

## Guide to ArtoTI Library

Public variables: (all are initialized when the constructor is called)

comp	Holds code for sending computer 0x06 for TI 86, 0x23 for 83+/84+
calctype	Auxiliary variable holding calculator type: 83=83+, 84=84+, 86=86, 82=82, -83=83
Data0,Data1	Arduino pins for tip pin and ring pin

Public functions:

ArtoTI(byte tippin,byte ringpin)	Constructor requires Arduino pins for tip and ring of data cable
void clearScreen()	Clear calculator screen
void Enter()	Send the ENTER key
void floatout(double num,int dplaces)	Arduino routine to overcomes Serial.print's deficiencies
void getDir()	Get a directory of variables stored in calculator mostly for debugging
double getNum(char *sname)	Returns a variable (named in sname) value
byte getStatus()	Returns which calculator is connected
void Plot(double *xlist, double *ylist, int numpoints, byte mark)	Plot y vs x using mark 0=box, 1=plus, 2=period. List xlist and ylist are arrays of the same length=numpoints
void sendANstring(char *str)	Main parser and way of sending commands to calculator. It is by no means complete, but handles common commands. See command section
void sendByte(byte paramB)	Send a byte value (hex) not really needed by users
void sendCmd(word paramW)	Send a calculator command code (hex), when sendANstring doesn't work because it is an uncommon code
void sendList(byte listnum, double *list,int listlen)	Send a list to a list var. valid entries are 1-6 for L1-L6
boolean sendNum(char *sname,double num)	Send a number num to a calculator variable defined in sname string. The string is A-Z on 83/84+ and and string of characters for the 86 must be null terminated
void sendOP(char *ops)	Send an operator string.Public, but best if used by sendANstring rather than by user.

Legal Characters: (Characters recognized by sendANstring including single character commands)

A-Z,a-z,0-9	A-Z,a-z,0-9
{	{
}	}
(	(
)	)
,	,
+	+
-	-
/	/
*	*
^	^
.	.
%	Quote character. To send a “%” use %%

Two character commands: (used in sendANstring as quoted commands. E.g %SN for sin( function. Not case sensitive)

AC	Arccos
AS	Arcsin
AT	Arctan
CH	Changes sign
CS	cosine
DN	Down arrow
EE	EE key
EX	e^
ET	Exit key (86 only)
LF	Left arrow
LG	Log function
LN	Ln function
PI	Pi
RT	Right arrow
SN	Sine
SQ	Square
SR	Square root
ST	Store
TN	Tangent
UP	Up arrow