

Pathfinders e-Honours Semaphore Code + Morse Code



Requirements:

1. Do one of the following:

a. Send and receive by International Morse Code at the rate of three words per minute using flashlight, whistle, mirror, buzzer, or key. (Five-letter words, minimum of 20 words.)

b. Send and receive by semaphore code at the rate of seven words per minute using semaphore flags. (Five-letter words, minimum of 20 words.)

c. Send and receive by International Morse Code at the rate of three words per minute using wigwag flags. (Five-letter words, minimum of 20 words.)

Short history of Communications.

Since there is **people** in the planet, there is **communication**.

In fact, the Creator communicated with Adam and Eve...talking with them, explaining and giving instructions. Then the humanity, besides talking, used signs and equipment to help get in touch with others, using flags and, lights, smoke, whistle and others sounds are a way to communicate with others

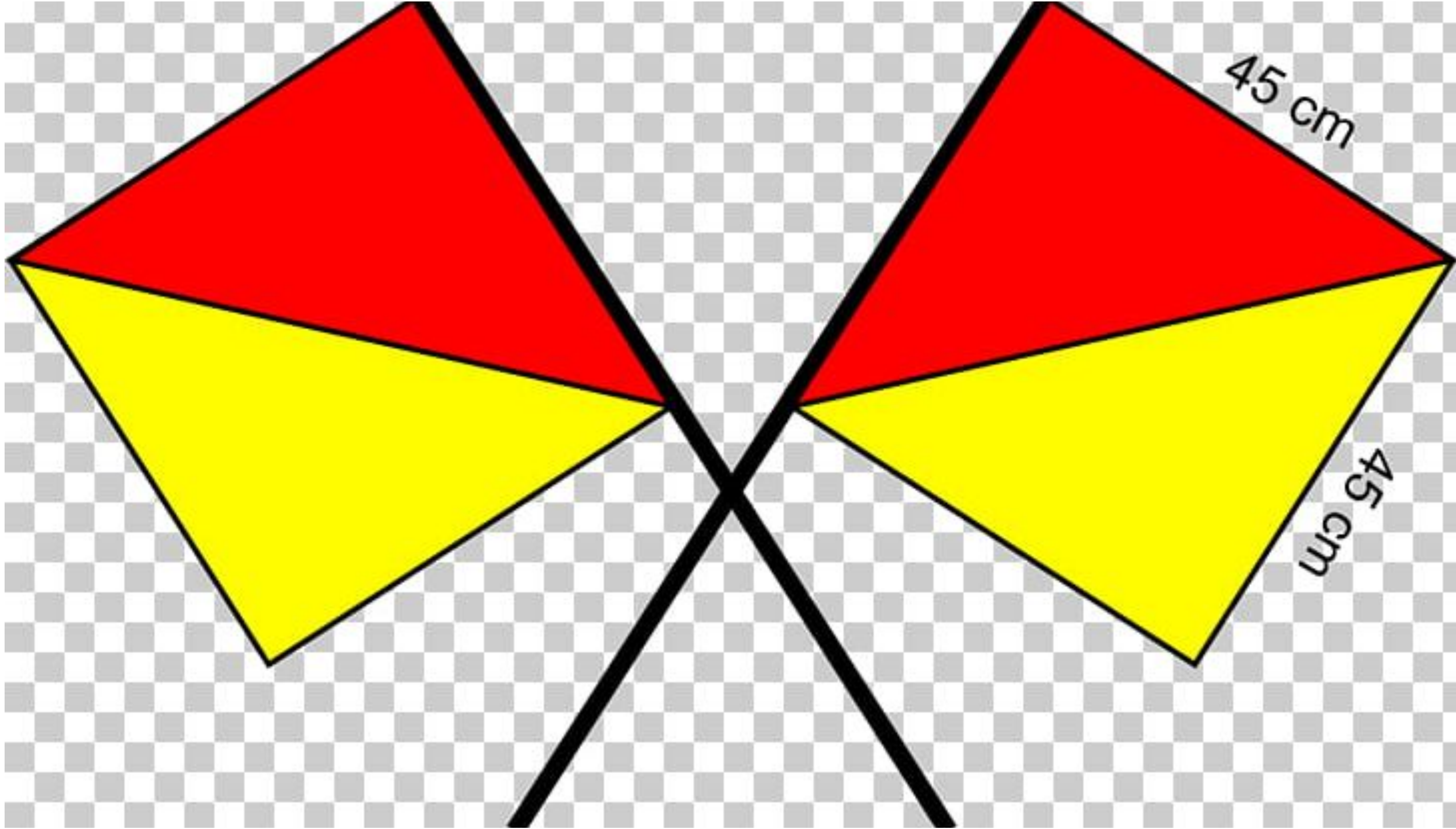
Flag semaphore handheld version is used as a optical communication or telegraph on land communications but specially between ship-to-ship or ship-to-shore when the distances were not too great and

On this Pathfinders e-Honour, the element Semaphore, we will use two small poles with square coloured flags, holds in different positions to signal all letters of the alphabet and the numbers.

SEMAPHORE



Semaphore is any equipment used for visual signalling by means of **flags**, lights, or **mechanically moving arms** which are used to represent letters or numbers.



45 cm

45 cm



Semaphore flags system used to communicate between ships



Smoke system to communicate messages

We need two teams of, preferably, 2 persons each.

Two persons are the flag-person - One is the **transmitter** of the sign letters/numbers and another is the **receiver** the sign letters/numbers.

It would be good that each of the flag-persons have an assistant or a sort of secretary to read and/or to register them.

The flag-person holds one pole in each hand, and extends each arm being each possible position separated by 45° , in the specific positions we will learn in a moment.

The **semaphore letters** almost follows the perfect alphabet sequence, **EXCEPT** only 3 letters. The letters **J, V, and Y**, break the pattern. We present them here in alphabetical order, and then again by position in a **series of circles.**

The CIRCLES are:
A, H, O, T, Numerals, W and Z

The circle **A** includes the letters or numbers - double function: A or #1, B or #2, C or #3, D or # 4, E or #5, F or # 6, G or # 7.

The circle **H** includes letters or numbers: H or #8, I or #9 , (not J) K or #0-zero, L, M, N.

The circle **O** includes the letters: O, P, Q, R, S.

The circle **T** includes the letters: T, U, (not V) Y, and the position of Error/ Delete/Cancel

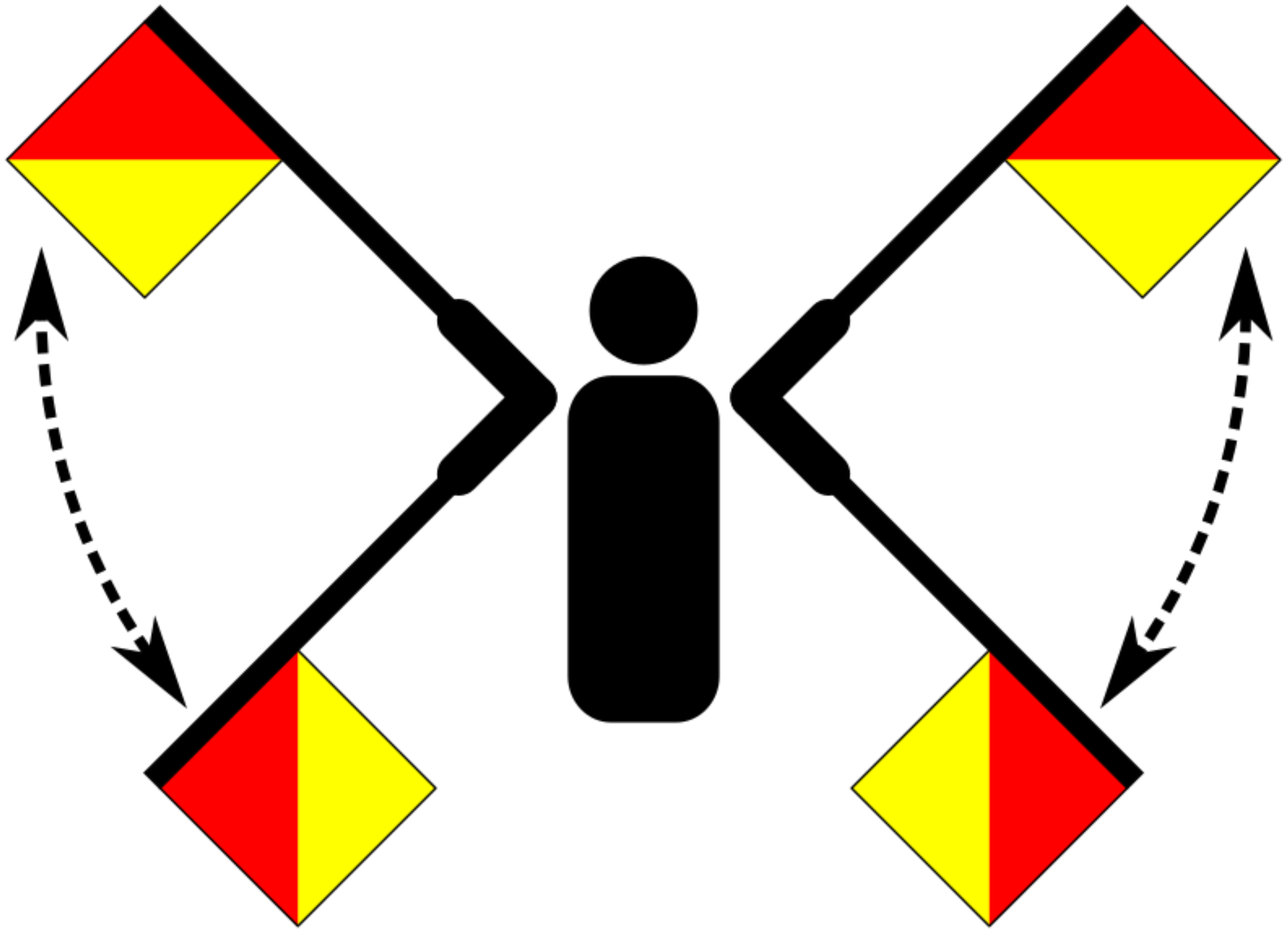
The circle **Numerals** includes: The Numeral position. It means that from that sign on, all signs are numbers until the transmitter shows the letter **J**; Naturally it includes the letter **J**, which has also the function to inform that from it on the sign are letters, plus it includes the letter **V**.

The Circle **W** includes the letters: W and X.

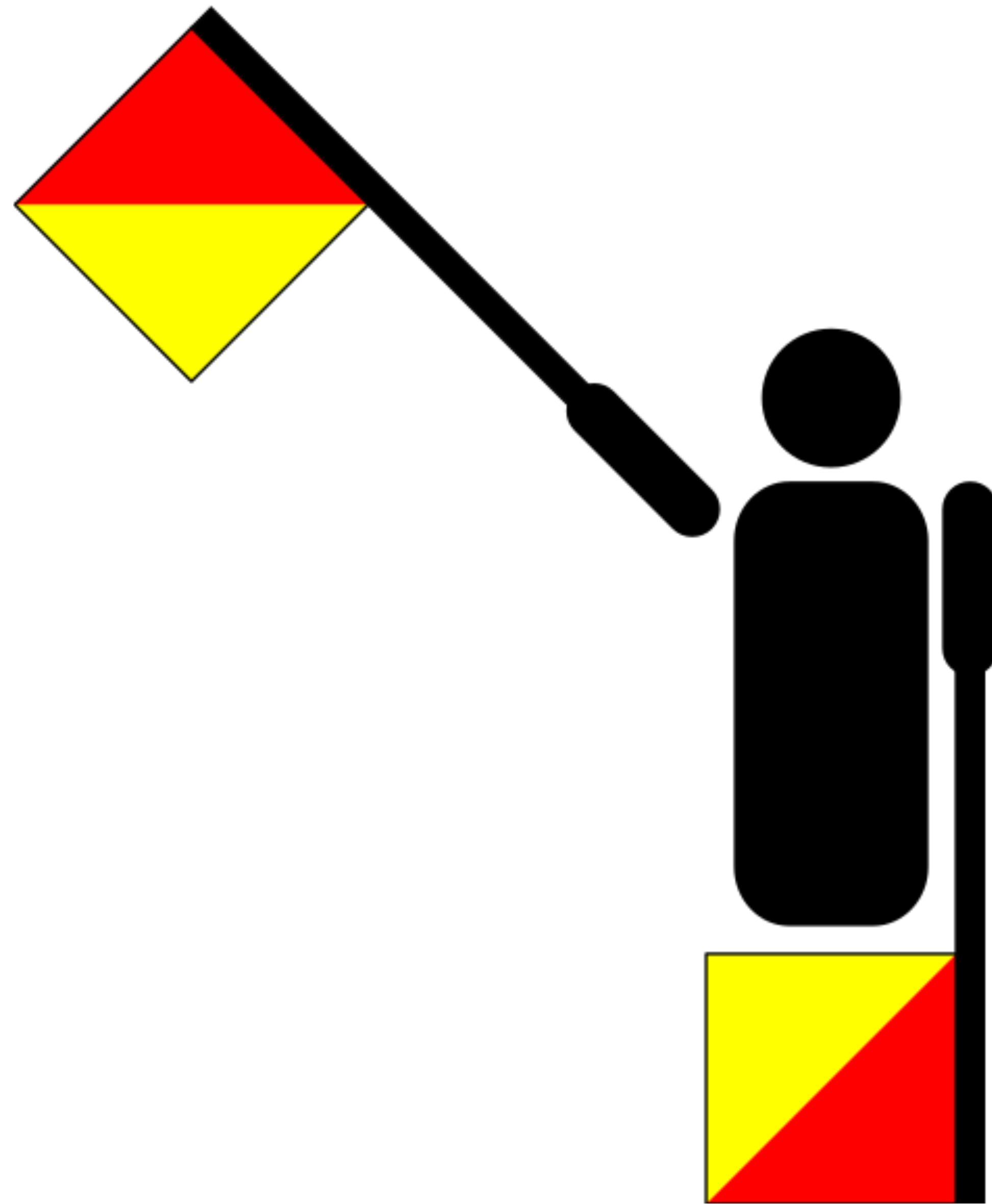
The Circle **Z**, includes only itself, the letter Z.



