# Model 7: Telegraph - Transmit & encode signals
Objectives and classification

Overview

The model provides an introduction to message technology: From a simple light signal to a counting signal to the transmission of a coded message. Subroutines („custom blocks" in Scratch) are introduced. The task is particularly suitable for working in a group of two with one transmitter and one receiver unit.
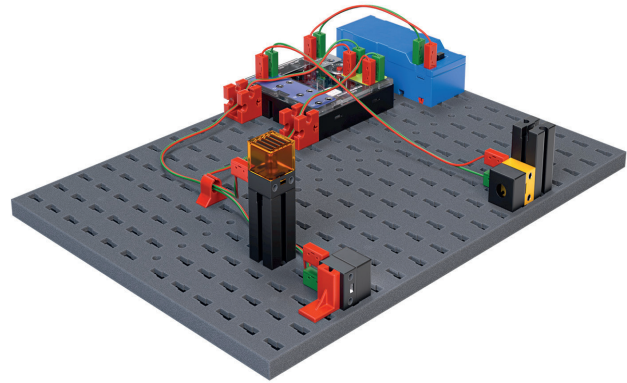
Topics

How can you transmit a signal? How do you encode a message? What are subroutines and how do you use them in Scratch? How can you measure time in Scratch?

Learning objectives

- Principle of (asynchronous) signal transmission
- Understanding the coding of a message
- Transmission of a message as a sequence of characters
- Using and programming subroutines in Scratch
- Timekeeping in Scratch

Time required

It only takes a few minutes to set up the transmitter and receiver. In the rest of the lesson, the first two tasks „transmitter-receiver" and „transmitter-receiver" can be completed.
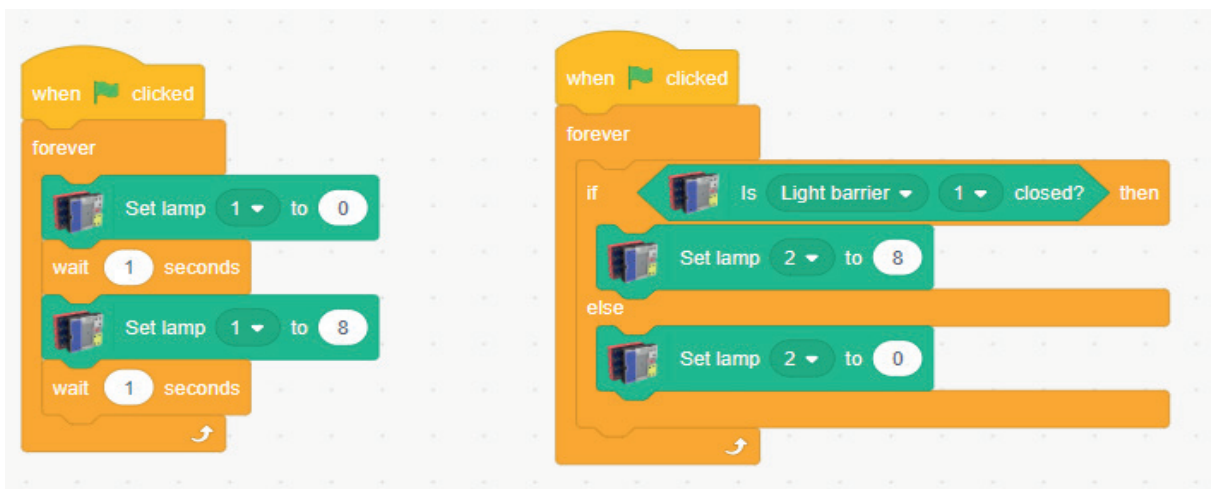Program and solve the „number-transmitter-receiver".
The next two tasks, „number-transmitter-number-receiver" and „number-code-transmitter", should take another lesson.
The experimental task is simply an application of the programs from the „numerical code - transmitter - number - receiver" tasks, but the manual coding of the message takes time. Therefore, an additional lesson should be set aside for working on this task

