Instructions to setting up the

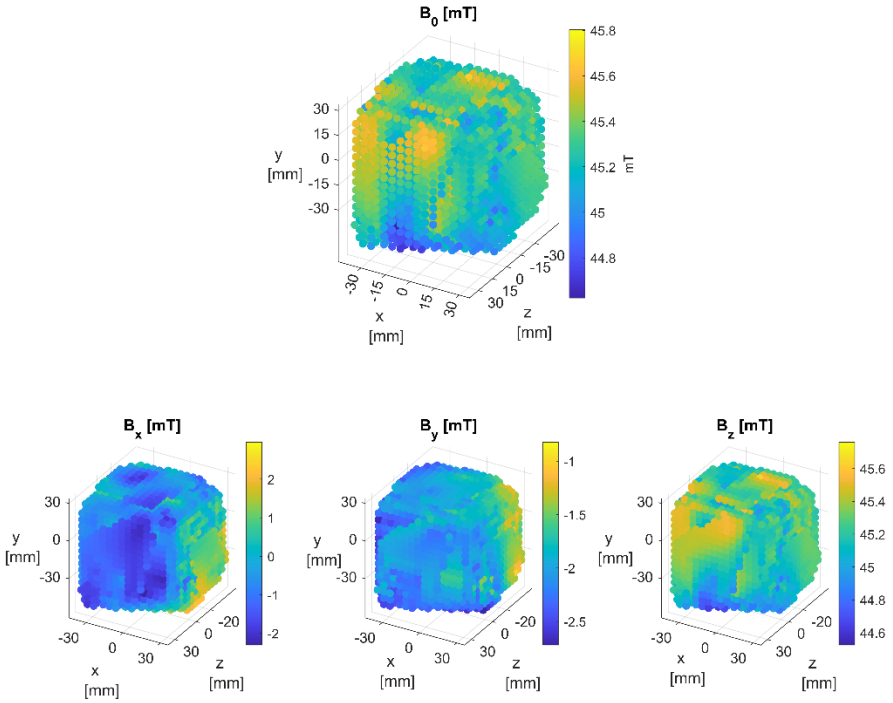
Mapping of B-Field

Project

Easy Scalable, Low-Cost Open Source Magnetic Field Detection System for Evaluating Low-Field MRI Magnets using a Motion Tracked Robot

Pavel Povolni

October 2024



Content

1 Preamble

This manual is still a work in progress and will be completed in the next few weeks.
If you have any questions in the meantime, please feel free to ask

2 Measurement

2.1 Preparation

2.1.1 Update SetUp File

2.1.2 Generate Kinematics, FOV & Trajectory

2.1.3 In Case Gradient Mapping: Prepare Current Measurement

2.1.4 Move Hallsensor inside the FOV

2.2 Run

2.2.1 Camera Control

2.2.2 In Case Gradient: Cooldown Phase

3 Analysis in Post Processing

3.1 Preparation

3.1.1 Update SetUp File

3.1.2 SetUp Software (Update Parameter)

3.1.3 Motion Tracking in Post Processing

see Manual “Motion Tracking”.
Get the mapped positons prior to the following analysis

3.2 Analysis