

## Burglar Alarm Project

Blackbeard has the fanciest ship around. Unlike other pirate ships, Blackbeard's is filled with electrical circuits, lights, and booby traps to protect all of his stolen treasure. Blackbeard and his crew have just finished digging up some new loot, and before they set sail they want to make sure that no one can steal their plunder. They have hired you to help secure the ship. Follow his instructions carefully or you'll have to walk the plank.

Build a model ship of your design to present to Blackbeard. Your ship must have:

- cardboard/paper model of the ship
- at least 1 working switch
- lights that can be wired in series or parallel (your choice, but be prepared to defend your answer)
- a working alarm to notify the crew of an intruder
- completed summary page for Blackbeard to review

Plan your design below and list any materials you might need:

<b>First Draft:</b>	<b>Materials:</b>
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## Summary Page

We wired the ship's lights in parallel / series because:

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Circuit Diagram of Alarm System:

- Must use appropriate symbols

Explanation of how your alarm system works:

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## Rubric

	1	2	3	4
<b>Model Ship</b>	Doesn't meet requirements. It is not organized and is missing decoration. Things look out of place or incomplete.	Meets requirements and shows some organization, however, the project is not detailed. Some things look out of place.	Meets requirements. Shows neat, organized details and decoration. Everything is placed purposefully.	Exceeds requirements. Shows creativity and is very neat and detailed. Well organized. Everything is placed purposefully.
<b>Switch</b>	Switch does not work. Students cannot provided a comparable explanation.	Switch does not work, however, students can provide a comparable explanation.	Switch works and students provide an explanation.	Switch works and students provide a detailed explanation.
<b>Lights</b>	Lights do not work. Students cannot provide a comparable explanation.	Lights do not work, however, students can provide a comparable explanation.	Lights work and students provide an explanation.	Lights work and students provide a detailed explanation.
<b>Alarm</b>	Alarm does not work. Students cannot provide a comparable explanation.	Alarm does not work, however, students can provide a comparable explanation.	Alarm works and students provide an explanation.	Alarm works and students provide a detailed explanation.
<b>Responsibility</b>	Student does not contribute ideas to help solve problems. Student does not listen and respond constructively to group members.	Student is beginning to contribute ideas to help solve problems. Student listens but does not always respond constructively to group members.	Student contributes ideas to help solve problems. Student listens and responds constructively to group members.	Student consistently contributes ideas to help solve problems. Student always listens and responds constructively to group members.