

ARTICULATED, MINIFIG-SCALED STAR WARS AT-ST

BUILDING GUIDE v2.5



This is the building guide for an articulated, 1:30 (minifig-scaled according to head size, not height) Star Wars AT-ST (in its form seen in Return of the Jedi). Assembly & pose aren't that straightforward, so please read this document.

This is version 2.5 of the model, three years (and thousands of edits) after version 1 started. All versions are significantly different, so if you have a previous version already built, don't expect to be able to recycle that many parts. This version includes instructions for the full AT-ST as well as two types of busts. A bust is less costly, way more stable on a shelf, and can also be a first step before assembling the full-blown version.

[Hi-res gallery on flickr.](#)

[Forum thread at EuroBricks.](#)

First thing you need to know, this is a **display model, not a toy**. It just cannot be played with, it will easily crumble if tossed around, and takes quite some time to pose. In other words: not kidproof, at all (but that's the price to pay for a better look and full articulation).

Included files

- **AT-ST_2.51.lxf** : if you are reading this after June/July 2018, this is most likely the version you want to build, you will be able to find all of the needed parts.
- **AT-ST_2.5.lxf** : if you are reading this before June 2018, you will have troubles finding the 29119/29120 pair in LBG. These parts do already exist, but are only to be found in the very limited, very expensive 41498 set. So most likely you won't be able to find those parts yet, and this is the version you want to build.
- **AT-ST_2.5_Step 1.lxf**, **AT-ST_2.5_Step 2.lxf** : recommended building sequence.
- **AT-ST_2.5_Extras.lxf** : alternate components, busts, display stand.
- **AT-ST_2.5_Busts.lxf** : example bust versions of the AT-ST.

Note: the Rebrickable part list is for AT-ST_2.5.lxf, nothing more.

The model is heavy & there is quite some weight on the ball-jointed parts, so **I strongly suggest using brand new ones**. Do not substitute the 3-parts hip bars for longer single-part ones, you need high-friction there. The model -does- stand on its legs well enough, despite the problematic hip bars. If you really want safety, instructions for a display stand are also included. If posed carefully however, it is not gonna fall down.

As for the blueprint, it is required that you first install the [Lego Digital Designer \(LDD\)](#).

The easiest is to build each component separately, as in **AT-ST_2.5_Step 1.lxf**, then assemble some of these components as in **AT-ST_2.5_Step 2.lxf**. Once done, you will have to put the mantle on the structure of the head. This part is tricky and you may have to try a couple of times, because the mantle is rather fragile. Once done, add the roof, which is designed to be easily removed.

Then, either place the head on a bust stand, or pose the body and attach the head to it.

Posing the body is not straightforward and may take you quite some time. See the posing tips further in this guide.

Some things aren't shown correctly in the LDD, generally because of assemblies rejected by the app, or lack of bending:

- The 2x black whips underneath the body are cables, their other end should be wrapped around the front of the body, wherever you can fit them, or according to the reference pictures. I suggest passing them behind each of the 2x LBG 4599 parts.
- The last black whip floating under the head should attach to the clip inside, just like the cable on the other side. Then, the small end of the whip goes inside the 4081 black clip at the back.
- 2x optional DBG minifig hands (not available separately in the LDD) can be attached on the outside LBG L4 bar at the back of each leg.
- An extra black minifig hand may be attached to the black 32828 inside the cockpit, as a lever.
- Under the roof, where the 95199 DBG guns are, 2x 1x1 plates in DBG may be added to close the gaps.
- An extra LBG minifig hand may be attached to the LBG 4210 on the side gun, as shown in reference pictures.
- At the bottom of the legs, right above the DBG ski parts, 2x LBG 90393 (microphone) in LBG can be inserted into the 2x LBG 85861.
- At the front of the body, 2x DBG 24308a wheel covers (not available in LDD 4.3 yet) are required on the 2x LBG 18674.
- Finally, the neck section can have its thin rubber tires replaced by one inverted (inside out) 6578 tire. It is, however, not a "legal technique", while the entire build otherwise uses only legal (but sometimes fragile) connections. You decide. The inverted tire can be squished in-between 2x black 4185 wheels on each end.
- The 2x tan 1x1 tiles on the roof are placeholders for 2x LBG 35787 triangle tiles (not available in LDD v4.3 yet).
- The cable that makes the rail on the roof can be bent as in the LDD, or, if you want a better look, be bent like on the reference pictures using a hair dryer (a little tricky). You may also pinch the cable and get even closer to the rail on the "real" AT-ST (pictures easily found on the internet, I suggest the Bandai 1:47 model which is quite accurate), but pinching will ruin the part and thus is an illegal technique.
- You may use AT-ST pilots from previous AT-ST sets as minifigs. A Chewbacca may fit along with an Ewok, but there is no room for 2 Ewoks, as the cockpit has less room in its back than it should normally have.

Additional notes:

- It may take you several attempts to wrap the “mantle” around the body, as it is a little fragile. You may pre-attach the front joints of the mantle before wrapping it around the structure.
- To rotate the assembled head, pinch it using 2 fingers on the 2x4 tiles on the sides, so that you transfer the energy directly to the hinges, and indirectly to the head's ball-joint. Anywhere else and you may crush the sides.
- You will notice a heavy usage of 2x2 round plates and 1x1 hollow round plates in hidden areas, this is in order to reduce the weight of the head a little. You may of course substitute them, the weight difference is not that important.

How to pose it

First, place the legs/body in a pose you're happy with. While the legs will stand on their own as you pose them, they of course won't hold when the head will be on them (head is easily detachable, on purpose).

Place a finger of the left hand on the black parts under the body (don't knock off the whips), and attach the head using the right hand (hold the head from the sides where the Mixel ball joints are, do not press outside those large side plates, it's not solid enough). Rotate the head as you wish. **Keep holding the head in your right hand.** Now, place 2 fingers of the left hand on the 2 slope parts right next to the ball-joints of the feet, and **hold the feet in place**. You're now able to move the head (& thus the body & legs) back & forth, while the feet joints will follow. “Find” the center of gravity, you will feel the right spot when the head won't want to fall to the front or the back too much. It doesn't have to be that precise, there is enough friction on the feet's ball-joints to be slightly off, but it has to be more or less aligned with the center of gravity.

Extras

AT-ST_2.5_Extras.lxf contains:

- An alternate roof that uses slightly better-looking, but way more expensive 4x9 plates.
- An alternate back that uses way more expensive parts.
- An alternate front with an impact.
- Alternate, large dishes, more like the ones of the AT-ST as seen on Hoth.
- 3 types of pedestals for the bust version (examples in AT-ST_2.5_Busts.lxf).
- A display stand (that you may have to adjust according to the pose of the AT-ST) that attaches to the half bit of axle under the body.