Status report

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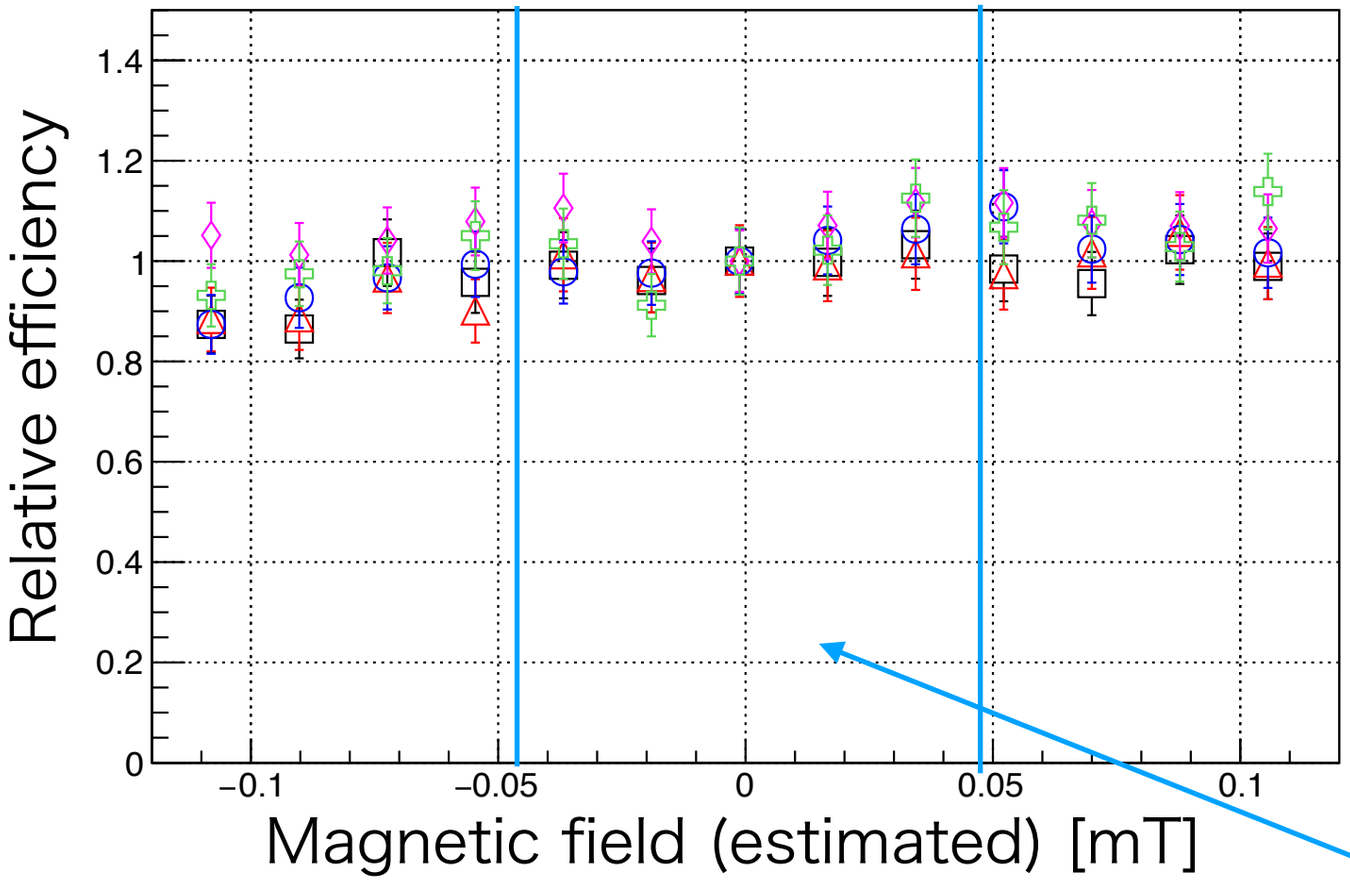
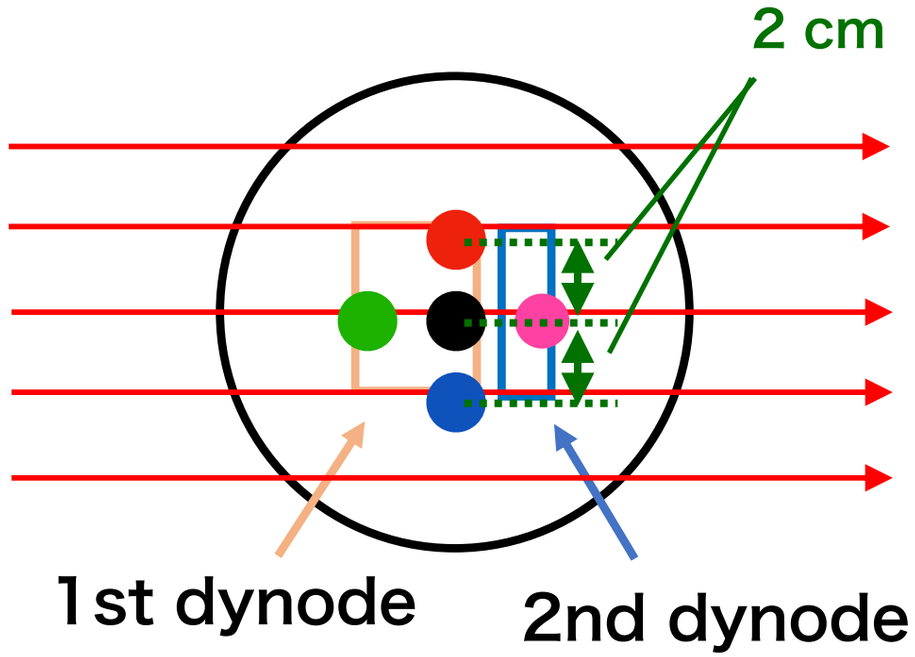
Magnetic field effects

