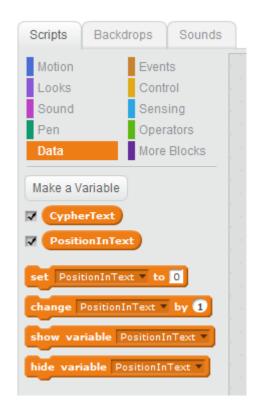
- To Encrypt the message we are going to show the message back to front.
- The first letter becomes the last. The second letter becomes the second last etc.
- · Hello
- Becomes
- · olleH

• Step 1 Create a new sprite



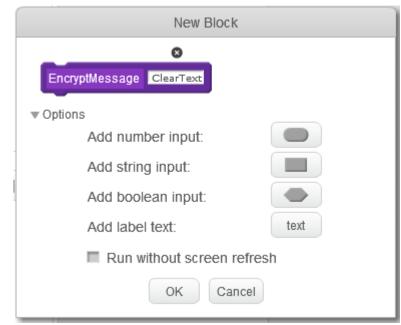
- Step 2 Create Variables
- The variable "CypherText" will contain the encrypted message.
- The variable "PositionInText" will be used to step through each letter in the message.



- Step 3 Enter Message
- Prompt the user to type in the message they want to Encrypt



- · Step 4 Create new Block
- In Scratch 2.0 we can create new Code Blocks and pass a parameter to these blocks.
- The new Code Clock is called "EncryptMessage".
- The new parameter is called "ClearText".

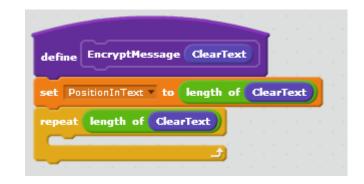


- Step 5
- Set Variable "PositionInText" to the length of the "ClearText" parameter.



• This makes sure we will start at the end of the message.

- Step 6
- Create a repeat loop equal to the length of the "ClearText"



#### Step 7

 Add each letter from the parameter "ClearText" to the Variable "CypherText" in reverse order.

```
define EncryptMessage ClearText

set PositionInText v to length of ClearText

repeat length of ClearText

set CypherText v to join CypherText letter PositionInText of ClearText

change PositionInText v by 1
```

 Change "PositionInText" by "-1" to work back to the start of the text.

- Step 8
- Call the new Data Block "EncryptMessage".

 Pass in the variable "answer" to the new Data Block.

```
when this sprite clicked

ask Please enter your message and wait

EncryptMessage answer
```

- Step 9
- Show the Encrypted message

```
when this sprite clicked

set CypherText v to _____

ask Please enter your message and wait

EncryptMessage answer

say The Encrypted message is... for 2 secs

say CypherText
```