

Gardhouse Mechanical

About Gardhouse Mechanical

Gardhouse Mechanical offers services in mechanical design and engineering, specializing in optical systems and precision motion using exact constraint design. In business since 2002, Gardhouse Mechanical has been involved in numerous projects for clients in British Columbia. The wide variety of projects and markets in which Gardhouse Mechanical has been involved provides Gardhouse Mechanical's clients with the benefit of a broad base of experience that promotes rapid development of unique solutions as well as solutions that exploit proven approaches.

Capabilities

Gardhouse Mechanical's capabilities are based on a solid, broad-based education in both mechanical engineering and aircraft technology with 10 years of experience designing the mechanics for optical/precision motion systems.

- Prototype development including design, drawings, fabrication, assembly and testing
- Design of precision mounts and mechanism
- [Design of tooling and jigs for assembly and alignment](#)
- Conceptual layouts

Projects

Gardhouse Mechanical has been involved with:

- [2X2 Shack-Hartman wave front sensor patrolling the field of view using 2](#)

articulated axis

- Premodulator for 3kW projection lamp subjected to a flux intensity of 55kW/m²
- Color camera using 3 monochrome CCDs with fiber optic spectrum pickoff for bronchoscopy
- 6 degree of freedom light engine mount for 12kW 4-channel digital projector
- Laser film recorder for 75mm X 15 perforation stock
- Sonar with 2 axis scanning proof tested to 6000m for salt cavern surveys
- Sheet metal enclosures for devices and chassis for electronics and light sources

Software and Equipment

In house, Gardhouse Mechanical currently uses SolidWorks 2000 to create solid model designs, allowing rapid prototype changes. For clients who prefer the discretion of Gardhouse Mechanical working on site, Gardhouse Mechanical is experienced in the latest desktop design software including Mechanical Desktop 6, Inventor 10, SolidWorks 2006 for solid modeling as well as ANYSY's DesignSpace for FEA.

Copyright © 2005 W. R. Gardhouse

Rates and Terms

Quotations, estimates and hourly billing are calculated on an hourly rate of \$100 USD or USD per hour. Applicable federal and provincial taxes are charged to Canadian clients. Gardhouse Mechanical does not charge for occasional short haul travel between the office of Gardhouse Mechanical and the client's facility unless explicitly agreed by both parties. Any extraordinary costs incurred (long haul, frequent driving, hotel accommodations and airfare for example) will be itemized and billed to the client for actual out of pocket costs with receipts provided. No levy is applied to such costs. Where applicable, mileage is billed at a rate of \$0.75 USD per kilometer. No expenditure will be made without prior approval of the client. All property paid for by the client remains the property of the client.

Invoicing

Invoices are submitted on a monthly basis and are payable in 30 days unless prior arrangements are made. The invoices will include a tabulation of time spent on project tasks. Any special equipment, material or other reimbursable expenses incurred by Gardhouse Mechanical on behalf of the client will be tabulated on the invoices as well.

Intellectual Property

All materials such as solid models, drawings, reports and data generated through the process of carrying out this program will remain the sole property of the client. Gardhouse Mechanical considers the protection of its clients' confidentiality and IP to be central to its continuing success and strive to operate in a professional and discreet manner. A non-disclosure agreement (NDA) between Gardhouse Mechanical and the client is encouraged as it explicitly defines the

nature of the proprietary information. If the client has any concerns with regards to IP, they should address them with Gardhouse Mechanical prior to the start of any program to ensure the degree of trust and confidentiality between the parties.

Risk

The client assumes all liability for goods and products produced as a result of work done on behalf of the client by Gardhouse Mechanical.

Copyright © 2005 W. R. Gardhouse