This is the position of rest and ready to transmit or to receive messages



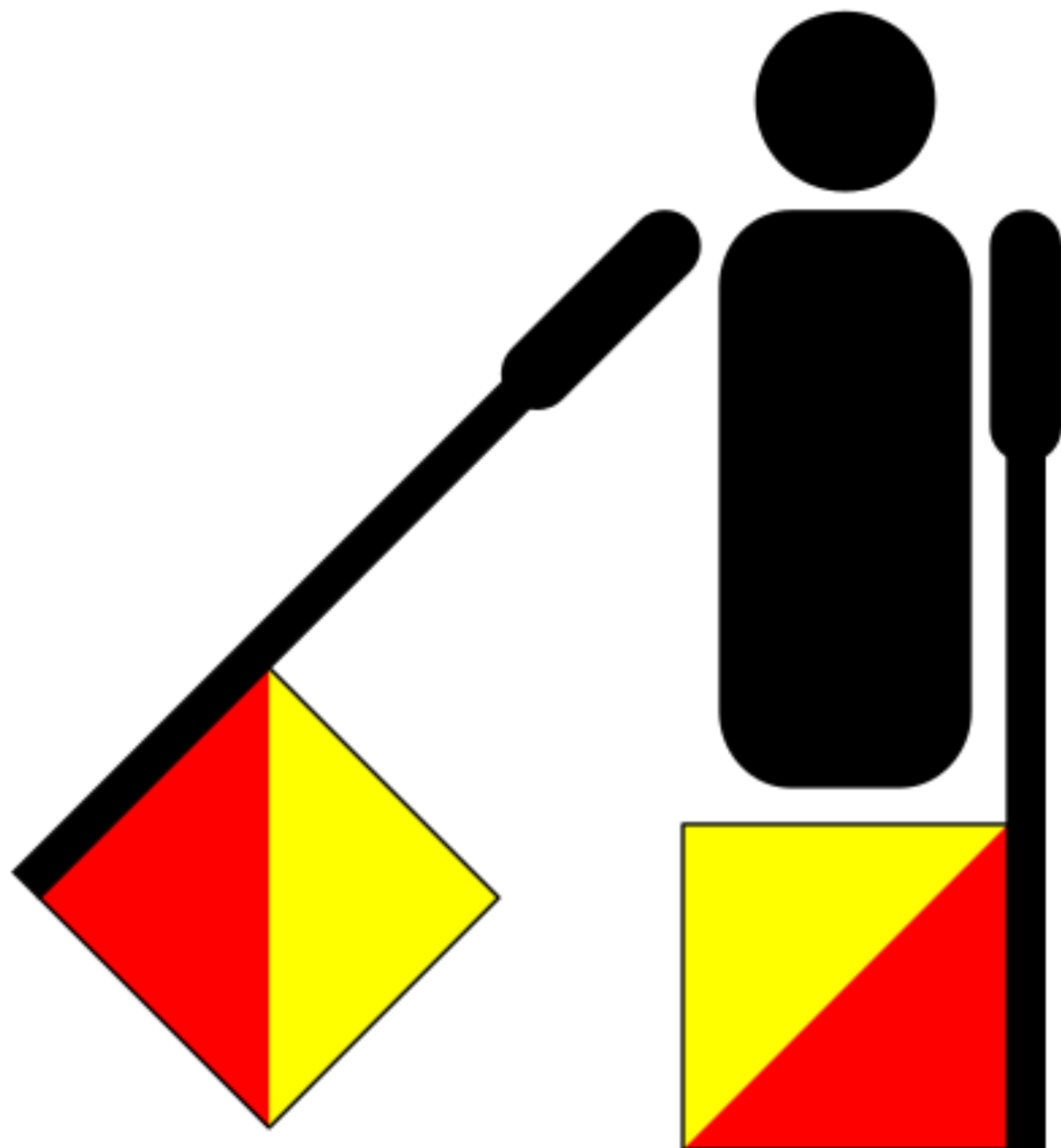
Call of ATTENTION. By doing this we call the attention of the other team for the following message



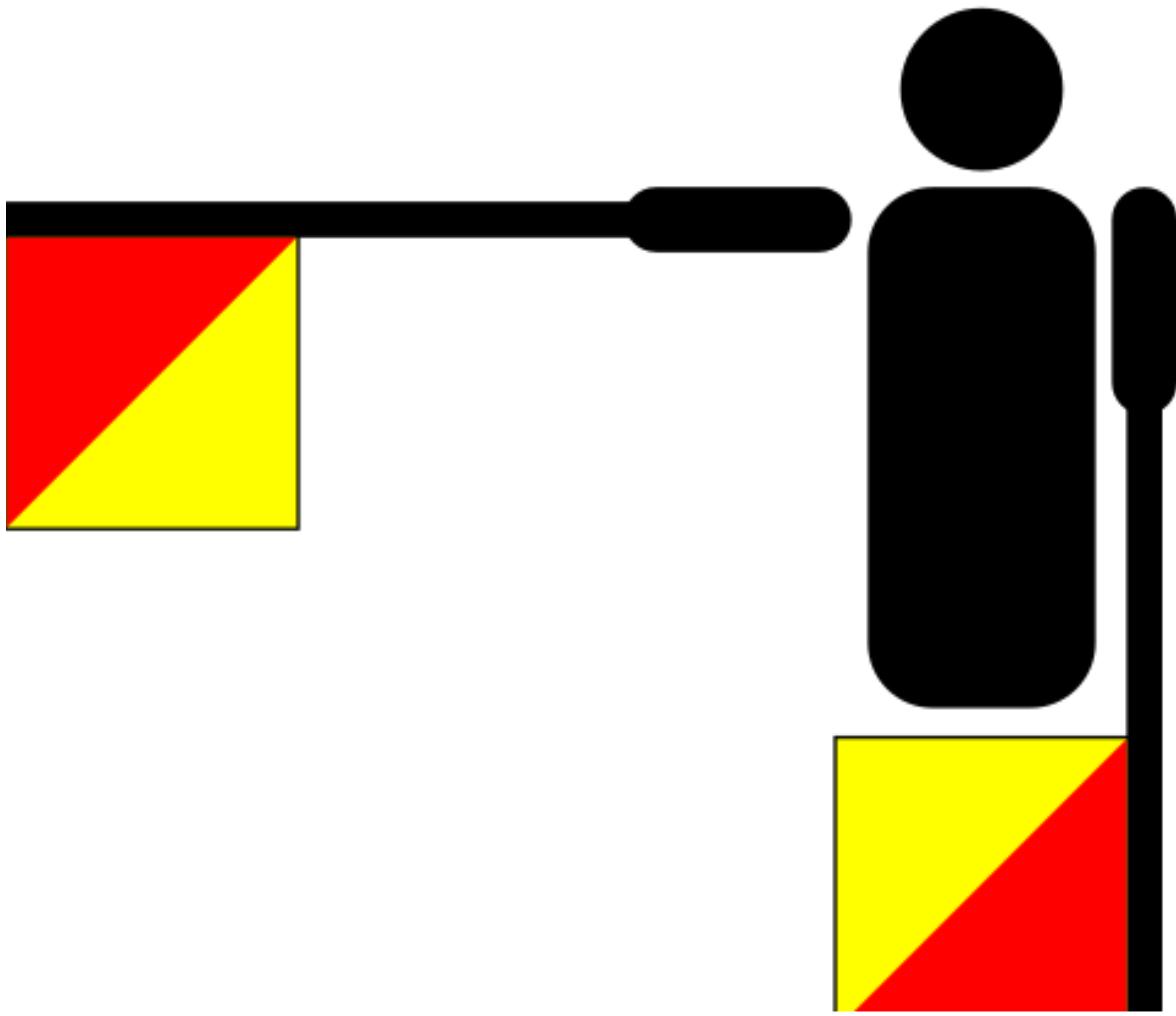
Position of acknowledge. Means YES, I got or I understand the letter transmitted

The circle **A** includes the letters or numbers - double function:

A or #1, B or #2, C or #3, D or # 4, E or #5, F or # 6, G or # 7.



Letter A (it is also number 1)



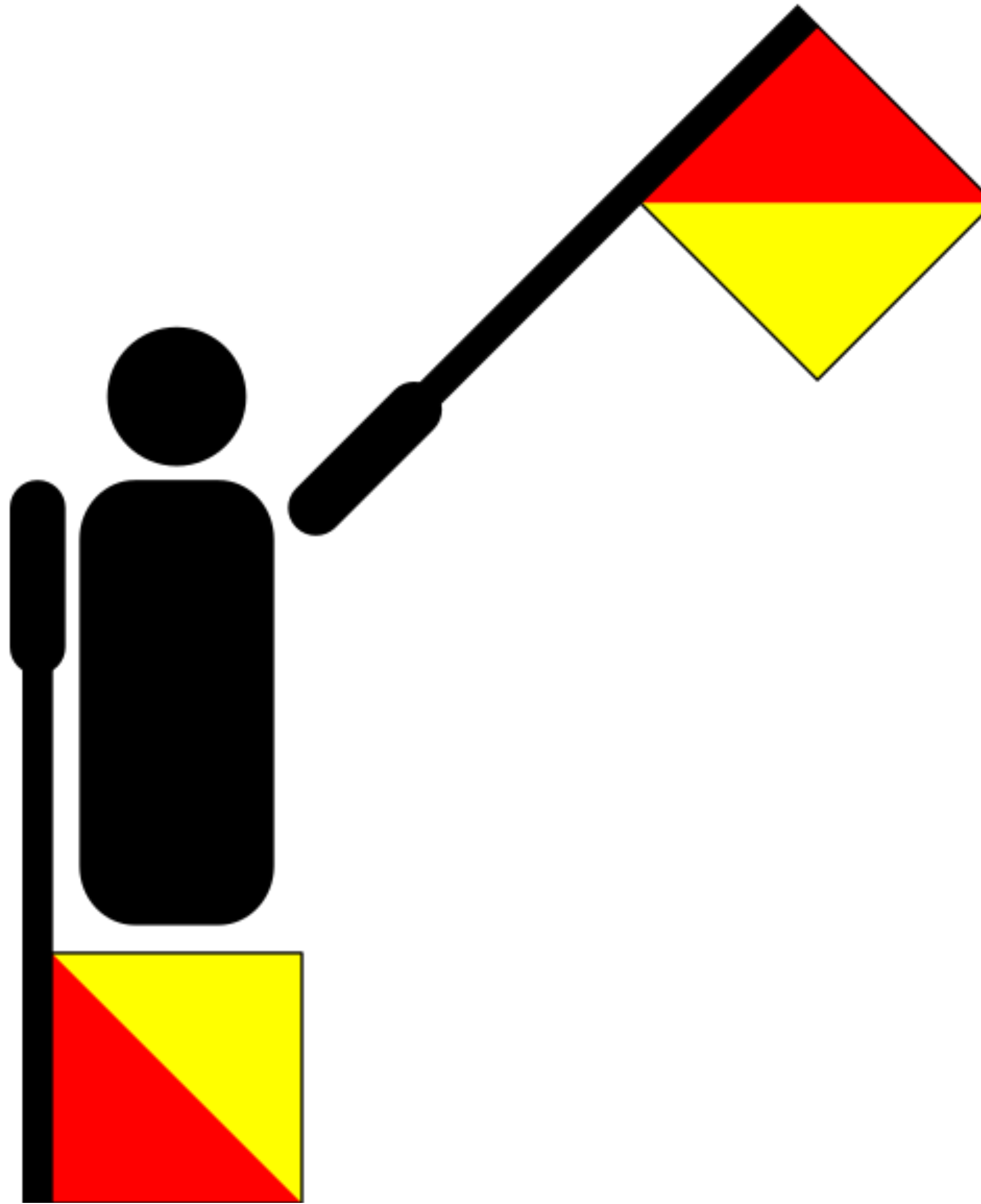
Letter B (it is also number 2)



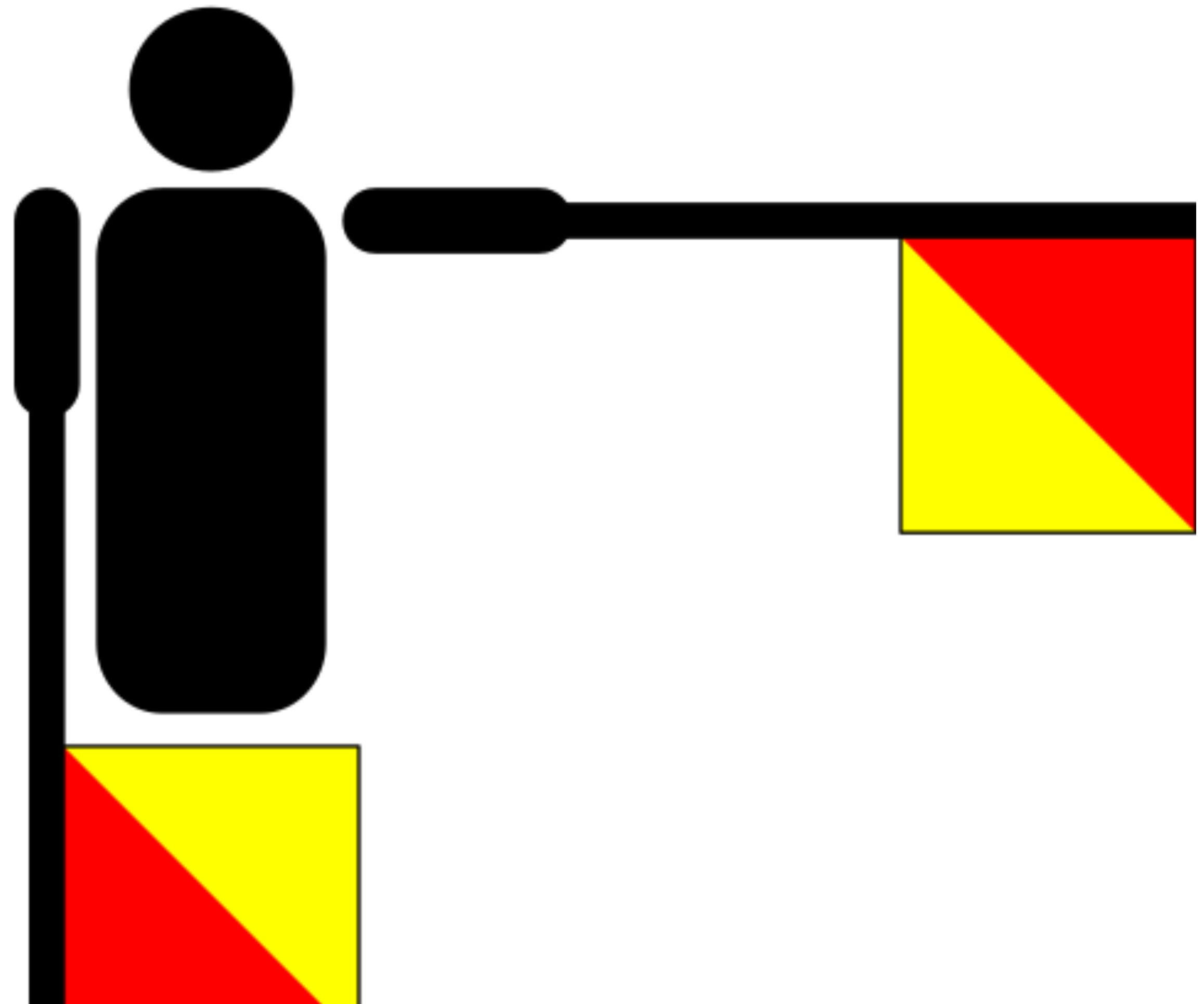
Letter C (it is also number 3)



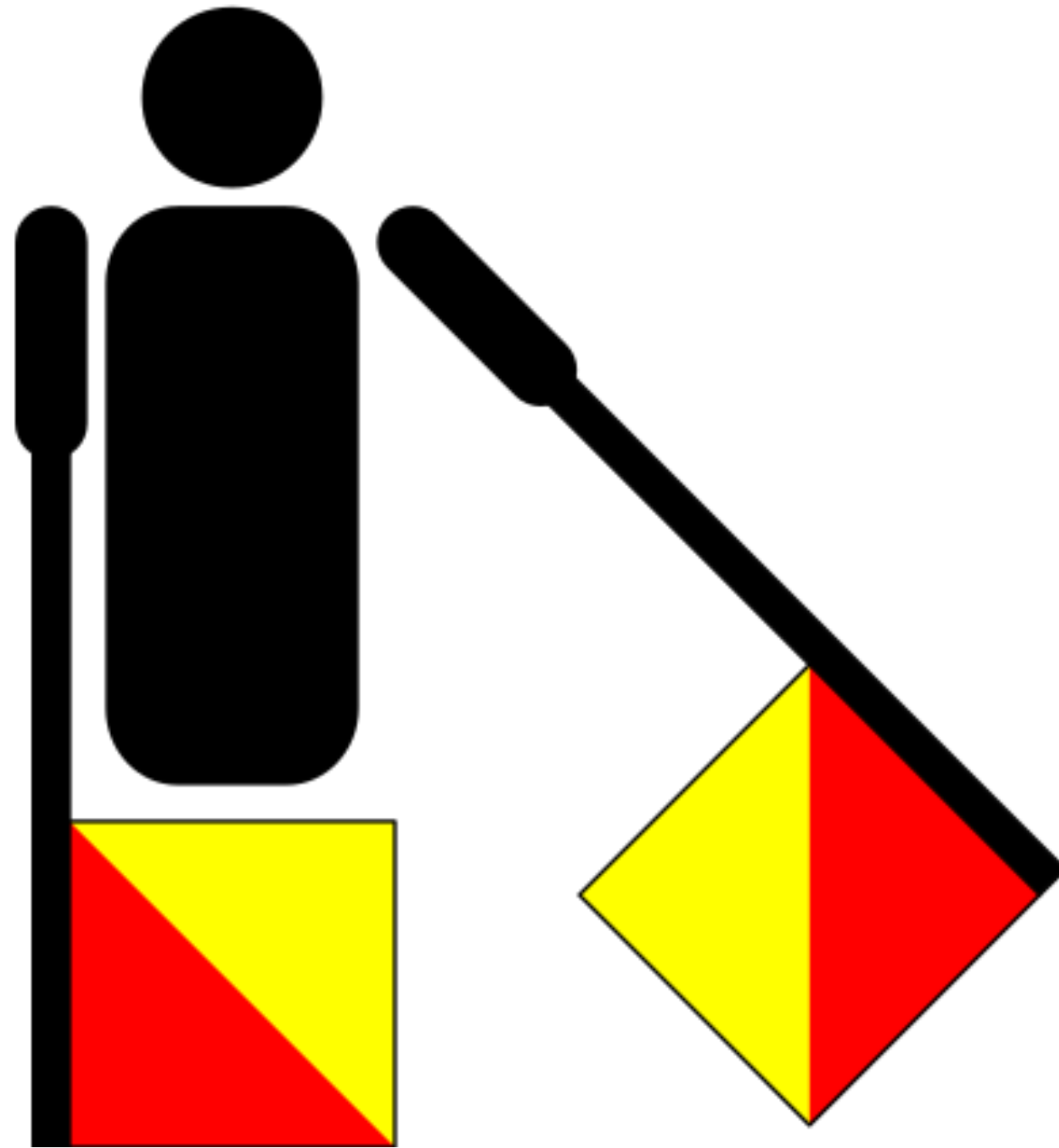
Letter D (it is also number 4)



