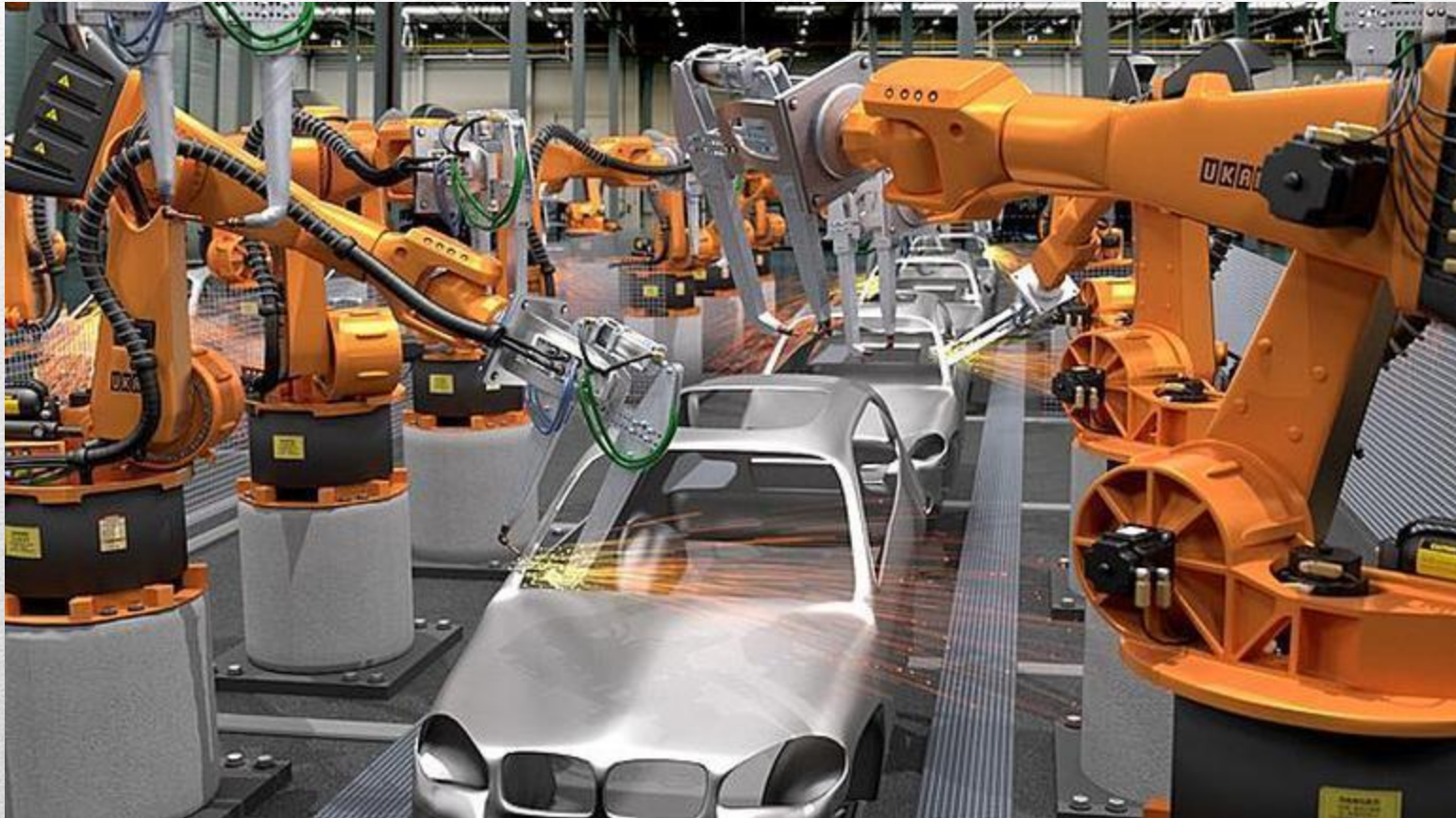# Design and Development of a Competitive Low-Cost Robotic Arm

