

## CAMPUS ADDRESS

MB119 1000 Olin Way  
Needham, MA 02492  
USA

## HOME ADDRESS

57 Jalan Beluntas, Medan Damansara  
Kuala Lumpur, 50490 Wilayah Persekutuan  
Malaysia

## OBJECTIVE

A summer internship involving mechanical design, control systems or robotics in a dynamic team based environment

## EDUCATION:

Candidate for BSc in Mechanical Engineering from Franklin W. Olin College of Engineering, May 2011. GPA: 3.89/4.00

## RELEVANT COURSEWORK:

### Engineering

- Control systems
- Mechanical Design
- Robotics
- Computational Modeling
- Mechanical prototyping

- Mechanics of solids and structures
- Thermodynamics
- Heat transfer
- Fluid dynamics
- Dynamics

### Science

- Material Science

### Design

- Sustainable Design

## SKILLS

### Software

- Solidworks, MATLAB, COMSOL
- **Programming Languages**
- Python, C, Labview

### Hardware

- Microchip PIC microcontrollers
- NI Single Board RIOS

### Fabrication

- Mill, Lathe and other machine tools
- Rapid prototyping
- Composites
- Sheet metalworking

## WORK EXPERIENCE

### The Learning Labs

*May-August '09*

Developed an ultra low cost (<\$200) desktop CNC milling machine for use in the education market. The machine was capable of cutting aluminum, plastics and hard foams. Responsible for mechanical design and fabrication.

## NOTABLE PROJECTS

### Robot Football

*Sept-Dec '09*

Implemented a control system for a Rokenbok loader which competed autonomously in "Robot Football" against another robot. The control system used a finite state machine with queues to shuttle data between the multiple parallel threads.

### High-Low-Reverse Gearbox

*Sept-Dec '09*

Designed and fabricated a sequential shifting gearbox for Olin College's SAE Mini Baja car. The actuation of the gearbox used a novel double ratcheting system which allowed it to be made completely out of planar components.

### Ball and plate Control

*Mar-May '09*

Designed 2 DOF ball and plate control system using a webcam for position feedback and hobby servo motors for actuation of the plate.

### PIC MCU Webserver

*Sept-Dec '08*

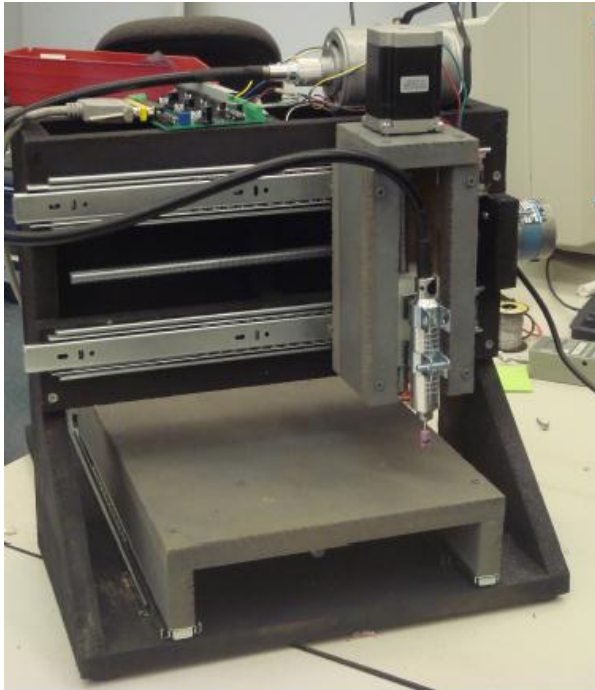
Implemented a webserver using PIC microcontrollers which enabled remote data logging.

## INTERESTS

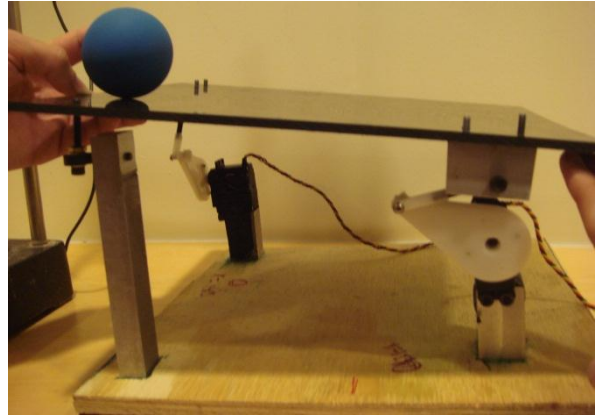
- Long distance cycling
- Soccer
- Education issues related to project based learning

# • JAYESH B. GORASIA – RECENT PROJECTS

## ULTRA LOW COST(\$200) DESKTOP CNC MACHINE



## BALL AND PLATE CONTROL SYSTEM



## HIGH-LOW-REVERSE SEQUENTIAL SHIFTING GEARBOX

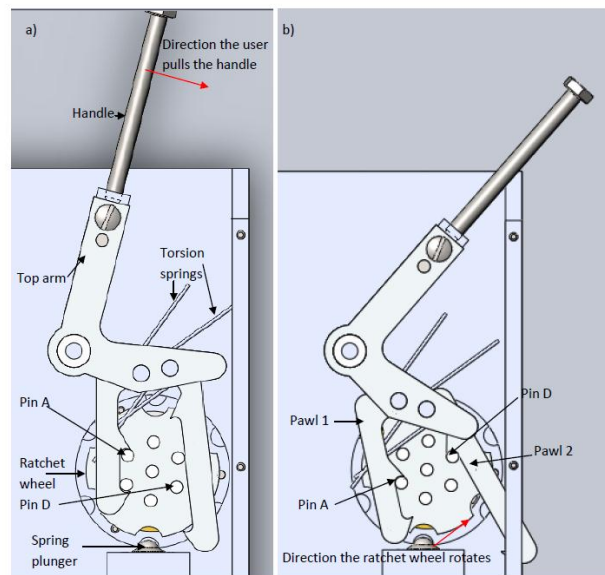
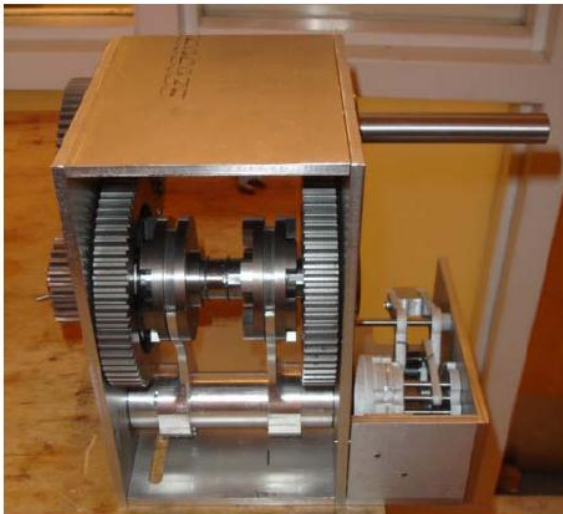


Figure 14: a) The shift actuator in the neutral position. b) The shift actuator after being shifted counter clockwise.