Creepy Crawly Spider Halloween Prank

Trick, not Treat! Prank your friends on Halloween with a door-switch-activated creepy crawling spider.

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INTRODUCTION

Trick, not Treat! Prank your friends on Halloween with a door-switch-activated creepy crawling spider.

Build this project with our **Bit Board** (and a micro:bit) along with a 360 degree servo.

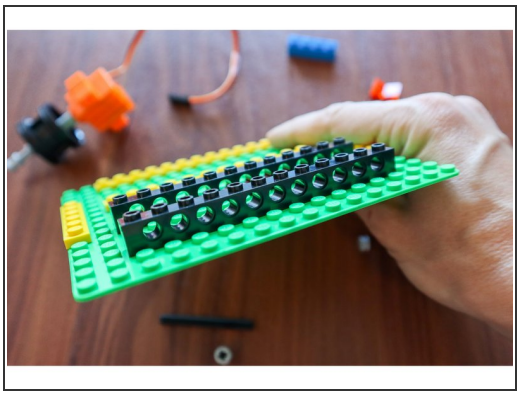
TOOLS:

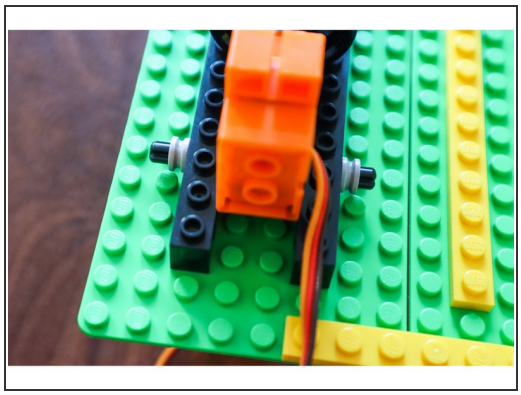
- Computer (1)
- Scissors (1)

PARTS:

- micro:bit (1)
- Crazy Circuits Bit Board (1)
- LEGO Baseplate (1)
- Misc LEGO Parts (1)
- Brick Compatible 360 Degree Servo (1)
- Maker Tape (1)
  1/4" Wide
- Plastic Spider (1)
- Sewing Thread (1)

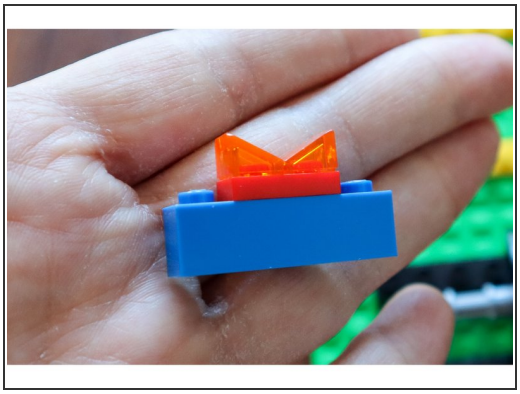
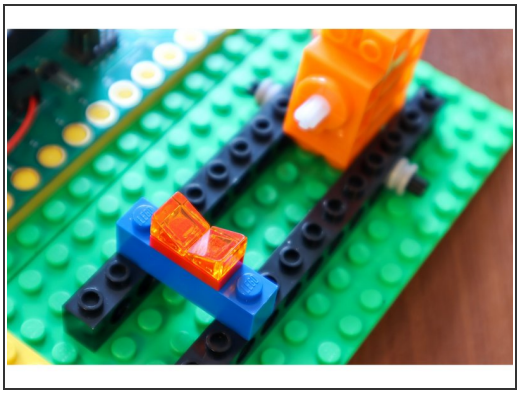
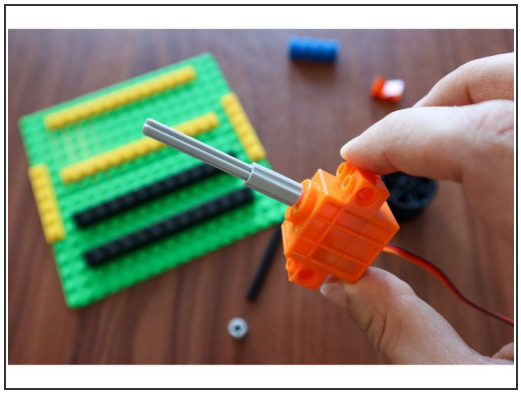
Step 1 — Build the Winch Mechanism





