

# AC Magnetic Suspension

## Using Magnetic Resonant Coupling

### Control Engineering Laboratory

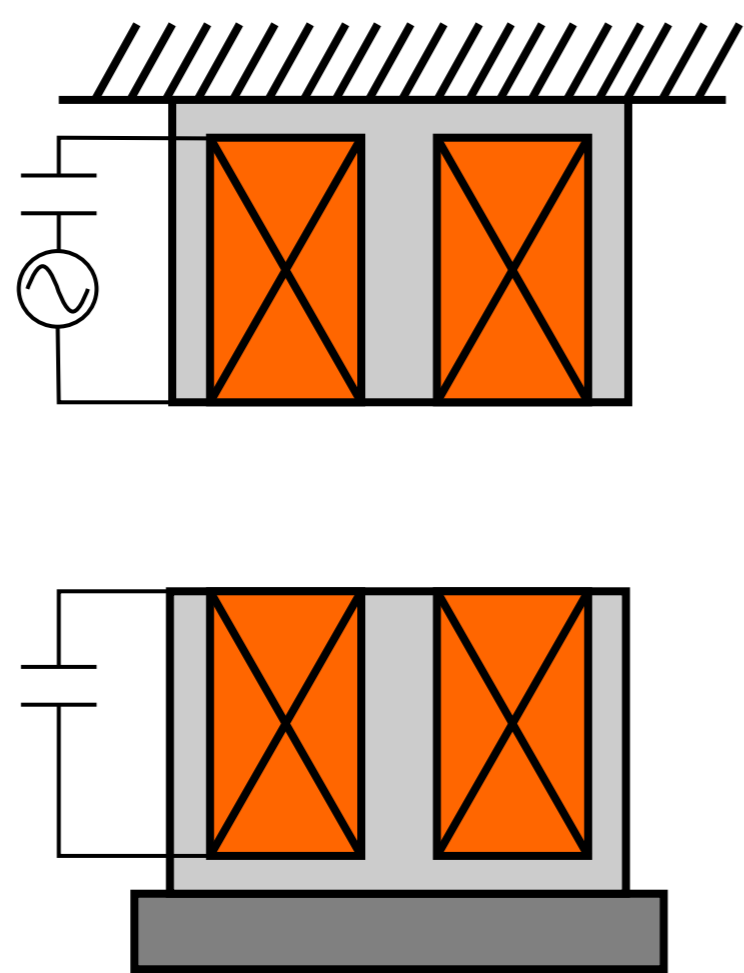
Graduate School of Science & Engineering, Saitama University