Letter E (it is also number 5)



Letter F (it is also number 6)

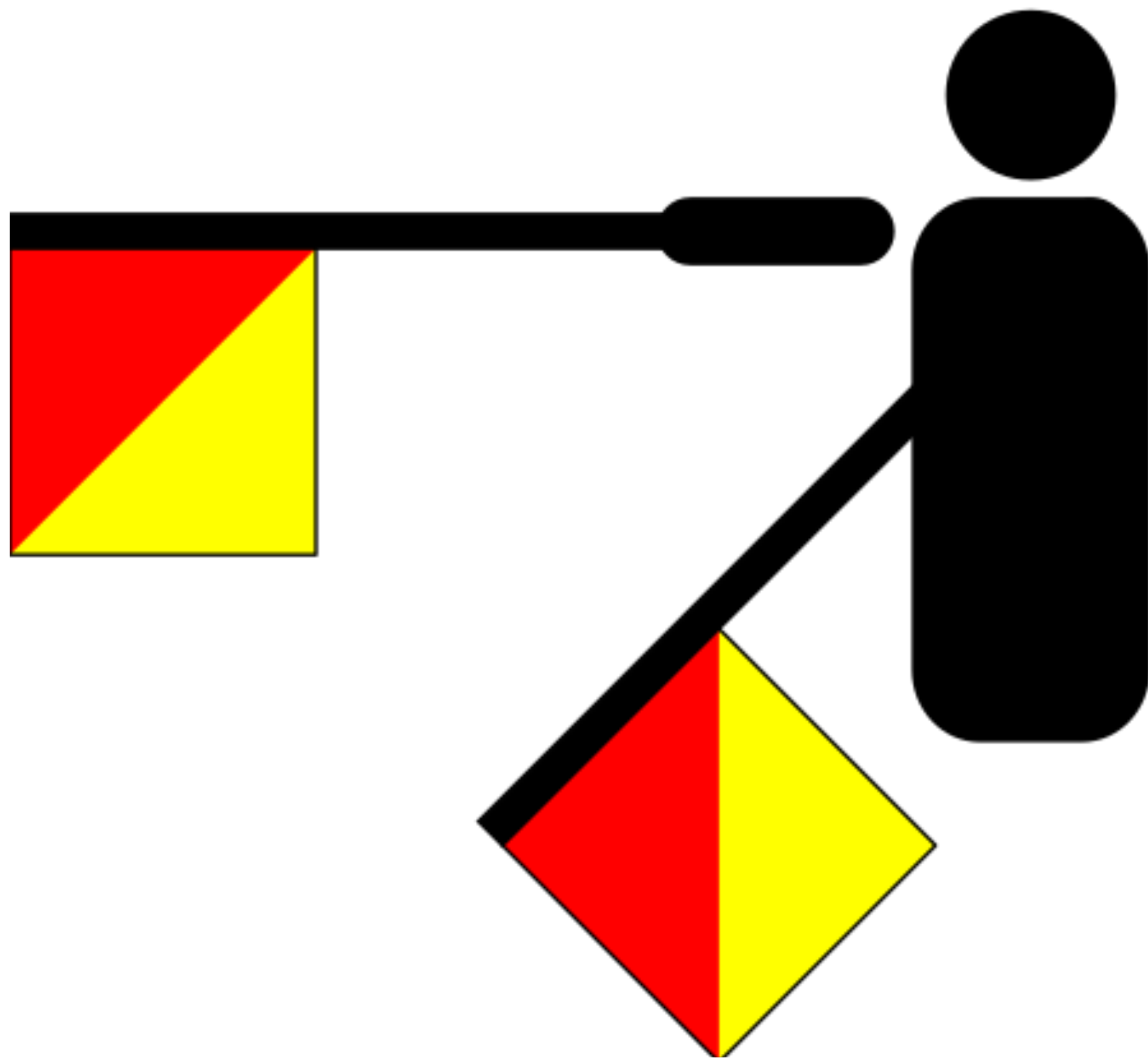


Letter G (it is also number 7)

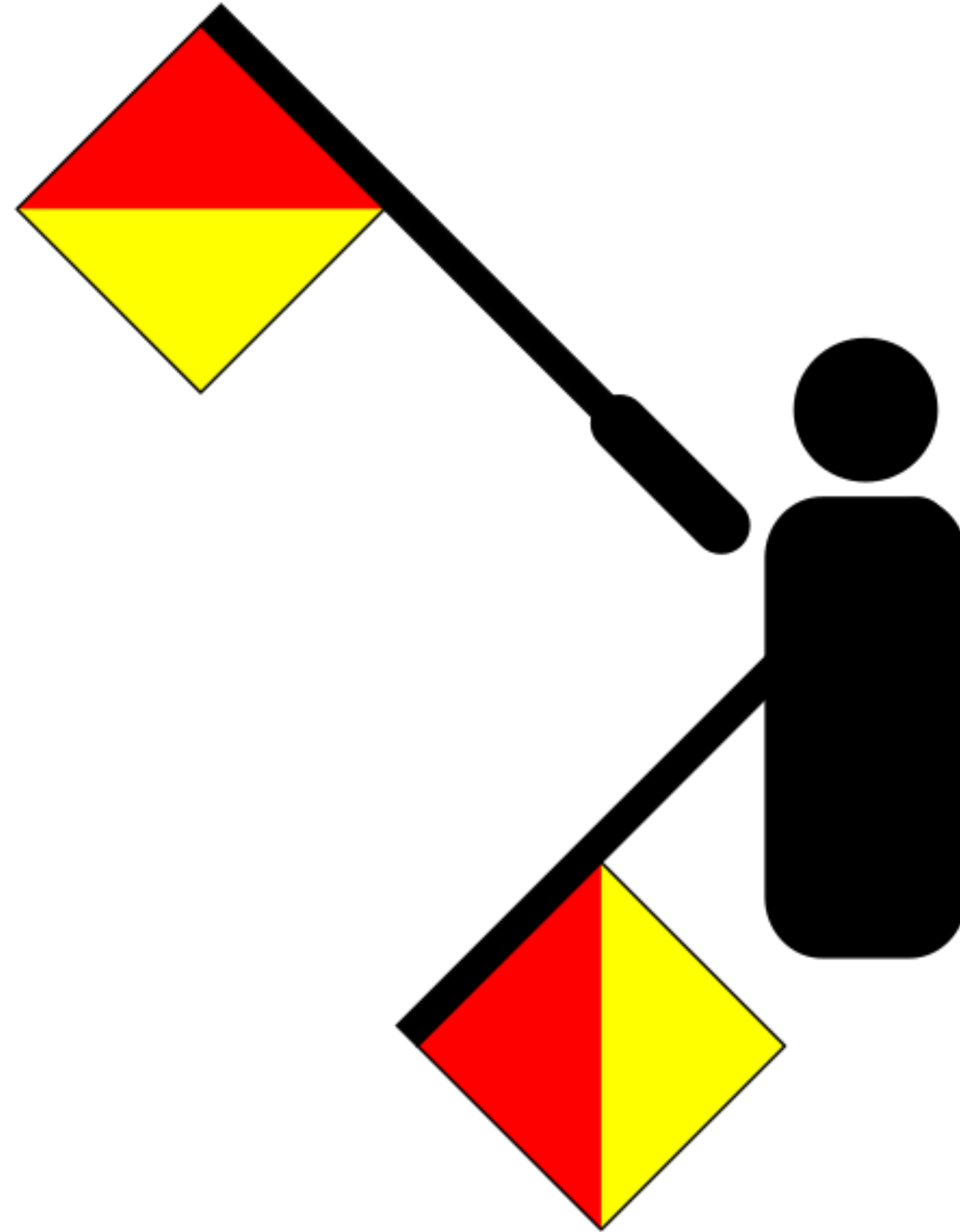
The circle **H** includes the letters or numbers - **double function:**

H or #8, **I** or #9, (**not J**) **K** or #0-zero, **L**, **M**, **N**.

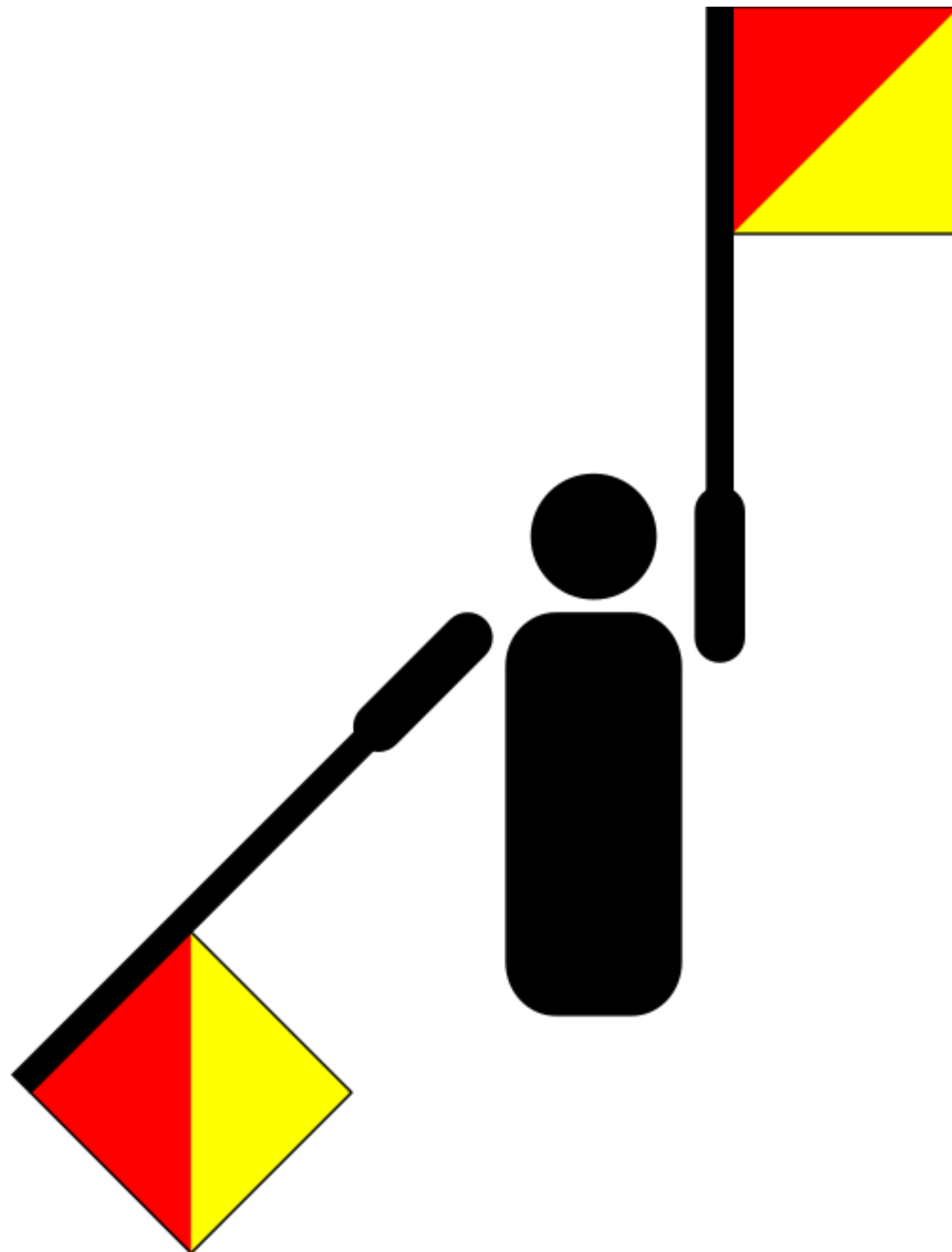
(The letter **J** is in another circle)



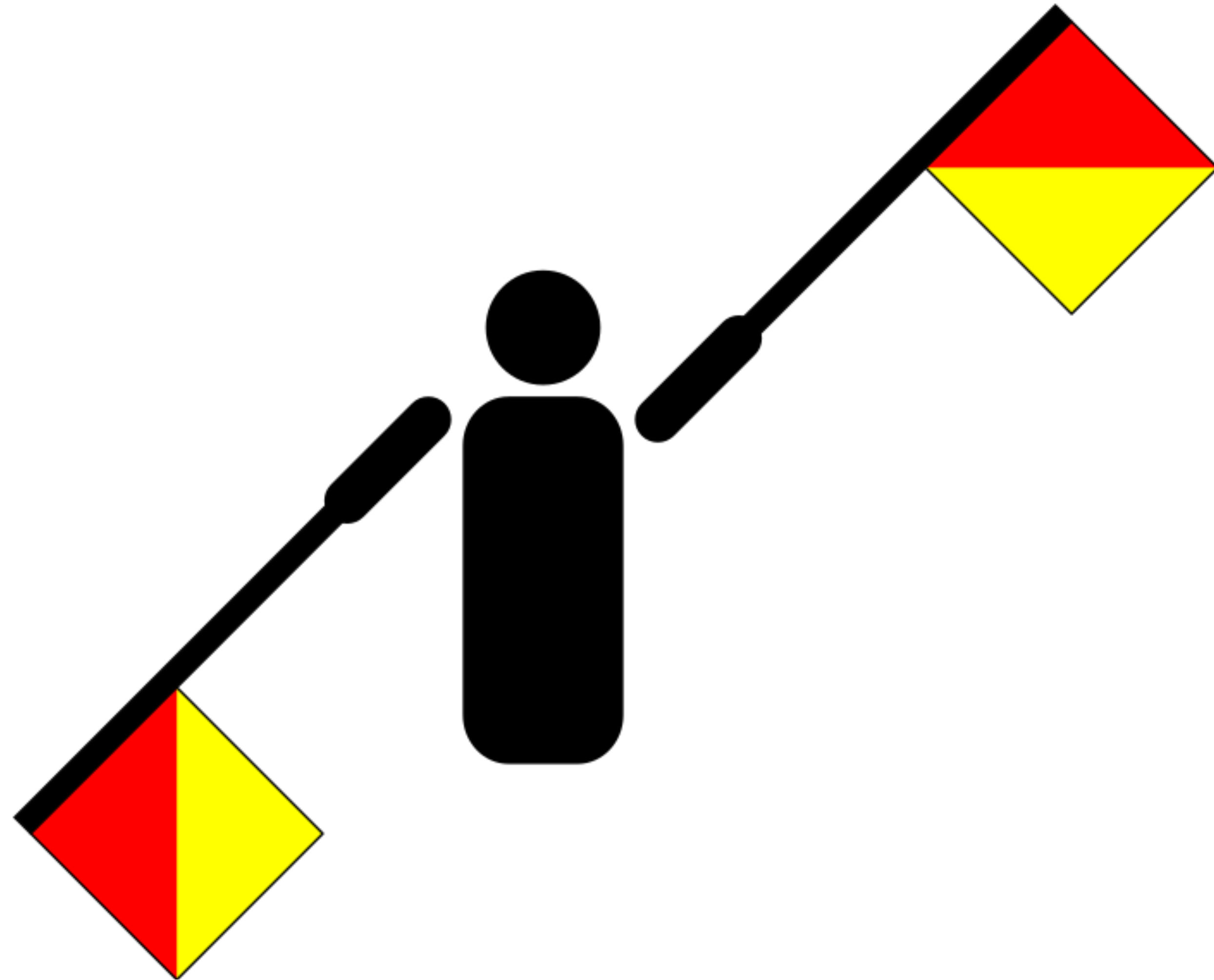
Letter H (it is also number 8)



