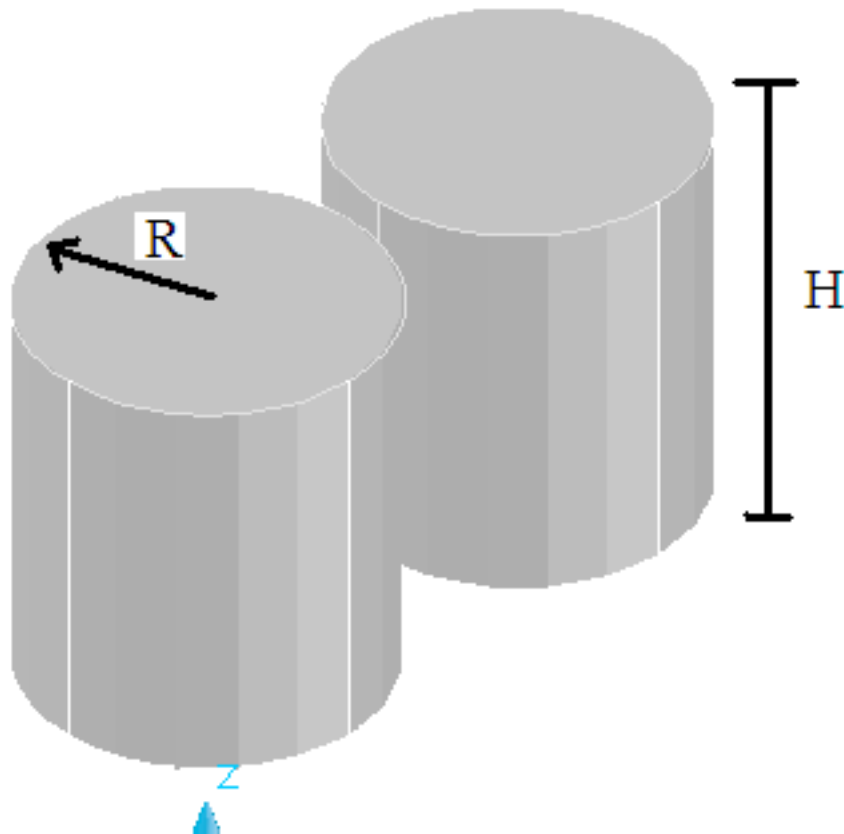


# General Program Information



Northwest view

## Input Definitions

### Inputs Needed to Call the Chemical Stock Tank Barrels Function

- origin - a 3\*1 matrix with user defined x,y,z positions corresponding to origin. The origin is located at the top right corner of the platform.
- disp - displacement between the edge of the drum containing the chemical stock solution (sometimes also referred to as the chemical stock barrel) and the edge of the platform.
- thick - specifies the thickness of the platform.
- walkway - the width of a walkway space on the platform, so that the plant operator can walk on the platform next to the chemical stock drums/barrels
- R - chemical stock drum radius/ chemical stock barrel radius
- H - chemical stock drum radius/ chemical stock barrel height

