

# Items for ProtoDUNE VD MC Production

- GDML
  - Fix issues in [this talk](#)
- Gen stage
  - Existing generators: cosmic ray, radioactivity, electron/kaon/pion 1GeV/c single gen
  - Use beam generator files from  
`/pnfs/dune/persistent/users/dunepro/beamsim/v27c_G4BL_3.06_2020/`
- DetSim stage
  - Integrate PMT in the workflow
  - ~~CRT trigger has been updated by Yoann~~
- Reco stage
  - Add more components: pandorapid, pandoraShowerCalo
  - PSD reconstruction (opdec?, ophit, opflash & opslice)
  - CRT reconstruction (single, double matching)
  - Optimize shower reconstruction from test beam