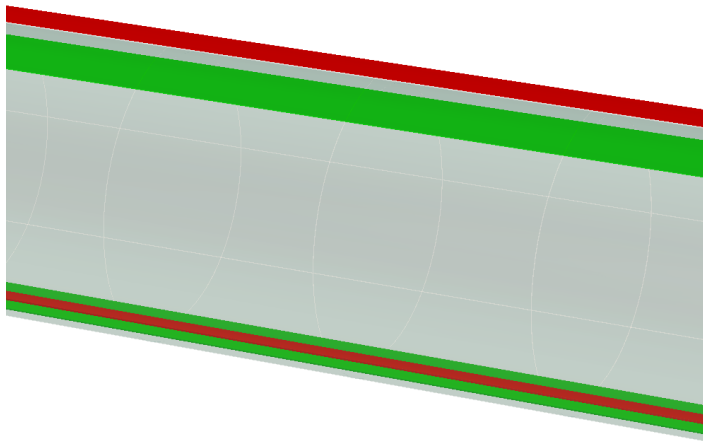
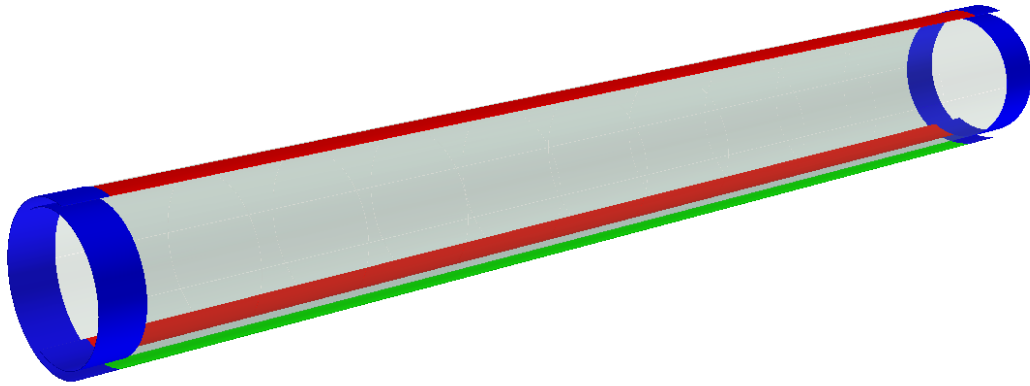
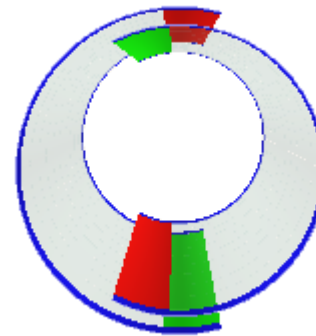


Module -> Layer



```
<modules>
  <module type="Module1A" radius="12.2*mm" nx="10" ny="2" dead="0.1*mm" material="G4_Si">
    <sensor thickness="50*um" width="20*mm" length="20*mm" material="G4_Si" vis="VXDVis"/>
    <flex vis="GrayVis">
      <slice thickness="12.5*um" material="Kapton"/>
      <slice thickness="10.0*um" material="G4_Al"/>
    </flex>
    <electronics thickness="100*um" width="5*mm" material="Kapton" vis="RedVis"/>
    <readout thickness="100*um" width="5*mm" material="Kapton" vis="GreenVis"/>
    <driver thickness="100*um" width="8*mm" material="Kapton" vis="BlueVis"/>
  </module>

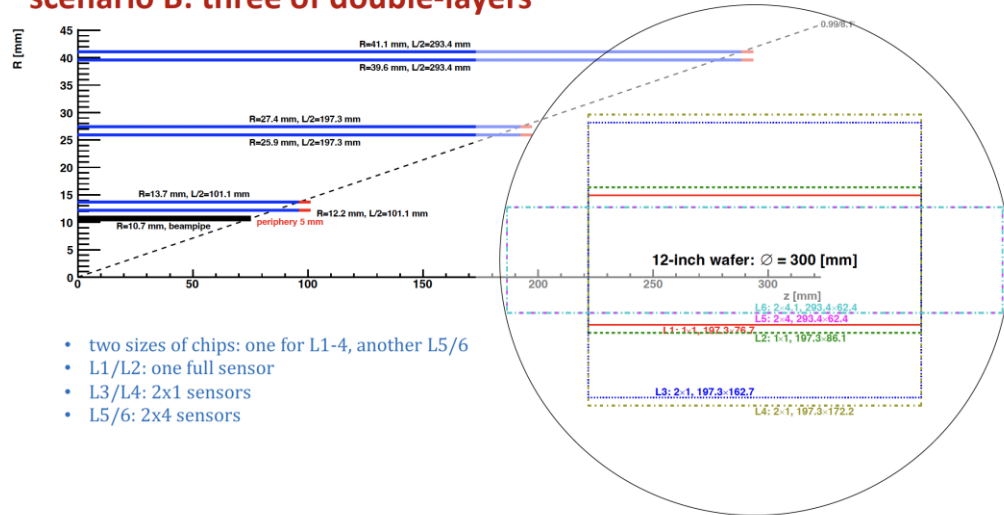
  <module type="Module1B" radius="13.7*mm" nx="10" ny="2" dead="0.1*mm" material="G4_Si">
    <sensor thickness="50*um" width="20*mm" length="20*mm" material="G4_Si" vis="VXDVis"/>
    <flex vis="GrayVis">
      <slice thickness="12.5*um" material="Kapton"/>
      <slice thickness="10.0*um" material="G4_Al"/>
    </flex>
    <electronics thickness="100*um" width="5*mm" material="Kapton" vis="RedVis"/>
    <readout thickness="100*um" width="5*mm" material="Kapton" vis="GreenVis"/>
    <driver thickness="100*um" width="8*mm" material="Kapton" vis="BlueVis"/>
  </module>
</modules>
```