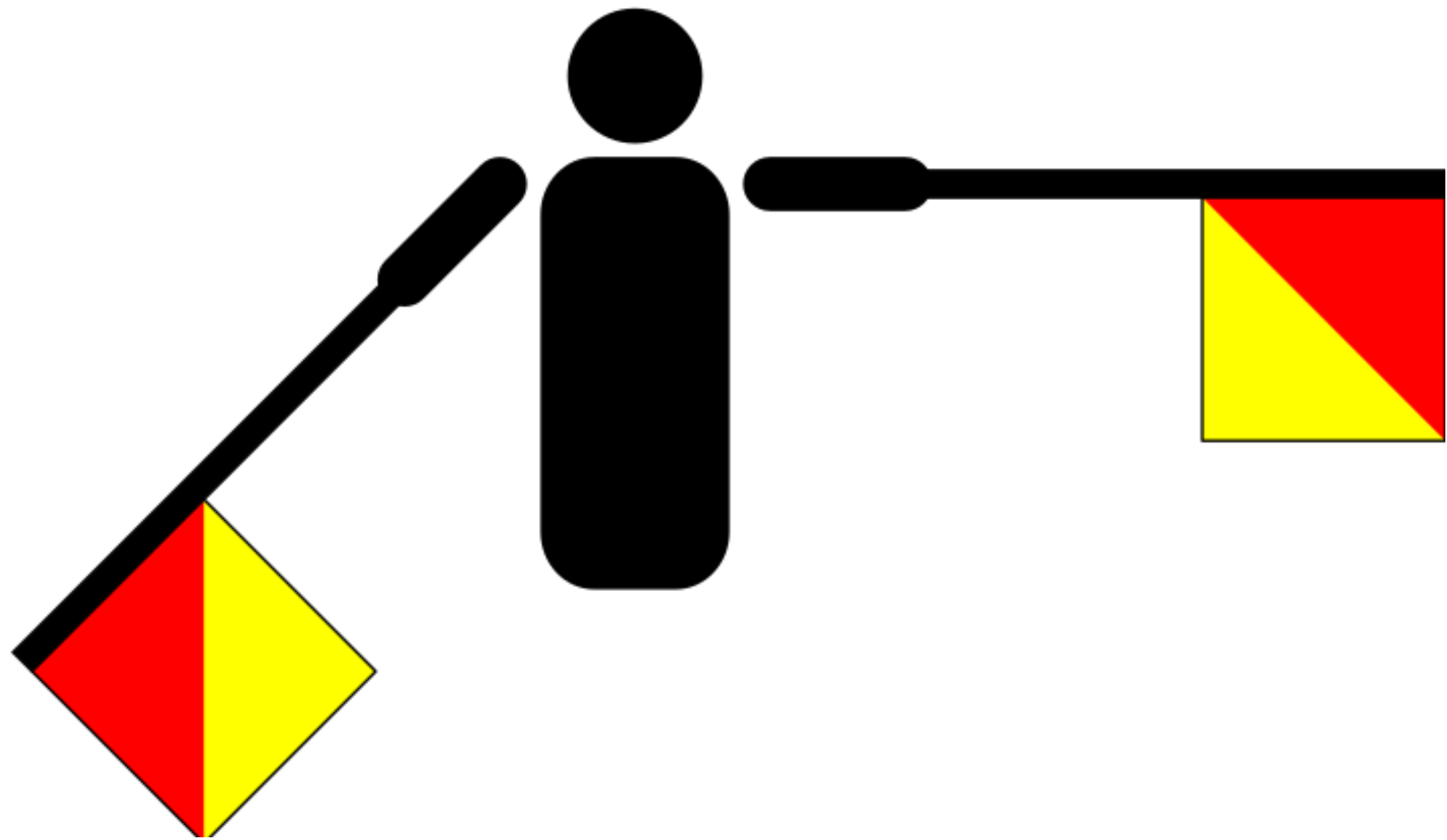
Letter I (is is also the number 9)



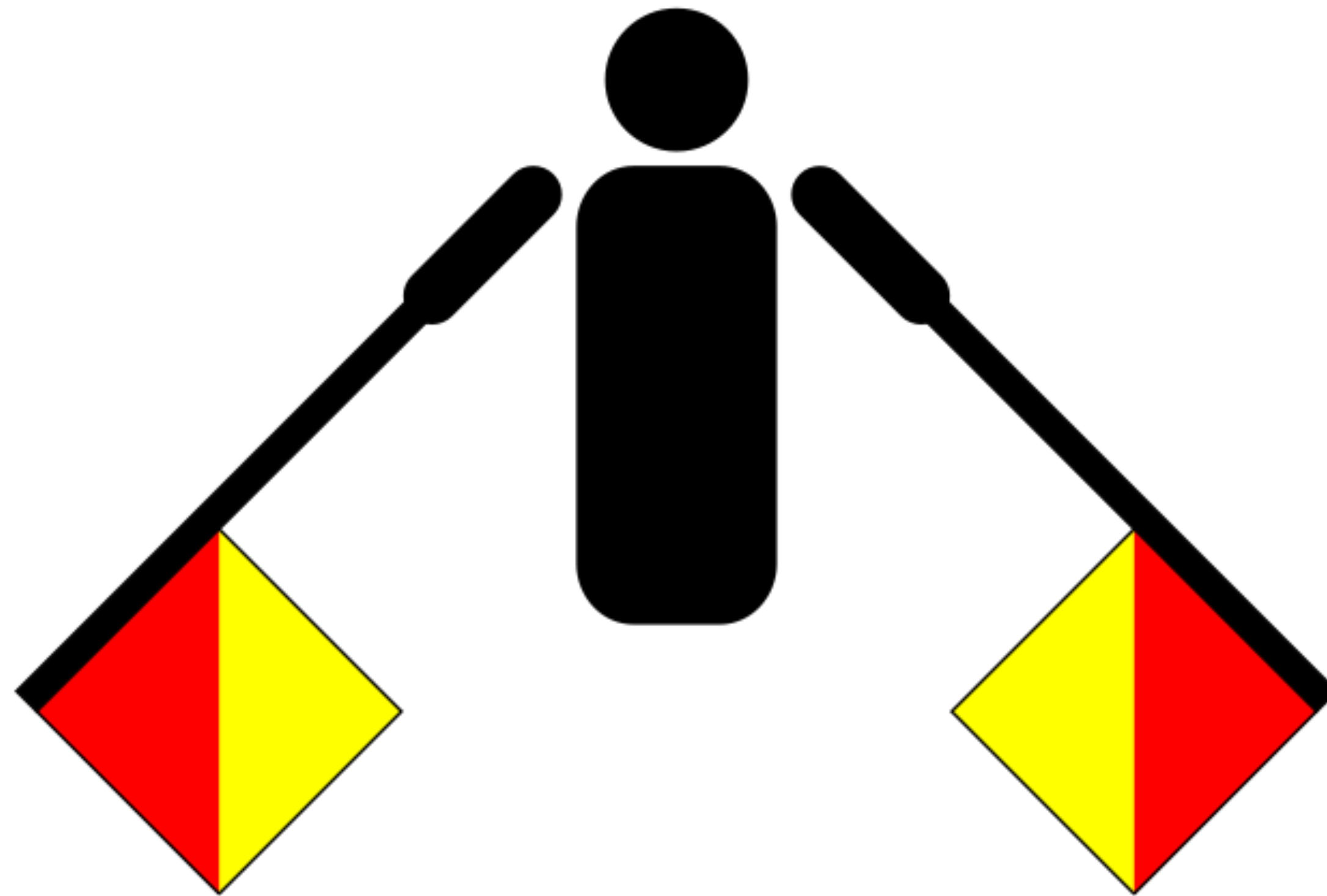
Letter K (it is also number 0-zero)



Letter L (don't mix with Position: Delete, Cancel, Error)



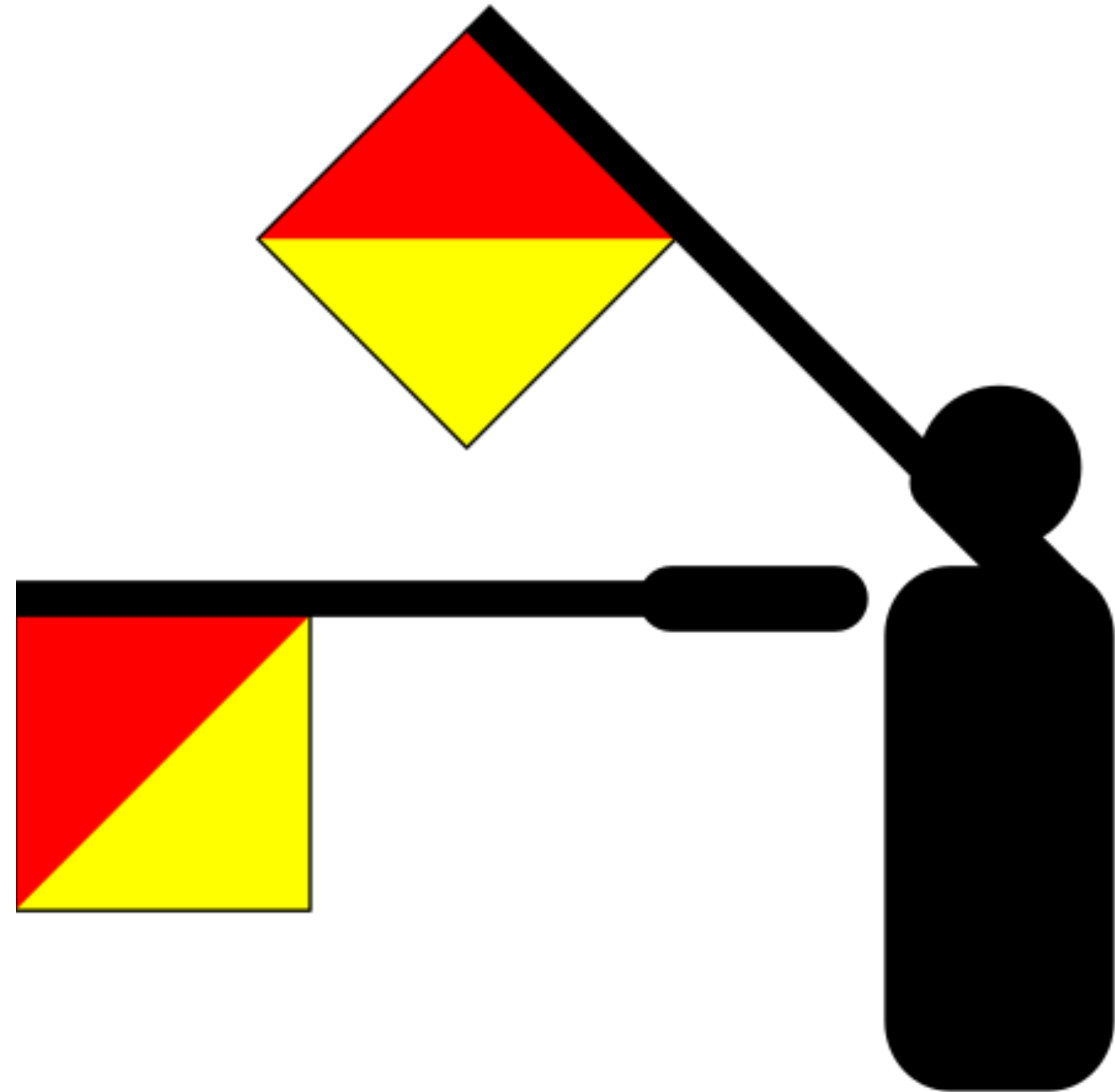
Letter M



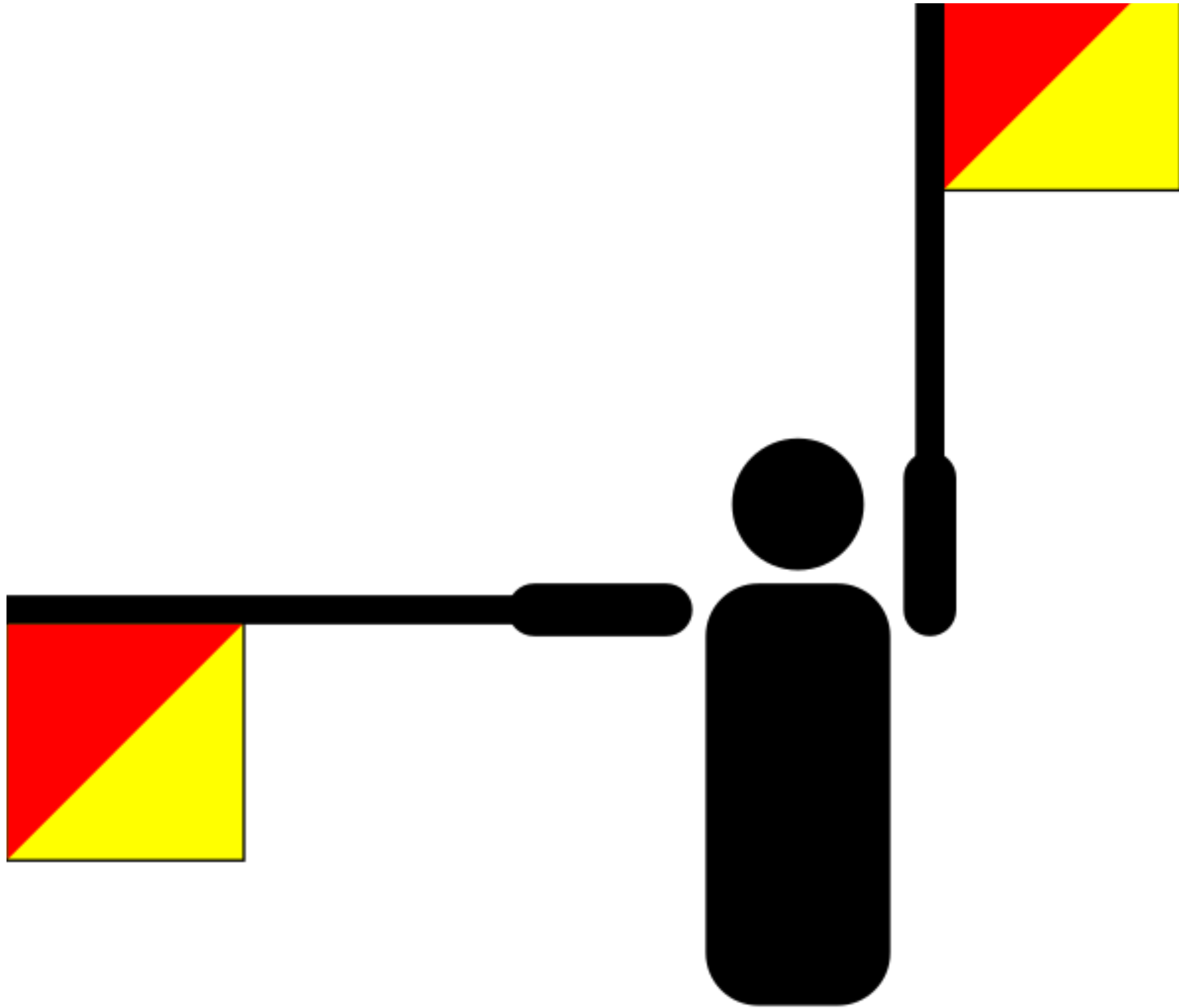
Letter N

The circle O includes the letters:

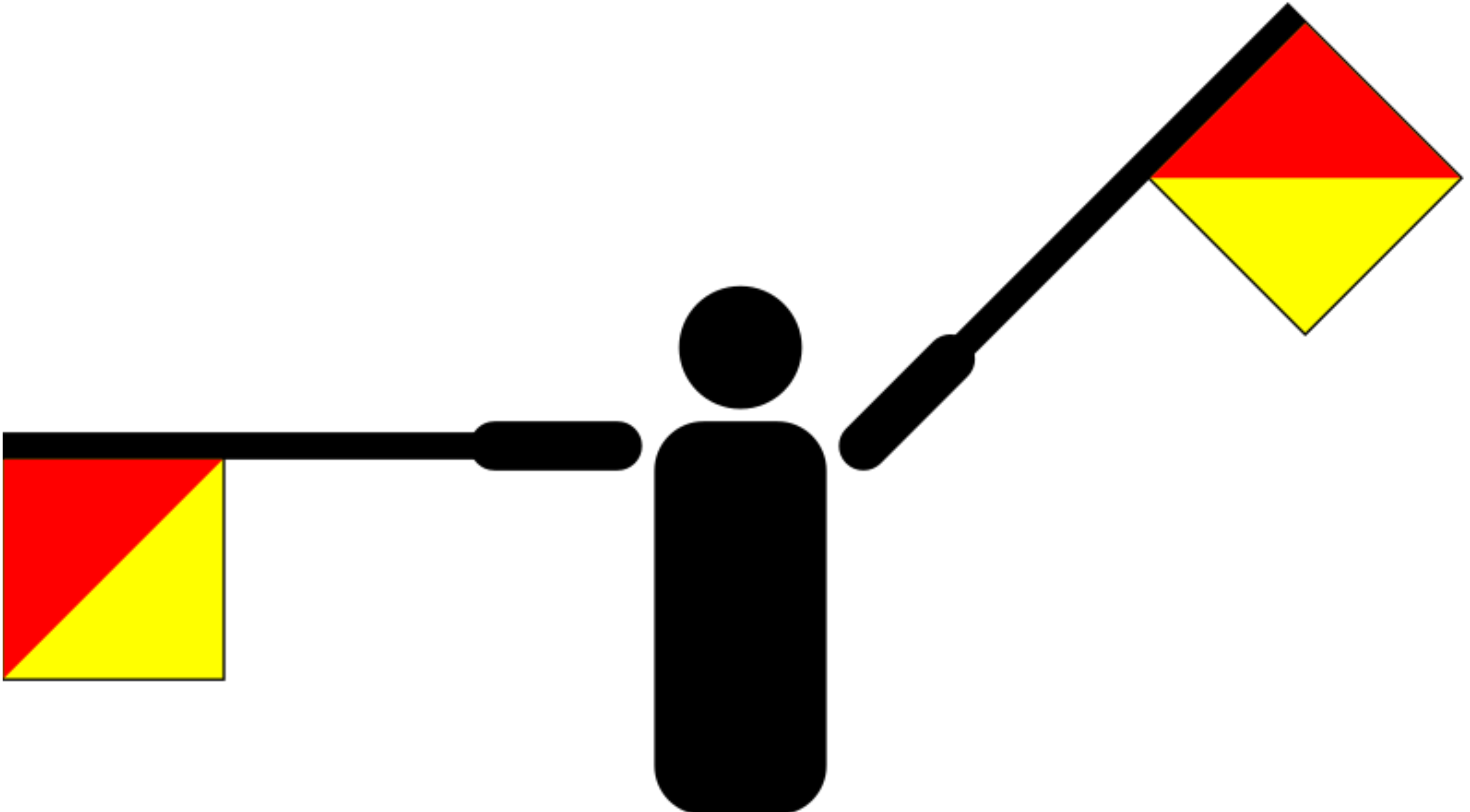
O, P, Q, R, S.



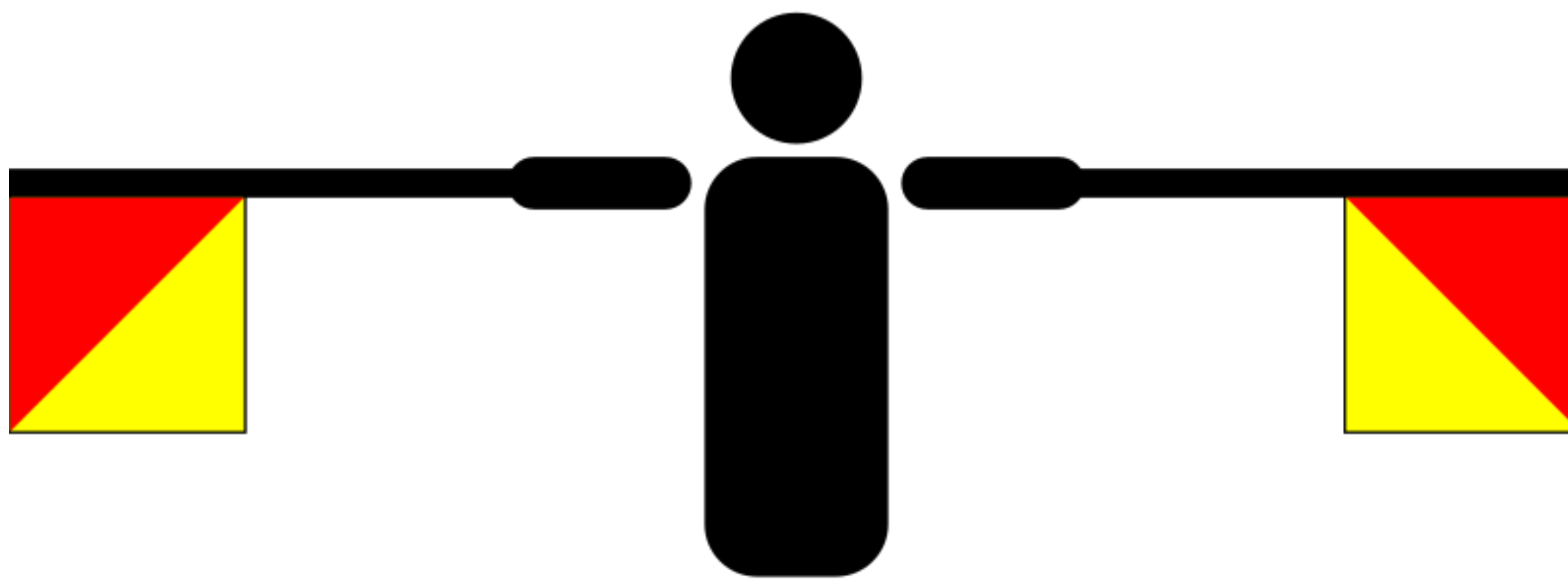
Letter O



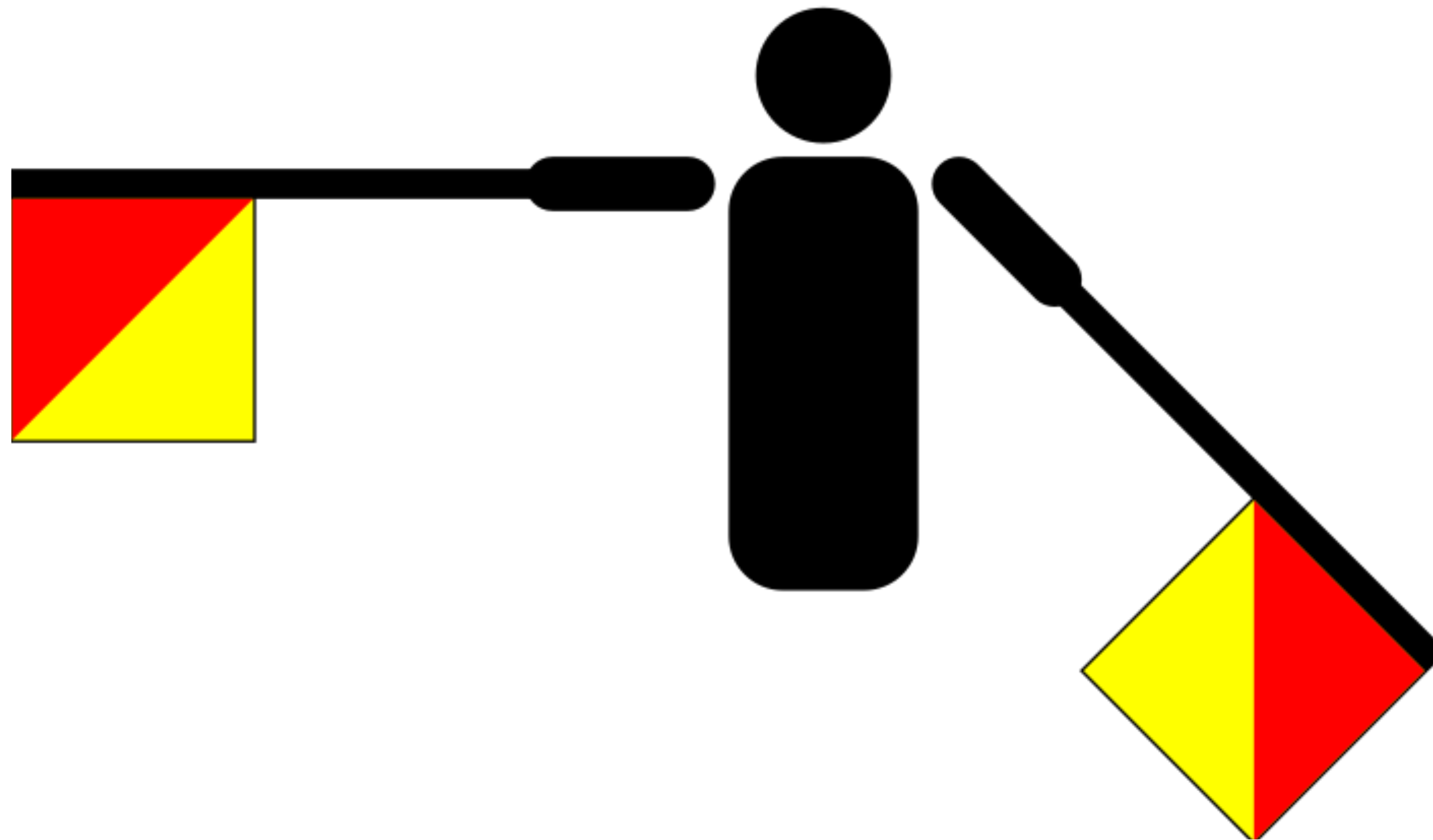
Letter P (P of Potato)



Letter Q



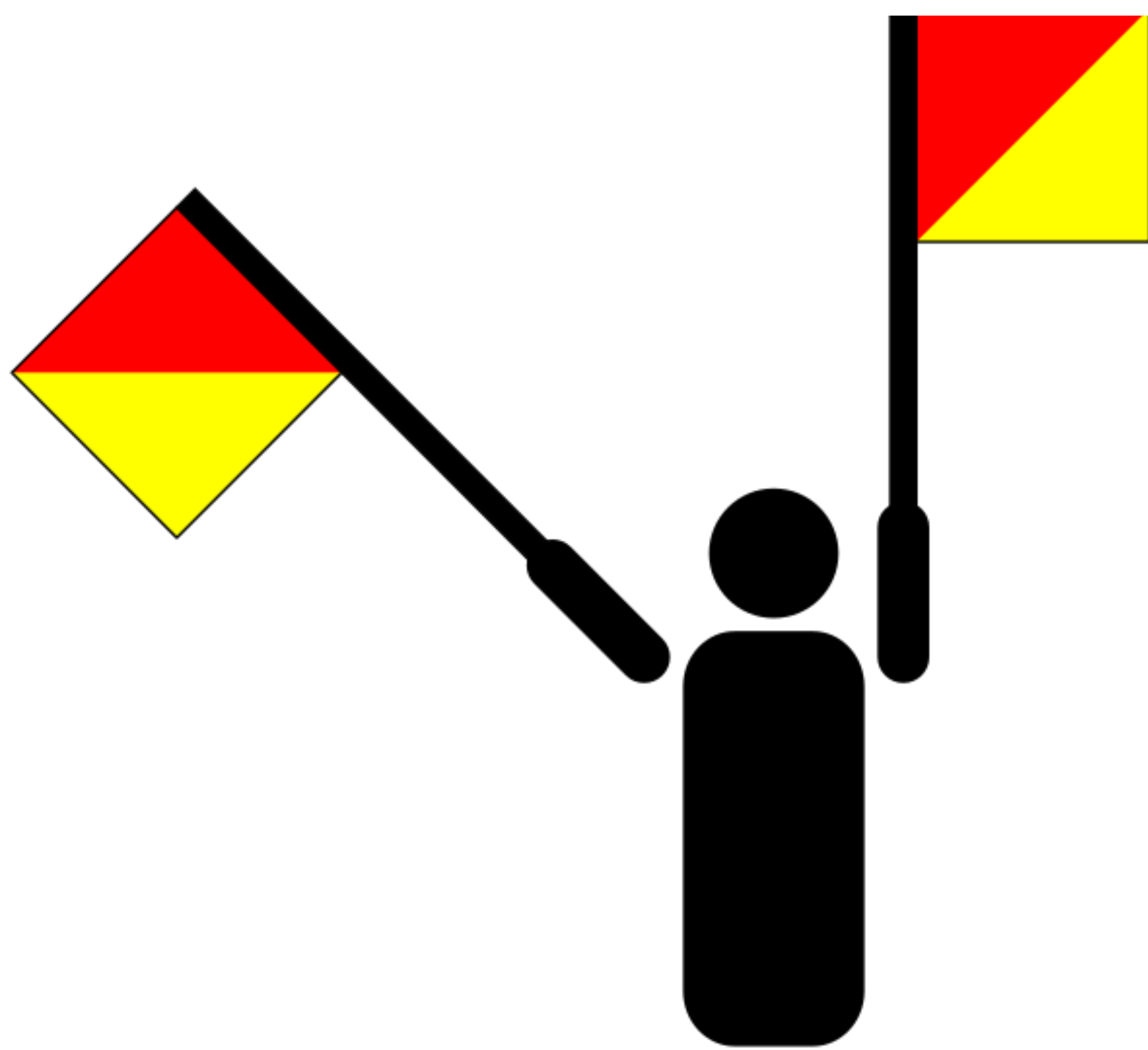
Letter R (R of Redeemer)



