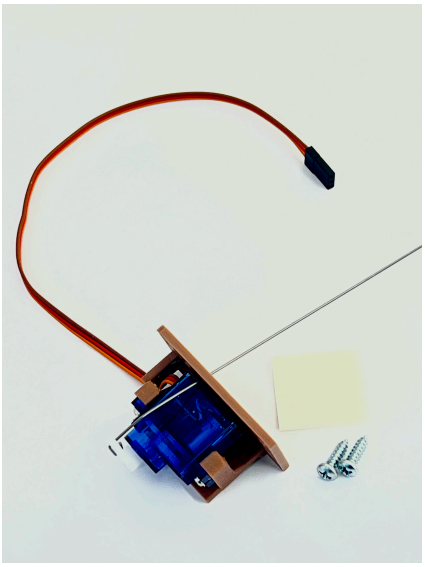
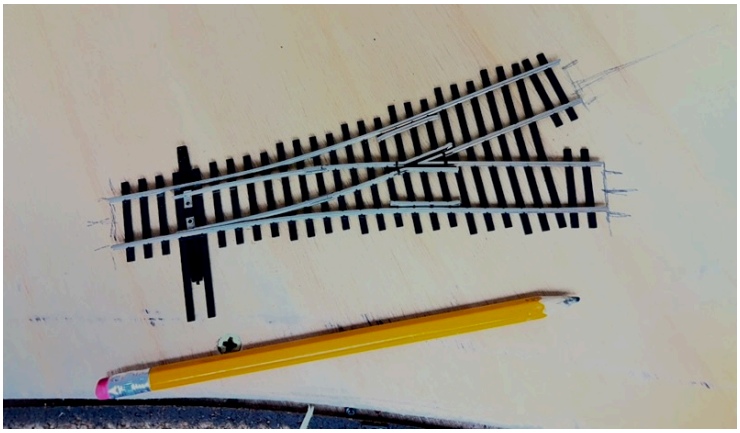
How to Install a SwitchWright Switch Machine Using the Drilling Template

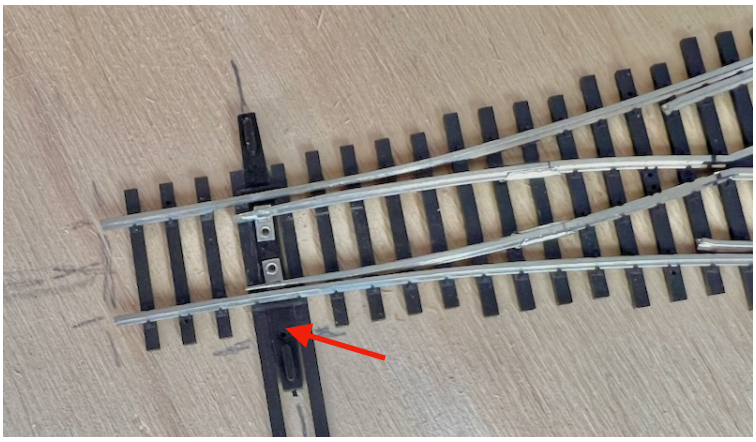
Tam Valley Depot

Needed - Drilling Template, 7/64” drill bit, 5/16” drill bit, screwdriver, small clamp, SwitchWright switch machine in centered position with two #6 mounting screws and some double-sided tape.





In this installation we are going to drill holes from the top using the template that will minimize the work under the layout and ensure an easy accurate installation.



Lay the switch on the layout where you want it to be. I am not using roadbed here because this is an industrial area, but the procedure is the same with roadbed.

Mark the ends of the throwbar and the location of the hole you will use to throw the switch.



Extend your marks in to two crossed lines that will guide the drilling template.

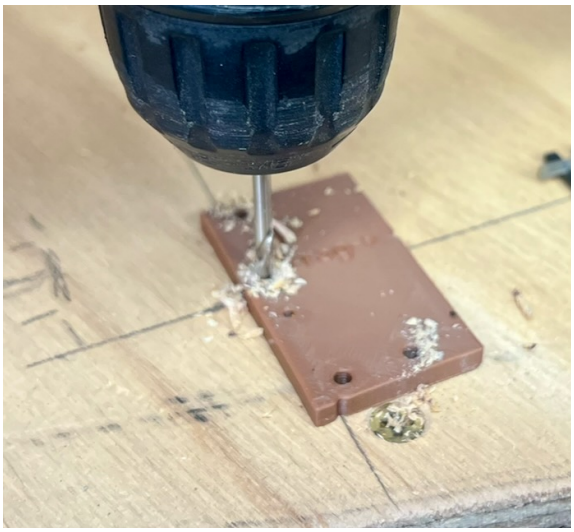


Align the drilling template with these lines. Note the two center holes - the larger one is the normal one used for the throw wire, but sometimes in a tight situation you might use the smaller one for the wire.

