

**Sommario**

<b>DC10DinHFLyC</b>	3
<b><i>IMPLEMENTATION</i></b>	3
Warning	3
Error	3



## DC10DinHFLyC

**D** = Device (camming3, camming4)

**C** = Calculation functions

The DC10DinHFLyC function execute the calculations needed to change on the fly the running length piece without necessarily having the space to be able to return to the Home position.

In particular, during a normal fixed-length flying cut, the function performs a piece of length equal to the convey value and then automatically return to the previous piece length (if that was not called for a another cut).

The function you need to pass the values of: Length of workpiece to cut, acceleration Time, deceleration Time, maximum speed of returning Slave (expressed as a percentage of absolute maximum), Ramps type (trapezoidal or epicycloidal) and the maximum space allowed for carriage stroke. Function writes the sectors directly on CAMMING3 (or 4) devices.

It is important that the function is “callback” every round Qmove logical even if the carriage is stationary; when you want to perform a cut you must set the gbStartTag variable to the value 1.

## IMPLEMENTATION

### DC10DinHFLyC (cmCam,gbStartTag,aslParam,sbWarning,sbError)

Parameters:

IN/OUT	VARIABLE TYPE	EXAMPLE NAME	DIM	
IN	CAMMING3 CAMMING4	Cam		Device type to which you can apply the function
IN	SYSTEM	gbStartTag	B	Variable that when set to 1 reports to perform a new cut-to-length “Piece Length”. The variable is cleared by the function.
IN	ARRSYS	aslParam[1]	L	Piece Length (UM)
IN	ARRSYS	aslParam[2]	L	Acceleration time of carriage return. Time that the carriage uses to move at maximum speed (s/100)
IN	ARRSYS	aslParam[3]	L	Deceleration time of carriage return. Time that the carriage uses to move from maximum speed to 0 (s/100)
IN	ARRSYS	aslParam[4]	L	Maximum speed of carriage return (% of the max vel carriage)
IN	ARRSYS	aslParam[5]	L	Ramps type acc/dec (0=trapezoidal ramps / 1=epicycloidal ramps)
IN	ARRSYS	aslParam[6]	L	Maximum space for cutting (maximum total stroke of carriage permissible from a Home to forward)
OUT	ARRSYS	sbWarning	B	Variable that indicates a warning in the system
OUT	SYSTEM	sbError	B	Function error

## Warning

0:no warning

1:Cutting is not allowed

## Error

After calling the function, the error variable can take on certain values, the meaning of these values is summarized below:

0: calculation execute without errors

1: Maximum Slave speed = 0

2: Piece length = 0

3: Acceleration Time = 0

4: Deceleration Time = 0

5: Incorrect resolution

## Note

- This function should be called each time the application logic. It is necessary, insert it into a task that executes every round logical (that it not containswait events inside).
- The function can only be used if for the construction of flying saw you used the [DC20FlyCut](#) or the [DC30FlyCut](#) functions.
- To start a different length cut you must set the value 1 to the “gbStartTag” variable. This must be done before cutting in progress (before cutting output activation) so the function has time to change the cam

for a return of the carriage ready to cut the new measure set. The piece of different sizes will be getting the next piece to what we are going to cut. If the command is given during or after cutting, the piece with new length will be executed after the next cut.

- The time required to perform calculations of the cam it goes 10msec to 20 msec circa, It varies based on the logical Cpu time.

### Example of use

```
...
IF gfRilDifetto          ;Detected defects on material to be cut
  gfRilDifetto = 0
  aslParam[1] = glLungPezzo ;New length (length of the defect) (UM)
  aslParam[2] = 50          ;Acceleration Time (s/100)
  aslParam[3] = 50          ;Deceleration Time (s/100)
  aslParam[4] = 80          ;Return carriage speed (% vmax)
  aslParam[5] = 0           ;Trapezoidal rampss
  aslParam[6] = 30000       ;Maximum space allowed for the carriage (UM)
  gbStartTag = 1           ;Active cutting
ENDIF
DC10DinHFLyC (cmCam,gbStartTag,aslParam,sbWarning,sbErrore)
IF sbWarning
  sbWarning = 0
  slMessaggio = 5          ;Message variable "cut not executable"
ENDIF
...
```

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