- I illuminated green position and measured the relative efficiency.

$$\text{Relative efficiency} = \frac{\text{Mean of 3-inch PMT p.e. } (\mu \text{ of Poisson distribution})}{\text{Mean of Monitor PMT integrated charge}}$$

- In the magnitude of Earth's magnetic field,
  the relative efficiency varies about 10 %.

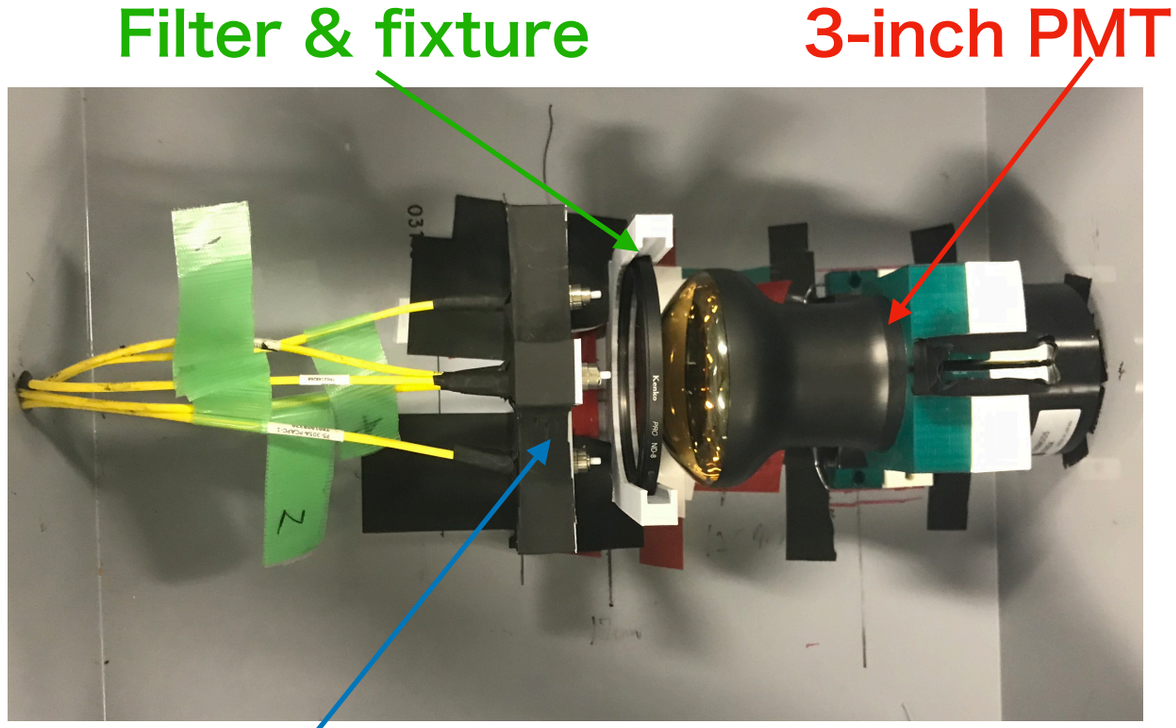




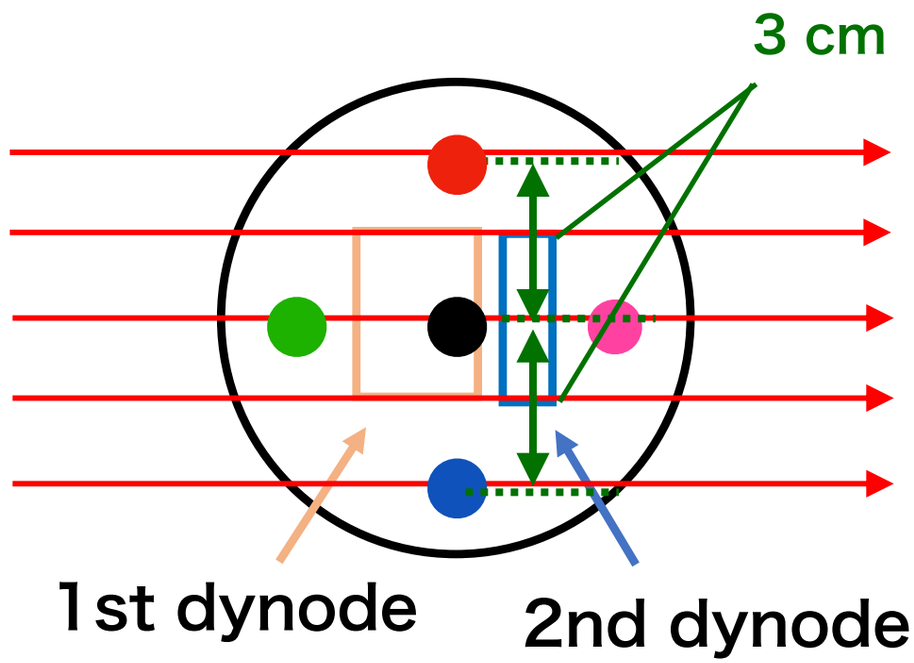
This range is scale
of Earth's magnetic field.

To do

- I prepared the setup to illuminate some positions closer to the edge with laser.