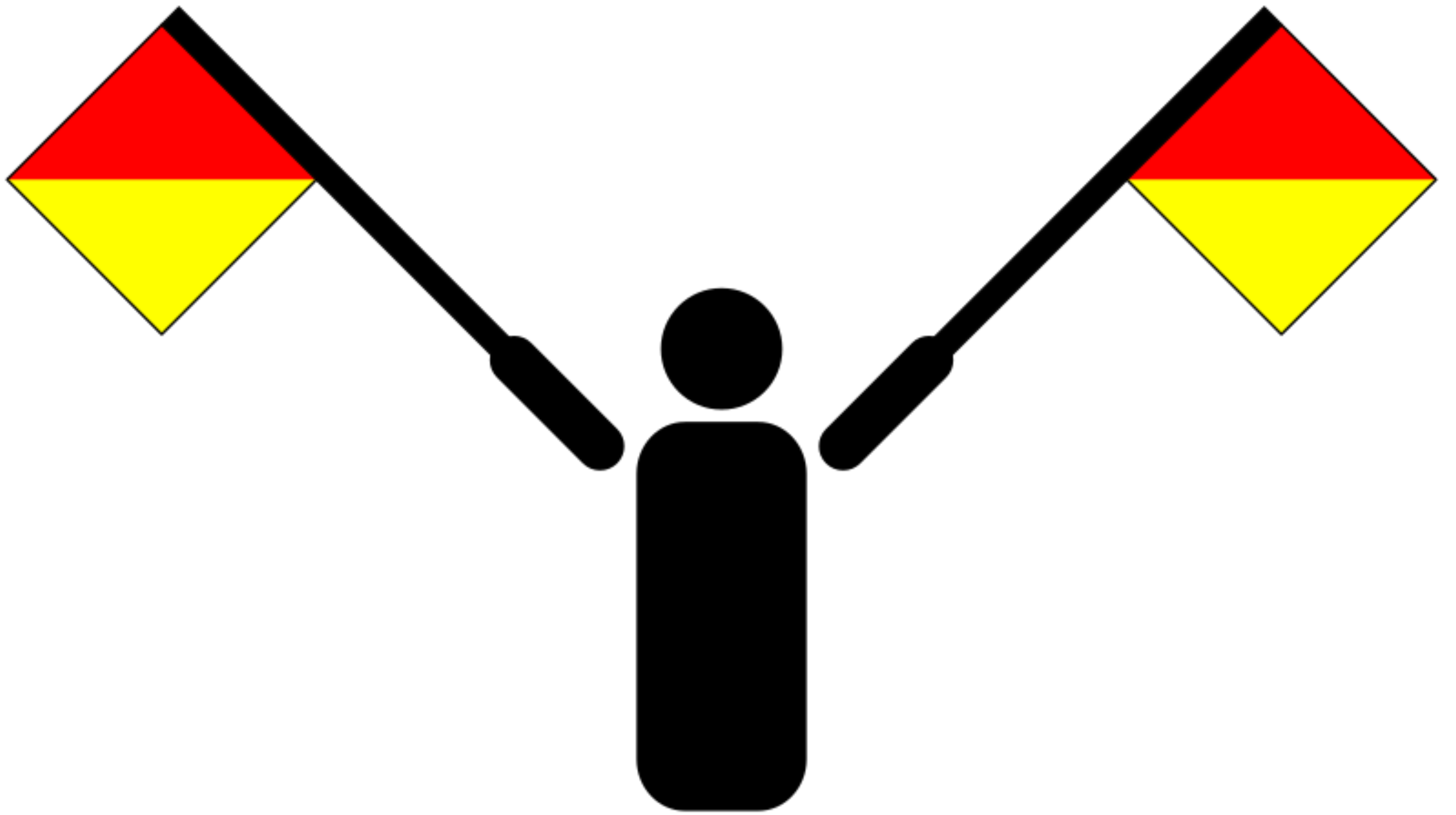
Letter S

The circle T includes the letters:

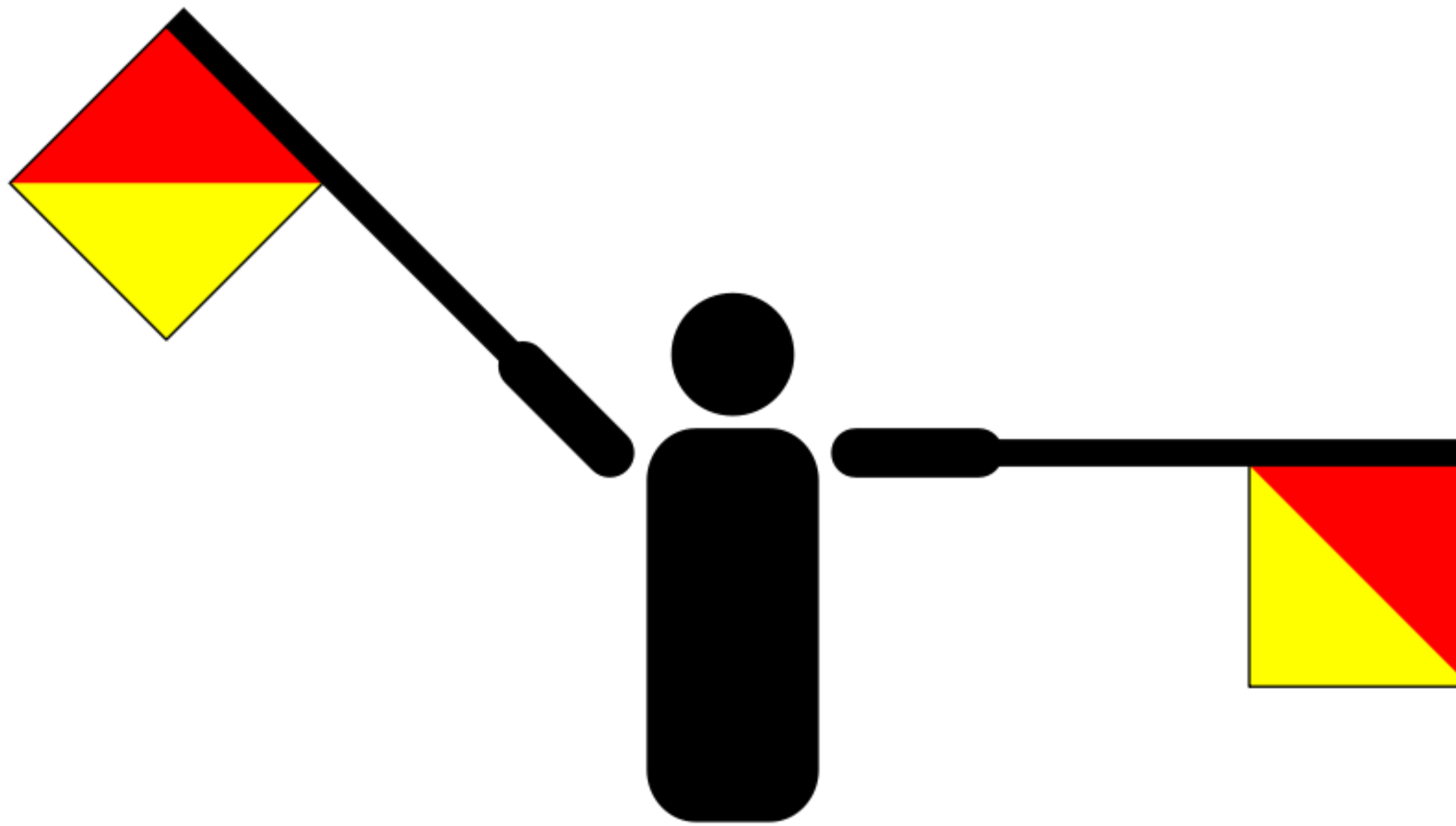
T, U, (not V) Y, and the position/sign of Error/ Delete/Cancel



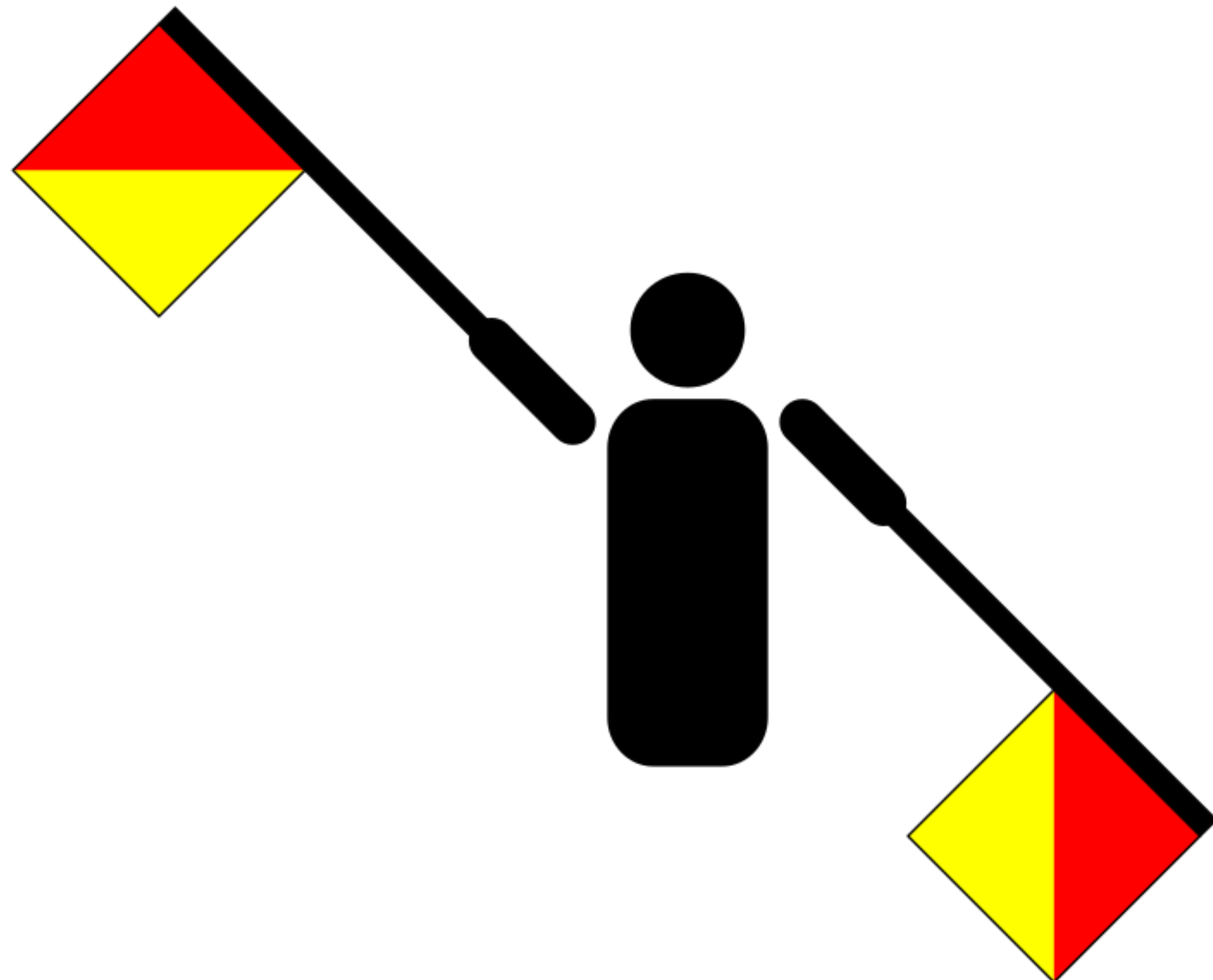
Letter T



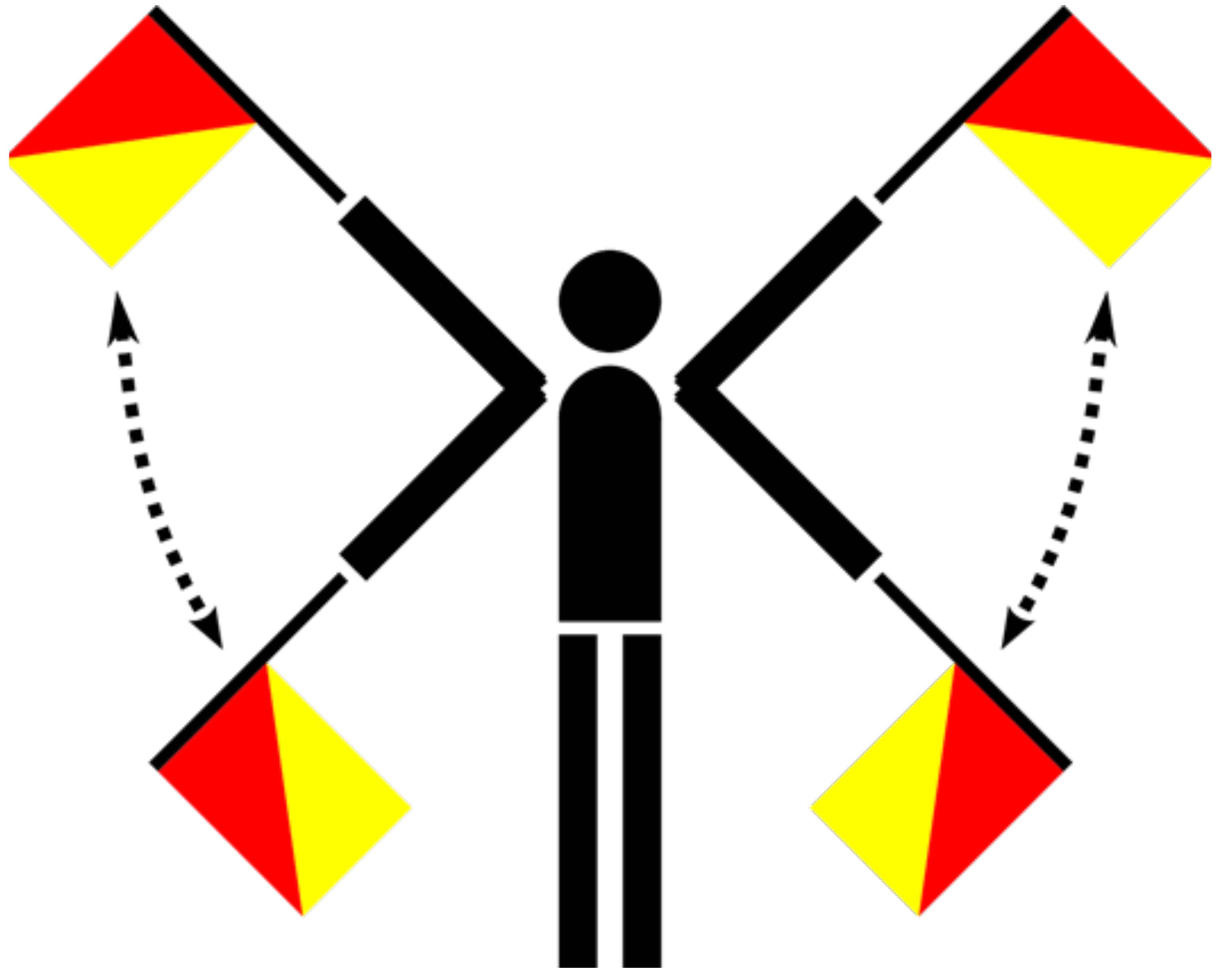
Letter U



Letter Y

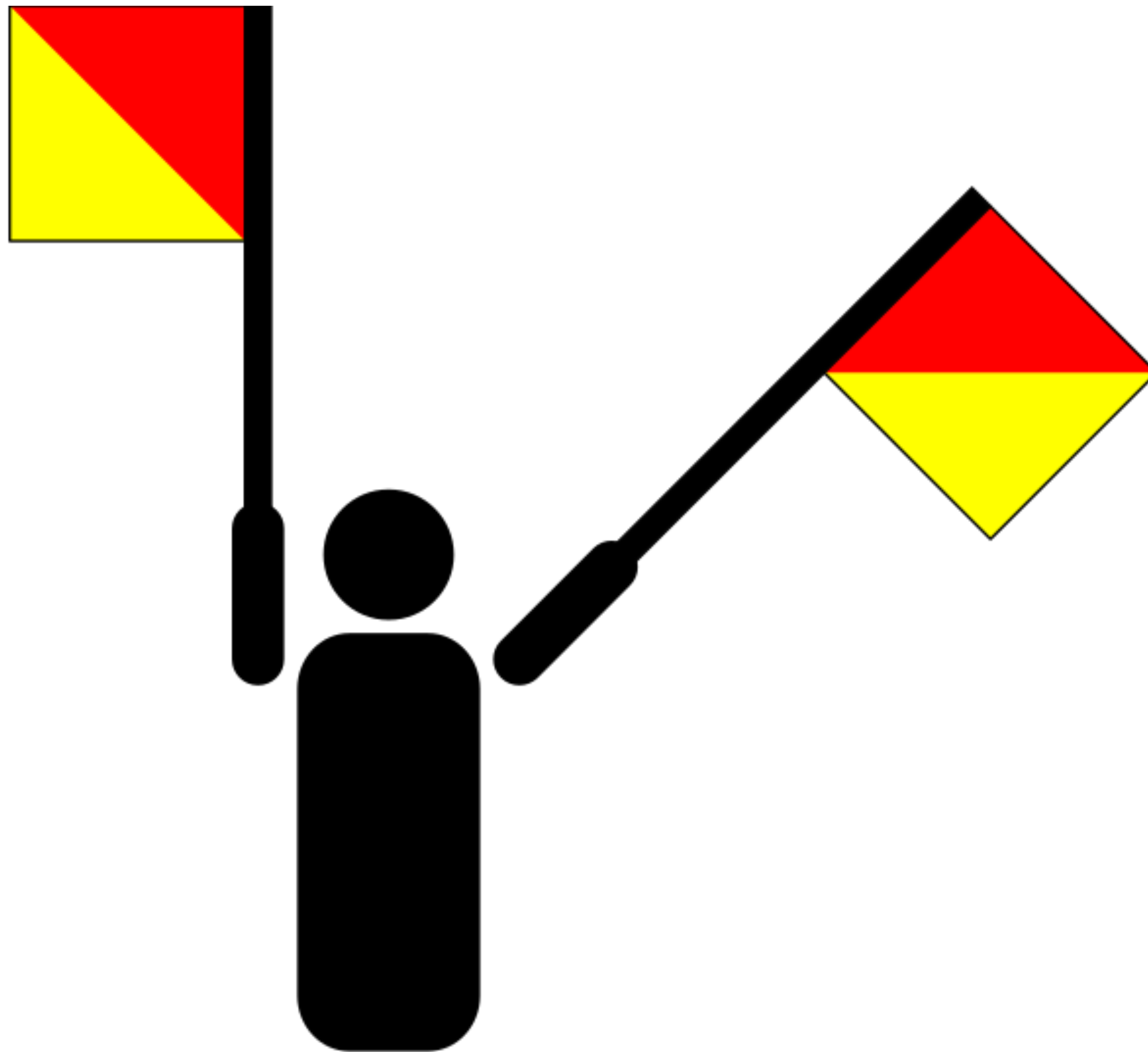


Position: Delete, Cancel, Error (don't mix with letter L)

