Deliverable 3

Group 3

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Prioritized design criteria – Functional & Non-functional requirements

Translating Needs into Design Criteria

	Needs	Design Criteria
1	The jig is user-friendly, and its settings are easily manipulated	Demonstrated in feedback
2	The jig is faster to use	Time to place (seconds) Time to adjust (seconds)
3	The Jig can interact with the door without damaging it	Weight (Kg)
4	The Jig is adjustable	Minimum & Maximum Width (cm) Minimum & Maximum Length (cm)
5	The Jig should have an easy-to-use fastening device.	Demonstrated in feedback
6	The device is low cost	Cost ($)
7	The Jig has a measuring component to match the size of the backset according to thickness of the door	Size (L*W*H cm)
8	The Jig is long lasting and durable	Tensile Strength (psi) Lifespan (uses) Material (Metal or other durable material)

Technical Benchmarks

Specifications	Door Slayers Hinge Jig
Cost	$108
Adjustable	Yes
Durable	60000+ uses
Fastening Device	Clamps
Measuring Component	No
Non-Damaging	No
User Friendly	Yes
Fast to Use	Moderately

Specifications	Importance (Weight)	Door Slayers Hinge Jig
Cost	3	2
Adjustable	4	3
Durable	2	3
Fastening Device	3	3
Measuring Component	2	1
Non-Damaging	5	1
User Friendly	5	3
Fast to Use	5	2
Total		65

Engineering Design Specifications (EDS) Template

Table 1 – EDS: Functional Requirements

	Design Specifications	Relation (=, < or >)	Value	Units	Verification Method
1	The Jig can match the size of backset according to the thickness of the door	=	yes	N/A	Test, Analysis
2	Interact with the door without damaging	=	yes	N/A	Test
3	Adjustable Jig	=	yes	inches	test
4					
5					
6					
7					

Table 2 – EDS: Constraints

	Design Specifications	Relation (=, < or >)	Value	Units	Verification Method
1	Cost	<	100	CAD$	Estimate, final check
2	Size when occupied	=	yes	cm^3	Test
3	Size when stored	=	yes	cm^3	test
4	Weight	<	1.5	kg	Test, scale
5					

6					

Table 3 – EDS: Non - Functional Requirements

	Design Specifications	Relation (=, < or >)	Value	Units	Verification Method
1	Product life	>	3000	uses	Test
2	Reliability	=	yes	N/A	Test
3					
4					
5					
6					