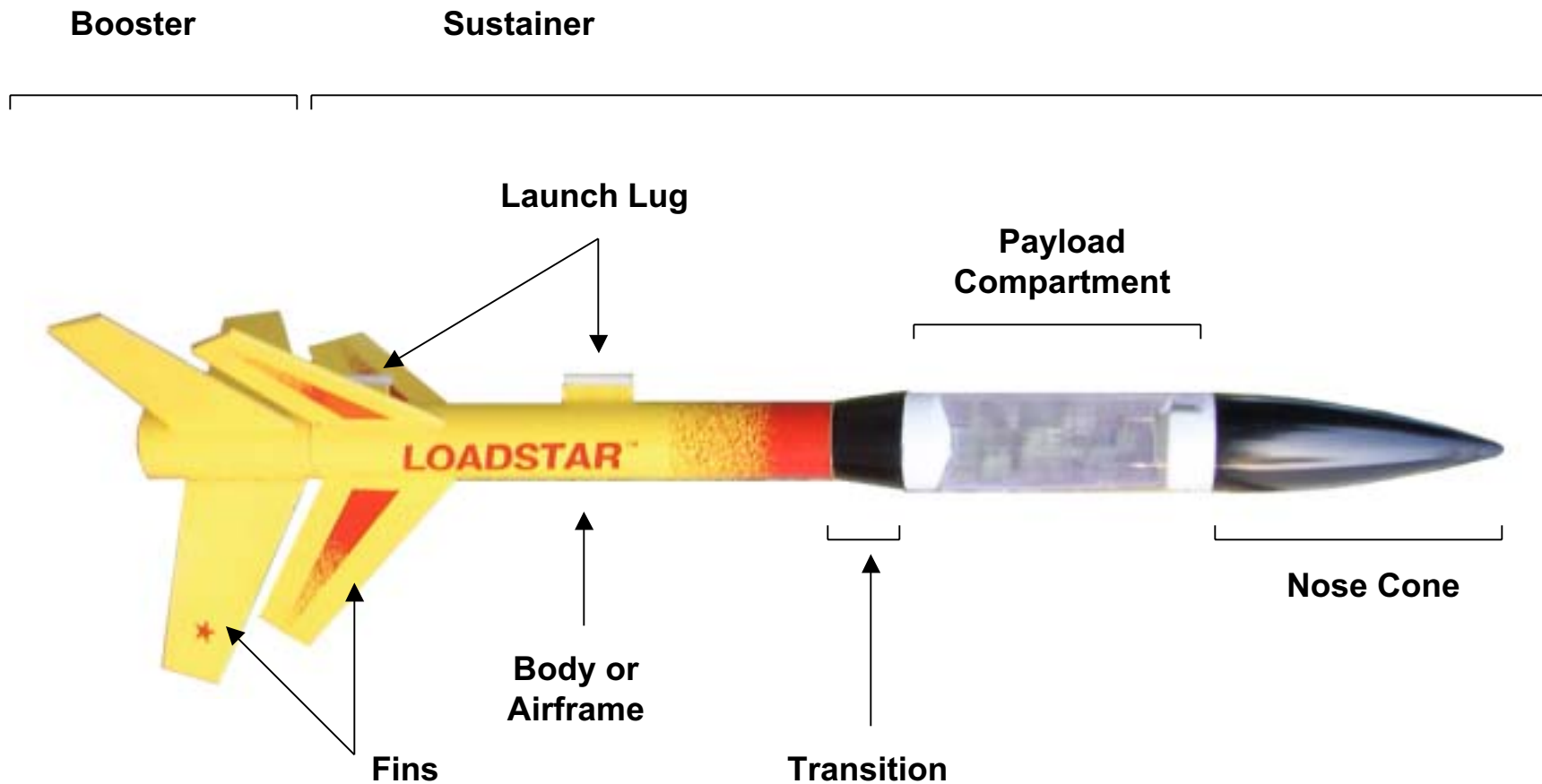
