CODE EXTRACTION DATA (R-Bot)		
Principal Functions	Called Functions	
x01_Extract_RPlatform_data input: tdms file robot, SIMI video (x4), VICON c3d output: matlab struct with the same name of tdms file (Second version **x01_Extract_RPlatform_data_vAdichtFiles**)		
	TDMS_getStruct (download TDMS Reader, Mathworks) **GetInfo_TDMS** (SubFunctions(SFs)) **c3dserver** (dowload, c3d server, Mathworks) (Second version **adinstruments_convert_adichtFiles** (dowload, Mathworks)) **Extraction_LED_called** (SFs) **synch_EMGVicon_Robot** (SFs)	**select_video** (SFs)
x02_Join_and_Cleaning_Phase input: struct of all files of the same day of the same task type output: matlab struct (name of all files)x02.mat		
	Join_multiple_Recordings (SFs) **Cleaning_Trials** (SFs)	
x02bis_Add_CoordinatesDLC input: struct x02.mat, files position extracted with deeplabcut output: matlab struct (name of all files)x02.mat		
	Reconstruct_Trajectory (SFs)	

x03_Extraction_Parameters
input: struct x02.mat
output: struct (name of all files)_AnalysisPeaks.mat, figures

CalculateEMGparam (SFs)
CleanBurst (SFs)
CoactivationEMG (SFs)
Remove_artificialForce (SFs)
CalculatePEAKS (SFs)
CalculatePEAKS_moments (SFs)
InsideGoodTrials (SFs)
CalculateKINparam (SFs)

InsideGoodTrialsSpeed (SFs)
CalculateTRAJparam (SFs)

x04_Activity_CorrelatedPeaks
input: struct _AnalysisPeaks.mat
output: struct x04.mat, figures

PlotEMGaroundonset (SFs)
PlotEMGvsF (SFs)

x04bis_add_Inscopix
input: struct x04.mat, activities of the single units extracted by the inscopix software (csv file)
output: struct x04_Ins.mat

y01_PCA_Half_alongDays
input: struct x04
output: PCA and parameters

y02_PCA_activeVSpassive
input: struct x04
output: PCA and parameters

y02bis_Compare_ACTvsHALF_Inscopix
input: struct x04_ins
output: figures

LoadDataBL(SFs)
SelectGoodCells (SFs)
NumberEXvsIN (SFs)

DivideCellType (SFs\Inscopix) **PlotImagesc** (SFs\Inscopix)
PlotInvsEx (SFs)
FindRest (SFs)
RasterCalciumEvents (SFs)

y03_PCA_Active_alongDays
input: struct x04
output: PCA and parameters

y03bis_Comparison_days_Inscopix
input: struct x04_ins
output: figures

LoadDataIns (SFs\Inscopix)
SelectGoodCells_vDays (SFs\Inscopix)
NumberEXvsIN_vDays (SFs\Inscopix)
DivideCellType_vDays (SFs\Inscopix) **PlotImagesc** (SFs\Inscopix)
PlotInvvsEx_vDays (SFs\Inscopix)
FindRest (SFs)
RasterCalciumEvents_vDays (SFs\Inscopix)
PieChartActive_vDays (SFs\Inscopix)