

SURG-R EE



01

Electronic System

Hardware & Low-level Control

02

Mechanical Design

Physical System

03

Kinematics

System Modelling

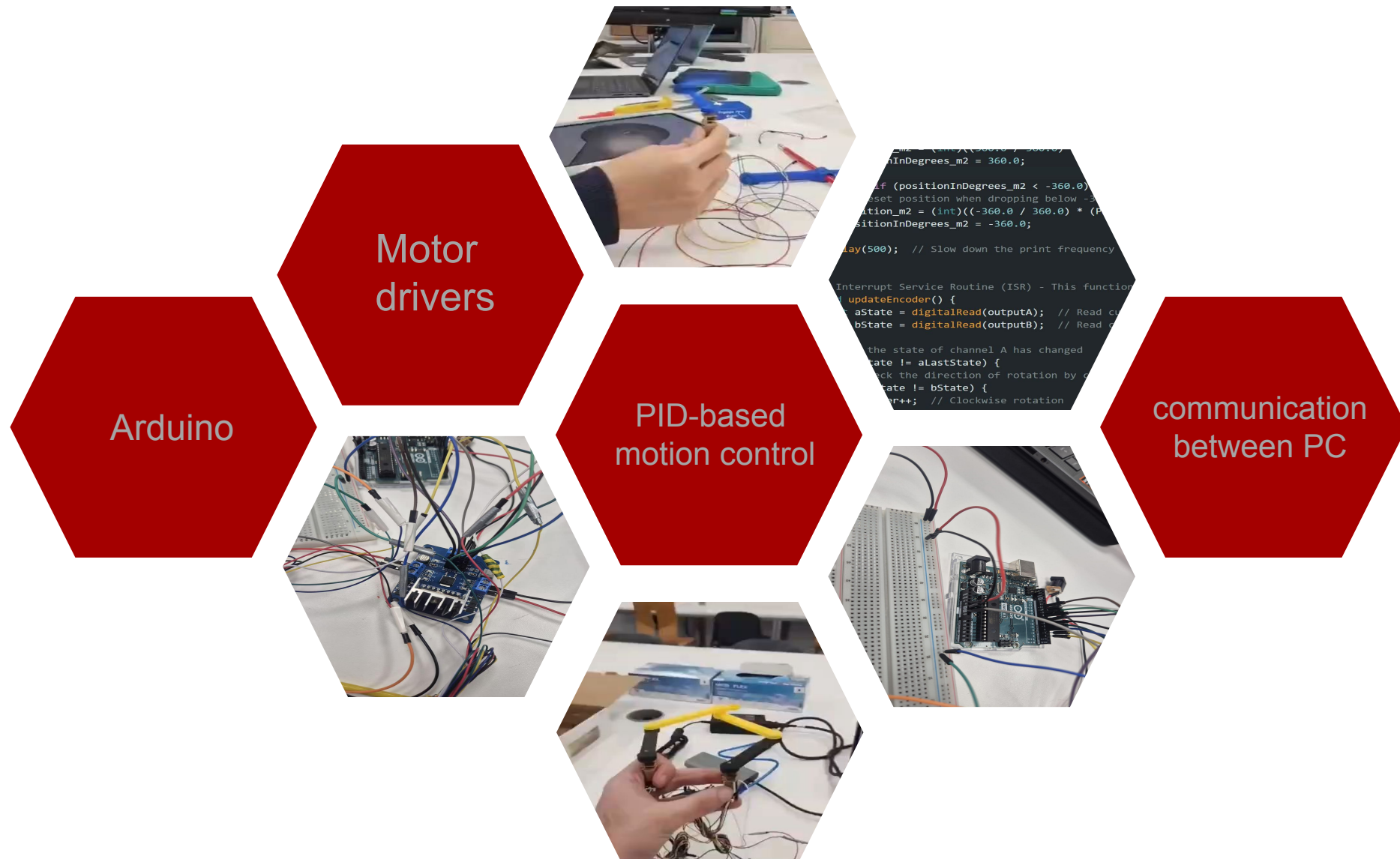
04

Motion Control Framework

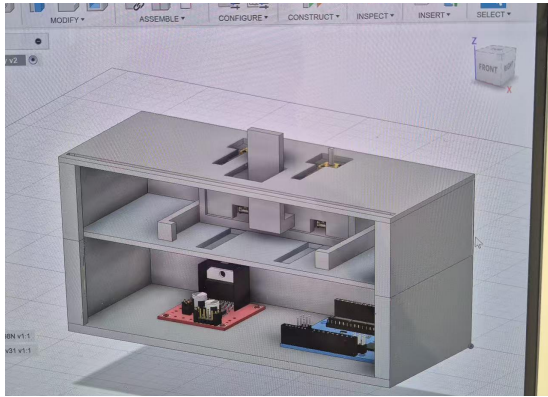
High-level Motion Control

Dual-Arm Robotic Drawing System

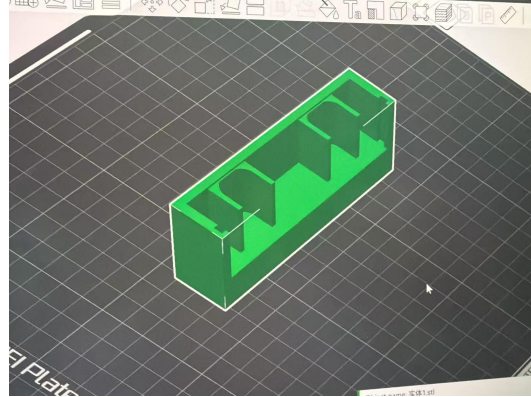
▶ Hardware & Control Platform



▶ Design and Prototyping Process



