Starting parameters of the EIC IR design from March 2022:

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Cable:

All cable magnets (Q1ApF, Q1BpF, Q2pF, B1pF and B1ApF) will be use a cable similar to LHC Type 01 with a width of ~15 mm
The cable for Q1ApF, Q1BpF and Q2pF will have one keystone angle and cable for B1pF and B1ApF will have another.
Ramesh will generate a ROXIE cable file to be used by everyone.

Magnets (all magnets will operate at ~2K):

- Q1ApF: 2-layer design with 30 mm space between yoke i.d. and coil o.d.. Anis and Julien will optimize the complete design, including margin, field quality (harmonics and crosstalk) for both 2D and 3D.
- Q1BpF: 1-layer design with 45 mm space between yoke i.d. and coil o.d.. Anis and Julien will optimize the complete design, including margin, field quality (harmonics and crosstalk) for both 2D and 3D.

Note: Q1ApF and Q1BpF, will be optimized together initially to find the best balance of gradient between. The design work follows the very useful optimization carried out by Anis.

- Q2pF: 2-layer design with 25 mm space between yoke i.d. and coil o.d.. Mike Anerella will provide the details of the holes in the yoke for tie rods and other requirements (including cutouts) for this and other magnets. Ramesh will work on Q2pF.
- B1pF: 1-layer design with 50 mm space between yoke i.d. and coil o.d.. Febin will optimize the complete design, including margin, field quality (harmonics and crosstalk) for both 2D and 3D. Febin will try to see the impact of reducing 10% turns.
- B1ApF: 1-layer design with 60 mm between yoke i.d. and coil o.d.. Mithlesh will optimize the complete design, including margin, field quality (harmonics and crosstalk) for both 2D and 3D. Mithlesh will try to see the impact of reducing 10% turns.

These parameters are the reference parameters for now and will only be changed if technically necessary, for example feedback from the engineering design or not able to achieve the desired margin or field quality (including cross-talk).