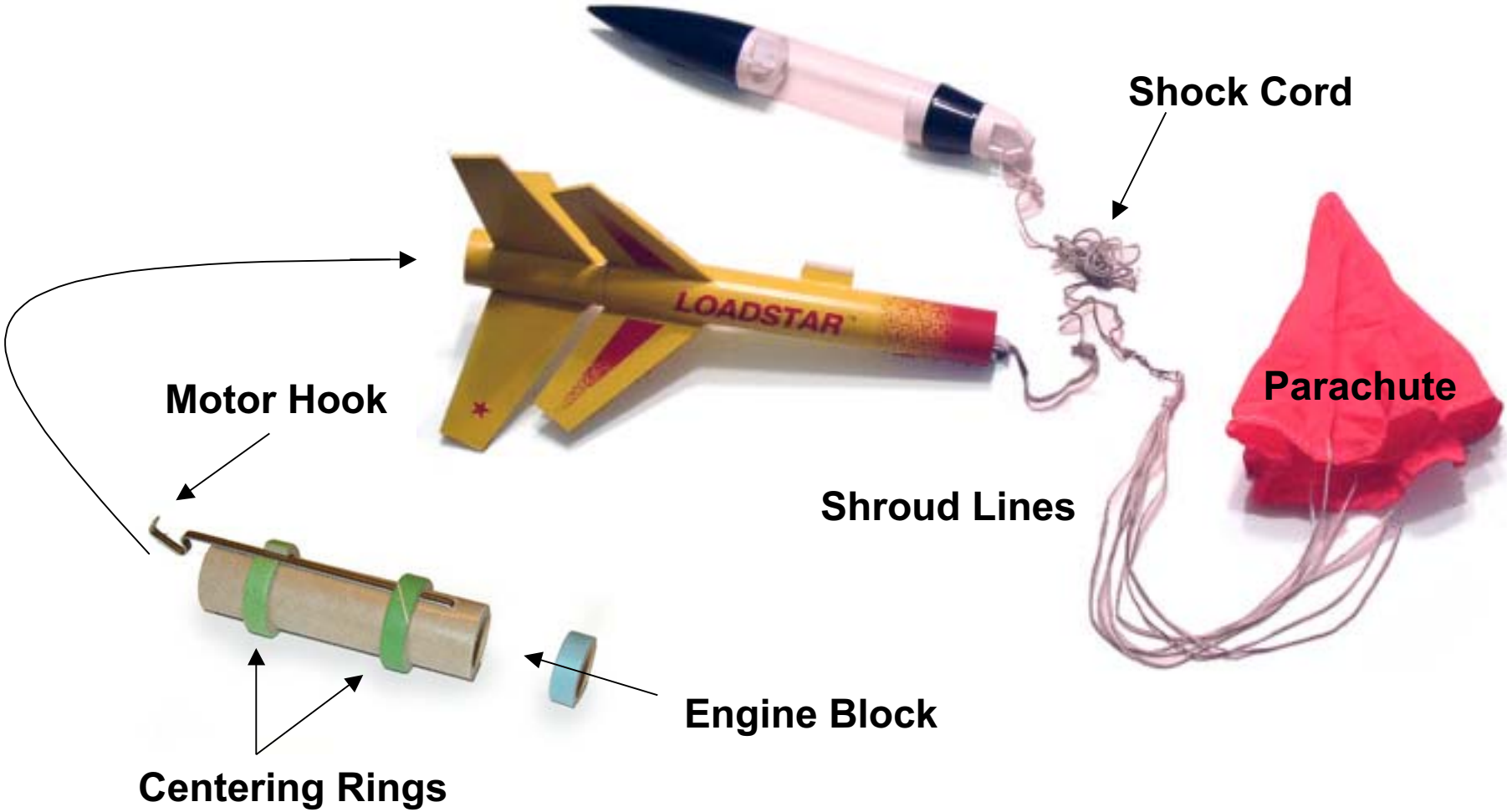