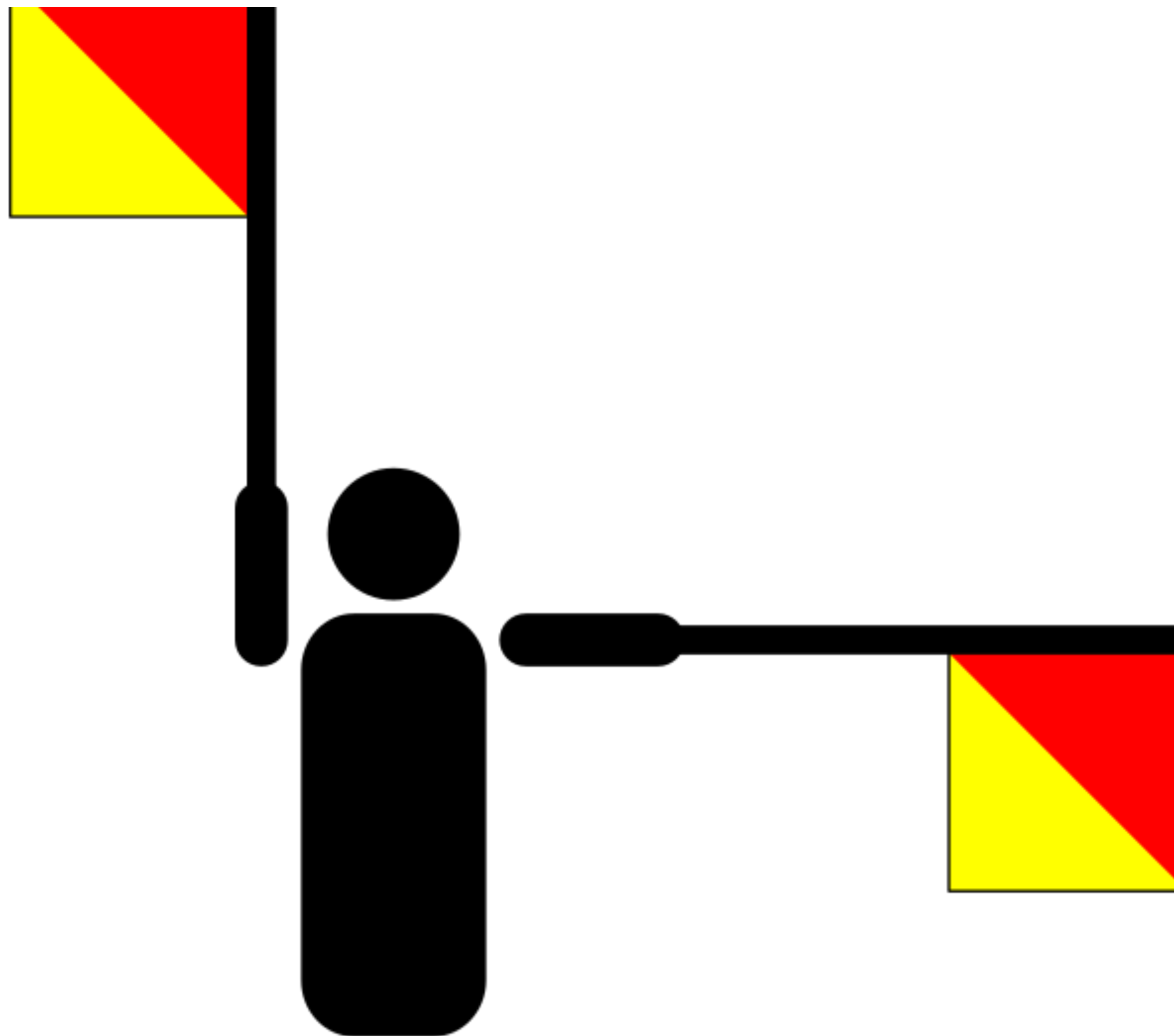


The circle **Numerals** includes 3 positions/signs:

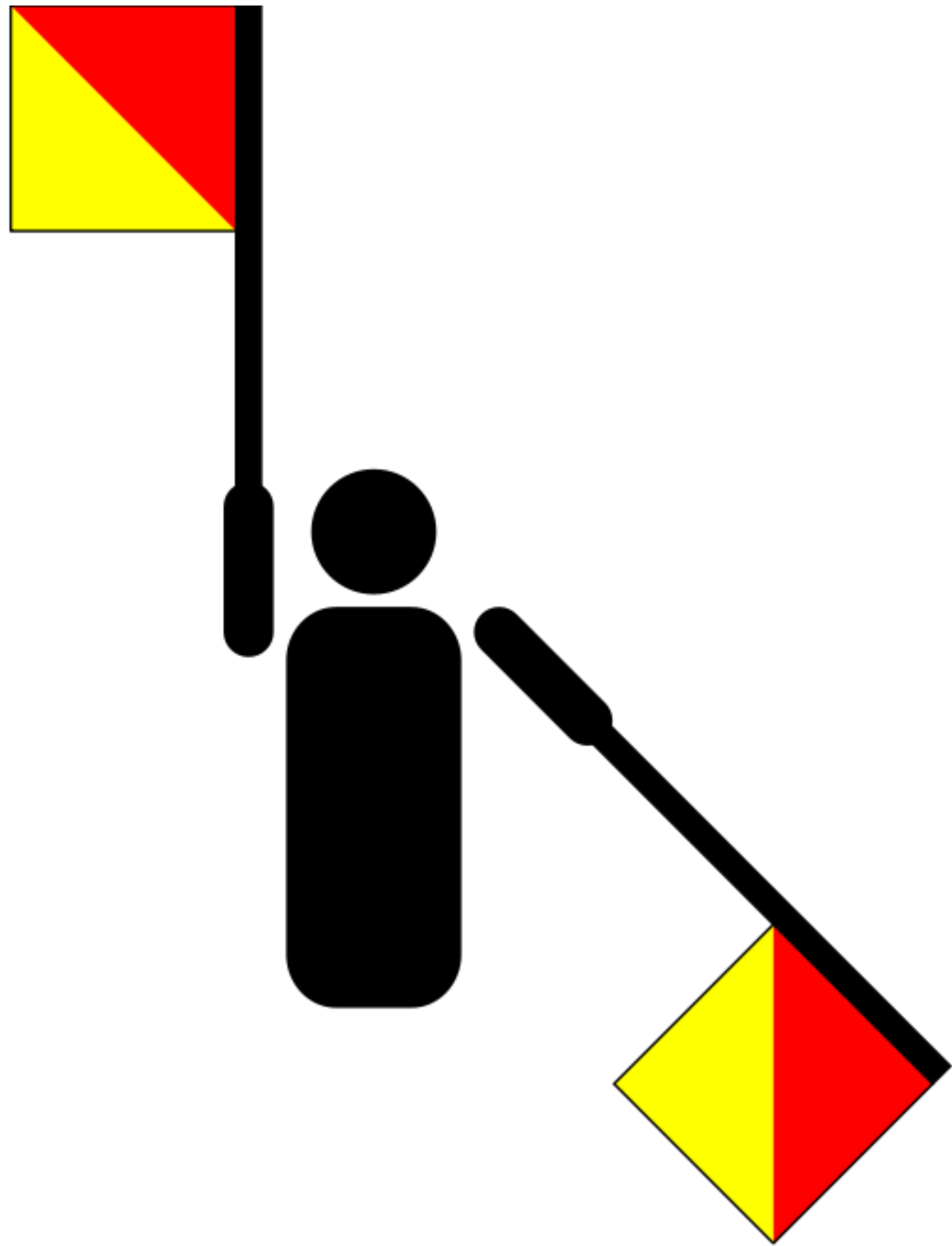
- The position **Numerals**, it means that from that sign on, all positions/signs are numbers **until** the transmitter shows the letter **J**;
- The position of the letter **J** - this position **J** has a double functions. The function of letter **J** and, if we have been transmitting numbers, from it **-J-** are letters -no more numbers.
- The position of the letter **V**.



**Position Numerals. From now on, all positions/signs are
NUMBERS**



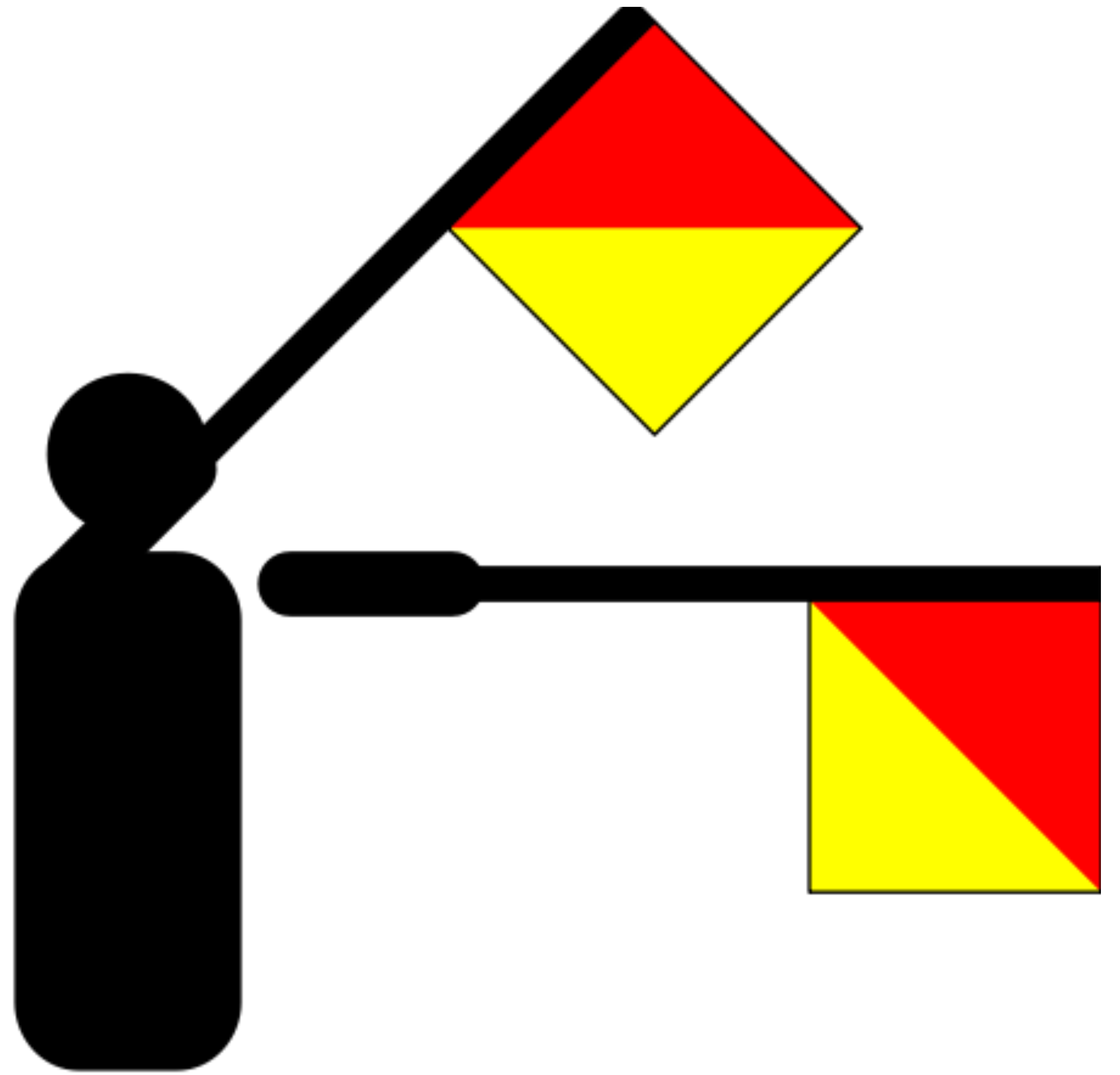
Letter J (J of Jacket; also, from now on, all positions/signs are LETTERS



Letter V

The Circle **W** includes only two letters:

W and X



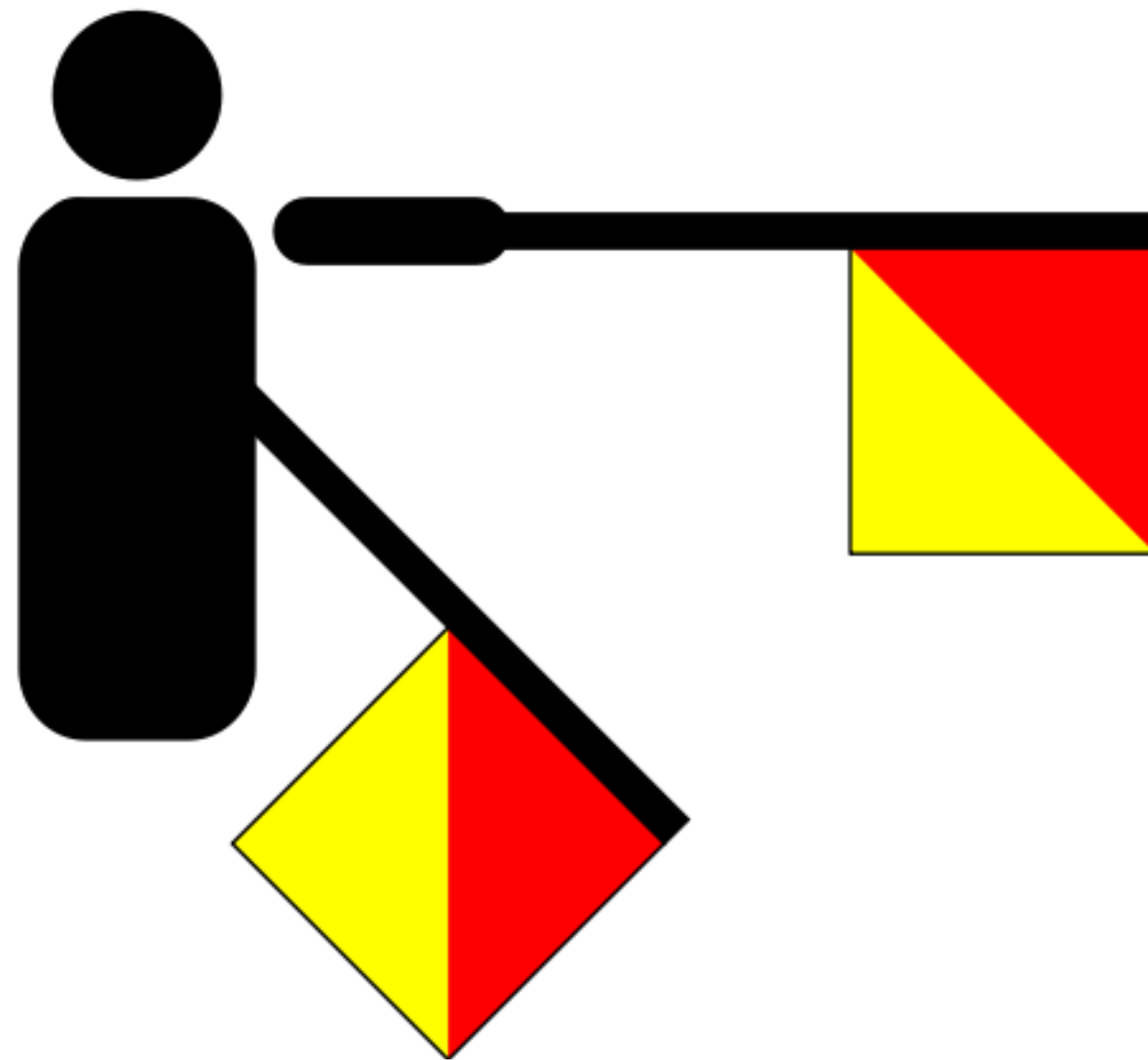
Letter W



Letter X (don't mix with letter I)

Finally

The Circle **Z**, includes only itself, the letter **Z**



Letter Z

Morse Code

Morse code is a method used in **telecommunication to encode text** characters as standardized sequences of two different signal durations, called ***dots*** (**.....**) and ***dashes*** (**— — — — —**) also called ***dits*** and ***dahs***. Morse code is named after **Samuel Morse**, an inventor of the **telegraph**.

