

## SELECTING AND PREPARING TAKE APART ITEMS

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**Please note, Invention Project will only need Upcycle items, not a Take Apart.**

Over the last 25 years, Camp Invention has been featuring hands-on, reverse engineering activities for children. Children are asked to bring a used/broken appliance item from home so they can tinker and explore!

Why do we feel the freedom to reverse engineer is important? Research of our world's greatest innovators showed a commonality that as children, they all took apart household items, re-imagining them into new prototype concepts! Our Collegiate Inventors Competition finalists, NeoVent, used a yogurt container and duct tape to create their prototype which later became a lifesaving infant respirator used in third world countries.

In preparation for the program, help your child find a broken or unusable household appliance or other mechanical device for him or her to take apart. During the Take Apart module, children will work in teams to brainstorm and create.

**It is extremely important that you prepare your child's Take Apart item by loosening any screws or components prior to the week of the program.**

Carefully unplug and cut all electrical cords and place the item in a bag clearly labeled with your child's name. Be sure the item is a comfortable size for them to handle and remove any parts that may potentially cause harm, including glass, blades or heating components. Also, make sure that if you send safety gloves with your child that you label them with your child's name.

**IMPORTANT:** Please be advised that the Take Apart item you provide will not be returned to you in working condition. Children will work in groups to disassemble their items to be used in a group project.

*For safety purposes, your child's Take Apart item will be screened by a team member for acceptance prior to the program's start. If you have any questions as to whether an item is acceptable either as a Take Apart or as an item to upcycle, please call the National Inventors Hall of Fame home office at **800.968.4332**. The National Inventors Hall of Fame, Inc. is not responsible for lost or stolen goods.*

## ACCEPTABLE UPCYCLING ITEMS

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- Beads, buttons, fabric and craft supplies
- Boxes (shoe, cereal, etc.)
- Bubble wrap, Foam trays
- Paper towel tubes
- Containers/lids, oatmeal containers, film canisters
- Game parts, pinwheels, building blocks, CDs
- Miscellaneous paper (magazines, craft, newspaper, etc.)
- Rubber bands
- Sporting goods and balls (no golf clubs or bats)
- Strainers, washers, pulleys, strings, springs

## UNACCEPTABLE UPCYCLING ITEMS

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- Batteries
- Cords
- Glass
- Glitter
- Liquids
- Medicine/Prescription containers
- Paint
- Packing peanuts
- Soda pop cans
- Wire hanger

## BEST ACCEPTABLE TAKE APART ITEMS

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- CD players
- Corded telephones
- DVD players
- Wind-up clocks
- Tape recorders
- VCRs

## OTHER ACCEPTABLE TAKE APART ITEMS

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- Alarm Clocks
- Blu-Ray® players
- Boom boxes
- Bread machines
- Calculators
- Candy dispensers
- Cash registers
- Computer keyboards
- Coffee machines
- Fans
- Karaoke machines
- Label makers
- Piano keyboards
- Radios
- Record players
- Sewing machines (no needles)
- Soundboards
- Stereo Speakers
- Typewriters
- VHS rewinders

## UNACCEPTABLE TAKE APART ITEMS

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- Cameras
- Cell phones
- Game consoles
- Irons
- Laptop computers
- Microwaves
- Monitors
- Printers
- Rotary phones
- Televisions
- Toasters
- Vacuums