

## iRobotstoDetectBombs Inc.

Your agile team is to create an on-line pamphlet for iRobotstoDetectBombs Inc. The company sells robots that can detect and dispose of explosive devices.

Your team must use inheritance and composition. At least one class must contain a pointer (a copy constructor needs to be written and tested). Highlight the above. Your team is to write at least 10 agile stories (including description, tasks, test scenarios, and story points) before software is developed). The team must follow the Scrum process (the Scrum master must log all team meetings and the product owner must document the backlog). Your team must use an agile management tool (e.g. Waffle.io), Graphical User Interface (GUI) such as QT, DOXYGEN, and GIT. Only team members should have access to their repository.

Design a very readable, easy to use interface. Contingency handling should include addressing invalid input. Please let me know who your partners will be by January 29<sup>th</sup> (three points will be deducted from your score if you do not meet this deadline). All projects are due by March 23<sup>rd</sup>. No late projects will be accepted. Your team must demonstrate your project before it will be graded. Each teammate must identify their accomplishments on the project.

Submit a UML class diagram, at least three use cases, an activity diagram, and two state diagrams with your project.

Each individual must critique their team members.  
The planning poker cards must be returned.

The project will be graded using the following scale:

	Value
Checkpoint 1	6
Checkpoint 2	6
Meet requirements	70
Coding Style/Style Guide	2
User interface	3
Adherence to Scrum/Team Rules	6
UML	3
DOXYGEN	2
Contingency handling	2
Total	100
Continuous Integration (extra credit)	2
Total with extra credit	102

Schedule:

First checkpoint – February 24<sup>th</sup>

Second checkpoint – March 9<sup>th</sup>

Final checkpoint – March 23<sup>rd</sup>

The iRobotstoDetectBombs on-line pamphlet must:

1. Provide a help option to explain how to operate your program
2. Contain a sales pitch that includes key selling points – keeping the target market in mind.
3. Identify a list of physical environments that are supported
4. Provide a one paragraph – concept of operations (what does it do and how it does it)
5. Provide an least three options along with a corresponding price for each option
6. Provide a logistics or maintenance plan with pricing
7. Provide a guarantee policy
8. Provide satisfied customer testimonials (solicit for additional testimonials). The testimonials should be persistent between executions.
9. Provide “contact us” methods

10. Your program should read from a customer file that keeps track of which companies have already received the pamphlet. There is a corresponding customer rating (very interested, somewhat interested, not interested, never call again). Some customers are considered key while other customers are considered “nice to have”. Customer names must be unique.
11. Your program should be able to update the customer list (change customer rating, the “key” field, address, etc.) – administrator only
12. Your program should be able to add and delete customers. – administrator only
13. A perspective customer can request a copy of the pamphlet.
14. The customer list should be persistent between executions.
15. A customer should have the ability to order one or more iRobot devices.
16. Customers should not have the ability to view/print the customer list – administrator only function
17. After a pamphlet is sent to a perspective customer, the customer list should reflect the fact that the pamphlet was sent.
18. Produce a customer listing sorted by customer name (at any time) – (administrator only)
19. Produce a customer listing sorted by customer name containing only the “key” customers (at any time). (administrator only)
20. Produce a customer listing sorted by customer name and their corresponding products they ordered with the associated costs. (administrator only)