

Want to get started in Astrophotography?

There are plenty of YouTube videos on taking astrophotography for just planets, Moon, landscape with Milky Way background and deep space. On any type of astrophotography you will take many pictures (light frames) except for the brighter objects, about 20-dark frames (same shutter speed and ISO as your light frames but with the lens cap on) and about 20-Bias frames (lens cap on same ISO but the fastest shutter speed your camera will do). Then you combine these frames into a stacking software. There are many free software programs for astrophotography. Not knowing the camera, you have, I cannot really advise you on much right now. Most everything I have learned was from YouTube videos.

This guy has typical DSLR equipment but the video is over an hour but very informative; Orion Nebula WITHOUT a Star Tracker or Telescope, Start to Finish, DSLR Astrophotography
https://www.youtube.com/watch?v=iuMZG-SyDCU&ab_channel=NebulaPhotos

Forrest Tanaka has many astrophotography videos and one I remember was of the Andromeda Galaxy where he took 400-light frames along with his dark and Bias frames just using a camera tripod not a tracking tripod. Of course, after 20 pictures he had to reframe the galaxy again in his view finder otherwise stacking would be useless:
(https://www.youtube.com/watch?v=e0JSTF8SGi4&ab_channel=ForrestTanaka).

Other good sources are;

Astrophotography Tutorials <https://www.youtube.com/channel/UCdW3pY1LBlIk0FjzE47AaWw>

This link is informative; <https://www.galactic-hunter.com/post/dslrsettings>

Link from NASA; <https://gewa.gsfc.nasa.gov/clubs/photo/Documents/presentations/Astrophotography-with-DSLR.pdf>

Most deep space photos need to be done at a dark site on a moonless night. The club has access to land outside of Raymond and the site is fairly dark. You can take the Moon and maybe some planets from your backyard but a light pollution is recommended for City lights. The Club is not having meetings in the Pearl Library for now due to COVID but feel free to join the club and have access to the observation field outside city lights. We try to have observation nights on moonless weekends but I, being retired, go out to the field many times during the weekdays that are clear and moonless.

FYI; I started out with a Alt-Az mounted telescope with my old Nikon Coolpix 4300 DSLR camera mounted to the eyepiece. I also have a Nikon D-70 DSLR that I was able to mount to the telescope's eyepiece holder but not through an eyepiece. Because the telescope is not an equatorial type mount my time of shutter speed was limited to no more than 15-seconds otherwise I would get star trails. Of course, the Moon can be shot from a tripod easily.

If your camera can take video, you can try and take video of the moon and planets and let software stack the individual frames of the video.

Software needed.

PIPP; is a software that takes a shaking or moving video of a planet and stabilizes the video so RegiStax6 can process the video better. I actually saw a YouTube video of a guy take a video of Jupiter that moved

across his frame, because he was zoomed in and on a stationary tripod, and PIPP stabilized the video to the center of the frame.

RegiStax 6; mostly for stacking of planets/moon and stacking video of planets/moon. It can be used for deep sky pictures if there are enough visible bright stars. It has been a free software. You can do some image enhancement of the Moon and Planets using this program in the Wave Lengths tab prior to going to the Post Processing.

DeepSkyStacker; is a software that is generally used for deep space stacking. I do not recall if it is free, but it might be.

Post processing would be after using any of the above software. I use Photoshop CS2, an older version of Photoshop, purchased many years ago prior to Adobe going to a monthly fee. There is a free program many people use called Gimp.

Like I stated earlier most of my learning is based upon YouTube videos. There are lots of people who post videos using all kinds of different equipment and techniques. I am learning something new all the time.

Hope the above info helps.