

Imperial Sentinel-Class Shuttle

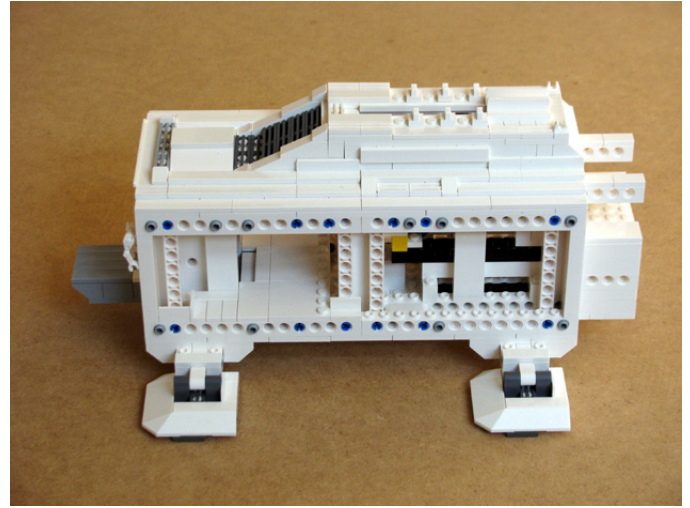
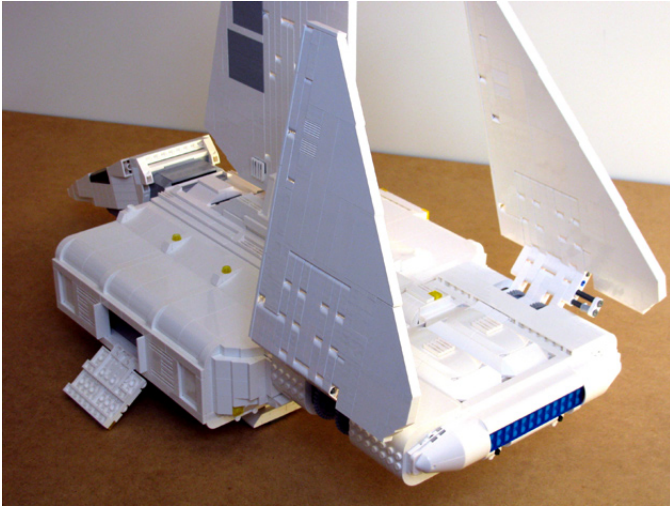
by Legotron

After purchasing and assembling the magnificent set 10212 Imperial Shuttle, I considered the possibility of using the parts to build its bigger sister, the Imperial Sentinel-Class Shuttle. This is a brief description of that building process.

A long time ago I started the building process of a Star Wars™ Imperial Hangar[1], in minifig scale, depicting the arrival of Lord Vader to his command ship, the Super Star Destroyer "Executor". When I acquired the set 10212 I got the idea to build the Imperial Sentinel-Class Shuttle with the pieces from this LEGO® set to add the new ship to the hangar display in order to make that display far more spectacular. So I started to work and began to prepare the design of the ship. Since the different pictures of this ship that can be found on Internet have many ship design differences, I decided to use the image of a computer videogame to get views from all angles of the ship as a reference. The resulting design is a little more bulky, but it is perfect for a LEGO build.

The idea for the building process of the Sentinel Shuttle was to make a modular design, so that the whole ship could be disassembled into individual elements to make transportation easier. All these elements were to be

constructed independently and to be assembled with axles and pins. Furthermore, this allowed me to design each module separately, making corrections in the design easier than in a single part design. The first part of the construction began with the pilot cabin, for which I used the 10212 set design for reference, with small changes in its appearance and anchoring system to the main body. It was very simple and cheap, as it only needed a dozen additional pieces. The next step was the main engine deck area. This module was more complicated, as it contained all the engine features as well as the two folding wings, with the possibility of raising and lowering them. Following in the footsteps of the original set of the Imperial Shuttle, I built all the gear assemblies and systems to move the wings up and down. It was difficult, because I wanted to use all possible pieces of the set in order to save costs. Although the base sizes of gears and anchor system of the wings were different, I built it without using a single additional piece. Then I covered the structure to give it the desired appearance. This ended the building process of this module. After that, one problem I saw in the module was its weight, which was significantly higher than that of the pilot cabin. This could be a problem, as the whole ship would collapse towards the engine side if the central module design didn't counteract this.



The next part was the main structure of the ship, the central module that was the most complex part to design and build. On the one hand I wanted to include detailed interiors, and on the other hand this module had to cope with the weight of the whole ship. The first attempt involved the construction of a single module with traditional brick construction techniques. But after much testing it proved to be too weak to withstand the weight of the engine module. After many attempts I decided to split the main module into three parts, a central technic brick and liftarm built module, able to withstand the weight of all the modules, but without any interiors, and two side modules that would have detailed interiors and would cover all the technic structure of the central module. Although the original set contained a great number of technic bricks and liftarms I had to buy a few more. The new module needed to be very robust and I constructed it with 4 rows of technic bricks and liftarms to ensure it will be strong enough. It was a question of patience, as I had to make many attempts to achieve the desired result. When I thought everything was right, I discovered a new problem: I forgot the holes for the landing gear when it was retracted. Once again I rebuilt the whole module, it was fun but after so many attempts I nearly lost my patience. Then I made the test to know how good the module design was, and the results were everything but good. The module itself could cope with the weight of the whole thing, as I added about a hundred additional hundred bricks to the finished modules, but after several minutes the landing gear collapsed, resulting in several pieces breaking away. I had to stop for several days, I needed new ideas for the project to continue with it. Finally I decided to use a static landing gear. The ship was supposed to be part of my Imperial Hangar display, so there was no need to design a working landing gear. I preferred a working landing gear, but I wanted to finish the ship, so I took the easy way. With only some minor changes the central module was finished and I was able to start the final process of the exterior appearance.

It was easy to build up the top wing, I used the available pieces from the original and I scaled it down a little, so that the new wing fitted perfectly in its place. Then I began with the

two side modules. I wanted them to look big and heavy, in order to show the cargo role of the ship. Furthermore, these modules should have detailed interiors, with racks of seats and weapon holders for the troops. At this step I ran out of the useful parts of the original set, so I was forced to buy many others to finish the ship. They were used to complete the greebles and many details, and the final result was worth it. After some minor changes to get the desired look, the Imperial Sentinel-Class Shuttle was finished. All the modules were assembled and the structure was able to withstand the weight for several days, so the ship was ready to be placed in the Imperial Hangar display.

The ship needed more than 2800 pieces, and it was a real challenge and a pleasure to complete it, with so many hours of fun, designing and building. I hope you like it.

References:

[1] Imperial Hangar Pictures <http://www.brickshelf.com/cgi-bin/gallery.cgi?f=238941>.

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