# Parts of a Model Rocket



# Internal Parts



# What Makes it Go?

**Burning black powder makes  
a stream of hot gasses exiting  
the motor**

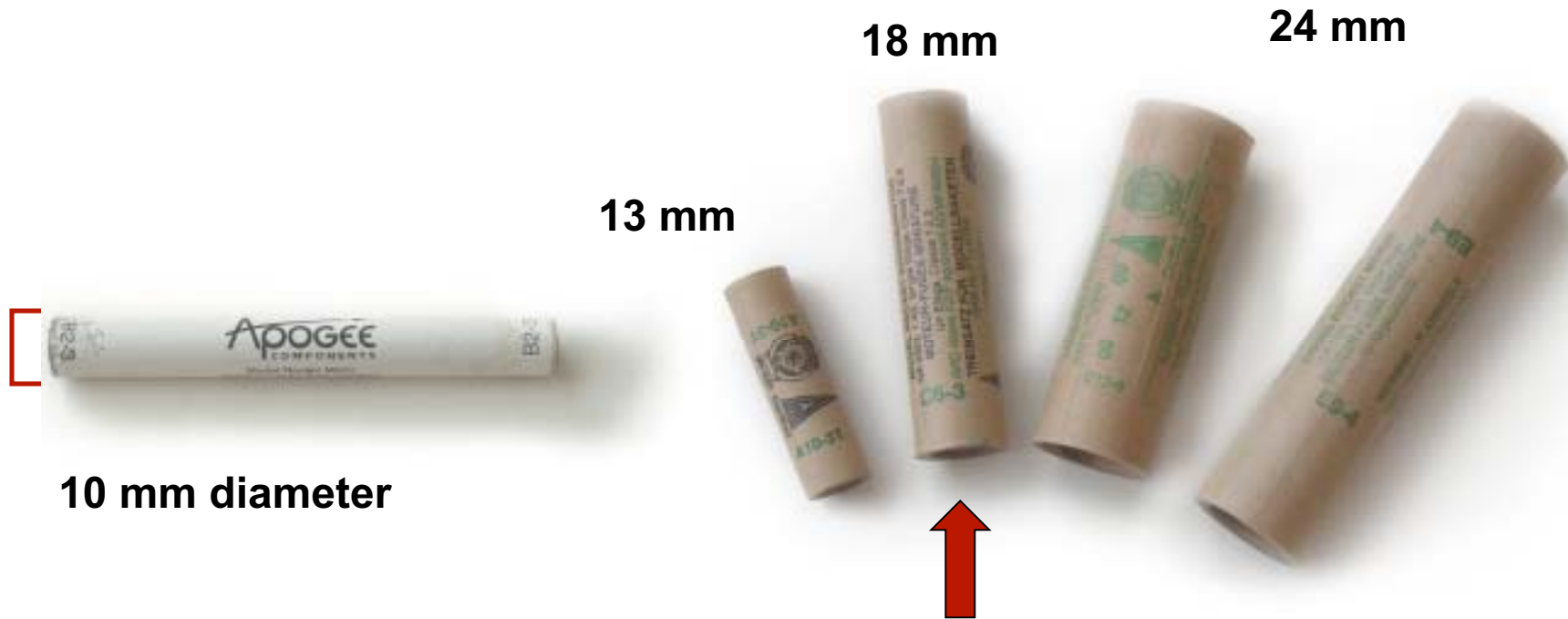


**Which cause the motor  
to move forward**

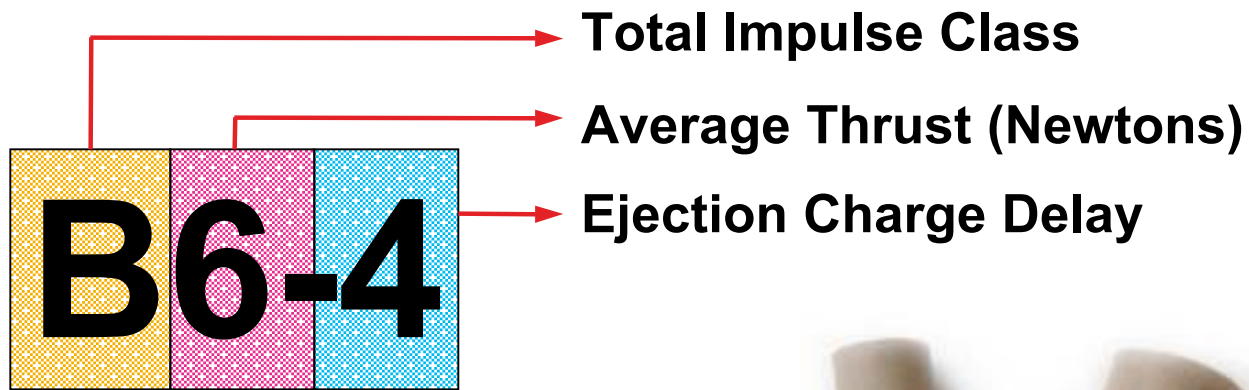
**Remember Newton's third law: action  reaction**

