

## M31 The Andromeda Galaxy

Here is my image of M31 (our nearest galactic neighbor - some 2.5 million light years distant) as captured on my remotely controlled setup in Castelléjar, Spain. M31 is huge, so even though this is a two panel mosaic, I still have only about 75% of it. At my focal length (1050 mm) I would need at least a 4 panel mosaic to get it all in and probably six to show it in the normal perspective. However, I kind of like this close-up and the detail one can see. This is a pretty deep exposure - a little over 52 hours but as I said it is a two panel mosaic, so that is about 26 hours on each panel. The result is a huge frame. Consequently, I have had to resample it down to get it to a more manageable size for publishing.

### Exposure Times

Red 271 x 180 sec

Green 255 x 180 sec

Blue 258 x 180 sec

Lum 263 x 180 sec

Total 52.35 Hours

Link to my Astrobin page for this target: <https://astrobin.in/rlku6k/0/>

### Processing Notes:

As noted above this is a two panel mosaic. I use a method demonstrated by Ron Brecher of Masters of PixInsight:

1. Made a template of the overlapping panels with Star Alignment process
2. Aligned the two panels using Star Alignment and the template as the reference image. This outputs two aligned panels.
3. Stitch together the two aligned panels using the Gradient by Mosaic process

It really helps to see the masters of PixInsight video of that process but you will have to subscribe to see it. If you are interested I would be glad to walk you through the steps. I did a lot more than just that but I should mention that I dimmed the core of M31 using HDR Median Transfer. That brought out a lot of detail in the core but it left it as a little blue dot. I then used Game Script to make a mask for the region of the core I wanted to address and applied Curves (RGB) to lightly brighten that area. It made it look more natural without erasing the detail. Again, contact me if you have any questions. I always like to discuss processing.

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