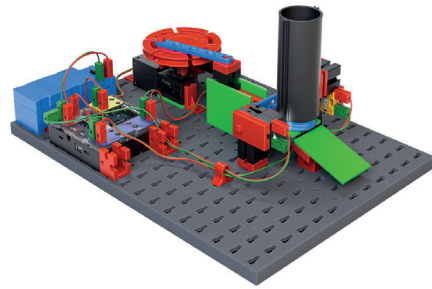# Model 5: Coin counter
Objectives and classification

Overview

Variables are introduced in this model. The end position mechanism is used to count revolutions and to check the magazine fill level. Finally, voice output is added to the model.

Topics

How does a program save counts? How can different processes be controlled with an end position mechanism?

Learning objectives

- Programming several end position mechanisms
- Use of variables to count events
- Voice output of variables

Time required

Setting up the coin counter takes about half an hour.
Two school hours should be set aside for the development and testing of the programs Coin ejector, Multiple coin ejector, Coin ejector all, Coin counter and Coin counter with speech, which build on each other.

The experimental task supplements a voice output that can be added in a few minutes if the students have already programmed the voice output from model 4.

Solutions and notes
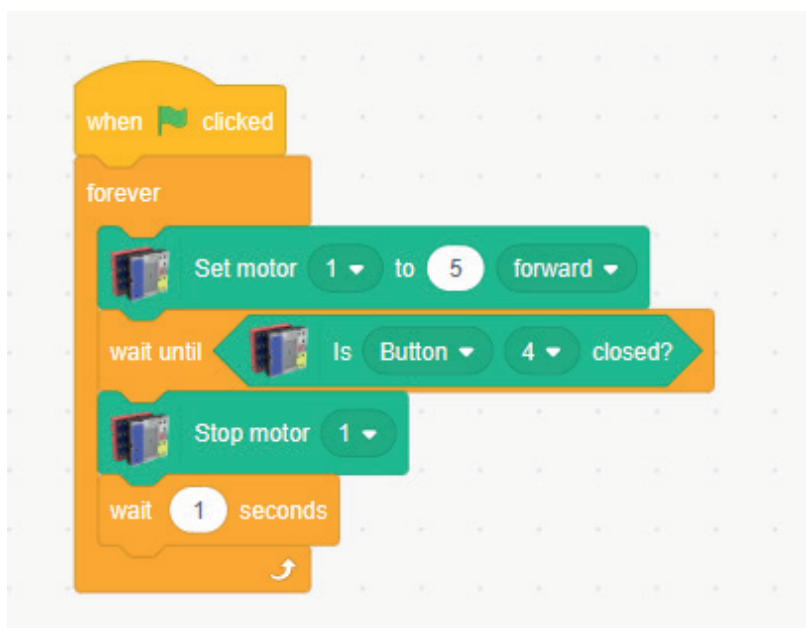# Programming tasks Model 5: Münzzähler

