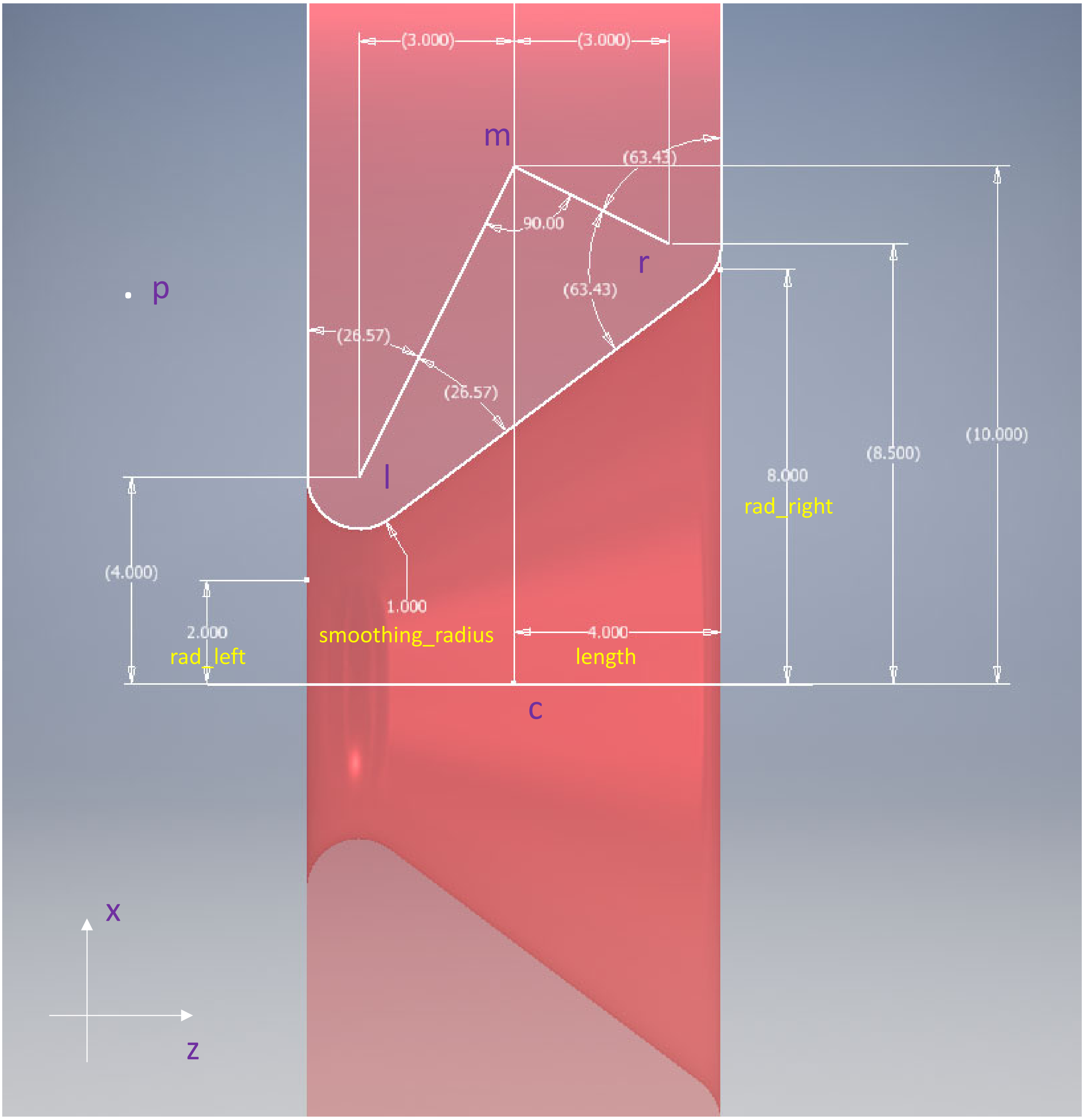
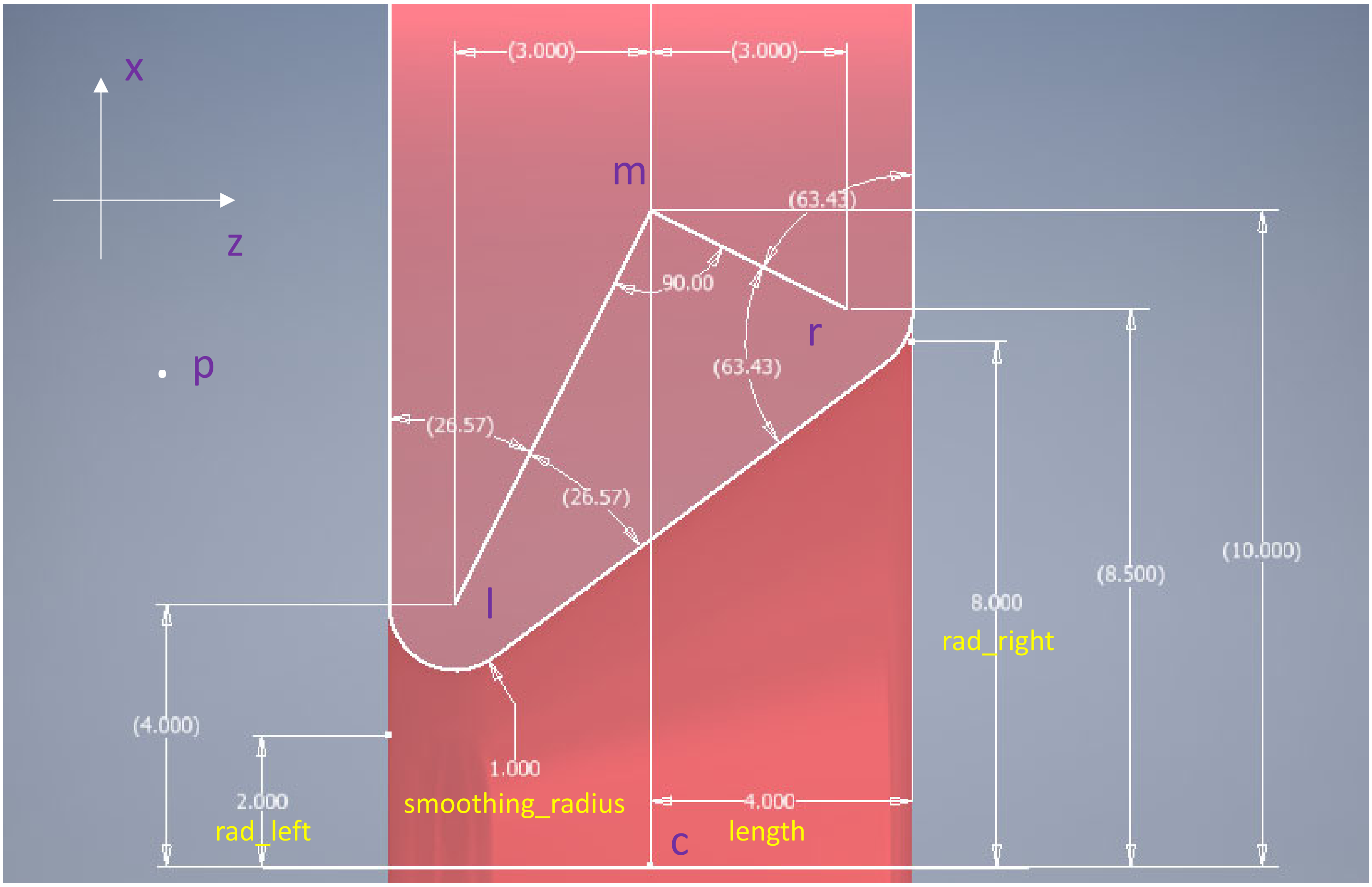
```
void calculate_pore_dist(Particle *p1, double ppos[3], Particle *c_p, Constraint_pore *c, double *dist, double *vec)
```

