



Mirage  
USFG 2020 SSC Novice Stone  
Designed by: Arya Andre Akhavan  
Test Cut by Bill Poland

This year's "Novice" stone is the Mirage by Arya Akhavan. Don't be fooled by the small number of facets (28), for when cut properly, this pattern displays a surprising range of sparkling light reflection and is suitable for most any type of jewelry.

The material for the novice stone is if up to you. I first cut the *Mirage* with a child's marble (glass) just to check it out. I can always use a new pattern in my "Introduction to faceting" classes. I found that it works well in glass. I cut it again in CZ and, as you would expect, it sparkles even more. You will not find cutting this stone complex or difficult, polishing will present your greatest challenge. Therefore, I would suggest that you select a material that you have cut before and that you feel comfortable polishing.

OK, let's get started! First mount the rough on a dop. I use CA glue (super glue) because its bonds quickly and later it cleans up easily. I cut both my stones following the pattern steps exactly as printed. First I cut the P1's to a CenterPoint. You've probably done this before, but just remember the pavilion cuts are not equal spacing around the center. Next I cut the Girdle facets. For those of you who don't have access to GemCad or GemCut Studio, you might want to know that the girdle will NOT appear to be level after this first gridle cut. If you have never experience this, it can be frightening and make you wonder what you've done wrong. They will become level when you cut the P2's. Just be sure to measure the stone size at all girdle facets and stop at something just a little over the 12.5 mm allowance allowing for only a small lose during polishing. Only after the P2's have been cut, will the gridle line be will be level. Cutting the P2's involves working to get the girdle line as level as you can because you will be using this to set you girdle thickness when you cut the C1's. You should now polish the pavilion. Make a final check on the stone size to ensure that it is within 11.5 mm to 12.5 mm requirements as measured from each flat to flat. Adjust as necessary. This is the last time you will be able to adjust the stone size at the Girdle. Make sure that your "Meets" are set and that all scratches have been polished out.

What you polish with depends on what material you cut. I hope you picked something that you know how to polish well as you can lose a lot of points on polishing even if the stone is cut correctly. On the marble, I used a "CeOx" Lightning Lap and on the CZ, I used a progression of diamond pastes on a Darkside Lap.

Cutting the crown is considerable easier than cutting the pavilion. The C1's will cut down from the top and stop at the girdle line set on the pavilion. Make sure that they are level. Remember that polishing will take an additional amount off the thickness. Once the C1s have been cut, cut the C2s to meet the girdle. I chose to polish the girdle at this time.

You may now choose to:

- cut the table, polish it and then polish the C1's, C2's or,
- you may polish the C1's and C2's then cut and polish the table.

Cutting the table first can be beneficial and help you polish in the crown meets, but it does introduce a potential error as realigning the stone in the quill (I assume you will be using a 45-degree dop) is not always easy. Whichever way you choose, always cut and polish the table without removing the 45-degree dop from the quill. The table is the largest facet on the stone, the first facet that an admirer will notice, and the hardest facet to get perfectly polished.

This stone may test your skill and experience but with enough patience you should be able to produce a beautifully faceted stone that you will be proud to share with your family and friends.