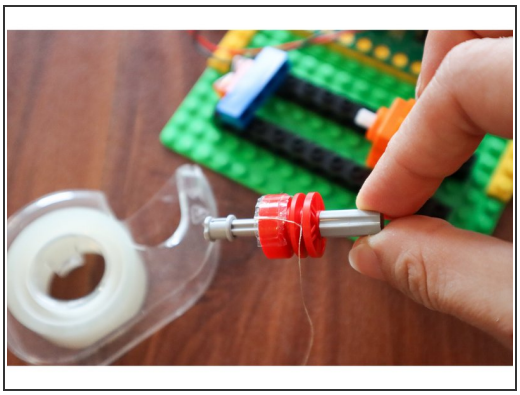
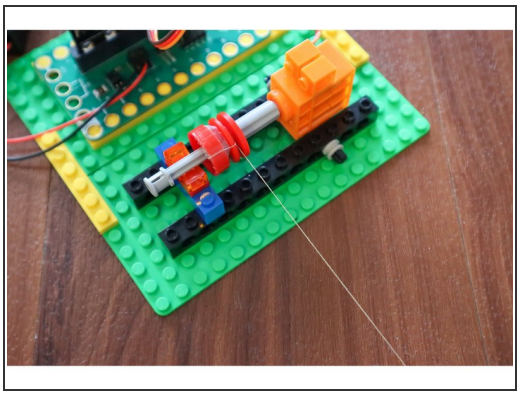
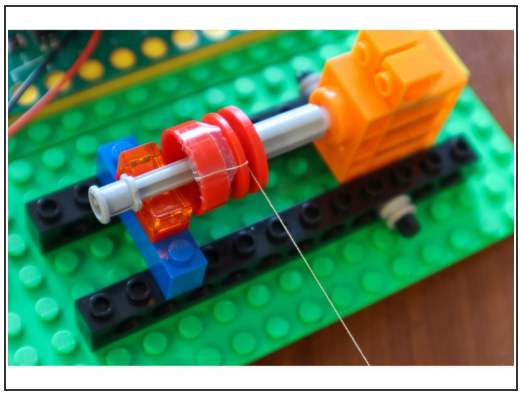
- As with many LEGO projects, there are multiple ways to build something that works. For another version of this mechanism, check out this guide.
- Connect the motor to the baseplate so that the motorhead is parallel to it. In this case, I used two Technic bricks with holes and threaded an axle through them and the motor to secure the motor in place.

Step 2 — Support the Axle

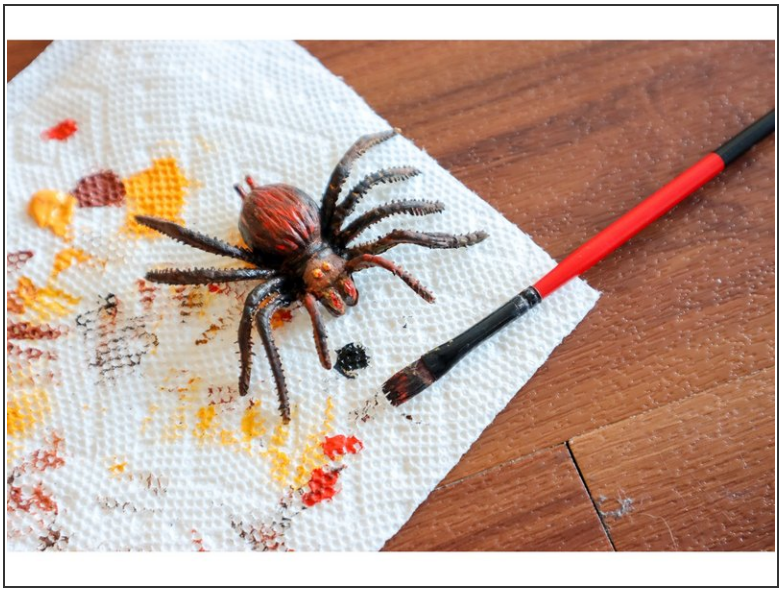
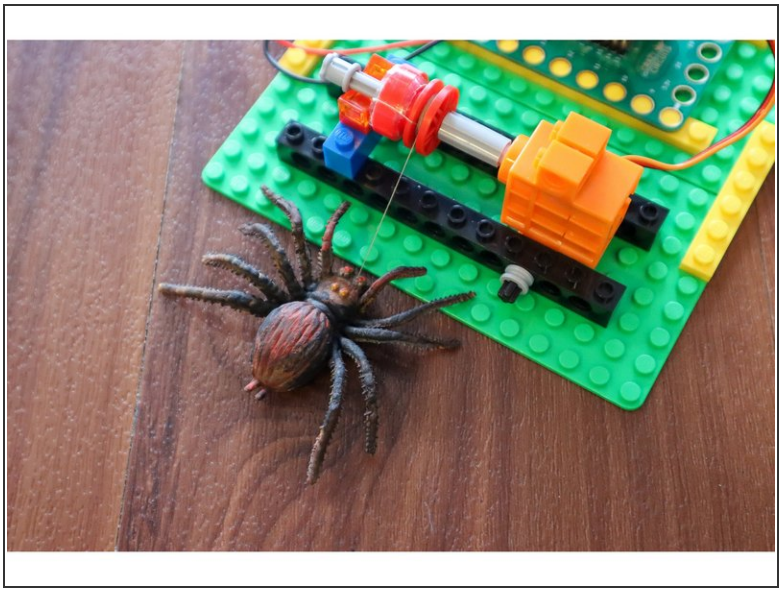
- In this version, I used two wedge pieces to make a cradle for the axle, but you could also use another Technic piece with holes.

