

PROJECT OVERVIEW

Project Overview:

- **Project Name:** New Product Development for XYZ Gadget
- **Project Type:** Software Development, Mechanical Design, Product Design, Electrical System Management
- **Objective:** Develop a prototype for a new consumer electronic device
- **Location:** On-site, with 10% done remotely

Scope of Work:

- **Main Tasks:**
 - Design a mechanical casing for the product
 - Develop embedded software to control the device
 - Create and test electrical circuitry
- **Subtasks:**
 - CAD modeling of the casing
 - Write and test firmware
 - PCB design and prototyping

Required Skills and Experience:

- **Primary Skills:**
 - SolidWorks CAD software proficiency for mechanical design
 - Experience with embedded systems programming
 - Good knowledge of PCB layout and design
 - Finite Element Analysis (FEA)
 -
- **Years of Experience:**
 - At least 5 years in mechanical engineering
 - Minimum 3 years in software development for embedded systems
- **Certifications (if applicable):**
 - Professional Engineer (PE) license
 - Certification in SolidWorks

Technical Requirements:

- **Software/Tools:**
 - SolidWorks for CAD
 - Python/C++ for firmware development
 - Altium Designer for PCB layout

PROJECT OVERVIEW

- **Materials:**
 - Use of ABS plastic for prototype casing
 - Selection of low-power microcontroller
- **Standards/Regulations:**
 - Compliance with RoHS and CE standards
 - Adherence to ISO 9001 quality management

Deadlines and Milestones:

- **Start Date:** October 1, 2024
- **Estimated Hours Per Week:** 45-50
- **Key Milestones:**
 - Initial design drafts due by October 15, 2024
 - Prototype completion by November 30, 2024
- **Final Deadline:** December 15, 2024

Budget Type:

- **Total Budget:** \$50,000
- **Payment Structure:** 20% upfront, 30% upon milestone 1, 50% upon completion
- **Hourly Rate or Fixed Price:** Open to negotiation based on engineer's experience

Communication Preferences:

- **Preferred Communication Channels:**
 - Email, Text, Phone, Weekly Virtual meetings
- **Frequency of Updates:**
 - Daily progress reports, or weekly progress reports
- **Point of Contact:**
 - Name, Contact Details

Deliverables:

- **Physical Deliverables:**
 - Functional prototype
- **Digital Deliverables:**
 - CAD files, dimensional prints, source code, PCB design files
- **Documentation:**
 - Technical manuals, test reports, user guides

PROJECT OVERVIEW

Potential Challenges:

- **Technical Challenges:**
 - Integrating different software components
 - Sourcing specific electronic components
- **Logistical Challenges:**
 - Coordinating between remote team members
- **Risk Management:**
 - Backup plans for delays, alternative materials

Contractor Selection Criteria (Rating 1-10 + Detailed Reason):

- **Experience: 10**
 - Over 10 years of industrial experience working on design and PCB boards.
- **Availability: 7**
 - Finishing up a project, and won't be available until October 8th.
- **Compatibility: 8**
 - Seems like he would get along with our team members. Was able to explain very thorough details about past work experiences.
- **Cost: 5**
 - On the more expensive side, but worth investing in him because of past experiences.
- **Total Score: 30**
 - Scores in the top 75% and think he would be a great fit with our team.