#### Introduction

Maglev and vehicle using magnetic suspension does not contact their rails

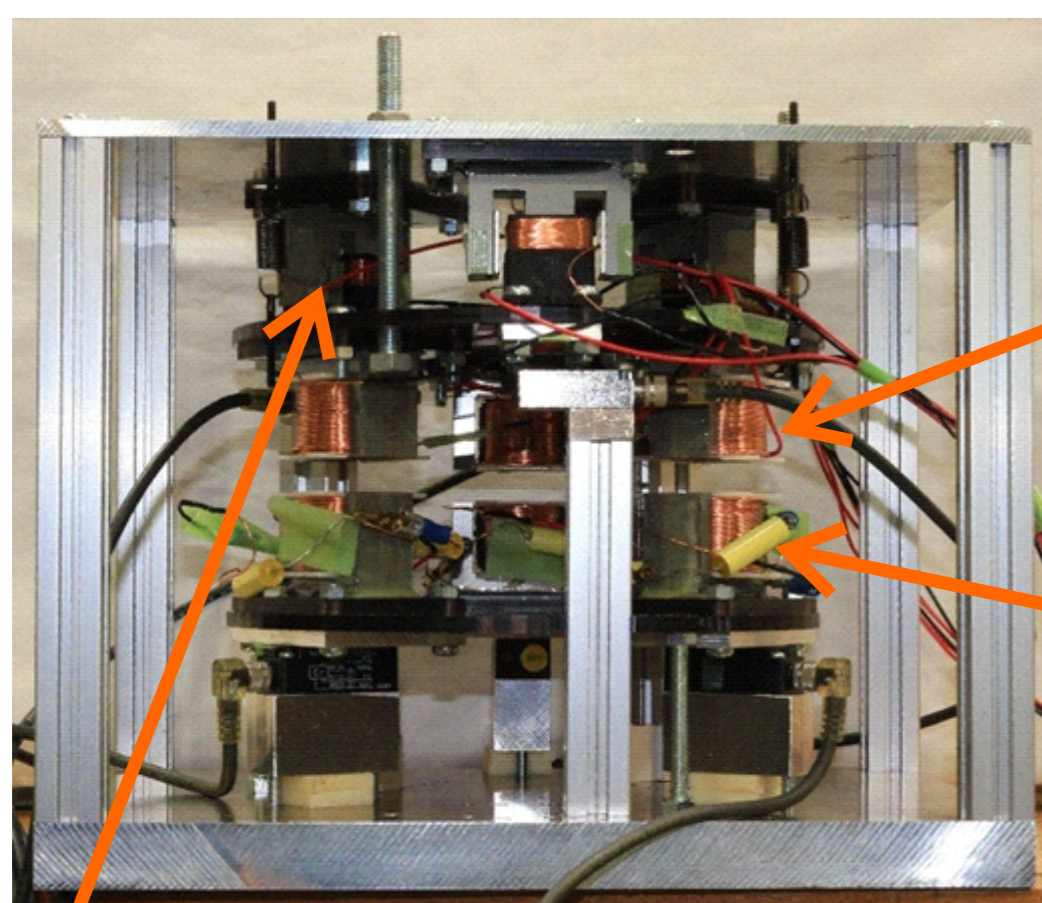


Non contact power transfer is needed



The purpose is magnetic suspension and non contact power transfer

#### Experimental apparatus

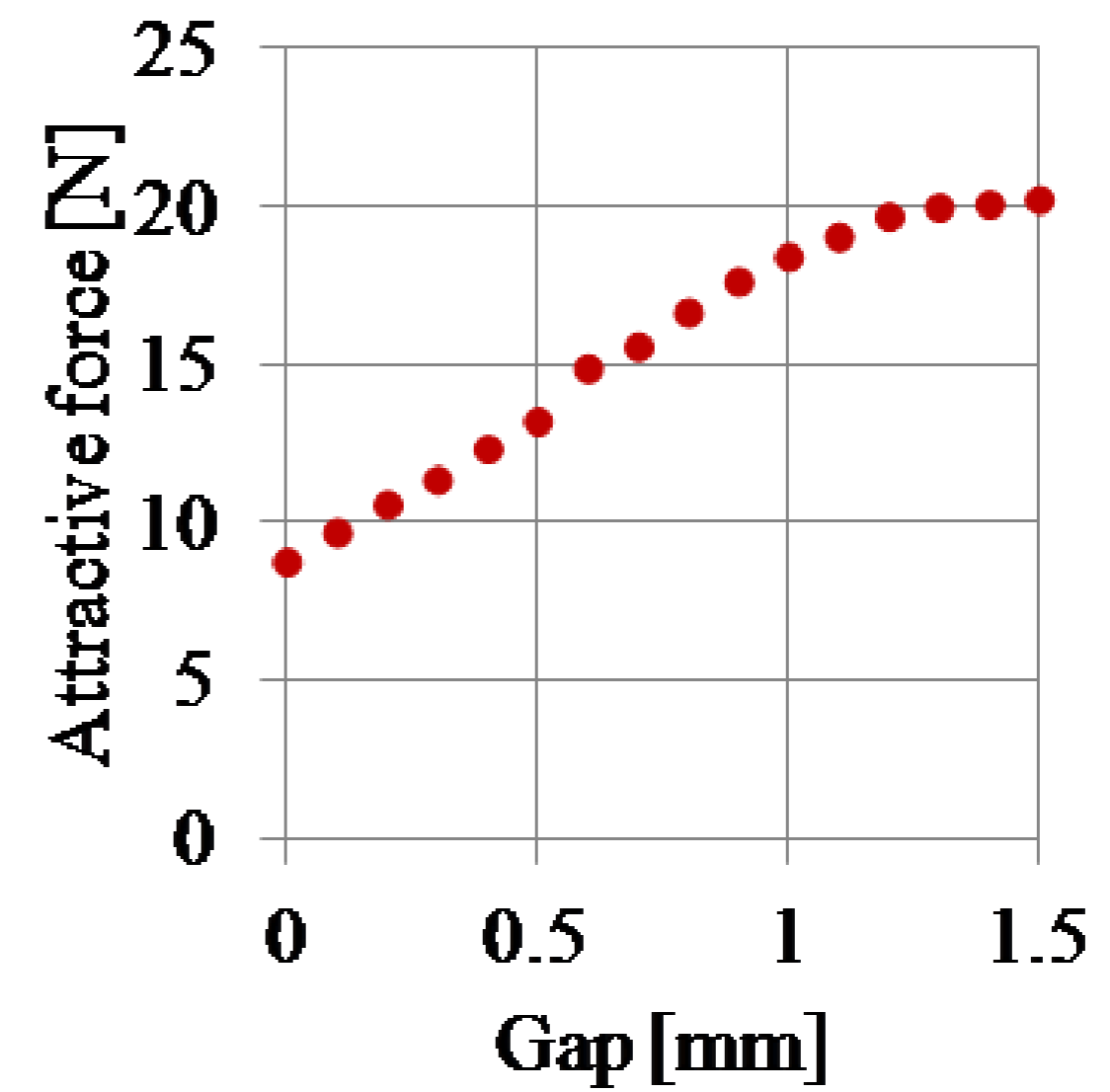


Primary EM  
Secondary EM

Voice Coil Motor

