

# Simulation Project: Part 1

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# Goals

- Run simulation in batch mode to produce 2000 moller events with realistic materials
- Modify input macro file to change some realistic materials into Kryptonite
- Run simulation in batch mode to produce 2000 moller events with some materials converted to Kryptonite

# Moller events with Realistic Materials

Run remoll in batch mode:


```
./build/remoll macros/HandsOn_run_moller.mac
```

This will create the root file `remollout_Moller_gen_2k.root`

# Moller events with Kryptonite Materials

Open `macros/HandsOn_run_moller.mac` in a text editor

```
# Make interactions with W, Cu, and Pb  
# realistic rather than pure absorbers  
#/control/execute macros/HandsOn_kryptonite.mac
```



Remove `#` to uncomment the line

```
/control/execute macros/HandsOn_kryptonite.mac
```

Change the output root file name to

```
remollout_Moller_gen_Krypto_2k.root
```

Run `remoll` in batch mode:

```
./build/remoll macros/HandsOn_run_moller.mac
```

This will create the root file `remollout_Moller_gen_Krypto_2k.root`

# Remarks

Now as the part 2 of this project we will create a root script to analyze and produce outputs for the two root files we generated