Step 3 — Tie a string around the Wheel Rim

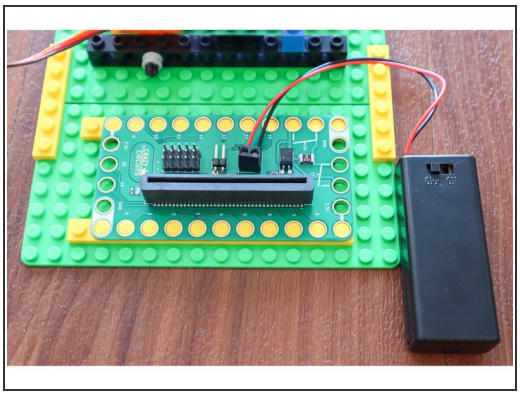
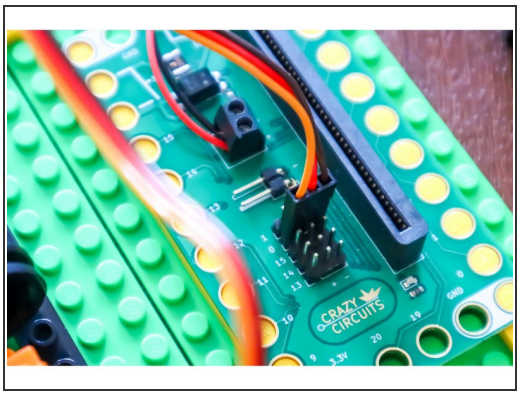
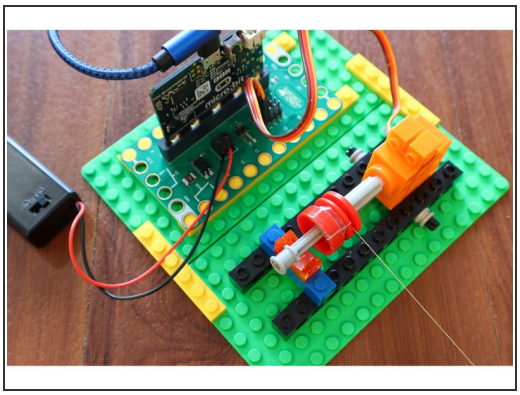
- Tie a piece of thread that's long enough to reach the location of your spider to the wheel rim, and secure it with a piece of tape.
- Place the assembly on top of the motor head.

