This tutorial uses basic tools and techniques to create a fairly realistic remote control in Lightwave 8.0. We will be using the following tools in this tutorial:

- points
- make polygon
- disc tool
- mirror
- extrude
- bevel
- bump maps to create dents
- alpha maps to create worn spots

By Ryan Fitzpatrick
Images we will be using:

- Main texture
- Alpha Map
- Bump Map

References
First, we start out by loading up the images of the remote control into our viewports. I took pictures of the two basic views that we will be needing: the top and the side. Then we simply load the pictures into the “TL” and “BL” viewports, using a resolution of 1024. Getting a good picture the first time around is nice if you're planning on using them as textures later on. Depending on the texture resolutions, you'll want to change these options accordingly.
First, we need to draw out one half of the remote with the point tool. Select the points tool (+ key) and then simply trace half of the image of the remote.
Then, copy the points you just created on to the other side using the mirror tool. Grab the mirror tool (shift+V) and pull down on the image in the top left window to mirror the points along the X axis. Finally, we need to create a polygon. To do this, we need to select the points in order and then simply click "Make Polygon" or hit the “p” key. If the polygon looks blank, it is just facing the wrong way, so you just need to hit "f“ to flip it around.
Next, we use the extrude tool (Shift+E) to make our flat polygon into a 3-dimensional shape. Simply pull it as thick as the remote is, and we're done. Again, if your polygons look inside out, then just hit the “f” key to flip them all around. Leave a little bit of room on the top and bottom of the remote so we can add a bevel.
Now we just highlight the top and bottom polygons on the remote, then grab the bevel tool with the “b” key and put a slight bevel on the remote body.
Next, we create the buttons on a new layer. We are going to originally make them flat using the disc tool, then bevel them afterwards. Most of the buttons on the remote are simple circles, so we just need to get the right size using the disc tool and then copy & paste them into the right places.
For the oval buttons, we will first use the disc tool to create a circle. Then, we will delete the top and bottom points to create an oval shape. Finally, we just pull the points across in order to cover the entire button. Finally, we need to create the middle menu buttons. For these, we use the same technique that we did to create the remote body. Simply draw out the points, then create a polygon for each button individually.
To make the buttons rounded, we will first extrude them. It will be best for our purpose, however, to not use the extrude tool but actually the bevel tool. Simply hold the ctrl button while using the bevel tool to pull the buttons straight up. The reason we do this is because the bevel tool creates new points, but doesn’t create new polygons on the bottom of the object. The extrude tool creates both new points and new polygons on the bottom, which is wasteful for what we are doing since the bottoms of these buttons will be buried underneath the body of the remote.
Next, we select all of the top polygons on our buttons and use the bevel tool one last time.
We’re almost done here in Modeler, but before we go to layout we should edit the surface properties of the remote face and it’s buttons. Simply turn on smoothing, change it’s properties to around 20ish so the buttons are completely dome-like, and then load up the texture for the remote. The other important thing to do is to change the color of the model to the color you want the remote to look like in worn areas. In this case, I chose a light grey.
The final two things we do to the remote before we bring it into layout is to attempt to give the remote the look of being used. I just got a new puppy and everything in our house has chewmarks, so we’ll start with those. I simply took the remote texture into layout, added a white layer over the top and painted black lines where I wanted indentations to appear on the remote. I added a blur to make the lines more subtle, but if you want more sharp and distinct indentations you just need to make sharper and more distinct lines.

Then, all we need to do is go to the bump map texture window, select our texture, and we are done.
The very last thing I’m going to do for the remote is to give certain areas of it a worn look. I did this by taking the remote texture into Photoshop, adding a white layer, and then adding varying shades of black to areas that would be more used than others.

To use this worn texture in Lightwave, we have to go to the texture menu for our surface. Then, we click on “add layer” and select “image map.”

Once that is done, we just change the blending mode to alpha and we should be done. Selecting alpha as the blending type tells Lightwave to use your image to remove any parts of the texture that are under the black parts of your alpha map, while leaving any parts that are under the white areas alone.
The end.