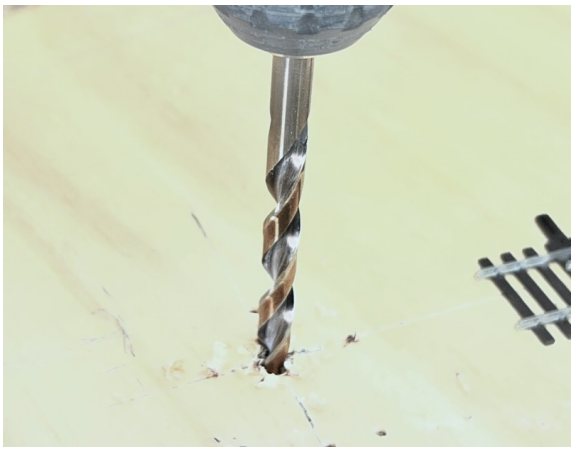
The Frog Arrow usually points towards the switch frog (although, again, in tight situations you can turn it around).

The crossed lines are aligned with the notches on the center of the template.

The hole in the lower right is for alignment (see below) using a wire.

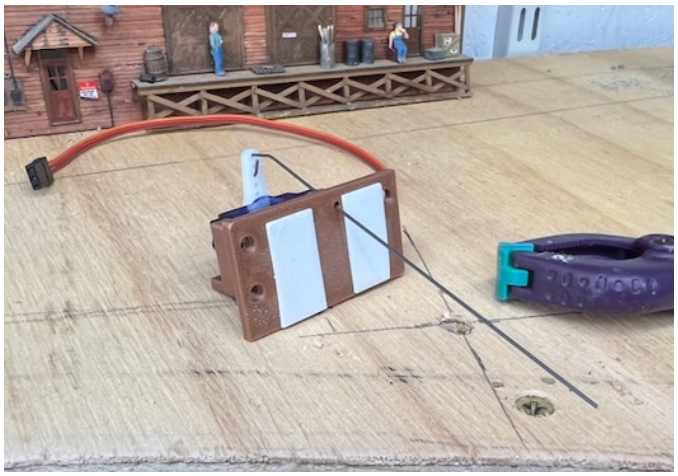


Use a 7/64” bit to drill through the holes in the template (the small hole is not used). Keep the holes as vertical as possible. Drill all the way through the sub-roadbed.



Use a 5/16” bit to enlarge the hole in the center of the crosshairs.

Clean out the holes to remove burrs on the top and bottom.

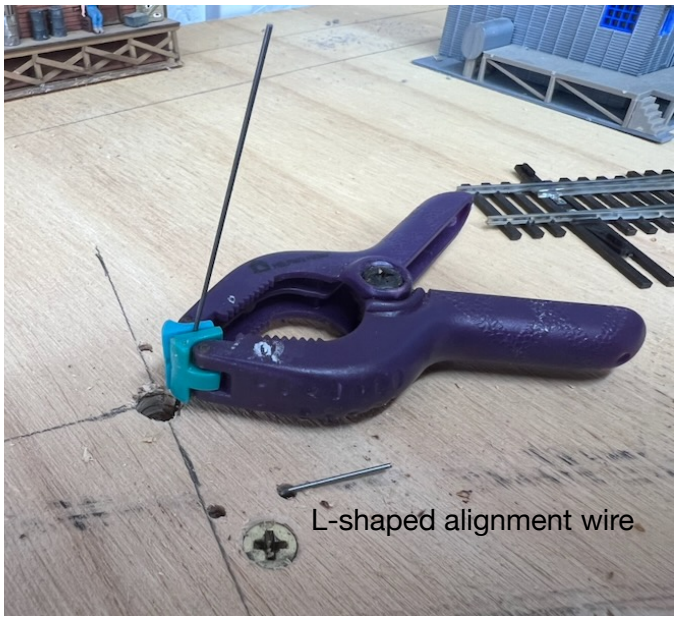


IMPORTANT - before mounting the switch machine make sure it is in the center position. A Servo-cCentering Tool is very handy at his point or you can use the centering function on a Micro Singlet or Octopus III.

(Optional) Put double-sided tape on the bottom of the switch machine to hold it temporarily in place.

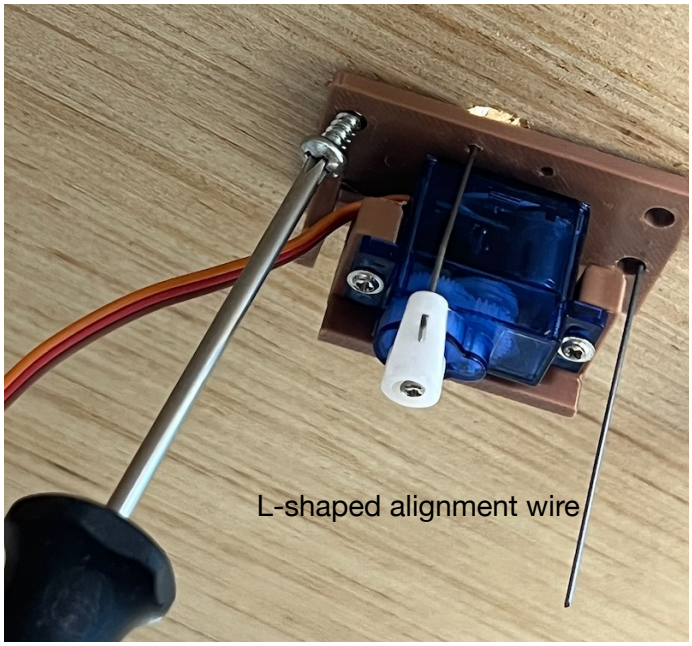
The other way to hold the switch machine up is to use a small spring clamp or clothespin on the wire.