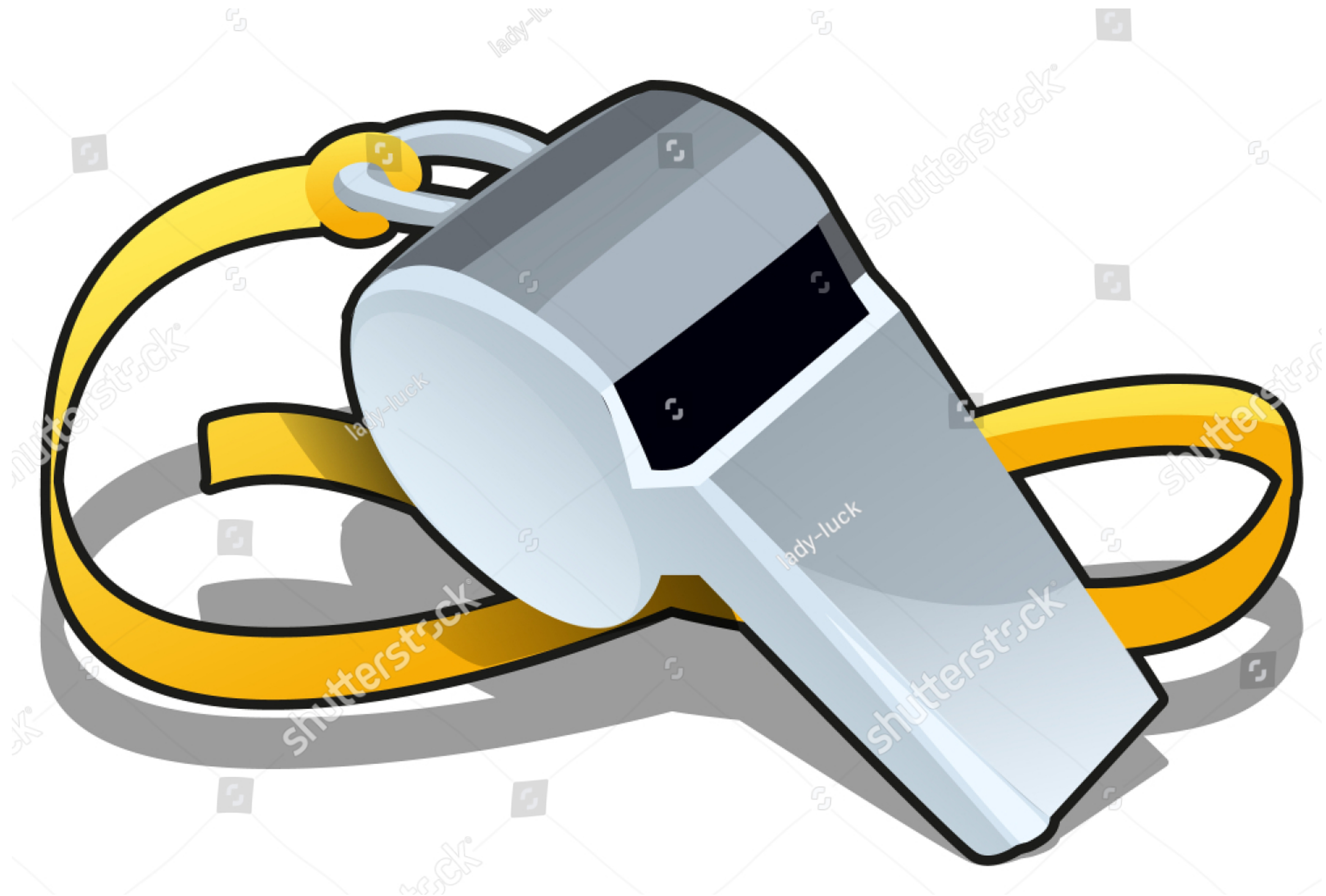
The Morse Code started to be transmitted by a Morse Key








Today, besides the Morse Key, we can use various devices to transmit Morse code signs like: **Whistle;** **Flashlight-Torch;** **Buzzer;** **Semaphore Flags** or other flags and...with your **Phone with a Morse App.**



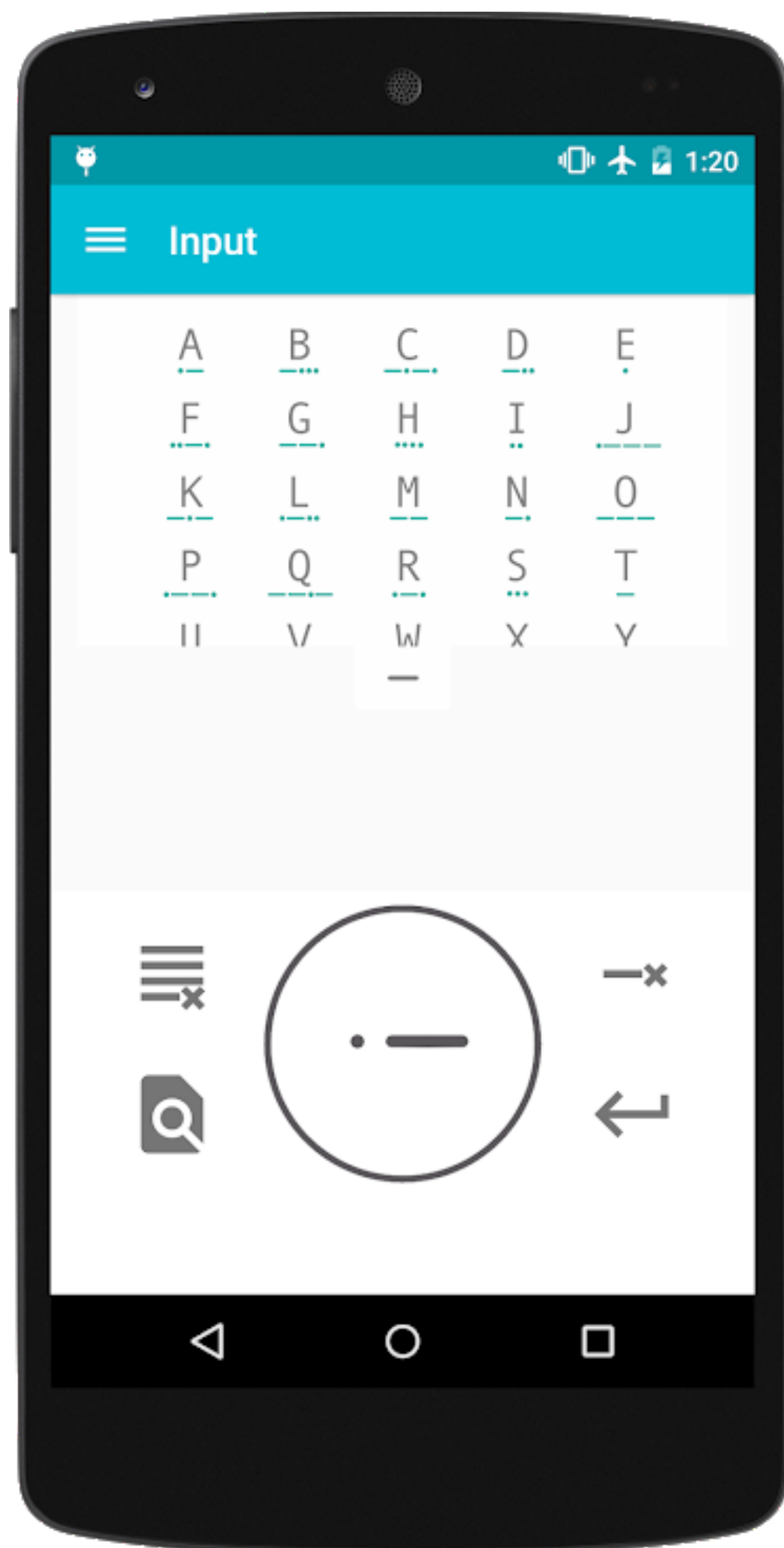
By flashing short amounts of light = **dots - dits** -or - longer amounts of light = **dashes - dahs**. **Attention not using strong lights in a short distance.**



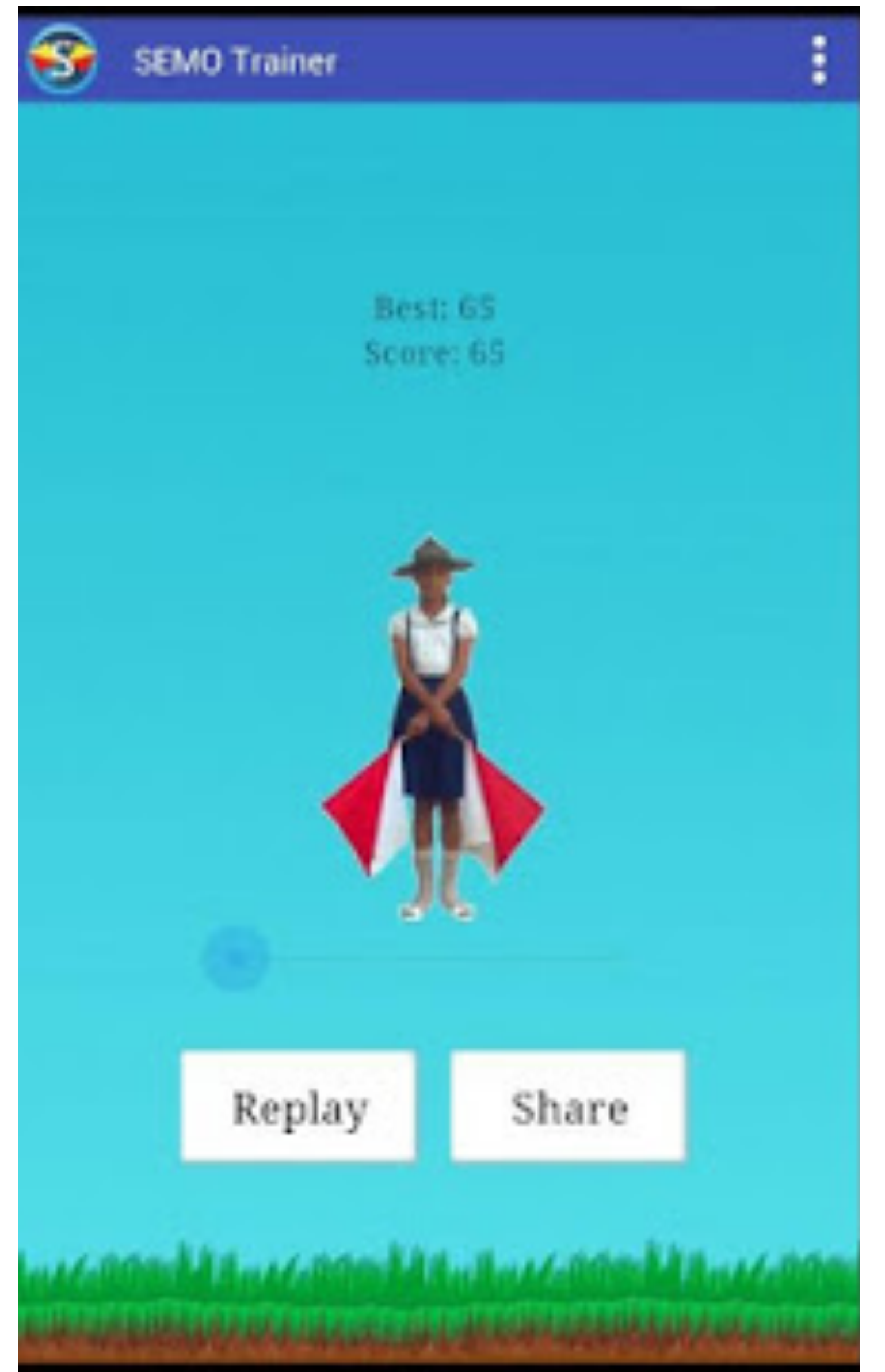
Short sounds or short buzzes means = **dots - dits** -or - longer sounds or buzzes are = **dashes - dahs**. **Attention (not) using the whistle in the bush!**

| | |
|--|---|
| <p>1 "DOT"</p>  <p>Raising Both Hand Flags Or Arms</p> | <p>2 "Dash"</p>  <p>Spreading Out Both Hand Flags Or Arms At Shoulder Level</p> |
| <p>3 Separation Of "Dots" And/Or "Dashes"</p>  <p>Hand Flags Or Arms Brought Before The Chest</p> | <p>4 Separation Of Letters, Groups Or Words</p>  <p>Hand Flags Or Arms Kept At 45° Away From The Body Downwards</p> |
| <p>5</p> <ol style="list-style-type: none"> 1. Erase Signals, If Made By The Transmitting Station 2. Request For Repetition, If Made By The Receiving Station  <p>Circular Motion Of Hand Flags Or Arms Over The Head</p> <p style="text-align: right;">FUTURE SEAFARER</p> | |

Using Semaphore flags to transmitte Morse Code



Google Morse App



Google Semaphore App

| | |
|---|---------|
| A | • — |
| B | — • • • |
| C | — • — • |
| D | — • • |
| E | • |
| F | • • — • |
| G | — — • |
| H | • • • • |
| I | • • |
| J | • — — — |
| K | — • — |
| L | • — • • |
| M | — — |
| N | — • |
| O | — — — |
| P | • — — • |
| Q | — — • — |
| R | • — • |
| S | • • • |
| T | — |
| U | • • — |
| V | • • • — |
| W | • — — |
| X | — • • — |
| Y | — • — — |
| Z | — — • • |

| | |
|---|---------------|
| 1 | • — — — |
| 2 | • • — — — |
| 3 | • • • — — |
| 4 | • • • • — |
| 5 | • • • • • |
| 6 | — • • • • |
| 7 | — — • • • |
| 8 | — — — • • |
| 9 | — — — — • |
| 0 | — — — — — |
| . | • — • — • — |
| , | — — — • • — — |
| ? | • • — — • • |
| / | — • • — • |

- Symbol Length and Spacing
- A DOT is one unit of time
 - A DASH is three units of time
 - Symbol spacing is one unit (DOT Length)
 - Character spacing is three units (DASH length)
 - Word spacing is seven units



<http://kw4fb.com>