

Table of Contents

1 Introduction	1
2 Warnings.....	2
3 The basics.....	3
3.1 What is an eclipse?.....	6
3.2 Finding a place to take your pictures	10
3.3 The difference in photographing solar and lunar eclipses....	18
3.4 Solar filters for use with solar eclipses.....	19
3.5 Exposure considerations	21
3.6 Focal lengths / magnification	25
3.7 Methods of firing the shutter	30
3.8 Camera stabilization.....	30
4 Determining what kind of images you want	33
4.1 Serious imaging with a dedicated solar telescope	34
4.2 High resolution imaging with a serious telescope	36
4.3 High quality images with just a DSLR	40
4.4 Good images with less expensive dedicated cameras	43
4.5 Quick images with your phone or tablet.....	44
4.6 Fun images with any camera and a pinhole viewer.....	45
5 Cameras	47
5.1 DSLR (Digital Single Lens Reflex)	48
5.2 MLC (MirrorLess Cameras).....	54

5.3 Bridge cameras.....	55
5.4 Point & Shoot cameras.....	57
5.5 Phone / Tablet cameras	60
5.6 Film cameras	62
5.7 Video cameras.....	63
6 Telescopes.....	68
6.1 Refractors	70
6.2 Newtonians	72
6.3 Dobsonians.....	74
6.4 Schmidt-Cassegrain & Maksutov-Cassegrain	76
7 Motorized mounts.....	79
7.1 Altitude Azimuth	84
7.2 Equatorial	86
7.3 Tracking mounts.....	90
8 Making things you can use	91
8.1 Glass solar filter for a camera lens	92
8.2 Cheap and easy solar shade hutch.....	96
8.3 36 Amp hour field power pack.....	100
9 More information	110
9.1 Index	111
9.2 Glossary	112
9.3 Other books by the author	136
9.4 Notes	139