Thread the switch machine wire through the large hole from below and have a helper clamp it in place.



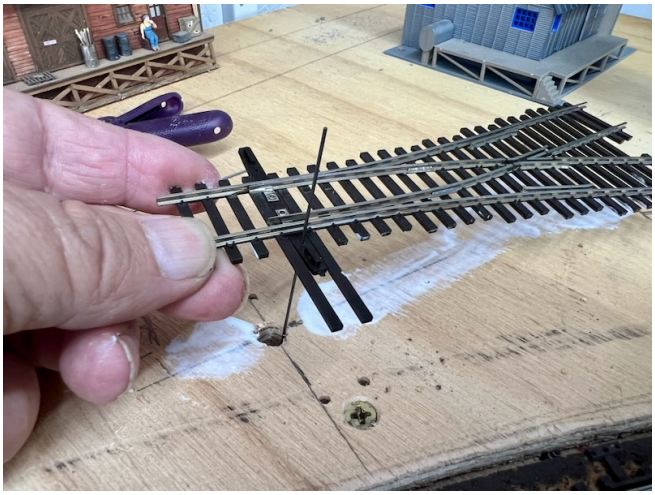
(Optional) An L-shaped wire can be threaded down from the top to the alignment hole in the bottom switch machine (see picture below).

Don't worry that the wire is slanted to one side - this is in fact a feature of the SwitchWright geometry - it will act as center-off spring that will help keep the points to one side or the other.



The View from below. The alignment wire helps get the switch machine positioned well enough to put the screws in to the pilot holes.

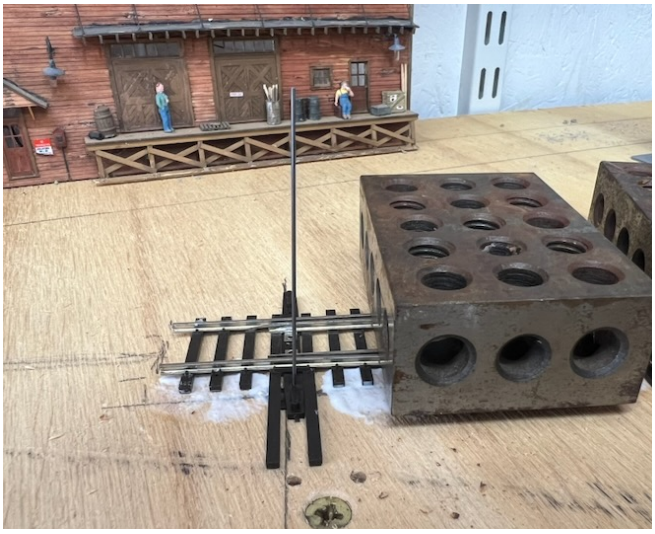
From below put 2 screws in to the pilot holes.
With the switch machine secured and in place, you are ready to place the switch.



The wire is sticking up out of the hole and this allows you to thread the actuating wire through the hole in throwbar from above. This is so much easier than trying to thread the wire through the small hole from below!

Put some glue down to hold the switch in place (or you can use track nails if you prefer).

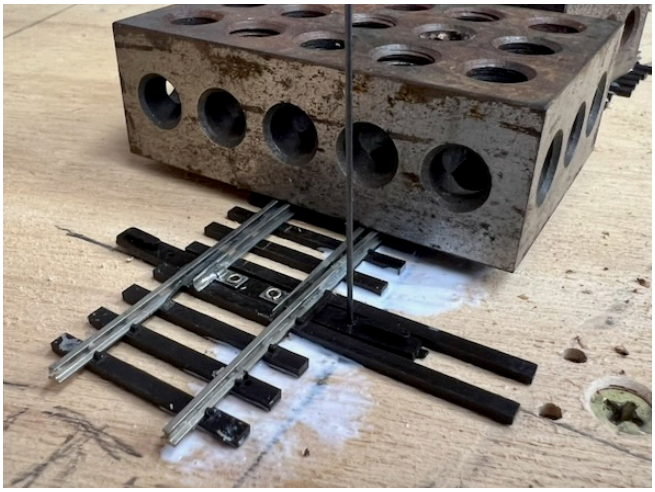
Carefully position the switch so that the wire is sticking straight top and down to put a little spring in the wire.



Center the switch from side-side so that the points are in the middle (if you are using points with built-in springs you can use small pieces of styrene to hold the points in the center while you align it.)

This will ensure that the switch machine is well-centered and throws evenly to both sides.

When the glue is dry, hook up the servo to your servo driver board and test.



Wait to clip off the wire until you have tested the operation of the switch machine and thrown to both sides. Leave about 1/16” of wire above the throwbar to ensure that the wire does not slip out of the hole.