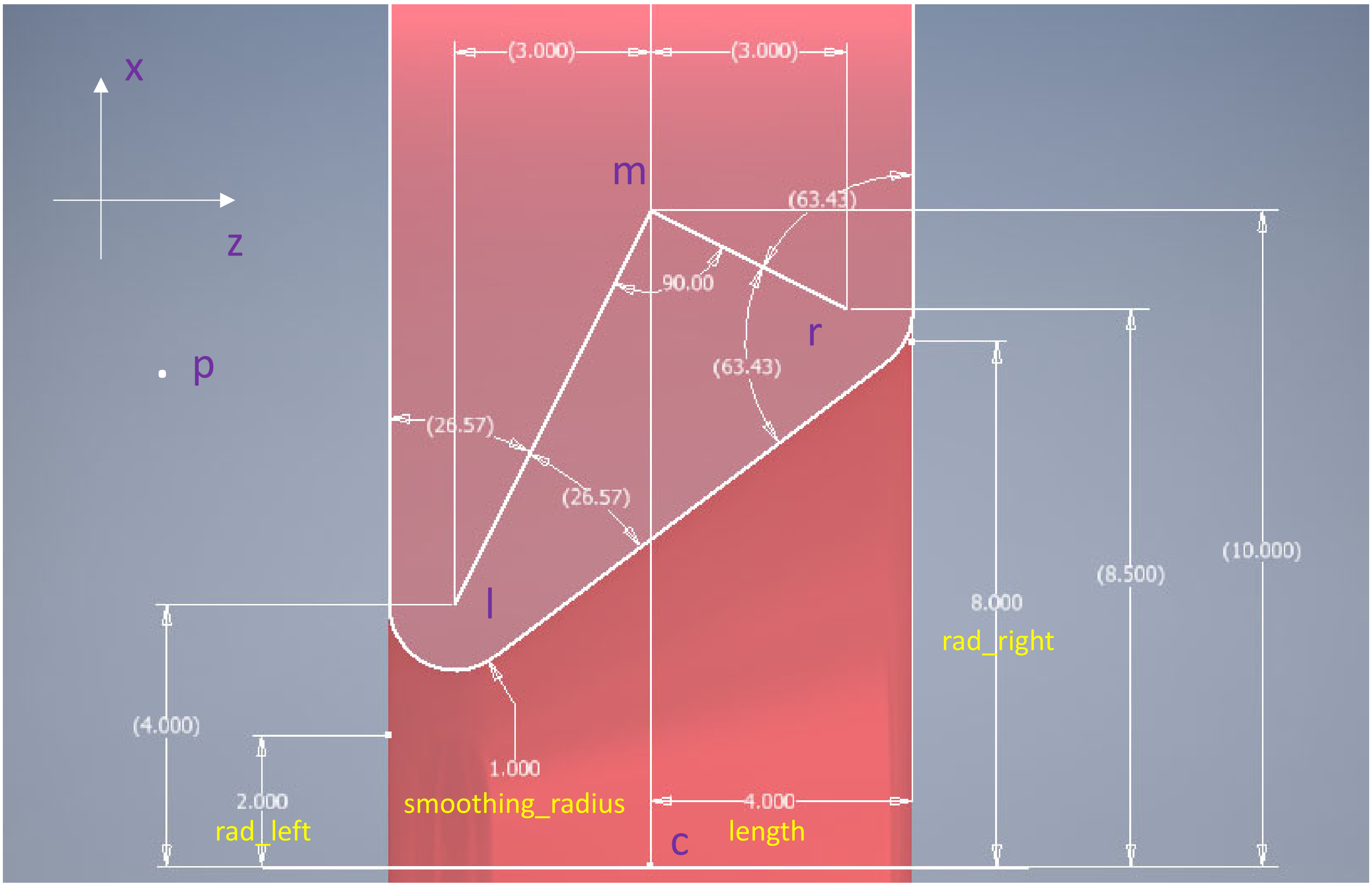



All happens in the upper half of this plane.
l and r are the centers of the smoothing circles
m is the intersection of those two angle bisectors




In the z-x coordinate system, we have

- k = (rad_right – rad_left) / 2. / length;
- sec_k = sqrt(1+k*k);
- cm_z = 0
- cm_x = (rad_right + rad_left) / 2. + length * sec_slope;
- cl_z = smoothing_radius - length;
- cl_x = rad_left + smoothing_radius * (sec_k + k);
- tan_lm = (cl_x - cm_x) / cl_z;
- tan_lp = (x - cl_x) / (z - cl_z);