- I will measure the relative efficiency with the setup.



Inside of dark box

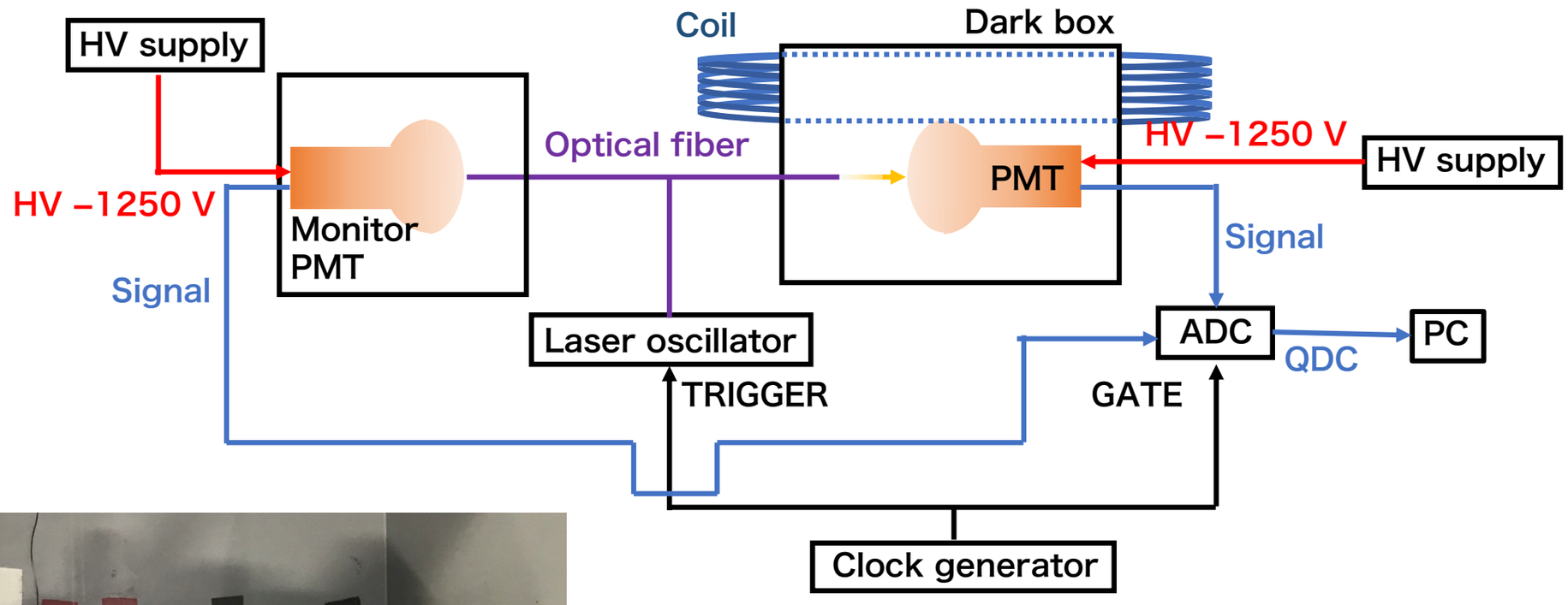


Backup

Magnetic field effects

- I measured the magnetic field dependence of the relative efficiency with the monitor PMT (another 3-inch PMT) and the coil.

$$\text{Relative efficiency} = \frac{\text{Mean of 3-inch PMT p.e. } (\mu \text{ of Poisson distribution})}{\text{Mean of Monitor PMT integrated charge}}$$



Generated pulse wave with 100 Hz frequency