Mechanical Engineering Professionals, LLC

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# STATEMENT OF WORK

**Proposal No. CompanyX-1**
Day Month 2008

*Submitted to*

## *Company X*

*Attention:*
**Client Name**
*client@company.com*
123-456-7890

*This proposal is valid for 30 days unless earlier revoked*

## Executive Abstract

This Statement of Work covers the design and manufacturing of product X. This is the first proposal regarding this project and does not refer to others as a basis. The project is mainly to solve stated problem and has a Total Estimated cost of $X and an estimate time of completion of X to X months. To quickly find more detailed price and schedule refer to the "deliverable, pricing and schedule" page list in the table of contents below.

## Table of Contents

## I. Scope and Disclaimer.

The development, design and consulting services, including the tasks and deliverables described herein, if any, are intended to represent the full scope of this proposal. The research and development nature of this project may require program modifications not anticipated at this time that may alter the scope of work**.**

## II. Introduction and Work Summary.

Mechanical Engineering Professionals, LLC is to help Company X with the design and possibly the initial production of a Product X. In this proposal we are mainly quoting on Main Development Task, but also in the option section we show several optional tasks that may be desired by the client or items that have been broken out separately because of desire to see differences in pricing. At this time we are also only quoting on the simple product X as the complicated product X option would be a much more costly endeavor.

The main thrust of this project will be to take an existing product X and integrate it with a component Z. This would include the design of a custom gadget for the product X using off the shelf components. This may be bulkier than a custom component solution but would be cheaper and easier to manufacture in low quantities. This would also include all the mechanical design for the lens and repackaging both the component Z and product X into a single unit.

The overall goal of this project is to create a working prototype (or prototypes) of the unit that demonstrates the functionality of the product. The options section goes into more detail of the costs associated with bringing this to fully detailed design ready for manufacture in quantity. The quote does not include software at this time but we will be happy to assist with providing quotations and the appropriate people capable of writing such a program as the project.

In the preliminary design we are going to do an initial search for camera's that would also include an easy to integrate widget, however if one is not found we may have to expand the budget (this is covered under the options) or go with another component. The component z without the widget are readily available and we already have several sources for these. Mechanical Engineering Professionals', LLC will provide an interim report during Phase I that will detail the findings of the search with a set options on ways to proceed.

In this project the engineers at Company Y Inc. will be acting as agents for Mechanical Engineering Professionals, LLC in performing the necessary optical design.

## III. Client-Provided Specifications and Materials.

A. **General Functionality Specifications**: As detailed in the introduction and work summary above.

B. **Materials to be provided**: None at this time.

## IV. Proposal for the Work.

The key tasks envisaged in this effort are detailed below. Tasks in the first phase are fairly well known while tasks in the later phases may change according to the project needs as the design progresses.

### A. Services

**Phase 1 Preliminary Design**

1. Evaluate the system for a simple cost effective design.
2. Select appropriate manufacturing method for cost effectiveness with regard to manufacturing quantity.
3. Examine prior art with regard to the design and integrate into preliminary design.
4. Conduct model any customer provide component to be integrated that do not already have a model.
5. Create mechanical structure to integrate x components.
6. Create a new set of covers that encapsulate the system.
7. Review of available stock items (for slides, framing etc.) and parts for simplification and cost reduction of the mechanism.
8. Generate layout and conduct required preliminary design.
9. Generate list of key components/modules for baseline approach
10. Present preliminary design in a preliminary design review.

**Phase 2 Detailed Design**

1. Finalize optical, mechanical and electrical design.
2. Work with the client to specify any other proper optical, mechanical, or electrical function or feature requirements.
3. Conduct a full tolerance analysis where needed.
4. Generate drawings or necessary detailed models(for transfer to mold makers or rapid prototypes houses) and specify custom mechanical components.
5. Have drawings and components quoted to build a detailed system cost.
6. Deliver Critical Design Review Report to the client.

**Phase 3 Initial Build and Integration**

1. Order parts and items for initial prototype build
2. Create any necessary manufacturing documentation and procedures.
3. Build initial assemblies.
4. Perform initial testing (does it fit together/work etc.).
5. Perform any mechanical and manufacturing debug of initial system.
6. Work with client and and any other appropriate entity on fully testing the system.

**Phase 4 Production Build and Assistance with Manufacturing Setup**

1. Assist with assembly and build documents.
2. Assist in training staff in procedures and making sure they are understood.
3. Assist in creating a smooth, logical and efficient work flow.
4. Design and create any necessary assembly tooling.

5. Establish a quality policy and quality control structure including inspection of incoming parts and outgoing product.
6. Continue to work with and support client and his company with ongoing production needs.

There may be a necessary short BETA design phase depending on the result of the initial build and testing.

B. **Products**. Reports will be delivered for the design phases (1 and 2), prototype deliverables and production to be worked out with client as the design progresses.