Solutions and notes
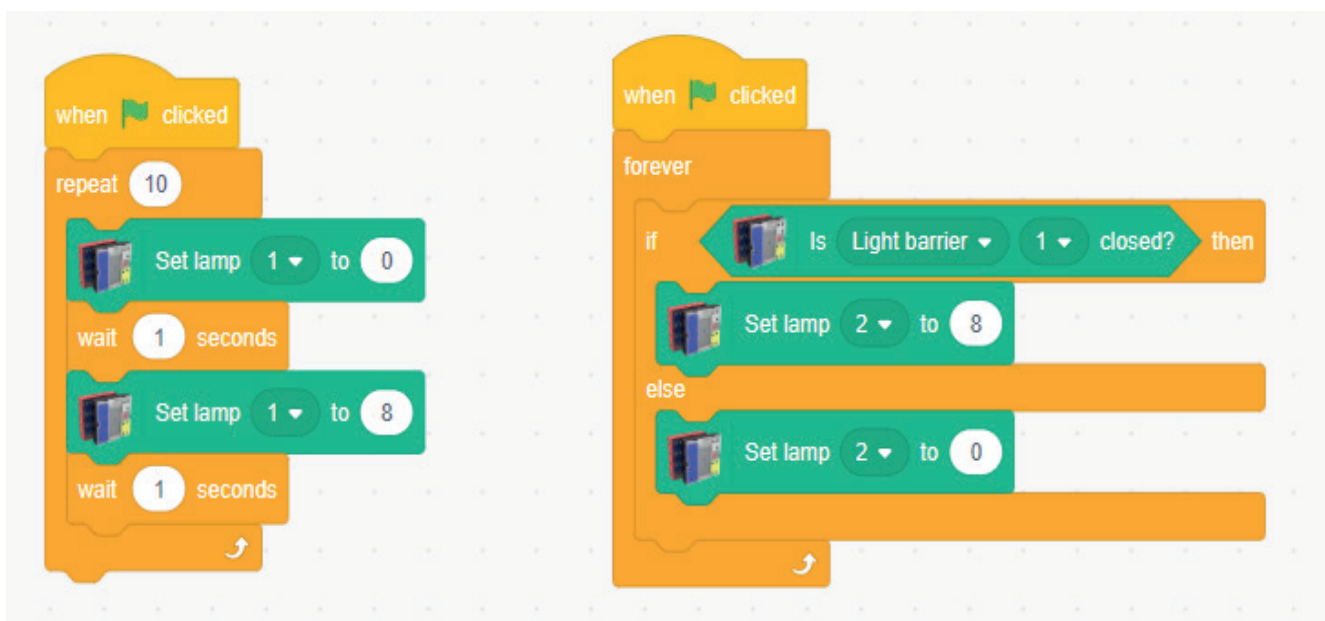# Programming tasks Model 7: Telegraph

Solution:

Sender-Receiver.sb3

Solution Transmission of information:
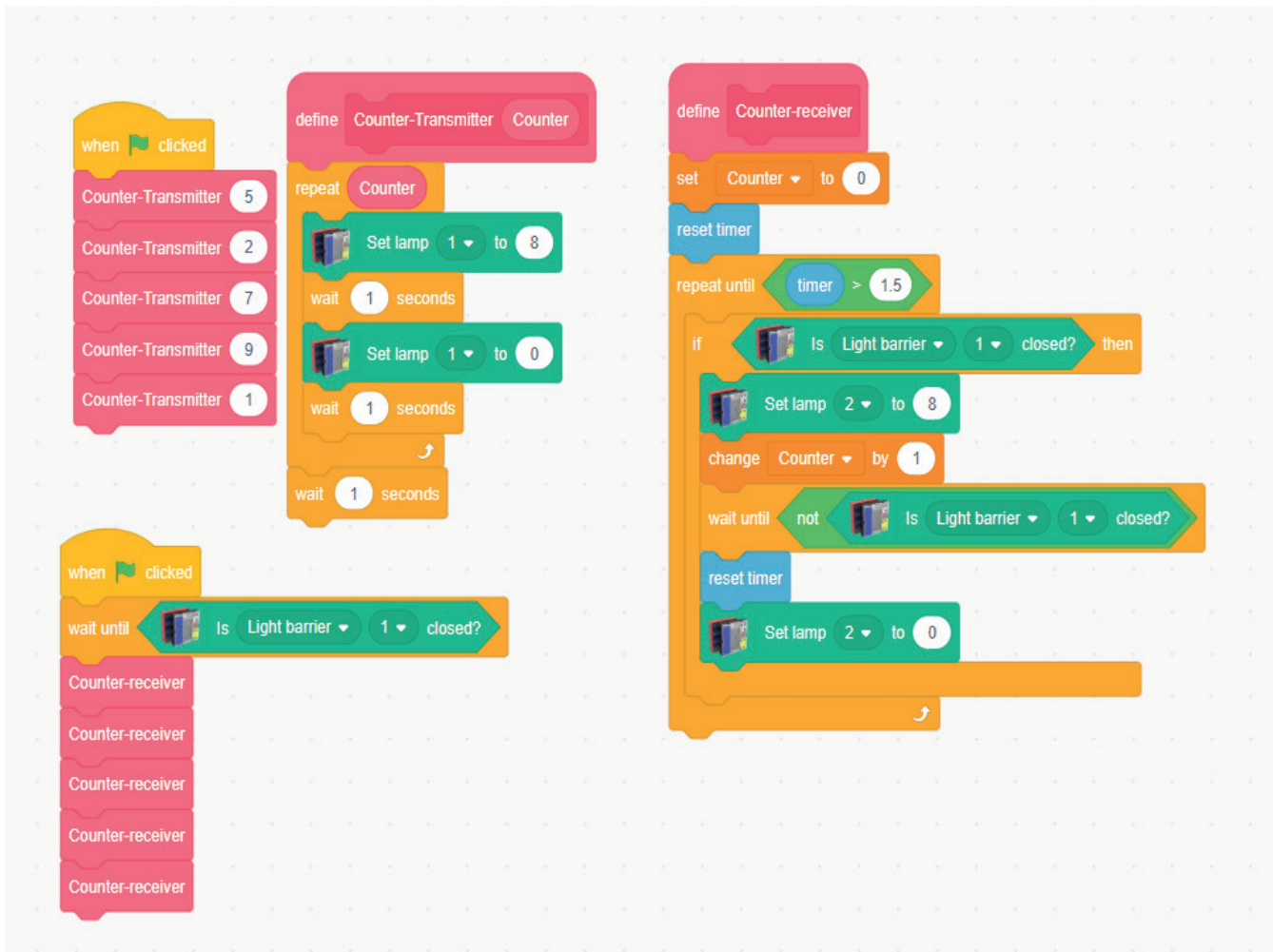

Number sender-receiver.sb3

Titel
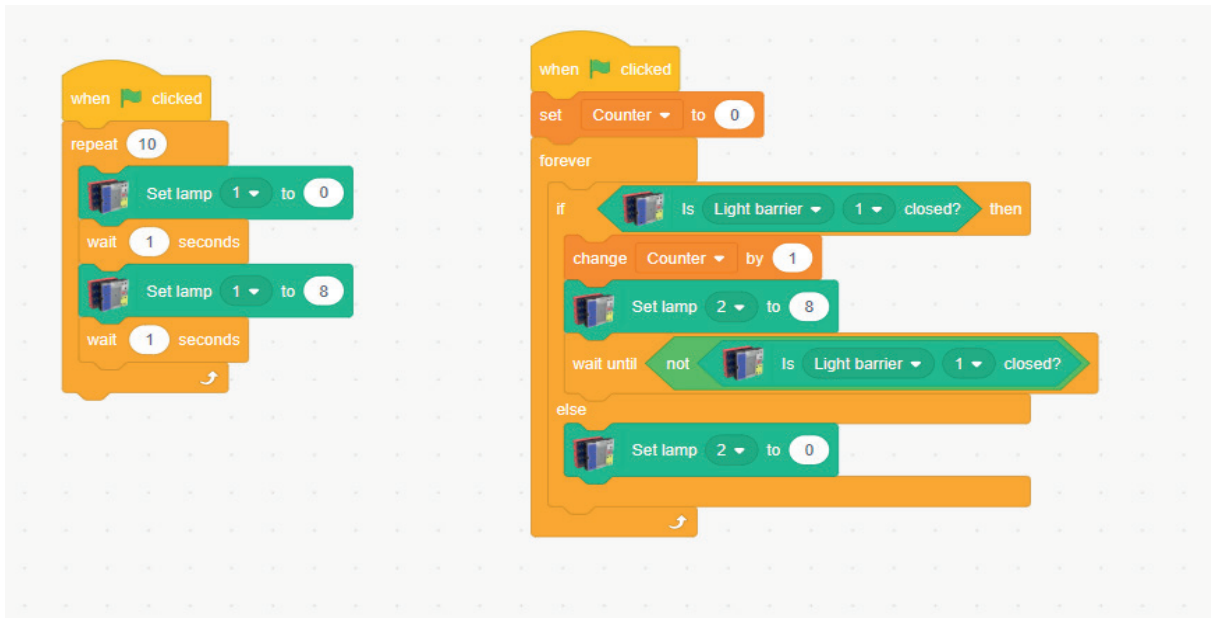
Number sender - number receiver.sb3

Solutions and notes
Programming tasks Model 7: Telegraph

Solution Number code transmitter and receiver:

number code transmitter - number code receiver.sb3