### Inputs Defined within the Chemical Stock Tank Barrels Function

platform<sub>origin</sub> =

- x : origin<sub>0</sub>
- y : origin<sub>1</sub>
- z : origin<sub>2</sub>

platform<sub>dim</sub> =

- x : (2(2\*R) + (3\*disp))
- y : (2R) + walkway + disp
- z : thick

H<sub>barrel</sub> = H

barrel1<sub>origin</sub> =

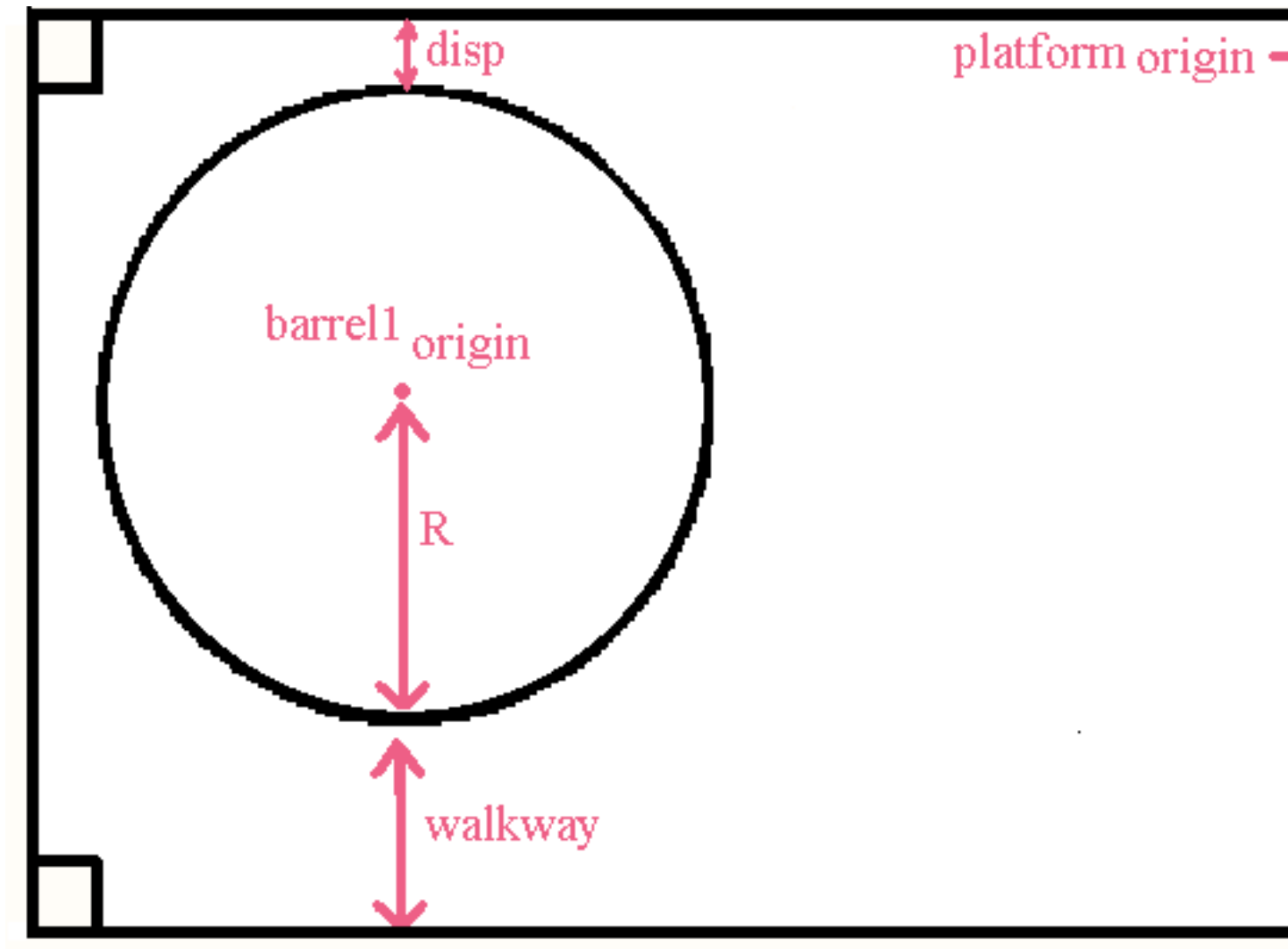
- x : platform<sub>origin0</sub> - ((3\*R) + (2\*disp))
- y : platform<sub>origin1</sub> - (R + disp)
- z : platform<sub>origin2</sub> + platform<sub>dim2</sub>