Initial arm and enclosure designed in CAD



Components fabricated using 3D printing and assembled



Mechanical issues identified during assembly and testing

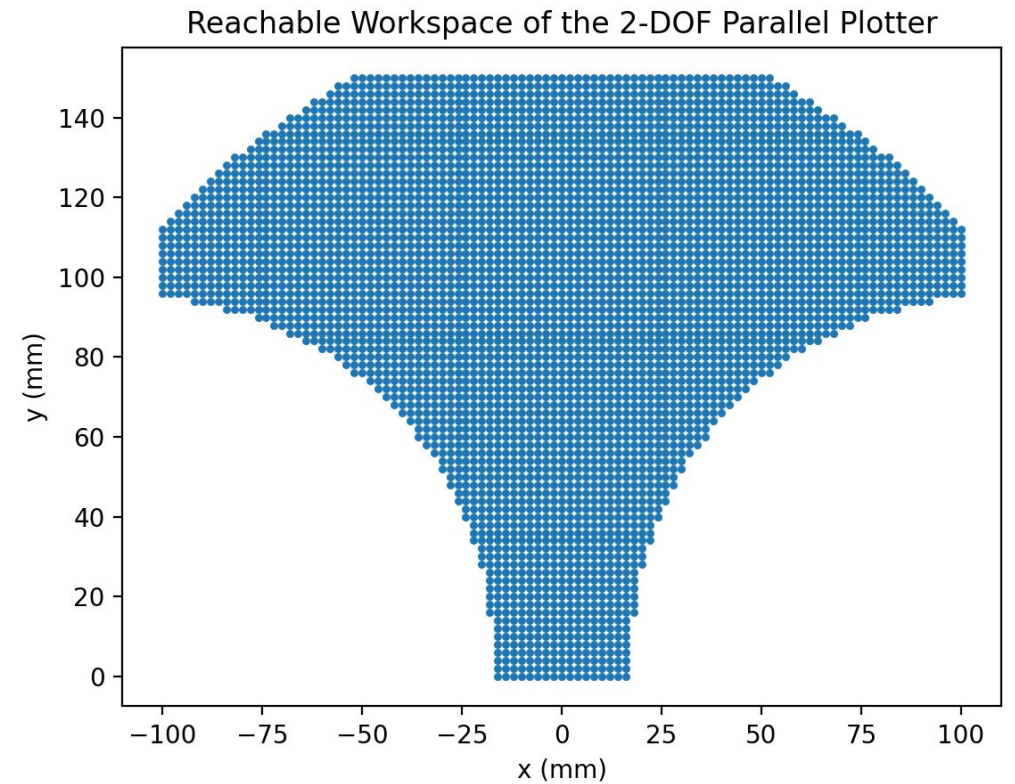
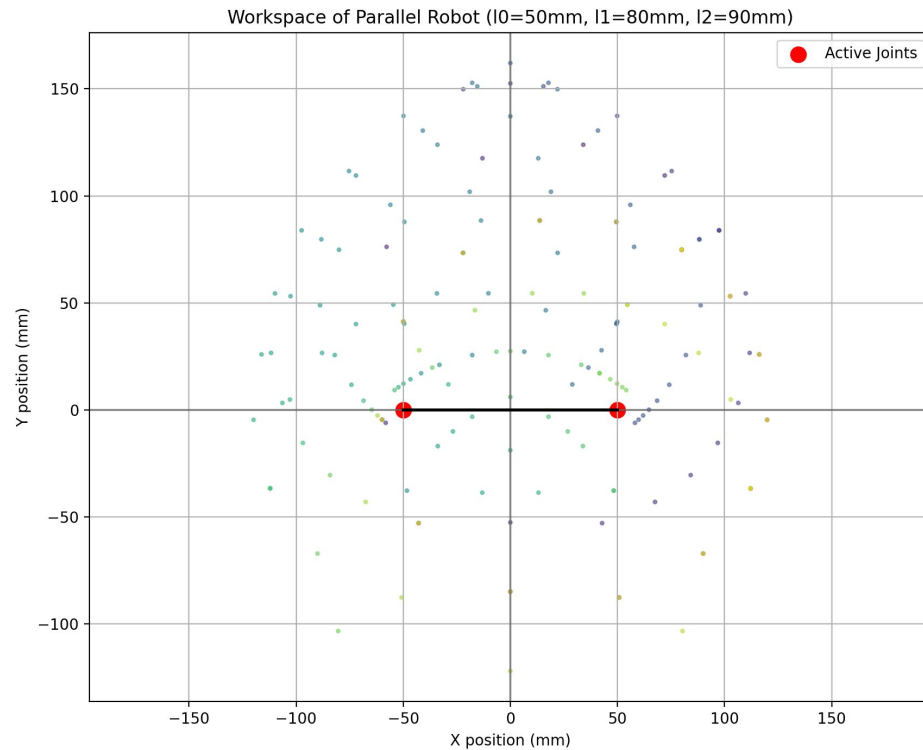


Design iteratively refined until stable and smooth motion achieved

Forward/Backward kinematic



Drawing Area



Progressive System Integration

