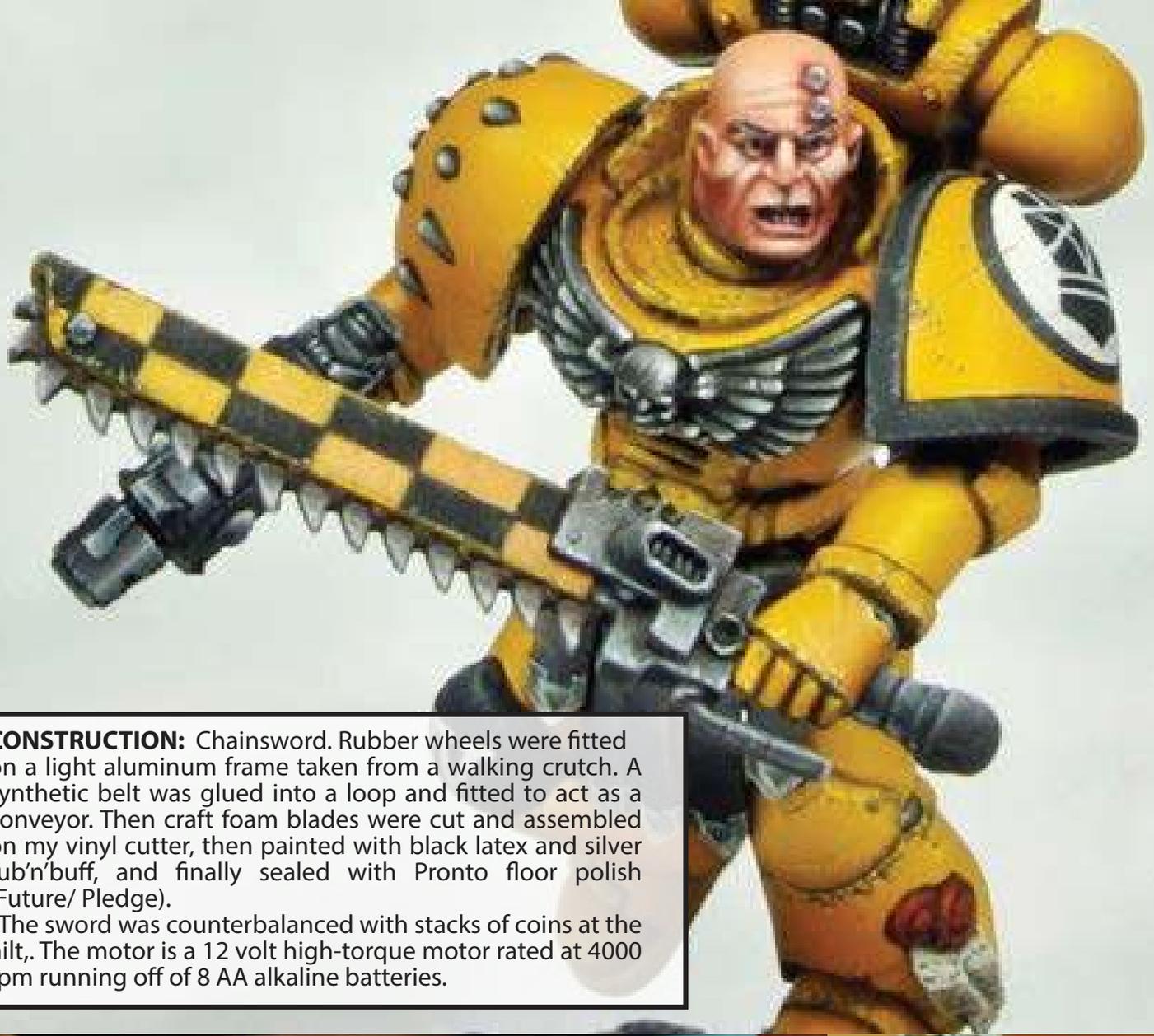
CONSTRUCTION: Helmet interior



CONSTRUCTION: Power Fist
finger mechanism



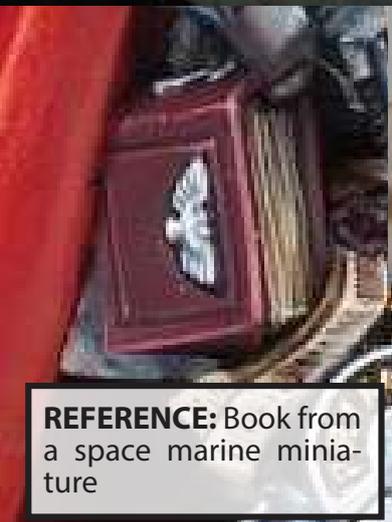




CONSTRUCTION: Chainsword. Rubber wheels were fitted on a light aluminum frame taken from a walking crutch. A synthetic belt was glued into a loop and fitted to act as a conveyor. Then craft foam blades were cut and assembled on my vinyl cutter, then painted with black latex and silver rub'n'buff, and finally sealed with Pronto floor polish (Future/ Pledge).

The sword was counterbalanced with stacks of coins at the hilt. The motor is a 12 volt high-torque motor rated at 4000 rpm running off of 8 AA alkaline batteries.





