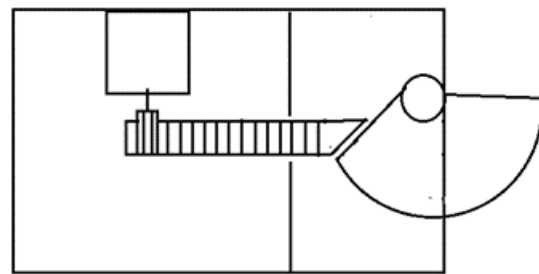
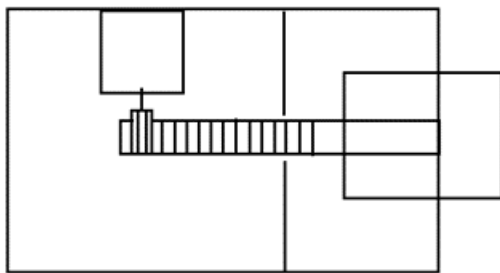


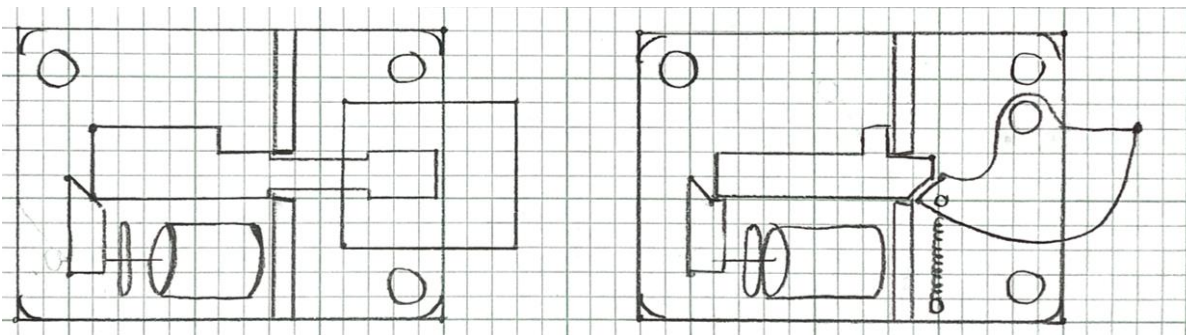
Decision Matrix:

Criteria	Weight	Solution 1		Solution 2		Solution 3		Solution 4		Solution 5		Solution 6				
		Design 1	Design 2	Design 2	Design 2	Design 5	Design 6	Design 6	Design 6	Design 8	Design 8	Design 9	Design 9			
Simplicity	2	2	4	3	6	3	6	3	6	3	6	4	8		Bad	1
Similar Parts	3	4	12	4	12	4	12	3	9	4	12	5	15		Poor	2
Withstand inward force	2	1	2	3	6	4	8	3	6	3	6	3	6		Standard	3
Drill protection	2	2	4	2	4	4	8	3	6	3	6	3	6		Good	4
Fail Secure	3	3	9	3	9	4	12	3	9	3	9	3	9		Great	5
Security	3	3	9	3	9	4	12	3	9	3	9	3	9			
Reliability	2	2	4	3	6	2	4	3	6	3	6	1	2		Low	1
Feasibility	3	2	6	4	12	1	3	4	12	4	12	2	6		Med	2
Mass Production	2	2	4	3	6	3	6	3	6	3	6	3	6		High	3
Cost	2	1	2	3	6	2	4	3	6	3	6	4	8			
Marketability	2	1	2	3	6	3	6	3	6	3	6	1	2			
Total			58		82		81		81		84		77			

