BICKE	Project Timeline and Hours Estimate			201806125	
DESIGN	Client/Project: Christof Schoenborn – Couch Blocks			Date: 6/25/2018	
Activity	Hours Estimate	Description	Deliverable		
Stage I - Design Project Planning	18 - 24	All initial project planning activities, including defining a detailed functional specification for the product and the project schedule. This section also includes updates to the documents as necessary throughout the course of the project.	- Product Functional Specification and Schedule		
Brainstorming, Conceptualization, and Ideation	10 - 16	Detailed conceptualization of device features and material options.	- Overview of potential concepts with hand sketches		
Materials research and vendor discussions	8 - 10	Research possible materials for the couch to meet requirements as defined in the functional specification. We will research materials and have a few vendor discussions regarding different material choices for the prototype that are extensible to the production model. We will also receive material samples and test the top options.	-Material research results and options		
Mechanical Design – Structure and Load Path	38 - 42	Complete the design of the mechanical aspects of the couch, focusing on the overall structure and the load path around the blocks. We will fully detail the CAD and make sure everything is designed and ready for the prototype stage.	- Design complete and	l ready for initial prototype	
Mechanical Design – Opening Mechanism	24 - 30	Complete the design of the mechanical aspects of the couch, focusing on designing an easy to use mechanism to open and close the couch. We will fully detail the CAD and make sure everything is designed and ready for the prototype stage.	, , , , , , , , , , , , , , , , , , , ,		
Patternmaking – Blocks (Per Type)	16 - 20	Develop all fabric template/layout patterns necessary for construction of the block.	- Development of initi	al prototype and patterns	
Project Reviews	12 - 18	This accounts for several detailed group discussions to review design features, approach, CAD models, etc.	- Next-step deliverables and changes		
Prototype Engineering, Assembly, and Adjustment	TBD - TBD	Prototype production is quoted with a combination of in-house components and sourced components. Cost will depend on final part-count, design and materials selection. Prototypes may require multiple iterations to optimize their functionality.			
Total Hours Estimate	126 - 160				
Total Cost Estimate	\$22,176 - \$28,160				
Optional Mechanical Design – Custom Couch	50 - 60	Design a custom couch to act as a base for all of the added features. We will fully detail the CAD and make sure everything is designed and ready for the prototype stage.	- Design complete and	l ready for initial prototype	
Total Hours Estimate	50 - 60				
Total Cost Estimate	\$8,800 - \$10,560				

Kickr Design has prepared this estimate in good-faith, based on project scope as outlined by client. The estimate does not reflect future changes to project scope, nor does it guarantee that the project can be completed within the given estimate. Quoted price includes a 10% project management fee. Prototypes are provided as-is, prototype revision or adjustments may be required and are billed at the standard hourly rates of the contract.

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