## On the Subject of Tenpins

Nice Spare!

- This module displays bowling pins arranged in a triangle formation, colored using additive color mixing, and a bowling ball colored red, green, or blue.
- When the triangle is broken down into the red, green, and blue channels, three separate splits can be found. Use the features of
- the pins in the channel that correspond to the current color of the bowling ball to determine valid times to press the bowling ball.
- Pressing the bowling ball at a valid time will cause it to change color.

  When the bowling ball has been pressed for all three channels, the module will solve.
- Pressing the bowling ball at an invalid time will cause a strike.

## Types of splits

These are the splits that can appear on the module. Black circles represent pins present.

- If none of the splits use a pin, it will not appear.
- A split may be inverted, meaning all the pins that would be present aren't, and all the pins that wouldn't be present are.
- Splits may be rotated so that any of the three corner pins is pin 1 (the bottom pin in the graphics below).
- Splits may also be mirrored across the y-axis (relative to pin 1).

Goal Posts	Cincinnati	Woolworth Store*	
	• • • • • • • • • • • • • • • • • • •		
Lily	3-7 Split	Cocked Hat	
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<sup>\*</sup> This split will never be mirrored.

4-7-10 Split	Big Four	Greek Church
●00● ●00 00		
Big Five	Big Six	IOW

## Determining valid times

Use the following tables to determine what times are valid to press the bowling ball. N is the seconds digits of the timer when the bowling ball is pressed. Both conditions must be met.

	Red	Green	Blue
Pins are normal	N % 20 < 10	4 < N % 20 < 15	2 < N % 20 < 13
Pins are inverted	N % 20 > 9	7 < N % 20 < 18	6 < N % 20 < 17

For the following table, if the split is \_\_\_\_\_, and the other two splits use the same column, use that column. Otherwise, use the column that is not used by either of the other splits.

	Pin l is S	Pin l is NW	Pin 1 is NE
Goal Posts	N % 10 = 7	N % 10 = 2	N % 10 = 1
Cincinnati	N % 10 = 5	N % 10 = 1	N % 10 = 3
Woolworth Store	N % 10 = 9	N % 10 = 8	N % 10 = 4
Lily	N % 10 = 2	N % 10 = 9	N % 10 = 3
3-7 Split	N % 10 = 8	N % 10 = 5	N % 10 = 8
Cocked Hat	N % 10 = 6	N % 10 = 0	N % 10 = 2
4-7-10 Split	N % 10 = 3	N % 10 = 1	N % 10 = 4
Big Four	N % 10 = 7	N % 10 = 4	N % 10 = 1
Greek Church	N % 10 = 5	N % 10 = 7	N % 10 = 6
Big Five	N % 10 = 1	N % 10 = 3	N % 10 = 5
Big Six	N % 10 = 0	N % 10 = 6	N % 10 = 9
	N % 10 = 4	N % 10 = 2	N % 10 = 0