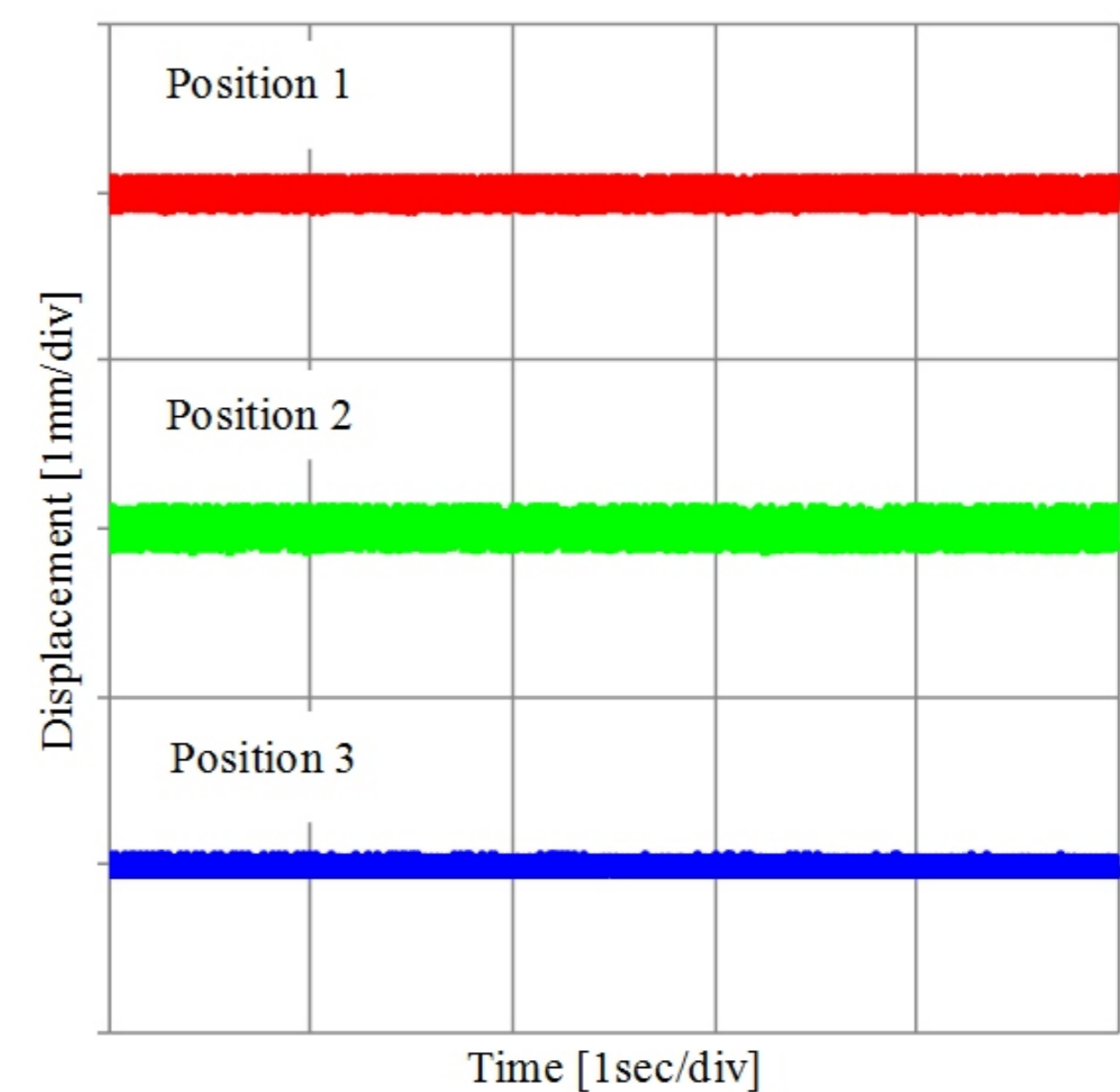
Our purpose is transferring electrical power to the floator and floating in 3-DOF perfectly

#### Measuring attractive force



Floator can float at the position balanced gravity and the attractive force

#### Experimental about floating



Floator can float not to be in touch when VCM applies primary EM

#### Future plan

- development of theoretical model