Step 4 — Attach the Spider

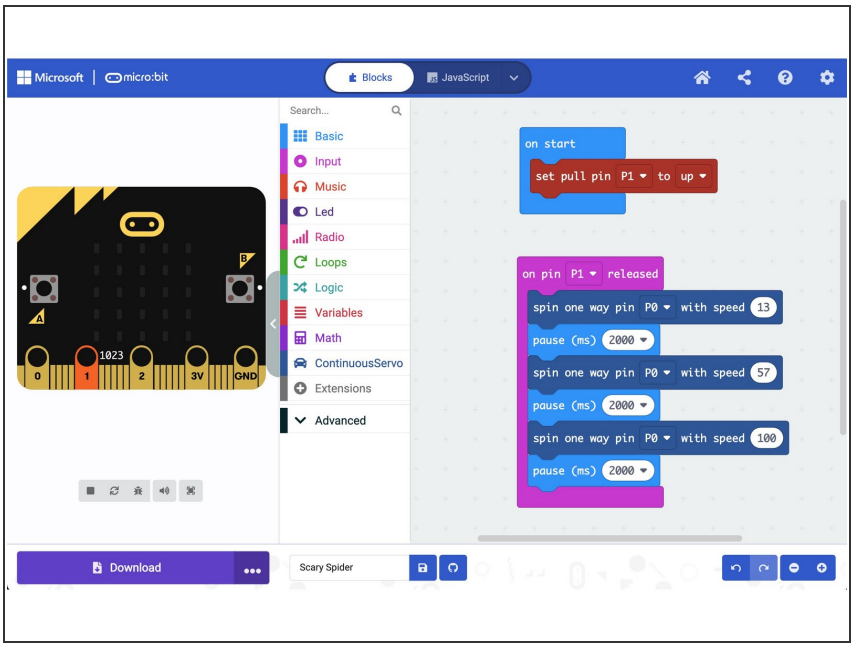
- Tie the other end of the string to a toy spider.
  - Tip: The toy spider we found was grey and not very convincing, so we painted it with craft paint to look like the real deal.

Step 5 — Build the Circuit

- Connect a battery pack to the screw terminals or battery pin headers.
- Connect the continuous rotation servo to **Pin 0**.
- Place the micro:bit into the Bit Board.

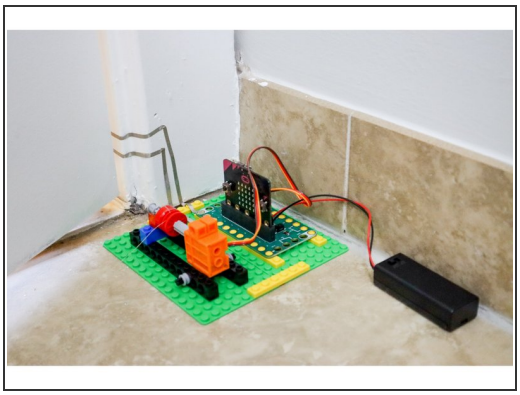
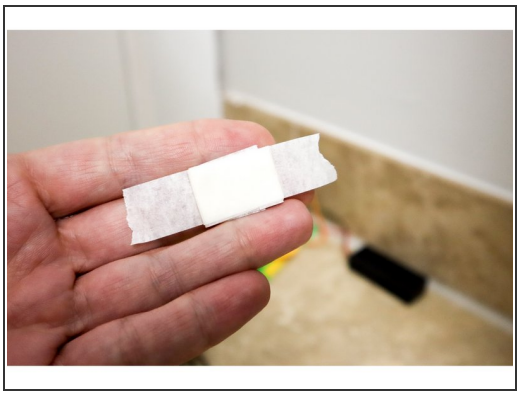
Step 6 — Download the Code



⚠ If you've never used a micro:bit before you'll want to check out this guide: Bit Board V1 Setup and Use

- Download the **Scary Spider** code to the micro:bit here: https://makecode.microbit.org/_DAidiX7J3...

Step 7 — Put in Place and Add a Switch


- Connect one strip of Maker Tape to **Pin 1** and one strip of Maker Tape to **GND**.
- With the project in place behind a door, adhere the two runs of tape to the door frame leaving about 1 inch between them.
- Add another piece of tape on the door to close the switch when the door is closed.
  - Tip: Our door didn't touch the tape when closed, so we made a small pad of masking tape to take up the gap.

Step 8 — Place your Spider and Prank Someone!



- Place your spider across the room in front of the door opening and close the door. The next time the door is opened, the spider will start to walk toward the person who opened it, and give them quite a fright!

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