barrel2<sub>origin</sub> =

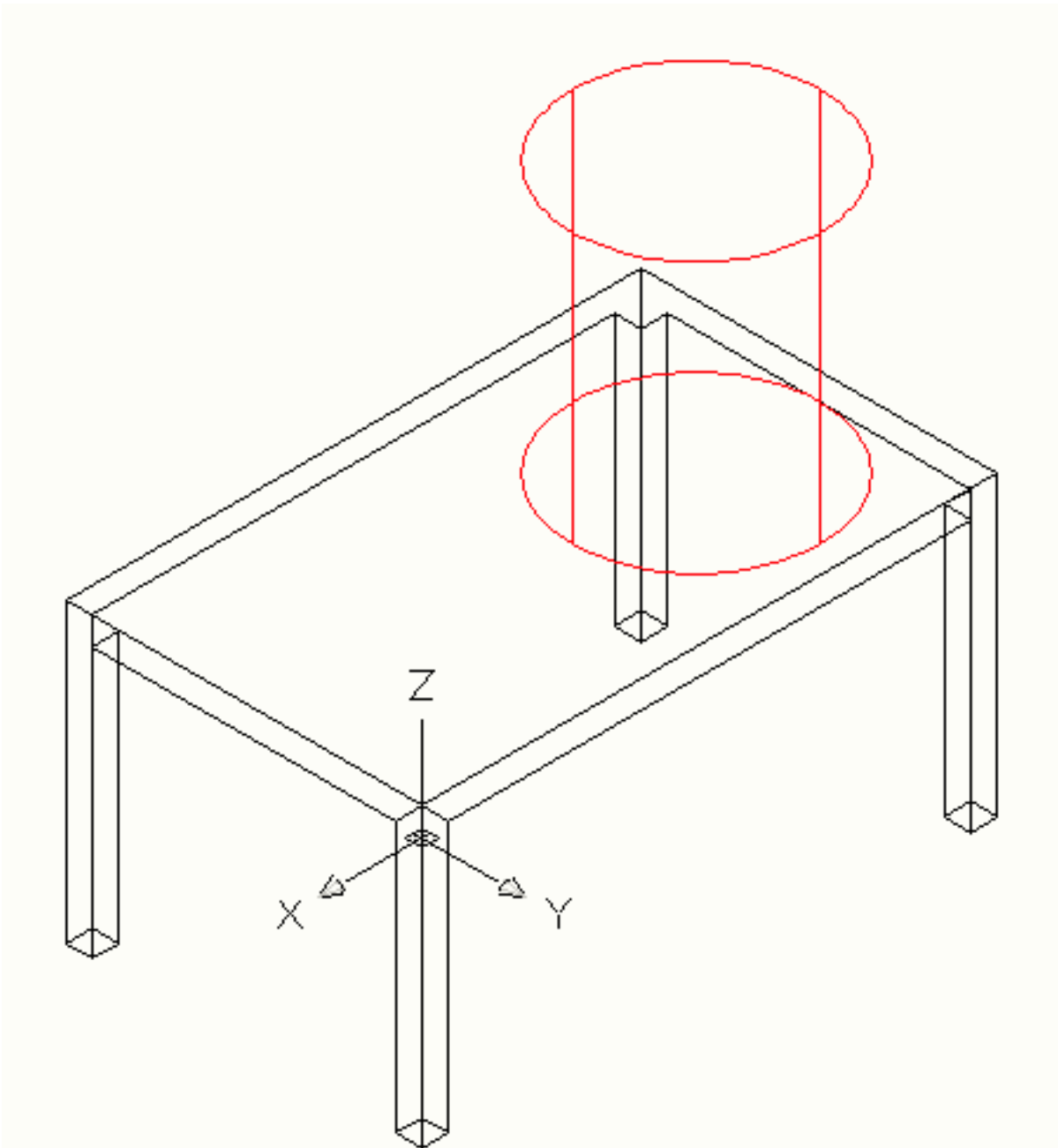
- x : platform<sub>origin0</sub> - (R + disp)
- y : platform<sub>origin1</sub> - (R + disp)
- z : platform<sub>origin2</sub> + platform<sub>dim2</sub>

## Technical Program Outline

cylinder1 - Creates a cylinder with the [CylinderC](#) function.



