- Will create font with descending offset (BE R)
- Will put dots between letters
- Will create design boxes with the linear pattern feature.
- Box dimensions will be 3" tall x 2" wide.
- Scale 3 boxes : 1 inch

- Dots between letters will be threaded nuts
- Will drill holes in letter uprights to add decoration/technical/industrial look.
- Edges will be chamfered when extruded.
- Apply colors and patterns
- Origin will be at center of the "BE" letter
In order to create design boxes for my initials project, I created a two by three inch rectangle with the origin in its center. I also included median axes in the design box as a tool to use later for reflections and as a drawing reference. I then created a construction off of the bottom corner of the design box in order to create a second design box for what will later become the periods between my initials. After these boxes were defined using dimensions and several relations, I used the linear pattern feature to create three identical design spaces and changed that degree of the offset to make my drawing have an appealing, staggered letter offset.
After I defined the spaces in which I would draft the letters, I used the offset entities feature to create the general shape for the holes in my letter B. I drew one of the holes in the B and used the offset entity in order to ensure the curvature of the outside arc of my B was the same as the inside curvature. I then trimmed off the unneeded lines from these actions and reflected the newly drawn shapes over the left horizontal axis of the letter box that I created earlier. This process was repeated for the letter E being as it was to be symmetric about the horizontal axis. The letter R was created from my previous draft of the letter B in which the bottom loop was removed so that the R’s second leg could be made.
Letters separate from nuts. (Above)  Nuts separate from letters. (Below)
This is a close-up of the sketch of what will become a threaded nut that will serve as the periods between my initials. This nut has eight equal sides and four of the sides were made collinear with the boxes construction lines in order to make defining this object easier. As can be see, not many dimensions were used for defining this drawing but instead I used many relations.
This is the end product of my sketch with everything defined and dimensioned. I am now ready to extrude my shape and begin modifying the extrusion.

Upon extruding this sketch, I learned that when extruding an object, only one extrusion depth per sketch can be used. I was not satisfied with the appearance of my initials with this type of extrusion because I wanted thick letters but did not want the unrealistic appearance that came with having the nuts (periods) between my initial be the same thickness as the letters. There were multiple ways to solve this problem but I decided to transfer the nuts over to a second sketch so that I could have two separate extrusion heights.

The results of transferring the nuts to a second sketch are shown on the next page.
In order to cut the holes in my letters as I desired, I sketched a circle on the face of my letter and fully defined it using dimensions and relations. I think entered the linear pattern feature and entered the values as shown to create the spacing and effect shown above. The resulting circles were defined by making all of their origins vertical/collinear. I then trimmed the excess entity below my median axis in order to be able to reflect it about the horizontal axis.
After the circles were drawn and reflected about the horizontal axis, I used the extrude cut feature to cut holes all the way through my letter. This process of sketching circles, using linear pattern, mirroring entities, and using extrude cut was repeated for the subsequent letters.
This is the end result of modifying my letters after the holes in the letters were drilled and their edges filleted. In this image, the material has been edited to be tungsten and the appearance of the part is set to burnished tungsten with a high degree of reflectivity. These setting and the lighting angles give my initials an almost chrome-like look. I think my initials look very good in this screenshot and look exactly how I desired them to turn out.