A Presentation by David Togonidze and Mirian Bezhitadze

Why Do We Need Robots?
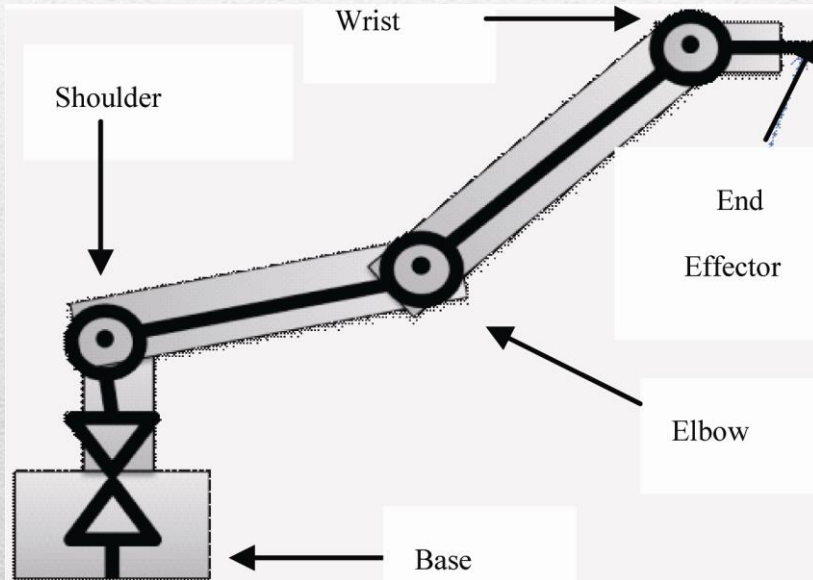
- Human Safety
- Economical Growth → Bigger Market → More Product → More Work Required
- Precision
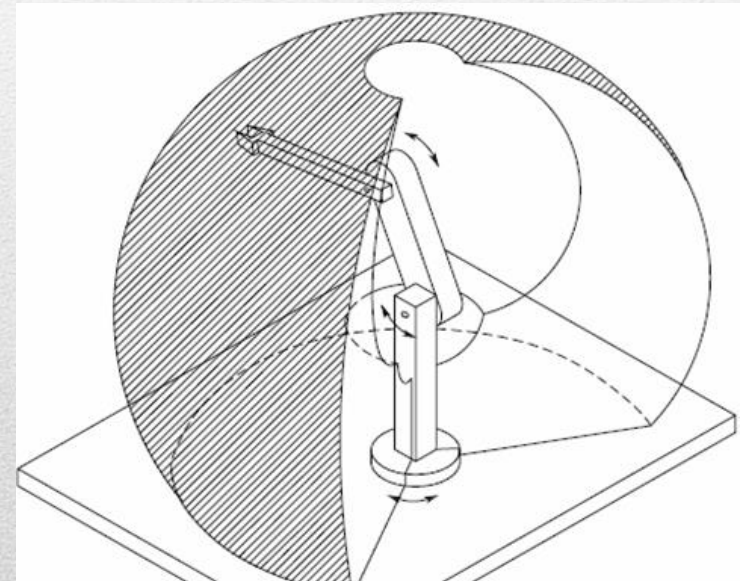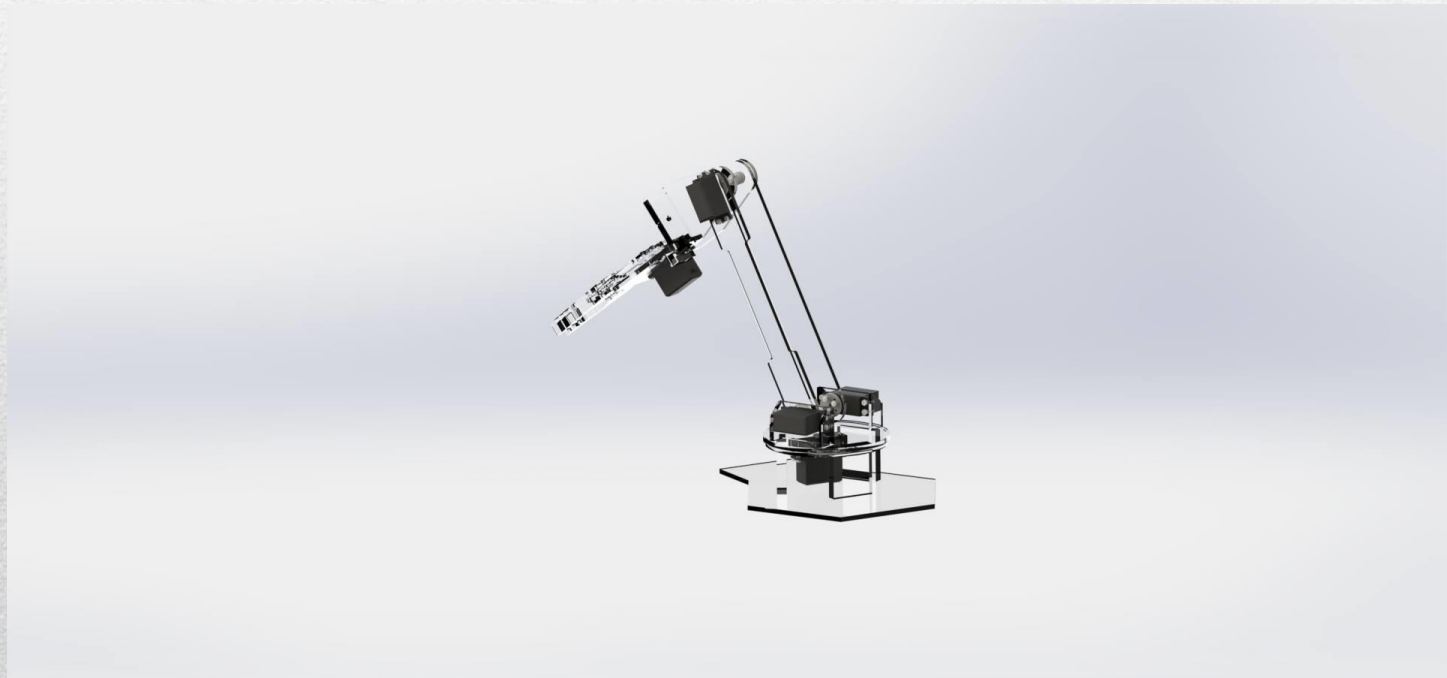
Industrial Robots

