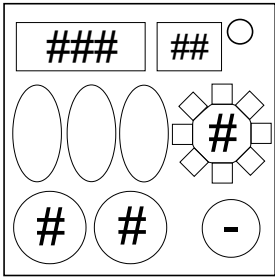# On the Subject of Forget The Colors

Since when was trigonometry relevant to colors?

Forget The Colors has 2 displays, a gear with an LED and number, 2 nixie tubes (bottom-left), 3 colored cylinders, and a key. Interacting before it's ready will give a strike.

In Colorblind mode, "I" means Pink and "P" means Purple.

Take note of everything it displays at the start, and after every solve*.

Some modules are ignored by Forget The Colors.

For every stage:

Using the first table, modify both nixies based on the colors of each cylinder. Modulo both nixies by 10.

If...	Red	Orange	Yellow	Green	Cyan	Blue	Purple	Pink	Maroon	White
Left Nixie	+5	−1	+3	+7	−7	+8	+5	−9	+0	−3
Right Nixie	−1	−6	+0	−4	−5	+9	−9	+4	+7	+5

If...	Then... (# = number)
Red	Add # of batteries.
Orange	Subtract # of total ports.
Yellow	Add the last digit in serial.
Green	Subtract # of solved modules.
Cyan	Add # of port plates.
Blue	Subtract # of total modules.
Purple	Add # of battery holders.
Pink	Subtract # of lit indicators.
Maroon	Add # of total indicators.
White	Subtract # of unlit indicators.

To the table on the left, start on the color of the LED on the gear.

Move up **Left Nixie** and move down **Right Nixie**, wrapping if needed.

Apply the rule to the sum of the nixies and gear number, modulo 10.

Construct a 3-digit number using the left nixie, then the right nixie, and then the number obtained above.

Get the Sine (sin) of that 3-digit number and take the first five digits of the sine past the decimal point. This number can be negative.

Take the 3-digit display and get the first five digits of Cosine (cos) past the decimal point. Drop any negative signs so that this value is always positive.

The sum of both forms the number for that stage, hold onto it.

After all non-ignored modules are solved**:

When the cylinders and gear turn gray, this means the module is ready for input. Add up all of the stage numbers, taking only the decimals.

Take this value and apply a Cos^{-1} to it. This will require at least a scientific calculator. Floor the given value and drop all of the decimal values to get a number from 0 and 90.

Input this number by interacting the 2 nixies, then proceed to turn the key.

**But if no stages were generated, ignore all other rules. The module did the work for you. Just throw a 90. Thanks module.*