

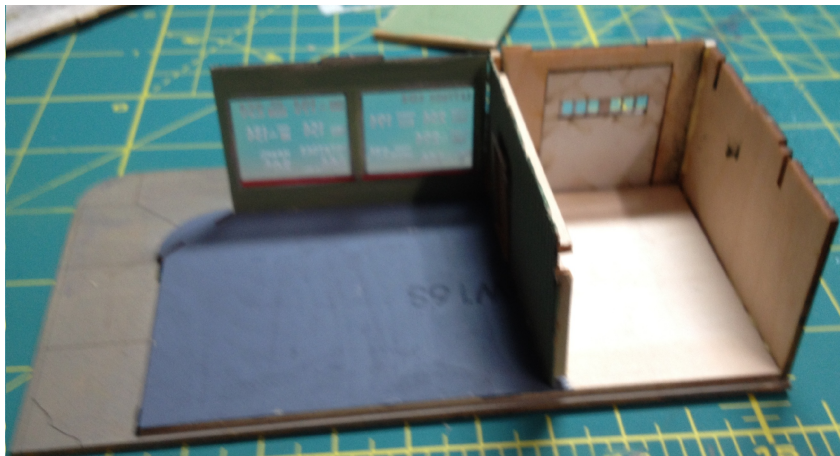
Building Booty Corner Part Four Interior, Lights and Walls

by Steve Erickson

In this part we are going to do some very different, but simple, things to make this kit stand out on your layout. We are going to add an interior, install some basic LED lighting, and assemble the walls. Next month we will build an exterior staircase to the second floor, make the fire escapes, and complete the structure. Now to get to work.

Interior

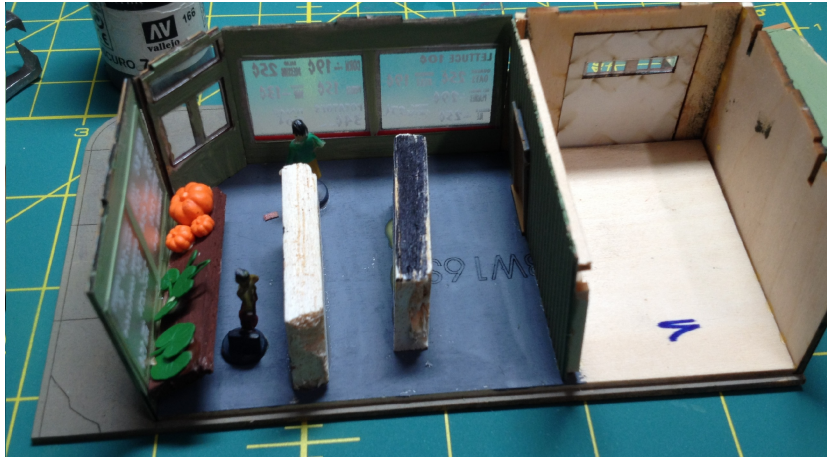
This is not designed to be a contest level model, or a contest level interior. It is, however, supposed to get people to sit up and take notice before moving on with their eyes. A very basic interior and lights achieve that goal.



Contest models often have removable roofs and interior detail down to the level of toilet paper rolls. That is not the goal here – the goal is to *suggest* the interior of an IGA. That means some color, some recognizable items in the window, and the appearance of shelves. The photo above shows the first walls to be built – one of the front sides, and two of the back portion. Note that I have placed a piece of balsa between the two sections to give a smaller area to the store. This will make the interior easier to construct. Also note that I have painted the base a sort of industrial gray.