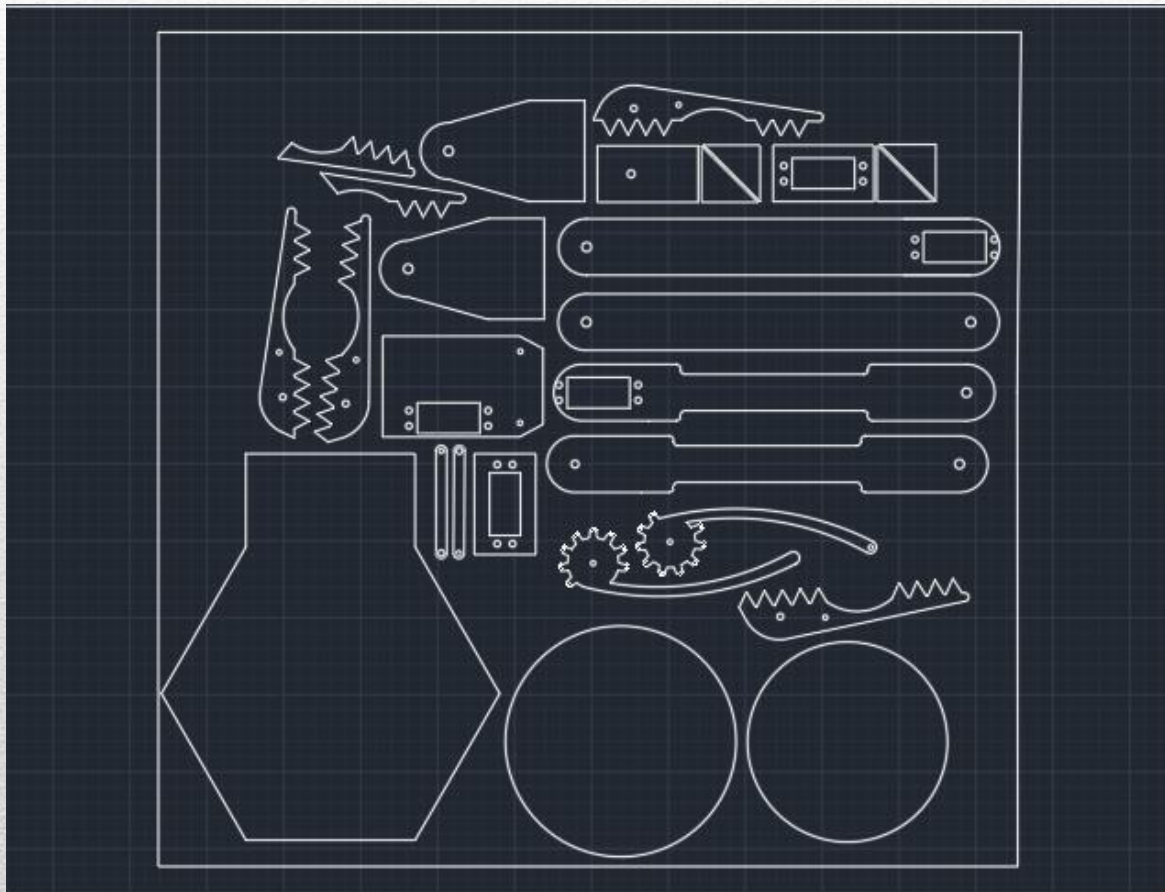# Mechanical Design

Free Body Diagram

Work Region of Robotic Arm

SolidWorks 3D Model

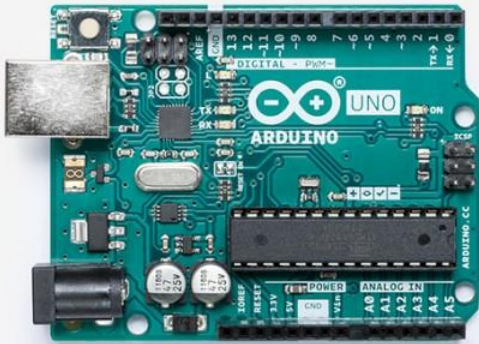# Mechanical Design

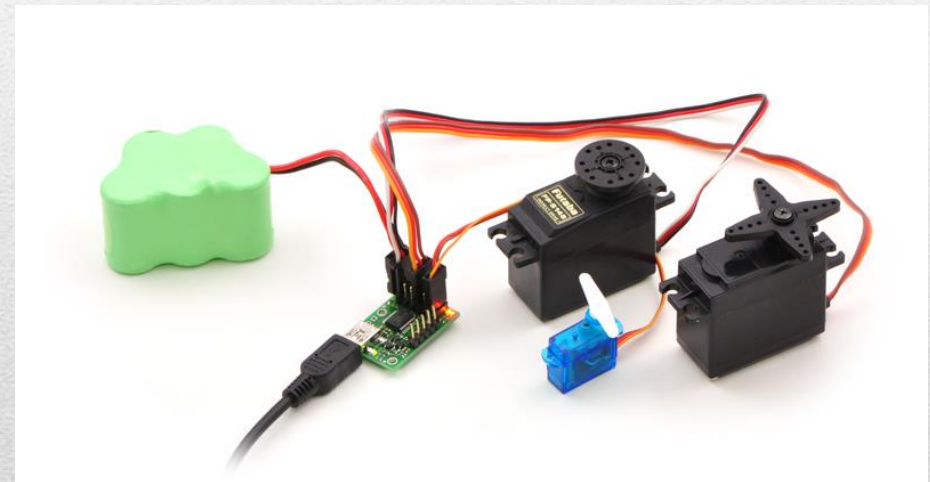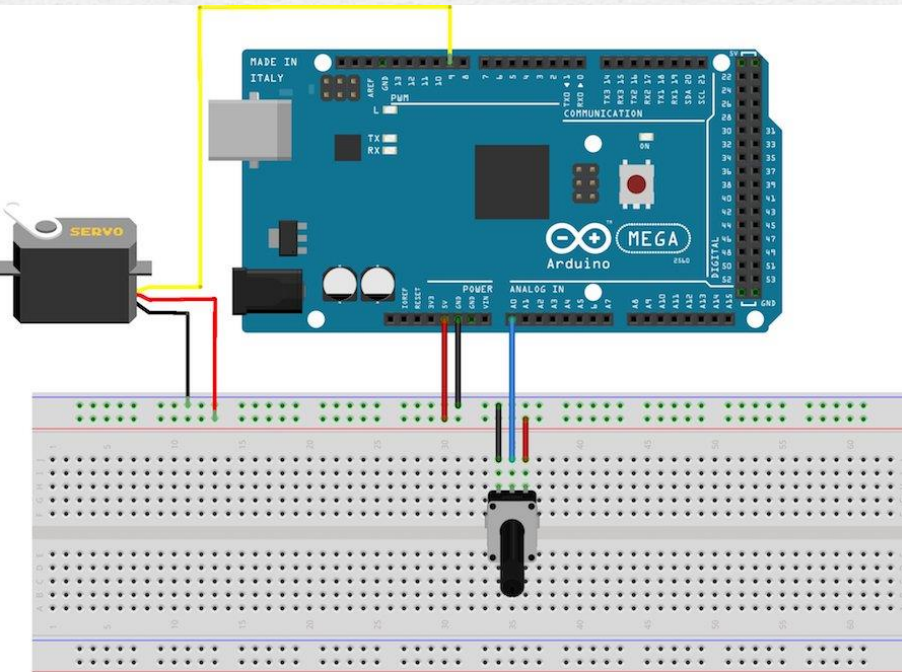Autocad Drawing for Numerical Control

Key Components

- Arduino uno
- Towerpro MG 995
- Maestro Servo Controller
- Acrylic Glass

Robotic Arm Control

Arduino uno Control

Servo Controller

Servo Controller Environment

Software

Testing and Validation

- Error Management
- Filtering signals
- Hardware Issues
- Servo Reliability
- Code Bugs

Thank you