**Spool Racer Design Worksheet**

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| --- | --- | --- | --- | --- | --- |
| **Spool Racer Initial Design** | | | | | |
| **Criterion:** | | | | | |
| **Material** | **rubber band** | **washer** | **tape** | **toothpick** | **pencil** |
| **Type Quantity used** |  |  |  |  |  |
| **In the space below, make a concise sketch and notes about your spool racer.** | | | | | |
|  | | | | | |

**Once you are done, build a spool racer by strictly following your design above.**

**Test your spool racer over a flat area. Keep in mind that you want to make your spool racer:**

* **Run as far as possible**
* **Run in a straight line as much as possible**
* **Use as few materials as possible (why?)**

**After testing, revise your design. Feel free to test and revise for a few times. Finalize your best design and record it in the box below:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Spool Racer Final Design** | | | | | |
| **Material** | **rubber band** | **washer** | **tape** | **toothpick** | **pencil** |
| **Type Quantity used** |  |  |  |  |  |
| **In the space below, make a concise sketch and notes about your spool racer.** | | | | | |
|  | | | | | |

**Compare your final design with your initial design and circle (or describe) the changes you made.**

**How did your changes improve your spool racer so that it now meets all the design criteria? Explain.**