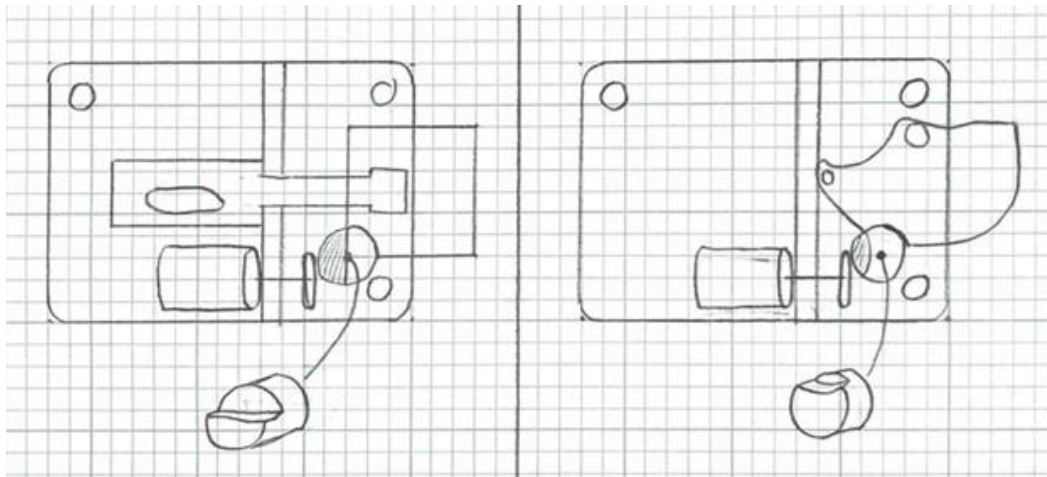
Solution 1



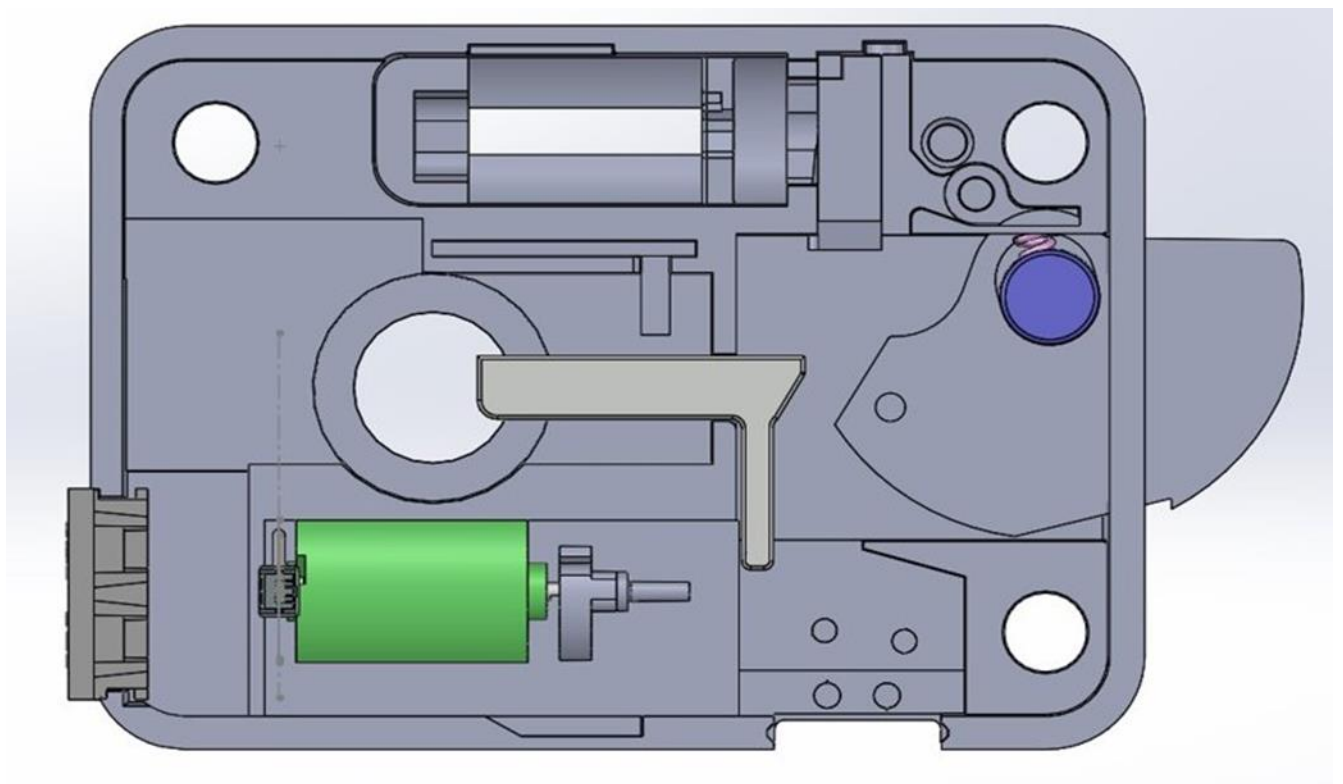
Solution 2



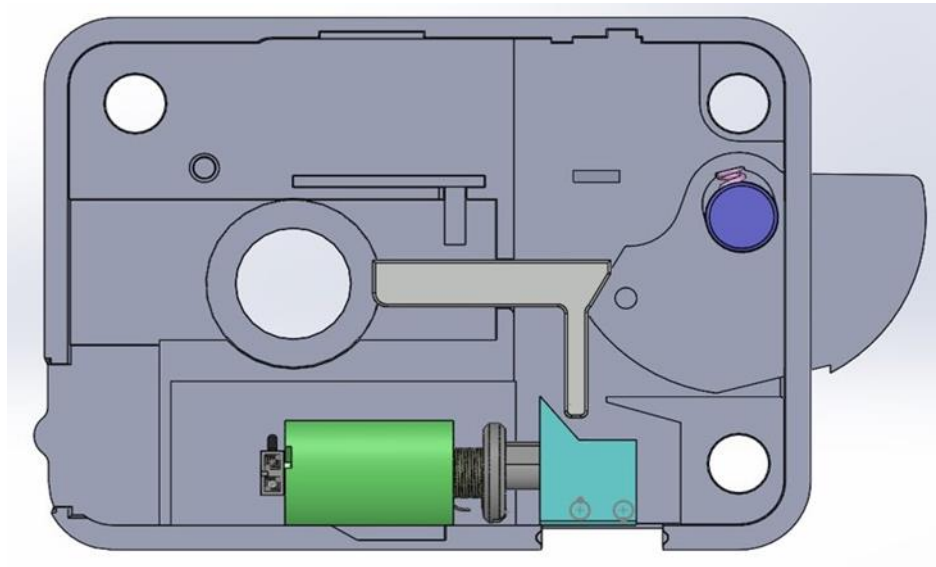
Solution 3



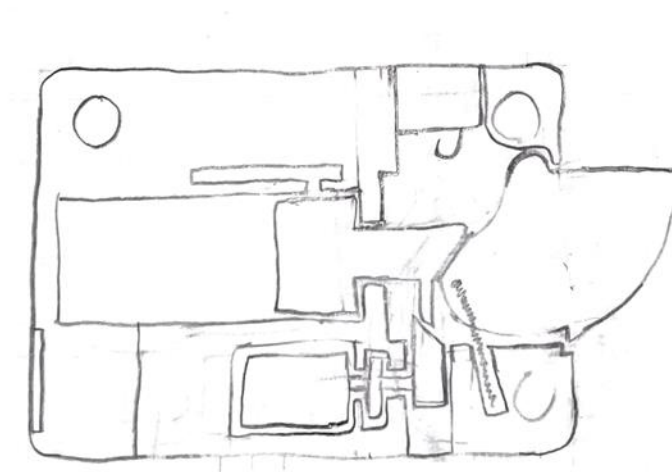
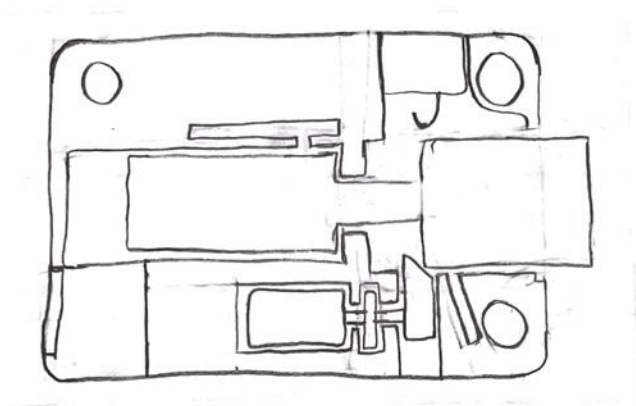
Solution 4



Solution 5 – the highest rated design and the one the team moved forward with



Solution 5 more detailed hand sketch



Solution 6

