1. Load Data
   1. Load organ mesh matrix
   2. Load needle template matrix
2. Place Sources
   1. Randomly place N needles in target area
   2. Place seeds every 5 cm in each needle
3. Input organ parameters
   1. Min dose (L)
   2. Max dose (R)
   3. Low dose gradient (GraL)
   4. High dose gradient (GraR)
4. Calculate the accumulated dose (Di) of all seeds (j) for every voxel (i)
5. Calculate the objective function (*f*i) for every voxel (i) from Di
6. Calculate the displacement vector (Tj) for every seed (j) from *f*i
   1. Is Tj = 0 for all seeds (j)
      1. Yes, then stop
      2. No, then continue to step 6.b
   2. Is Tj (new) - Tj (old) = 0
      1. Yes, then stop
      2. No, then continue to step 7
7. Calculate the new source positions
   1. Define gain parameter (k) as a function of iterations
   2. Calculate new needle positions from average x and y displacement of seeds within the needle
   3. Calculate the new seed z positions from Tzj
8. Repeat steps 4-7 until optimization is reached