C. **Change Requests; SOW Updates**. Once MEP and Client execute the Agreement, any changes requested by the Client regarding the Services or the Products are proposals only unless accepted by MEP in a signed writing, including an updated or amended SOW reflecting such Changes. MEP reserves the right to adjust the price based upon the impact of any unanticipated requirements upon notice to Client. Modifications to the SOW that will affect pricing will not be made without reasonable documentation provided by MEP and the prior approval by Client.

D. **Meetings**. Contractor agrees to meet with Client's employees or representatives responsible for the Implementation of the Project, on a regular basis, but not less frequent than [monthly. Weekly, etc.]

## V. Deliverables, Pricing and Schedules

This quoted figures below only considers the specifications as stated in section one and three. Additional information and requirements that come available later may impact the scope and thus the prices quoted below.

Phase 1 – Preliminary Design

| | |
|---|---|
| Deliverables | Report |
| Price | $XX,XXX |
| Schedule | X-X weeks ARO (After Receipt of Order) |

Phase 2 – Detailed Design

| | |
|---|---|
| Deliverables | Report and hard quotes for prototypes. |
| Price | estimated $XX,XXX |
| Schedule | estimated X-X weeks ARO |

Phase 3 – Initial Build and Integration

| | |
|---|---|
| Deliverables | TBD (To be Determined) -Delivery of Initial Prototypes. |
| Price | TBD – Could vary from $XK to $xxk per prototype depending on manufacture method and a quantity. NRE costs for low cost production manufacturing may be charged here as well (those costs would be given at the end of phase 2). |
| Schedule | TBD - most likely X-Xweeks as the manufacturing shops normally need that 2-4 weeks to produce the parts in the assembly. |

Phase 4 – Production Build and Assistance with Manufacturing Setup

| | |
|---|---|
| Deliverables | TBD – production assemblies. |
| Price | TBD – most likely would move to a time an materials basis so we would only assist and charge when we are needed and as work is performed. |
| Schedule | TBD |

## VI. Optional Design Items

**Option 1: Option 1 Description**

In this option we would be creating X that would do X. The schedule would (state impact). describe the impact. This would change the cost of phase X by $X,XXX.

**Option 2: Option 2 Description**

In this option we would be creating X that would do X. The schedule would (state impact). describe the impact. This would change the cost of phase X by $X,XXX.

***The following options are more for future reference and to provide insight into the costs for bringing the project to full manufacturing. This would of course need much more funding and possibly the assistance of an angel investor or SBIR contract (we can provide assistance with writing an SBIR if needed).***

**Option 3: Option 3**

In this option we would be creating X that would do X. The schedule would (state impact). describe the impact. This would change the cost of phase X by $X,XXX.

**Option 4: Option 4**

This option would be to do X work. The design work for this would be approximately xx-xxk and take X-X weeks. The cost for bringing the full assembly into production would vary greatly depending on the details of the manufacturing methods and place of manufacture and could be in the range of X-Xk (or much more – this is after all, the starting of a full manufacturing business) and would probably take a minimum of X months.

## VII. Payment Schedule & Terms

A. **Payment schedule**. For phase 1 - 35% at project phase start, 20% at 2 weeks from start, 45% at delivery of PDR report.

B. **Payment terms**. Net 10.

## VIII. Warranty and Returns of Product

7. **Warranty**. Mechanical Engineering Professionals warrants that any Product shall comply in all respects with the specifications as set forth in the SOW for a period of ninety (90) days from the date such Product was initially provided to and accepted by Client hereunder. This warranty does not cover physical damage caused by use of any Products for other than ordinary use for which such Product was designed; repairs required due to accident, disaster, improper installation, service or alteration by persons not authorized by Mechanical Engineering Professionals, neglect or misuse; or damage caused by alterations or attachments of any equipment or device. Mechanical Engineering Professionals shall have no liability after the warranty period expires. This is the only representation or warranty that Mechanical Engineering Professionals makes.

8. **Return of Product**. In the event that the Client determines that any Product delivered under this SOW does not conform to the agreed to specifications, and Mechanical Engineering Professionals accepts such a claim, Mechanical Engineering Professionals will either repair or replace such non-conforming Product or shall credit the Buyer's account for the value of same. Any such Buyer claim shall be made within thirty (30) days of delivery.

## IX. Client Responsibilities

Client agrees to keep Mechanical Engineering Professionals informed of any changes that may impact the specifications of any designs, or any material deviations from this SOW, and shall work with Mechanical Engineering Professionals by being reasonably accessible to answer product questions as the design develops and meet or hold necessary conference calls.

If any of the design options are desired please add that as a line item in the purchase order.

## X. Terms and Conditions

If this SOW is acceptable, upon execution of the attached MEP Independent Contractor Agreement, this SOW shall be incorporated into such Agreement as Exhibit A.

## XI. Conclusion

We look foreword to working with you on this initial project that we trust this will lead to a long and successful relationship.

Respectfully,

Jonathan Iungerich, President and Company Founder
Mechanical Engineering Professionals, LLC