



Exercise 5: Geometry - II

FLUKA Beginner's Course

Exercise 5: Geometry - II

Aim of the exercise:

- 1- Get familiar with the Geometry Editor
- 2- Edit geometry using the Geometry Editor
- 3- Use of different layers of Geometry Editor

Exercise 5: Geometry - II

- ❑ Using Flair create the **ex5** directory
- ❑ Start a new project based on the **empty** input template
- ❑ Try to reproduce the same geometry of exercise 4
using ONLY the Geometry Editor
- ❑ Play with the different views and layers

Exercise 5: Geometry - II

- ❑ One infinite ZCC cylinder. Radius = 5 cm , center in $x=0, y=0$
- ❑ Four XYP planes
- ❑ Surrounding medium CO2
- ❑ Three target regions

<i>From</i>	<i>To</i>	<i>Region</i>	<i>Material</i>
<i>$z=0.$</i>	<i>$z=1.$</i>	<i>TARGS1</i>	<i>Water</i>
<i>$z=1.$</i>	<i>$z=2.$</i>	<i>TARGS2</i>	<i>Aluminum</i>
<i>$z=2.$</i>	<i>$z=10.$</i>	<i>TARGS3</i>	<i>Lead</i>

Water, Aluminum, and Lead are predefined materials

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- Add also a BEAM card as in ex3 (will be useful later):
 - Origin $(x,y,z) = (0.0, 0.0, -0.1)$
 - Directed **toward positive z**
 - Pencil proton beam
 - Kinetic energy **$E=3.5$ GeV**
 - Momentum Gaussian spread **$\Delta p= 0.8$ GeV/c**
 - Divergence Gaussian **$\Delta\phi=1.7$ mrad**