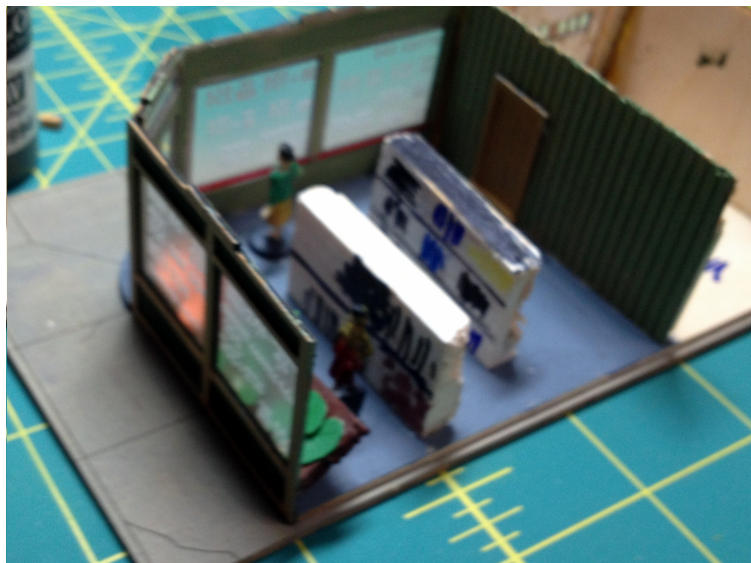
The interior is going to consist of two rough painted pieces of balsa to represent shelves, some fruit and vegetables on interior shelves just inside the windows, and a couple of old, poorly made HO scale figures (complete with original bases) that I found in my junk drawer.

That will make the interior (again, working from what will be the back of the building) look like this:



The pumpkins are from a pumpkin patch kit I have stashed away for future use, just took a couple for this purpose. As you can see, the two figures are still sitting on their bases. The floor is not finished, from this angle it even shows the engraved part number. For this purpose, none of this matters. The balsa is rough cut and colored with markers. The vegetables are sitting on a piece of styrene cut and glued at an angle in the window.

This is another angle, somewhat fuzzy unfortunately.



The shelves are Tylick specials – a form of modern art not often seen in the model railroading world. It does the job well, though. Notice I painted the interior wall green and put some scribed siding and a door on it. This is probably overkill.

The next step will be to attach the back wall (also painted green) and install a simple LED light system.

Installing an LED light over the store

Now we are going to do something dangerous – no, not really. Any use of electricity, even a nine volt battery, is dangerous to me. But it should not be. LED lighting can be so simple that you will wonder why you have never used it. For information on the more complex aspects of this topic, you can visit <http://microlumina.com/store/> for some very useful supplies. Their basic kit will really light up two buildings nicely, with stuff left over, and all for \$10.00.

Here is what you need:

1. **A current limiter.** This is a small item that replaces the need to calculate electrical loads for LEDs. This, in effect, ensures that only enough current goes through the system to light up the LEDs you have connected in a string. There is a lot of complicated electrical stuff I do not understand, but using one of these with a 9-volt battery will allow you to string UP TO four lights in sequence.
2. **LED bulbs.** Soft, bright, spot, who cares. You will eventually, but not for a first project. The Microlumina basic kit comes with six of them, representing three different lighting levels. Use any of them. I only used one in this lighting installation.
3. **Wire.** Small stuff, which you can get at Radio Shack maybe, or on line, or from Microlumina.
4. **Soldering iron.** Okay, now it gets tough. But all you really need is a basic unit from Home Depot or your local hardware store. Get some solder if you don't have it, and a sponge to clean the tip.
5. **9-volt battery with alligator clip leads.** They connect the battery to wire leads. This allows you to clip the wires from the LED circuit to the battery and remove it easily. For testing and short term use. Eventually you can wire the building to any DC power source when you make it a permanent installation. They look like this:



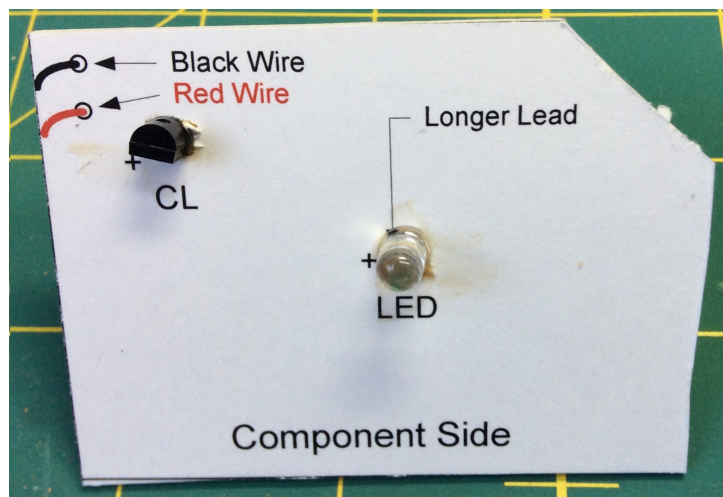
6. **Wire stripper.** You probably have one of these, or something you can

use in place of it to pull the insulation off the ends of the wire.

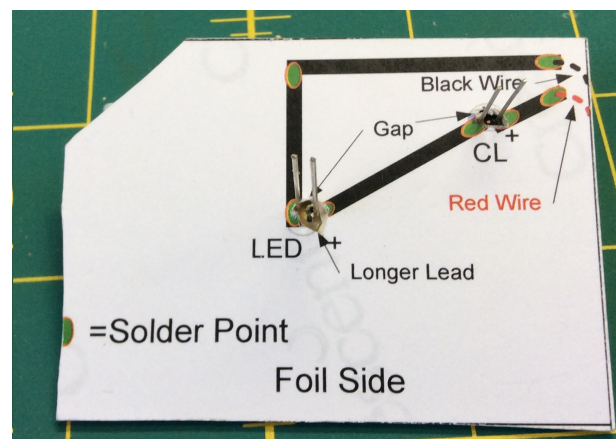
7. **Copper conductive tape.** Not strictly necessary, but it is useful to replace wiring between parts of the circuit. It is conductive on one side, adhesive on the other. I used it here because I had some from a Microlumina seminar I attended last year.
8. **Cardboard piece to build the circuit on.** I was lucky, Microlumina provided an idiot proof diagram board for me to use on my first several lighting installations. But you will get the idea from the picture below.

Now get prepared. Cut and strip two pieces of wire, giving yourself some length to eventually go under the layout to a DC bus for lighting and accessories. Heat up the iron, and steel up your nerve.

OK, lets look at the piece of card that is going to fit above your interior, glued underneath the second floor. The side that will be illuminated looks like this:



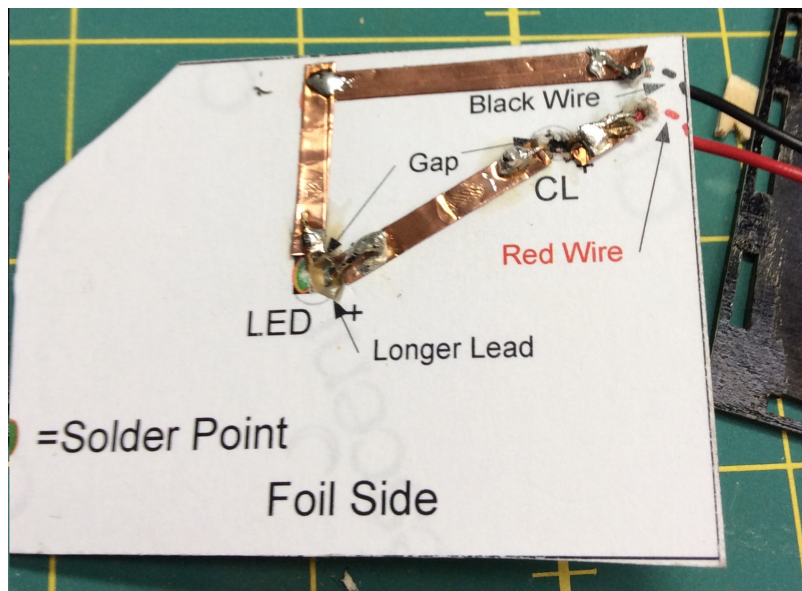
As you can see, idiot proof. Works for me. Here is a useful piece of information: **All the CLs and LCDs have a longer lead for the positive lead and a shorter one for the negative.** That is really all you need to know. Notice that on the above diagram, which you can draw for yourself, both positive leads are on the left side of the diagram. You will understand why when we look at the back side. This is what the other side looks like before I mangle it:



Notice a couple of things. The positive (longer) leads for the CL and LCD are now on the RIGHT. (Being the opposite side). The green ovals are **solder points**. The black lines are where you put the copper conductive adhesive tape. The idea is that the wire goes as follows:

1. Red wire into red hole.
2. Red wire soldered to small piece of tape to wire's left.
3. Positive CL lead soldered to tape on right of CL, leading to red wire.
4. Negative CL lead soldered to tape on left, going to LED.
5. Positive LED lead (remember, the longer one) soldered to tape on right of it.
6. Negative LED lead soldered to tape going up to green point in upper left corner.
7. Tape goes over to black wire. Solder the two pieces of tape at the 90 degree angle together, solder the black wire to the end of the tape going across the circuit.
8. Now attach the red and black wires to the 9 volt alligator clips and you should have lights.
9. The wire is going to go OVER that middle wall in the interior (you might have to cut a notch for it) and DOWN through a hole on the receiving side of the building.

Note that you can, once you have installed the CL and LED correctly, snip off the excess wire lead to your liking, leaving enough to bend flat. That's what I did. Now, to see how I did it. Fair warning: prepare yourself, my work here is really ugly.



This side will be against the bottom of the second floor, and the other side will not be visible. All you will get is a gently lit interior (thanks to the frosted glass that Bar Mills provides for this kit). Notice that I clipped the corner of the board at an angle – this allows the board to fit snugly up against the ceiling.

All right. We have an interior and some lights. Now it is time to raise the walls.

ASSEMBLE FIRST FLOOR

The first step is to finish the first floor – add that back wall that you have been working through to install the interior, making the first floor a complete box. Then, add the second floor roof/first floor ceiling (the piece that, with any luck, has an LCD circuit installed on it) to the top of the first floor. Paint it black (really, that is not a request to the DJ, paint it black). Also paint the insides of the second floor black. No lights, no interiors, just black (with a light block, to be discussed below).

Now start assembling the second floor walls. Here are back and front pictures of the first two walls in place:



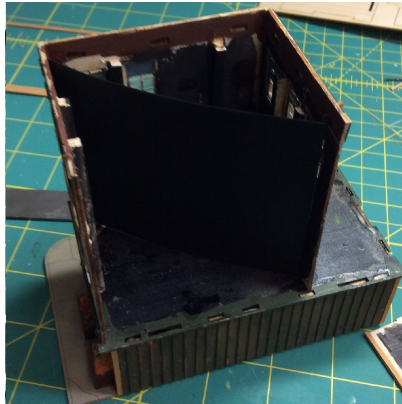
Admittedly, the first one looks like a model of a town after the zombie apocalypse, but no one sees that.

The base also has castings of fruit bins installed. Here is a pro tip: Look at them carefully. There are four castings, but three types in my kit. With a primer they look like this:



The two middle ones are the same: so DO NOT place them next to each other!

In the next photo we have three walls up, with black construction paper in the middle at a diagonal to provide a light block – making sure someone cannot see straight through the building. Now it is really dark in there.



Finally, the fourth wall is attached and the roof pieces are dry fitted into place to make sure that the whole thing is square. Because Bar Mills uses tabs and slots this process is very easy. It becomes much harder when trying to square up walls without them.

So here is where we stop: interior, lighting, and walls up. Roof work, details, and a small scratch built extension next time.