Similarly, on the right side , we have

- cr_z = length - smoothing_radius;
- cr_x = rad_right + smoothing_radius * (sec_k - k);
- tan_rm = (cr_x - cm_x) / cr_z;
- tan_rp = (x - cr_x) / (z - cr_z);

else, we have

1. *dist = (k*z - x + rad_middle) * cos_k;
2. vec[i] = *dist * (sin_k * e_z[i] - cos_k * e_x[i]);

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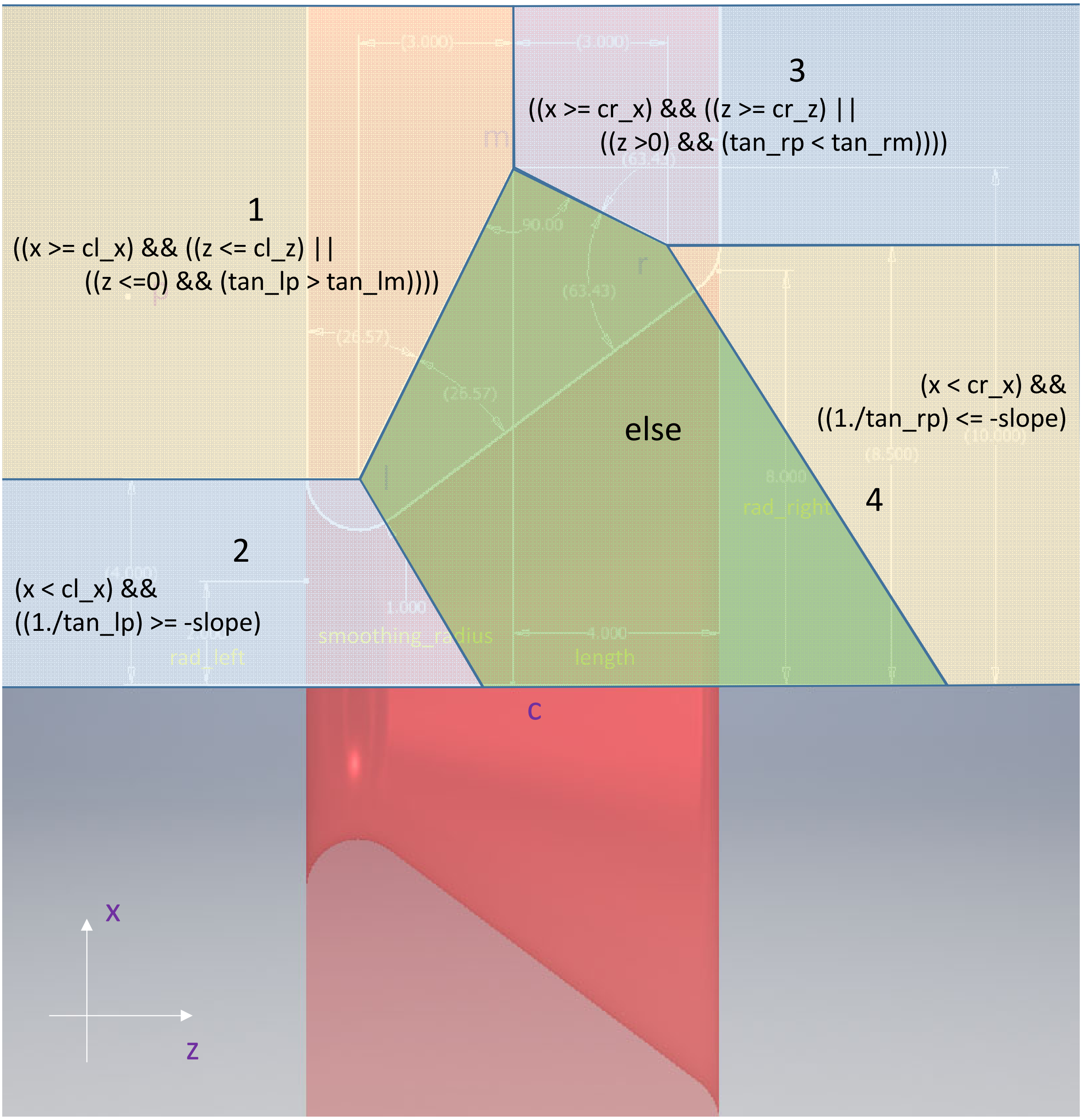


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