# What Makes it Go?

**Model rocket motors come in a variety of sizes and power ratings.**



# What Makes it Go?



**B2**



**A10**



**C6**



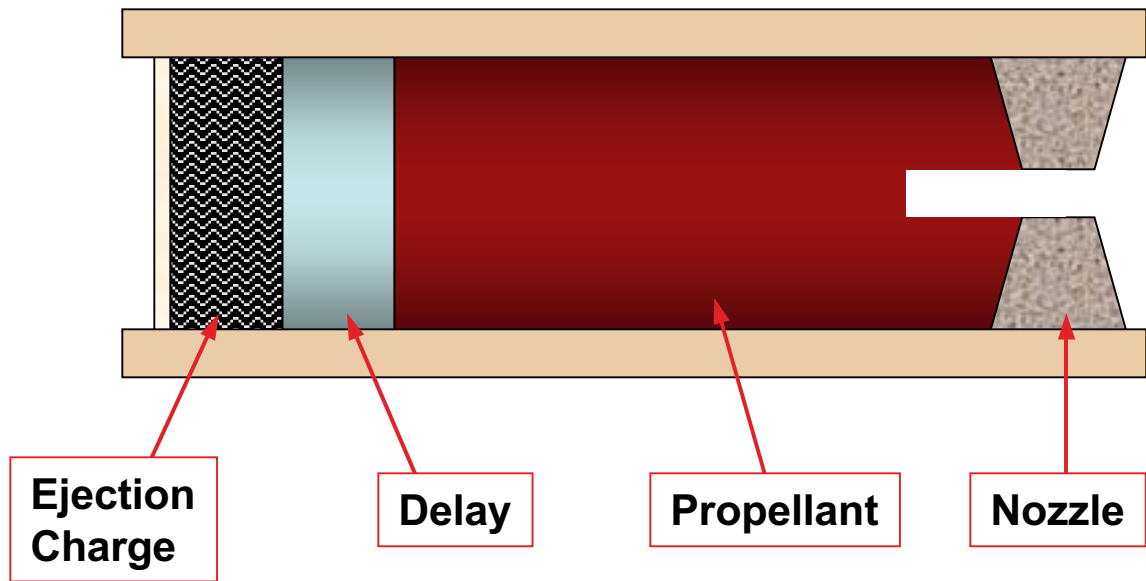
**D12**



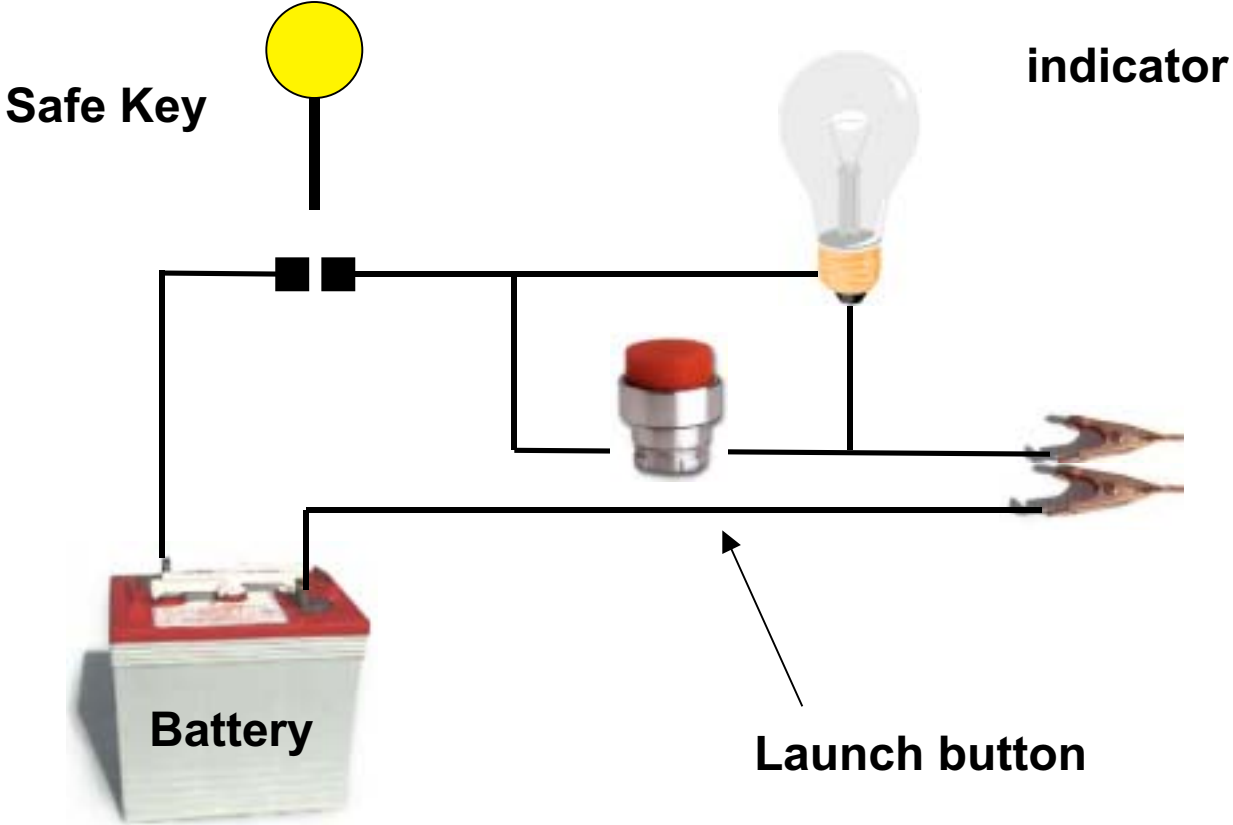
**E9**

# Rocket Motors - What's Inside?

