

# MECHANICAL ENGINEERING PROFESSIONALS, LLC

www.mechanicalengineeringpros.com™

## INITIAL ESTIMATE

*This document is provide an initial price estimate for work to be performed. The numbers in this document are estimates only and if the estimates are deemed good by the client, Mechanical Engineering Professionals, LLC (MEP) will create a detailed Statement of Work, describing all work to be performed with firm prices for the initial phases or another agreement that would be suitable to both the client and MEP. The phases can often be broken in to smaller phases if needed by the client.*

*More information regarding the product design process can be found a our website (listed at the top).*

This estimate is intended for John Doe of Company X as an estimate for the development of a brand new gizmo.

Some assumptions for the design based on phone and e-mail conversations:

- The necessary dimension of X by Y by Z.
- The mechanism will be designed so a single lever/clamp.
- A fair amount of design effort will go into making sure the lever/clamp is quick and easy to use while providing proper alignment.
- There was some indication that the electrical connector would be made by a separate company so the quote for that design effort is broken out separately.
- The analysis electronics fit on the bottom of the gizmo and are fairly thin.
- A robotic filling system needs access to the top of the gizmo.
- The bottom plate is to be a clear polystyrene.
- The original design will operate manually but will provide a path to an automated design.
- The design is for presentation at a conference in late March and should look like a solid presentable piece of scientific equipment when complete.

### Phase 1 - Preliminary Design

This phase constitutes the bulk of the design effort. At the end of this phase most of the major design issues would be addressed and it would finish with a design model of the system that shows all major components and elements of the design. This is usually presented to the customer along with a report detailing the work for this phase.

Deliverables	Report
Price	estimated \$X,X00
Schedule	estimated X-X Weeks ARO

### Phase 2 – Critical Design/Detailed Design

In this phase the preliminary design, once approved by the client is fully detailed, engineering drawings are created and all parts are quoted.

Deliverables	Report and hard quotes for prototypes.
Price	estimated \$X,X00
Schedule	estimated X-X weeks ARO

### Phase 3 – Initial Build and Integration

This phase covers the initial prototype build and manufacturing setup if any.

Deliverables	Delivery of Initial Prototypes – other items TBD (To Be Determined)
Price	Most likely less than \$XX000 but depends on quantity of prototypes.
Schedule	TBD – most likely X-Xweeks depending on process and shop lead time.

### Phase 4 – Production build

This phase cover moving the product into production.

Deliverables	TBD
Price	TBD – heavily dependent on quantity – low quantities could be less than \$X000/each – much higher (1000s) could be less that \$XX0/each
Schedule	TBD