Topview



NorthEast Isometric view

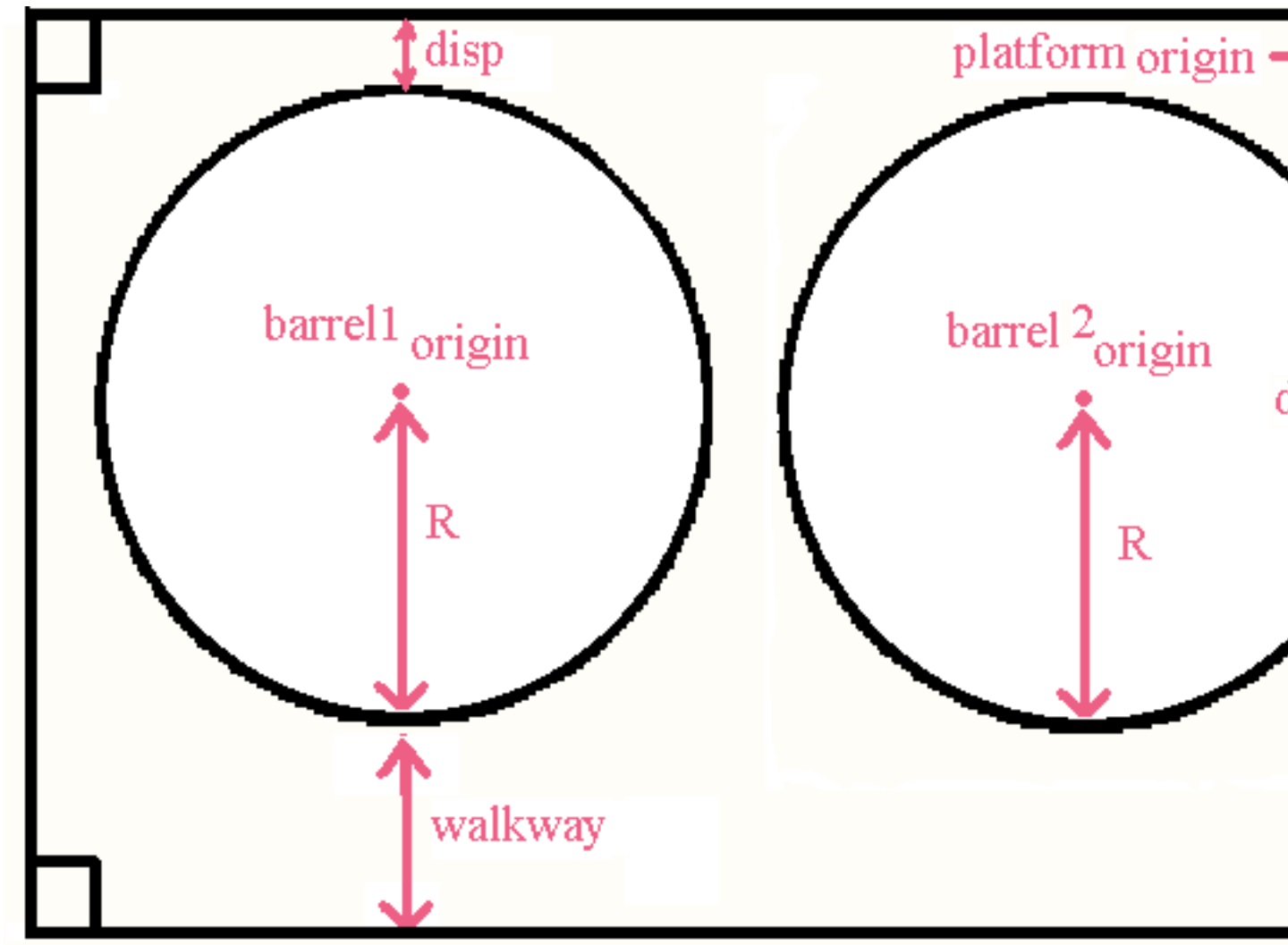
```
cylinder1<-cylinderC(barrel1origin,R,Hbarrel)
```