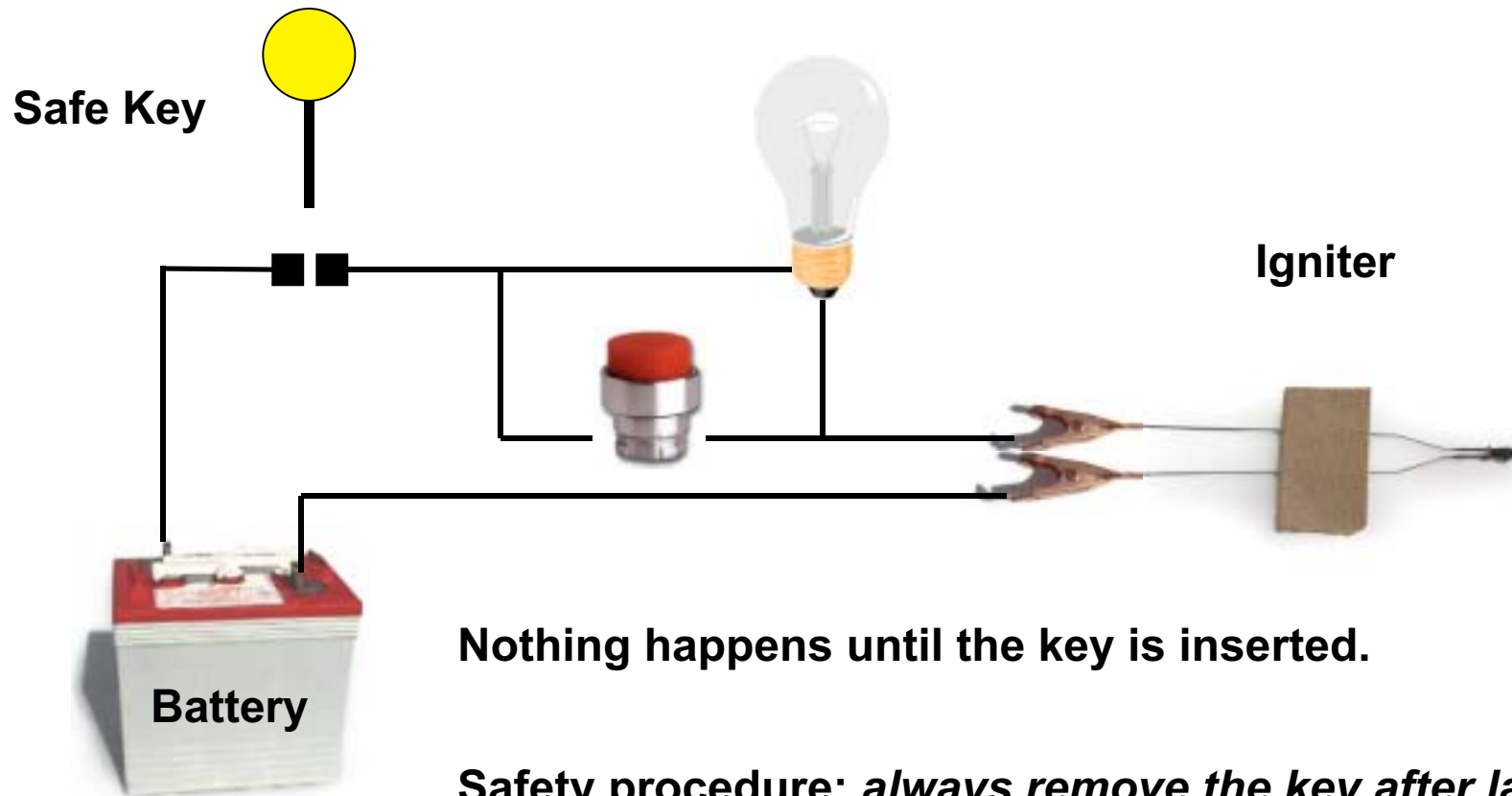
## Typical Black Powder Motor



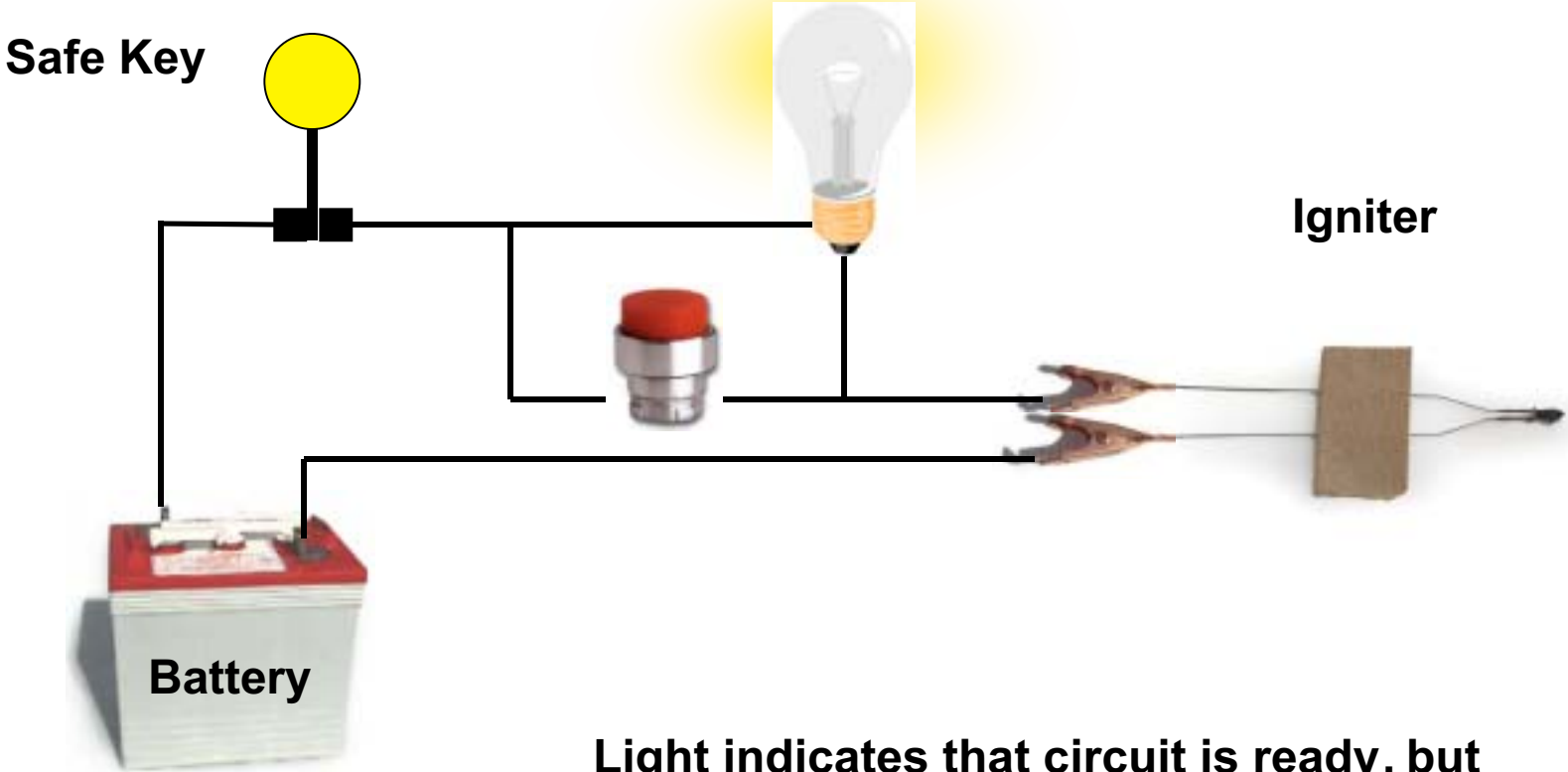
# How Does the Motor Get Started?



