V0.9a

Index	Method	Usage	Comments
1	ReadAD (ANx)	Returns an 8 bit value by default. Typical usage could be ReadAD(AN0)	Same functionality as pre-2015 – the 2016 code will be reverted. 2016 returns an integer causing performance and memory issues. This will be maintained for backwards compatibility.
2	ReadAD (ANpX, ANnY)	Returns an integer of the differential value when a second parameter is passed. Typical usage could be ReadAD(AN0, AN3) For a Differential Channel read use the following. Where ANpX is the positive port, and ANnY is the negative port.	Overloaded function. Uses existing 2016 code.
3	ReadAD (ANx, true)	Returns an integer of the 8 bit value. The second parameter must be set to TRUE. Typical usage could be ReadAD(AN0, true) This forces an 8 bit read but returns an integer.	New overloaded function. This is essentially the 2016 code.
4	ReadAD10 (ANx)	Returns a 10 or 12 bit word value dependent on the capabilities of the microcontroller. Typical usage could be ReadAD10(AN0) This complies with the GCGB design goal of "Measures the analog voltage level on a pin at full resolution”.	Same functionality as pre-2015 – the 2016 code will be reverted. 2016 returns an integer causing performance and memory issues. This will be maintained for backwards compatibility.
5	ReadAD10 (ANpX, ANnY)	Returns an integer differential value.	New overloaded function.

		Typical usage could be ReadAD10(AN0, AN3) For a Differential Channel read use the following. Where ANpX is the positive port, and ANnY is the negative port.	This is essentially the 2016 code.
6	ReadAD10 (ANx, TRUE)	Returns an integer of the 10 bit value. Typical usage is ReadAD10(AN0, True) This would force a 10 bit read.	Uses function as specified in #8 overloaded function. Adapted 2016 code.
7	ReadAD12 (ANx)	Returns only a 12 bit word value. Typical usage could be ReadAD12(AN0)	This is the 2016 code.
8	ReadAD12 (ANpX, ANnY)	Returns only a 12 bit integer value. Typical usage could be ReadAD12(AN0, AN3) For a Differential Channel read use the following. Where ANpX is the positive port, and ANnY is the negative port.	New overloaded function. This is essentially the 2016 code.
9	ReadAD12 (ANpX, true)	ReadAD12 can return an integer of the 12 bit value if the second is true. Typical usage could be ReadAD12(AN0, true) This would force a 12 bit read.	Uses function as specified in #8. This is a redundant but is documented for completeness.