

Super Secure Safe Using Sensors

Explore

Check out the [Keep It Safe](#) and [Keep it really safe!](#) lessons. Build the model and practice coding to unlock the safe door. Then, try this remix challenge!

Remix

Create a new and different version of something. You can remix a song, a product, or in this case a LEGO® model and code.

Extend

With teacher support, research super secure safes in the real world. What types of unique security features do they have to keep your property safe? Can you mimic these security features in your design and program?

```
when program starts
  play beep 60 for 0.2 seconds
  play beep 12 for 0.2 seconds
  B+C+E → set speed to 15 %
  C → run C for 1 seconds
  B+E → go shortest path to position 0
  B → set relative position to 0
  B → set motors to coast at stop
  turn on [ ]
  repeat until timer > 5
    play beep 60 for 0.2 seconds
    E → run E for 15 degrees
  wait 0.1 seconds
  play sound [Bunk] until done
  stop and exit program
```

```
when [ ] is left button pressed and B → relative position = 180
  stop other stacks
  turn on [ ] for 2 seconds
  turn on [ ]
  E → go shortest path to position 0
  C → run C for 1 seconds
  play sound [Bunk] until done
```

Challenge

Can you **remix** your safe to utilize sensors and compound conditionals? Incorporate the Force Sensor, Gyro Sensor, Color Sensor, and/or Distance Sensor to make your safe-deposit box super secure. Add a compound conditional to your code by utilizing an "OR" statement or "AND" statement that includes a sensor in your program. Explore the Coding Tips in the Keep it really safe! lesson for inspiration. Iterate on your model and program to ensure the safe is secure and functioning properly.

