

P10003: Dynamic Keyboard Phase II Project Risk Assessment

ID	Risk Item	Effect	Cause	Likelihood	Severity	Importance	Action to Minimize Risk	Owner
1	Lengthy lead times on ordered parts	Testing delayed or final product not completed on time	Shipping problems or improper ordering	2	2	2	Plan orders thoroughly and be aware of shipping times	Group
2	Input delay between keystrokes is too short	Computer is unable to distinguish individual keystrokes	Insufficient circuitry, programming or sensor selection	2	3	3	Strict testing of input signals and sensor type	EE
3	Force sensor unable to fit in key matrix of keyboard	Final Keyboard will be bulkier	Improper sensor or keyboard selection	2	1	2	Use keyboard models/sensor specs to spatially understand keyboard	Group
4	Force sensor unable to take repeated heavy keystrokes	Average life of keyboard will decrease	Improper sensor selection	2	3	3	Strict sensor testing to ensure proper selection	ME
5	Unable to supply power needed to run force sensors	Testing becomes hard if not impossible	Power demanded by force detectors is too great	2	3	3	Possible use of external power supply	EE
6	Circuitry unable to fit inside selected keyboard	Final product becomes bulkier	Circuitry required is larger than expected	3	1	2	Additional size modification of selected keyboard necessary	ME
7	Customer not satisfied with product or progress	Final product is not fulfilling customer needs	Lack of proper communication with customer	2	3	3	Regular communication with customer on product and expectations	Group
8	Sensor unable to accurately detect analog force output	Force sensing becomes unreliable	Keystroke stiffness insufficient	2	2	3	Testing of keystroke stiffness to display appropriate output	ME
9	Noise signal in circuitry becomes too large to filter accurately	Decreased accuracy in force sensing	Insufficient circuitry to filter inputs	2	3	2	Testing of circuitry to ensure accurate inputs	EE
10	Keystroke feedback is insufficient	Customer is not satisfied with overall feel of keystroke	Lack of research on keystroke feedback	2	1	3	Research feedback of different keyboards and decide on appropriate amount for sensor	EE

Likelihood scale	Severity scale
1 - This cause is unlikely to happen	1 - The impact on the project is very minor. We will still meet deliverables on time and within budget, but it will cause extra work
2 - This cause could conceivably happen	2 - The impact on the project is noticeable. We will deliver reduced functionality, go over budget, or fail to meet some of our Engineering Specifications.
3 - This cause is very likely to happen	3 - The impact on the project is severe. We will not be able to deliver, or what we deliver will not meet the customer's needs.

Updated 1/11/2010