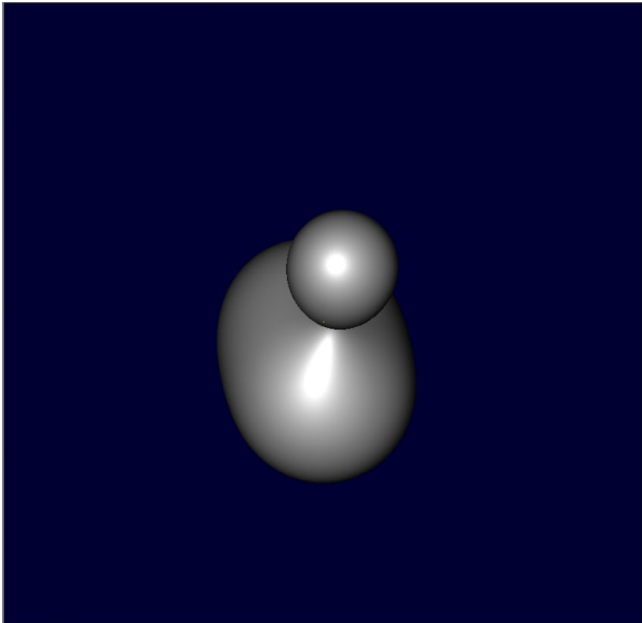


Tutorial: Steps to create metaballs in BRL CAD

1. BRL CAD contains two apps: MGED and Archer. First open up MGED. Once you open the app up, three windows will pop up.
2. Next you need to create a new database for your project. In the window titled Command window, type *opendb metaball*. (It will ask you if you want to create a new database. Just type *y*)
3. Open up the file by retyping it.
4. In the command window type *in* to create a new shape then you have to list the name, the render method, threshold, number of points, location and field strength for each point. To create this specific metaball shape I had inputted *in metaball_1 metaball 2 2 3 1 2 3 2 3 4 2 4 5 6 7 2*
5. This will give us three balls in our graphics window. When Raytraced the bottom two will merge, though if you want two just modify the amount of points.
6. Optional: To ray trace the metaball just type *rt* in the command window.
7. And... voila!!

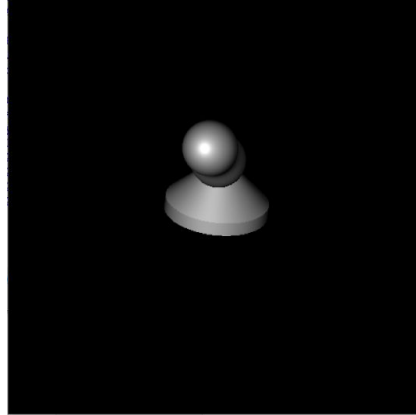


Steps to inspect the metaballs

1. Go to the command window
2. Type *l* then the name of your metaball (in this case, metaball_1) to get the location details of it.

```
mged> l metaball_1
metaball_1: Metaball with 3 points and a threshold of 2 (Blob rendering)
  1: 2 field strength at (1, 2, 3) and blobbiness factor of 1
  2: 4 field strength at (3, 4, 2) and blobbiness factor of 1
  3: 2 field strength at (5, 6, 7) and blobbiness factor of 1
mged> Agihero :)
```

What I used this metaball is used for:



I used the metaball that was developed to make this chess piece. It is a pawn with head and a mask. I set the metaball with equal direction on both sides to create it.