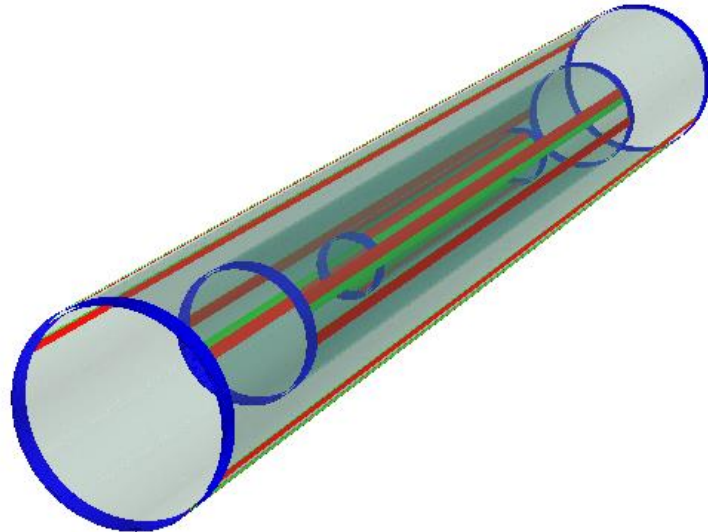
Parameter to confirm

Layer -> Vertex detector

scenario B: three of double-layers



- two sizes of chips: one for L1-4, another L5/6
- L1/L2: one full sensor
- L3/L4: 2x1 sensors
- L5/6: 2x4 sensors



```

<layer id="0" phi0="0">
  <module type="Module1A" offset="0" phi="0" z="0"/>
  <module type="Module1B" offset="0" phi="180+degree" z="0"/>
</layer>

<layer id="1" phi0="30+degree" length="0">
  <module type="Module2A" offset="0" phi="0" z="0"/>
  <module type="Module2B" offset="0" phi="180+degree" z="0"/>
</layer>

<layer id="2" phi0="60+degree" length="0">
  <module type="Module3A" offset="0" phi="0" z="0"/>
  <module type="Module3B" offset="0" phi="180+degree" z="0"/>
</layer>

<layer id="3" phi0="90+degree" length="0">
  <module type="Module4A" offset="0" phi="0" z="0"/>
  <module type="Module4B" offset="0" phi="180+degree" z="0"/>
</layer>

<layer id="4" phi0="120+degree" length="0">
  <module type="Module5A" offset="0" phi="0" z="0"/>
  <module type="Module5B" offset="0" phi="180+degree" z="0"/>
</layer>

<layer id="5" phi0="150+degree" length="0">
  <module type="Module6A" offset="0" phi="0" z="0"/>
  <module type="Module6B" offset="0" phi="180+degree" z="0"/>
</layer>

```

- Reconstruction ongoing
- Simulate hit and estimate material budget