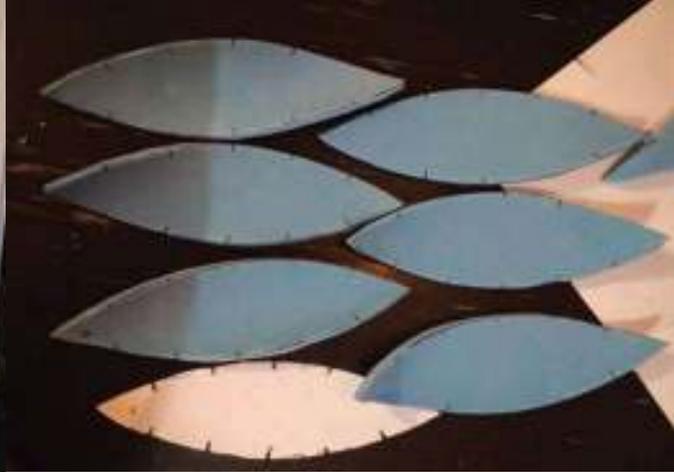
Construction: The holy tome. Made using the traditional medieval book-binding technique using rope, eva foam and cardboard. The silver plate and letters is thick cardboard cut by hand and layered in.

I also painted on the edge a fight scene between the Space Marines and the Genestealer aliens in a medieval manuscript style. Important books historically often had edge paintings like this.

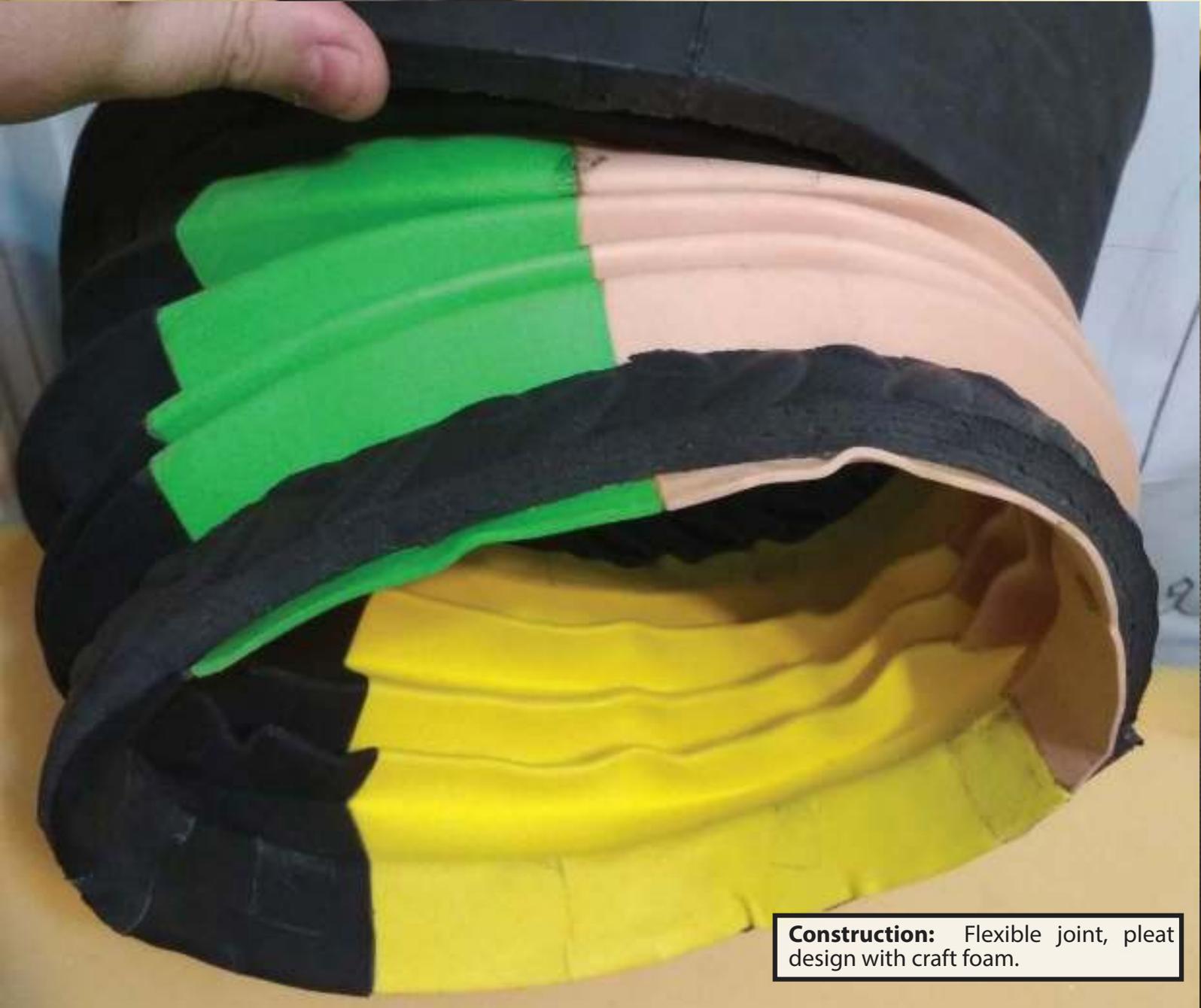


REFERENCE: Book from a space marine miniature





CONSTRUCTION: The lights are flashing RGB LEDs. They have a built-in chip which makes them change color almost in sync but not quite. It gives the illusion that the jetpack is a real working piece of computer, without programming or microcontrollers. All I needed to do was hook them on two button batteries.



Construction: Flexible joint, pleat design with craft foam.



Construction: heavy rope made out of soft eva foam and wool tassels.



Construction: skull made of printer paper, toilet paper and mod podge.