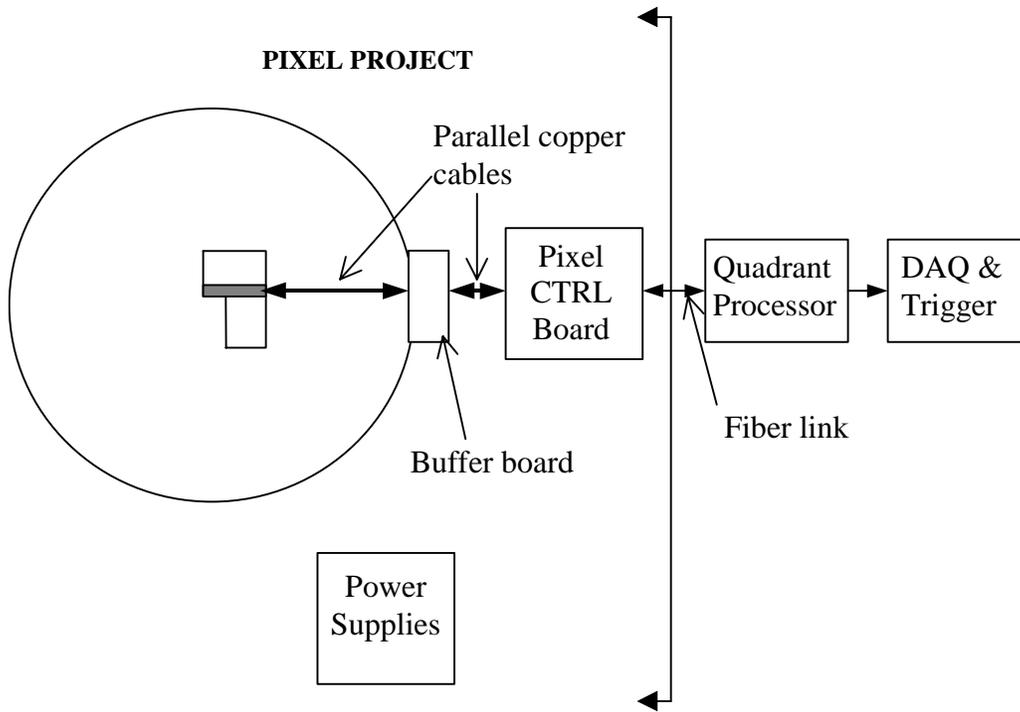


# BTeV Workshop, Pixel subgroup, section 5.

## Control and readout few meters from the vessel



## 1. Initial requirement document: summer 2001

- FPIX2 chip
- Overall data readout scheme (including the data format for trigger/DAQ)
- Pixel multichip module
- Buffer board
- Pixel control board
- Power supplies
- Cabling
- Shielding????

❖ More detailed document for TDR.

❖ Mechanics, vacuum, cooling...

## 2. Common electronics to minimize cost

- Pixel and Silicon strip common readout protocol
  - Can we share the pixel control board and buffer board components?
- Optical links
- C/T&M
- Rack protection

## 3. When production quantities of the pixel chip?

- Two years to produce the modules (1000+)

## 1. Monitoring points inside the pixel detector:

- Water flow
- Temperature
- Radiation level
- Sensing power supplies (no voltage regulator close to the detector)
- Currents (on the power supplies)
- Water pressure
- Vacuum
- Detector position
- Water leaks???

## 2. System reliability:

- Detector itself
  - No redundancy
  - Chips readout by point-to-point connections
  - Possibility to turn off a pixel module without disturbing other pixel modules (power supplies?)
- Buffer board: maybe some redundancy, like in clocks for example
- Pixel Control Board: access during runs.
- Power supplies: outside the pit?

## 3. Positioning system: radiation hard motors?