ENGINEERING CHALLENGE 06

# THREAD SPOOL TANK





## THREAD SPOOL TANK

ENGINEERING CHALLENGE

Designed by Neil, Electronics engineer at Dyson

#### The brief

Build a tank out of a thread spool.

#### The method

- 1. Thread the rubber band through the thread spool.
- Break one matchstick in half. Tie one end of the rubber band around the half matchstick and secure it to the end of the thread spool using tape.
- Cut 3/4in and use a pencil to make a hole in the middle of it. Thread onto the other end of the rubber band. Place the other match through the loop of the band.

4. Wind up the match to create tension. Place it on the floor and let it go.

#### Materials

A thread spool

A long white candle

Tape

Two matchsticks, with their heads removed





### How does it work?

Winding up the rubber band creates potential energy. When the band is released this stored energy converts into kinetic energy, causing the tank to move

#### **Design icons**



In a car, potential energy exists in the form of liquid gasoline. It is converted into kinetic energy as the fuel is ignited in the engine's combustion chamber.