Instructions to setting up the

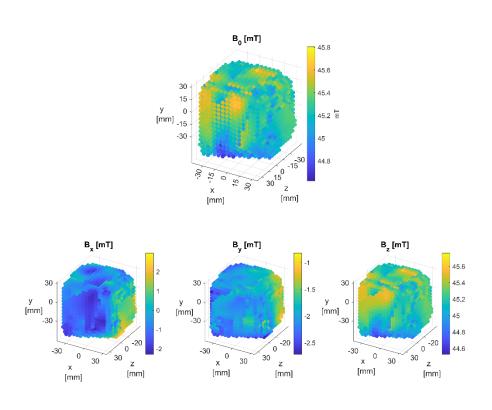
Mapping of B-Field

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		Prea	mble	3	
2		Measurement			
_		וצוכמטעו כווופוונ			
2		1	Preparation	3	
		2.1.1	Update SetUp File	3	
		2.1.2	Generate Kinematics, FOV & Trajectory	3	
		2.1.3	In Case Gradient Mapping: Prepare Current Measurement	3	
		2.1.4	Move Hallsensor inside the FOV	3	
	2.	2	Run	3	
		2.2.1	Camera Control	3	
		2.2.2	In Case Gradient: Cooldown Phase	3	
3		Anal	ysis in Post Processing		
	3.		Preparation		
		3.1.1			
		3.1.2			
3.1.3		J.1.2			
		3.1.3	Motion Tracking in Post Processing	3	
	3.	2	Analysis	2	

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 Processingsee Manual "Motion Tracking".Get the mapped positons prior to the following analysis
- 3.2 Analysis