# CRAFT IDEAS BOOK

A booklet full of craft ideas, designed to be built with the easy electronics of BYOR



### SOUND METER

Easily measure if your mom laughs too loud or your dad's snores are off the charts with this sound meter!

#### What you need

Cardboard | Split pens | Scissors | Markers | Sound sensor | Servo motor

Cut an arrow shape from the cardboard and attach it on top of the servo motor using the split pens<sup>\*</sup>. Cut out a big half circle from the cardboard and attach the motor in the middle near the straight edge. Attach all the parts to the Easyboard (chip) in such a way that it works<sup>\*</sup>. As always, test and improve your design. Finally draw a scale on the big piece of cardboard. Measure different sounds to see how loud they are!



\*See the last page of this booklet



Upgrade your existing shoes to steal the show!

#### What you need

Cardboard | Split pens | Scissors | Shoes | Signal splitter | Distance sensor | LEDs

Untie your shoelaces and tie them again with a piece of cardboard underneath. Make sure the piece of cardboard extends further than the shoe itself. Attach the distance sensor to the extending part of the cardboard, facing down and attach the LEDs to the sides. Attach all the parts to the Easyboard (chip) in such a way that it works. As always, test and improve your design. Enjoy being super flashy!



### DOG DETECTOR

Upgrade your dog's house to see when your dog is in it!

#### What you need

Tape or screws | A dog house | Distance sensor | LED

Attach an LED to the dog house on the outside using tape or screws. Now attach a distance sensor inside the dog house that will detect your dog. Use tape for this as you have to test how your dog will lie down and what the best place for the sensor is. Attach all the parts to the Easyboard (chip) in such a way that it works. As always, test and improve your design. Enjoy spying on your dog!



# FLESH EATING PLANT

Make a fierce flesh eating plant to scare people, perfect for Halloween!

What you need

Cardboard | Split pens | Scissors | Markers | Distance sensor | Servo motor

Cut out the stem of the plant, some leafs and a two parts of the beak. Attach one part of the beak to the servo motor using the split pens. Assemble your plant and attach the distance sensor to one of the parts of the beak. Attach all the parts to the Easyboard (chip) in such a way that it works. As always, test and improve your design. Enjoy being bitten!



### MASCARA APPLIER

Want to make yourself look even prettier? It's easy with this automated mascara applier!

#### What you need

Cardboard | Tape | Mascara | Split pens | Knob | Stepper motor

Take a big piece of cardboard and cut a hole in it, big enough to fit a face. Cut pieces of cardboard in such a way that you can build a simple stand for the motor to go into. Cut out a round piece of cardboard and cut a hole close to the edge, to hold the mascara. Use the split pens to attach the round piece to the stepper motor. Use tape to secure all the parts together. Attach all the parts to the Easyboard (chip) in such a way that it works. As always, test and improve your design. Enjoy being super pretty!



# FOOD DISPENSER

Always want the perfect amount of cornflakes? Build this automatic food dispenser!

#### What you need

Cardboard | Split pens | Scissors | Distance sensor | Servo motor

Take a cardboard box and cut out a chunk in the middle of the box and make a hole in the top part. Attach a piece of cardboard to the servo motor with the split pens. Attach the motor to the box in such a way that it blocks the hole in the top part of the box and when it moves, it will unblock the hole. Make a small hole in a cornflakes carton and place it on top of the box with the hole facing down, make sure it aligns with the hole on top of the box. Place the distance sensor in the bottom part, facing up. Attach all the parts to the Easyboard (chip) in such a way that it works. As always, test and improve your design. Enjoy your breakfast!



### PET PETTER

Make your pet feel even more at home with this automatic pet petter!

#### What you need

Cardboard | Split pens | Something soft | Distance sensor | Stepper motor

Cut and fold the cardboard in such a way that it forms a stand for the distance sensor, it should reach as high as the body of your pet. Cut and fold another piece of cardboard, for holding the Stepper motor. Attach something soft to the stepper motor in such a way that it can pet your pet when it rotates. Attach all the parts to the Easyboard (chip) in such a way that it works. As always, test and improve your design. Enjoy a happy pet!



# MOVING BIRTHDAY CROWN

Be the king of your birthday by getting an interactive birthday crown!

#### What you need

Cardboard | Split pens | Scissors | Tape | Sound sensor | Servo motor

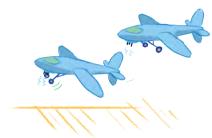
Cut out a pattern long enough that when folded in a circle, it fits your head. Cut out a part that will go down from the crown to your mouth. Use cardboard to close up the top of the crown and build a small holder for the servo motor. Attach a little flag to the servo motor using split pens or tape and attach the sound sensor to the mouth piece with the split pens. Attach all the parts to the Easyboard (chip) in such a way that it works. As always, test and improve your design. Happy birthday!



### SOME MORE COOL IDEAS



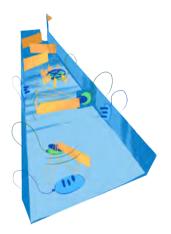
Automatic fan (Responds to light)



Toy plane upgrade: Automatic folding landing gear



Conveyor belt / Caterpillar track



Interactive marble track



Stuffed animal exoskeleton







BYOR quick-start manual byor.nl/en/support



BYOR build manual byor.nl/en/support

### Share your creation, inspire others!

If you've built one of the ideas in this book, or anything else with the BYOR kit, be sure to share it with us! There is a form on our website (*inspiration*) which you can use to show it to us. You can also tag us in a message on social media. We'll then share it with our followers!



A booklet full of craft ideas, designed to be built with the simple electronics of BYOR

Build prototypes of anything you can think of with BYOR | Build Your Own Robot!



Be sure to get more inspiration on our website and social media!









Illustrations: Ivy Kneppers