Solution Coin ejector:
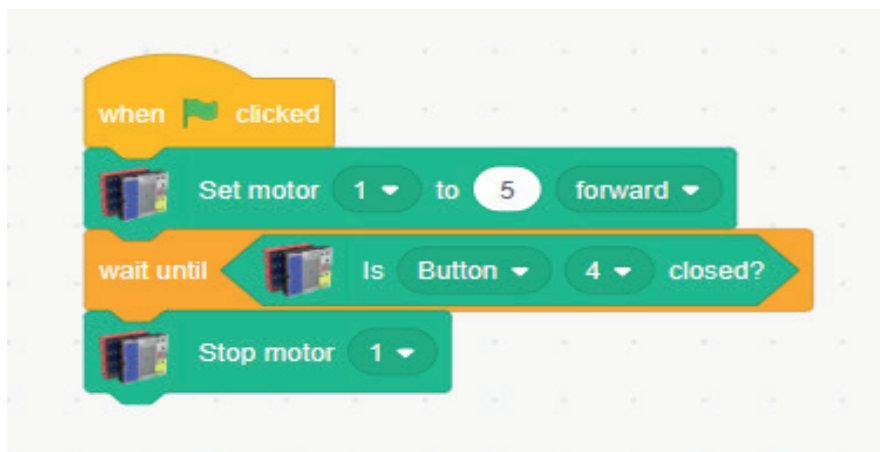
Coin ejector.sb3
Tip: The motor must not rotate too quickly.
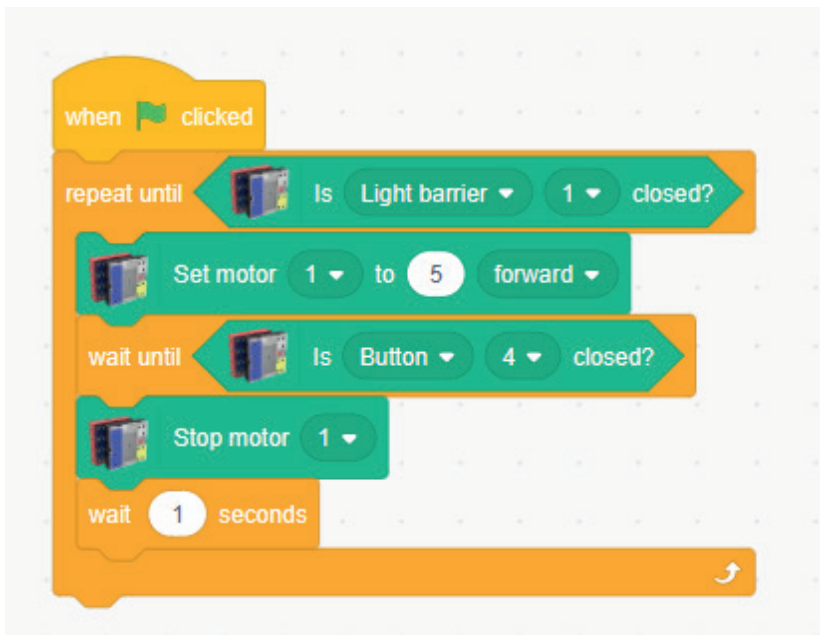
Solution Multiple coin ejection:

Multiple coin ejection.sb3
Trick: The pause before the button query „debounces" the button.

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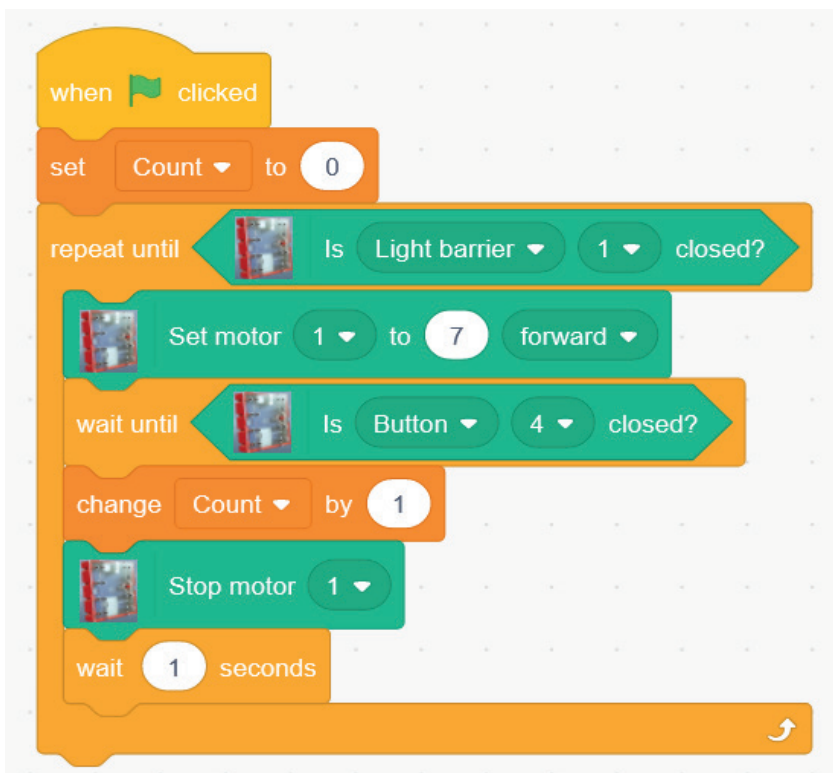# Solutions and notes
Programming tasks Model 5: Coin counter

Solution Eject all coins:

Coin eject all.sb3

Solution Coin counter:

Coin Counter.sb3

Solutions and notes
Programming tasks Model 5: Coin counter

Solution Coin counter with voice output:

Coin counter with speech.sb3