



# Triggers for Commissioning Level 1 and Level 2

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Feb 8, 2001

- Need to complete work of commissioning Run:
  - Full XTRP coverage (eventually 2 track trigger)
  - Electron Trigger
  - Muon systems beyond CMU
  - Full FRED functionality
  - Cluster finder operation
  - Full SVT operation using XFT tracks
  - XFT/SVT Tracks into L2
  - L2 operation
- Timing
  - Will need to confirm timing of Calorimeter/Track/Muon
  - Establish timing for Electron
  - Will need more Myron mode running to complete timing
- Need Gas and HV in COT and Muon systems
- Will probably as much time or more as the commissioning run to complete Trigger commissioning



# Triggers for Commissioning Level 1

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- All triggers available in commissioning run:
  - DiJet
  - Sum Et
  - Muon Stub and Stub + track
  - Also want electron defined three way (say 5 GeV?):
    - Tower
    - Track – can also be used
    - Tower + Track
  - Single track (through electron path) with ~2 GeV threshold – needed for SVT etc
  - All of the above with or without CLC trigger
- All should be available with L2 Auto Accept (see L2)



# Triggers for Commissioning Level 2

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- Four types of Trigger Table all using the base set of L1 Triggers – would like to be able to switch between these types
  1. Auto accept/tagging with TL2D to verify data integrity – low rate L1
  2. Prescale events using L1 bits to study rate capabilities – high rate L1
  3. Run algorithms and cut (Jets, SumEt, Tracks?)
  4. TS does L2A/R and L2 crate run in diagnostic mode only
- Need beam time allocated every week (1 shift?) where L2 operation is allowed to run the shift
  - E.g. L2 can crash and not be removed from the next run