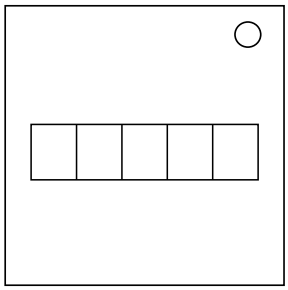
On the Subject of Pie



What is the point of naming this module 'pie' if there is no pie?! The pie is a lie!

See Appendix π for pi identification reference.

A Pie module shows five consecutive significant digits within the first 500 digits of pi (π). The digits are ordered from left to right.

Search for the position of the first digit, from which the five digits begin. Add this position to the number displayed on the module. Take this sum modulo 100. This result will be referred to as the number X.

Add up all five displayed digits, then take the least significant digit. This digit will be referred to as the number Y.

Follow all the rules below from top to bottom, pressing each digit only once:

1. If X is a prime number, press the first digit.
2. If X and Y are either both even or both odd, press the second digit.
3. If X is a multiple of three, press the third digit.
4. If Y is not zero, and X is a multiple of Y, press the fourth digit.
5. Press all the digits that are not pressed yet from right to left, starting from the fifth digit.

Appendix π: Pi Identification Reference

Here are the first 500 significant digits of pi.

3141592653589793238462643383279502884197169399375105820974944592307816406286208998628034825342117067982148086513282306647093844609550582231725359408128481117450284102701938521105559644622948954930381964428810975665933446128475648233786783165271201909145648566923460348610454326648213393607260249141273724587006606315588174881520920962829254091715364367892590360011330530548820466521384146951941511609433057270365759591953092186117381932611793105118548074462379962749567351885752724891227938183011949