barrel1<sub>origin</sub> =

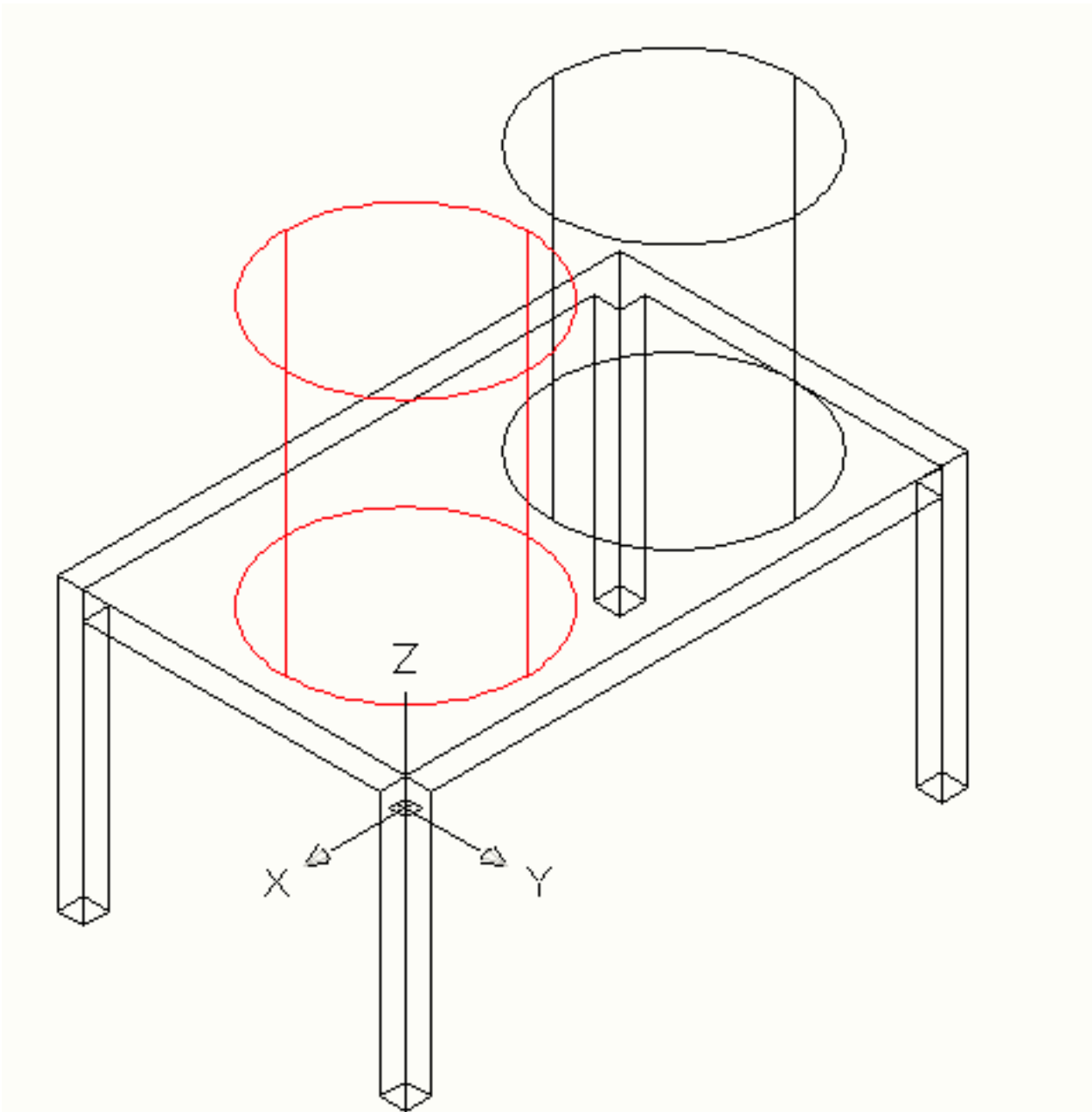
- x : platform<sub>origin0</sub> - ((3\*R) + (2\*disp))
- y : platform<sub>origin1</sub> - (R + disp)
- z : platform<sub>origin2</sub> + platform<sub>dim2</sub>

H<sub>barrel</sub> = H

cylinder2 - Creates a cylinder with the [CylinderC](#) function.



Topview



NorthEast Isometric view

`cylinder2<-cylinderC(barrel2origin,R,Hbarrel)`

`barrel2origin =`

- `x: platformorigin0 - (R + disp)`
- `y : platformorigin1 - (R + disp)`
- `z : platformorigin2 + platformdim2`

`Hbarrel = H`