# How Does the Motor Get Started?

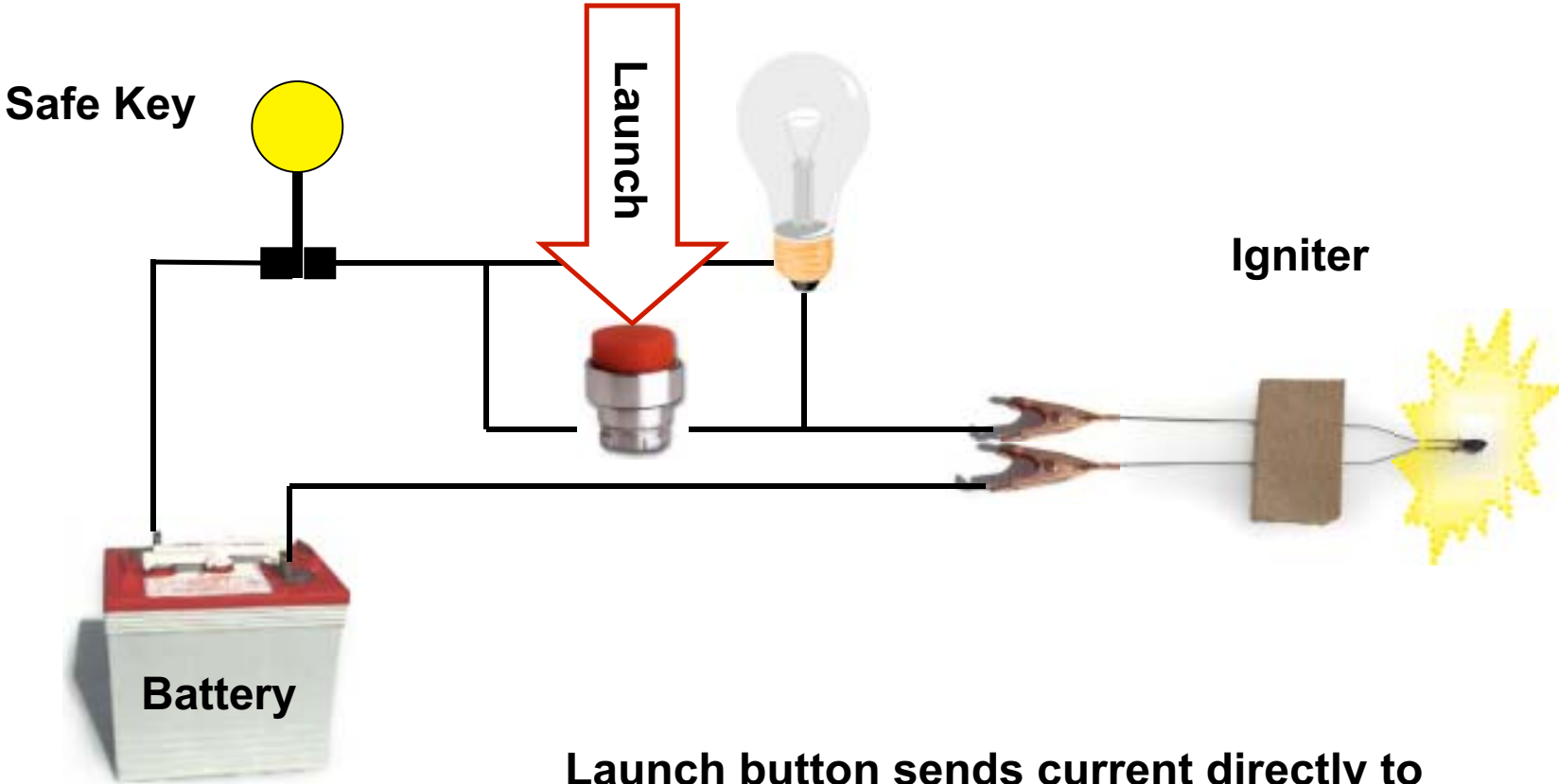


# How Does the Motor Get Started?



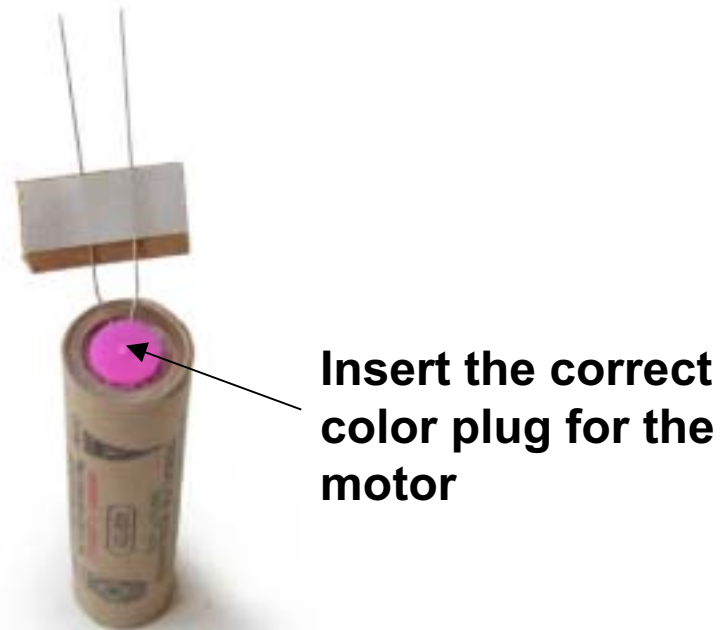
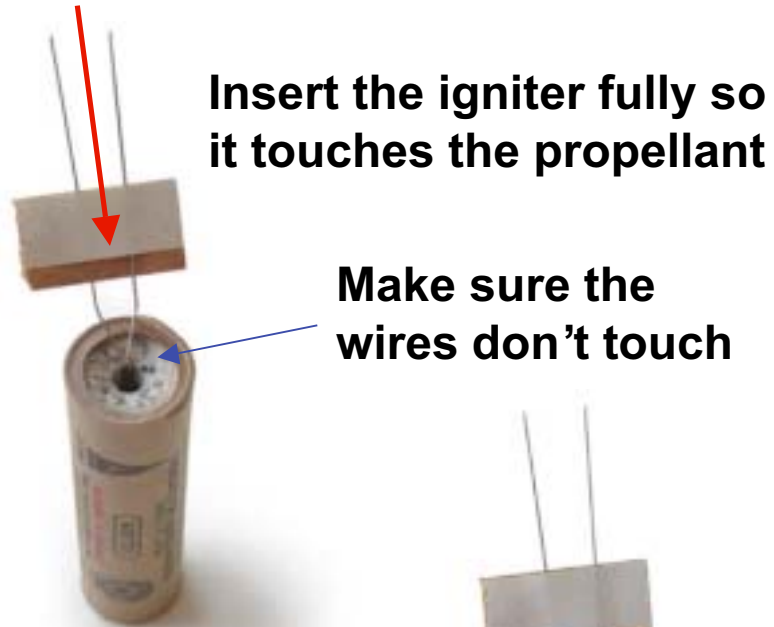
**Light indicates that circuit is ready, but bulb uses all power - igniter doesn't light**

# How Does the Motor Get Started?



Launch button sends current directly to the igniter, which starts the motor

# Inserting the Igniter



Clip against the paper (optional)

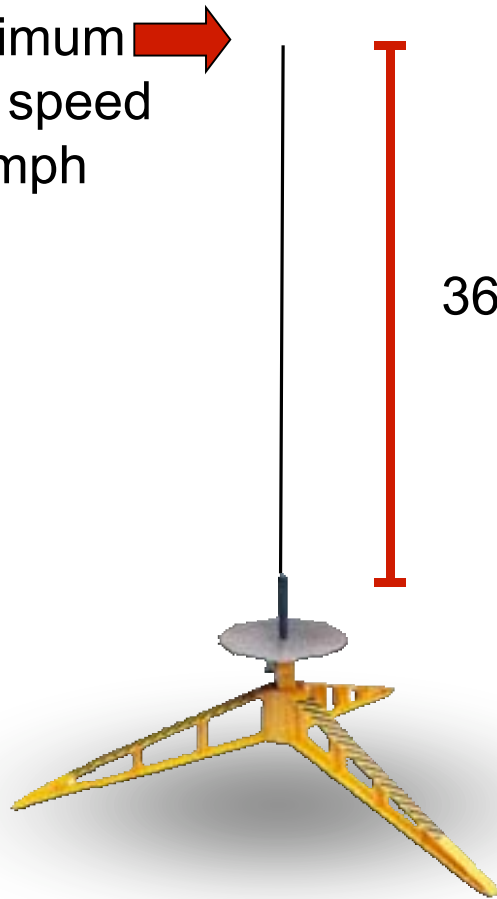


# What Motor Gets What Plug?



# The Launch System

Minimum  
exit speed  
25 mph



36 inches



A tube and guide rod are used to get the rocket started on a straight flight.  
A typical rocket must be traveling at least 25 mph for the fins to become effective.

# Rocket Flight Phases

