

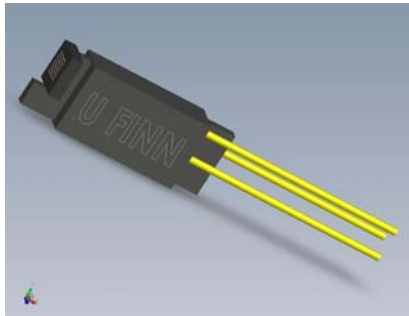


TEST COACH  
CORPORATION

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## Ultra FINN<sup>®</sup>

### *Installation Instructions*

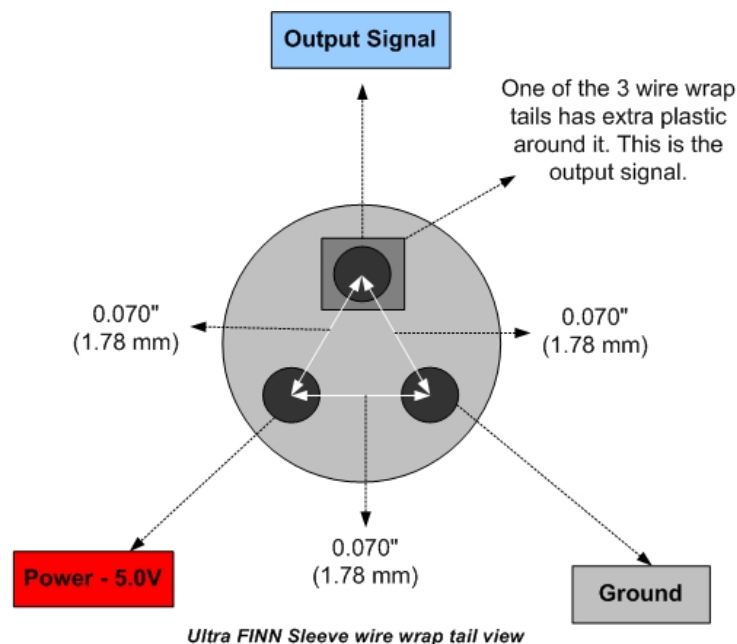


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# UltraFINN Sleeve Instalation Instructions

*How to identify the Power, Ground and Signal Pins:*

- 1) Identify the wire wrap tail that has the extra plastic; this is the **Output Signal**.
- 2) Move clockwise to the next wire wrap tail; this is the **Ground**.
- 3) Move clockwise again to the next wire wrap tail; this is the **Power** (5.0V).



## Drilling Instructions:

*The center of the hole for the sleeve should align with the center of the LED.*

Drill Hole	0.1417" (3.6 mm)	-0.002" / +0.0005" (-0.051mm / + 0.012mm)
Sleeve Press Rings	0.145" (3.683 mm)	-0.002" / +0.002" (-0.051mm / + 0.051mm)
Sleeve Diameter	0.136" (3.454 mm)	-0.002" / +0.002" (-0.051mm / + 0.051mm)

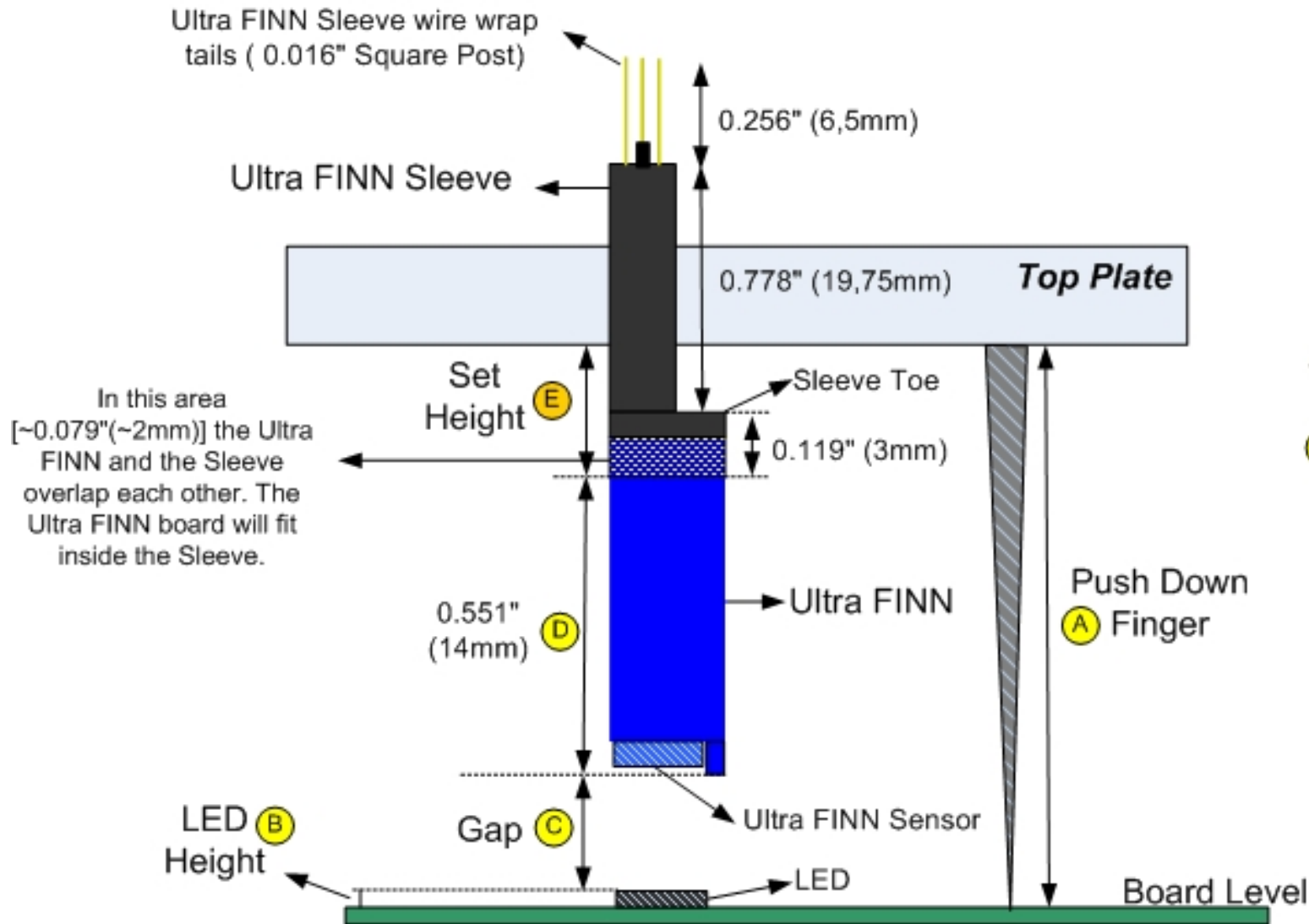
## Wire Wrapping Instructions:

- The 3 wire wrap tails are 0.016" (0.406mm) square posts.
- The posts are spaced at 0.070" (1.78mm) apart.
- We recommend using 30 gauge wire.

## Sockets:

If the Ultra FINN Sleeve cannot be used then individual sockets can be used. The Ultra FINN pins will fit in IDI Part# RSS50PW.

## UltraFINN and Sleeve Stackup



### Stack up Formula:

$$\text{E} = \text{A} - \text{B} - \text{C} - \text{D}$$

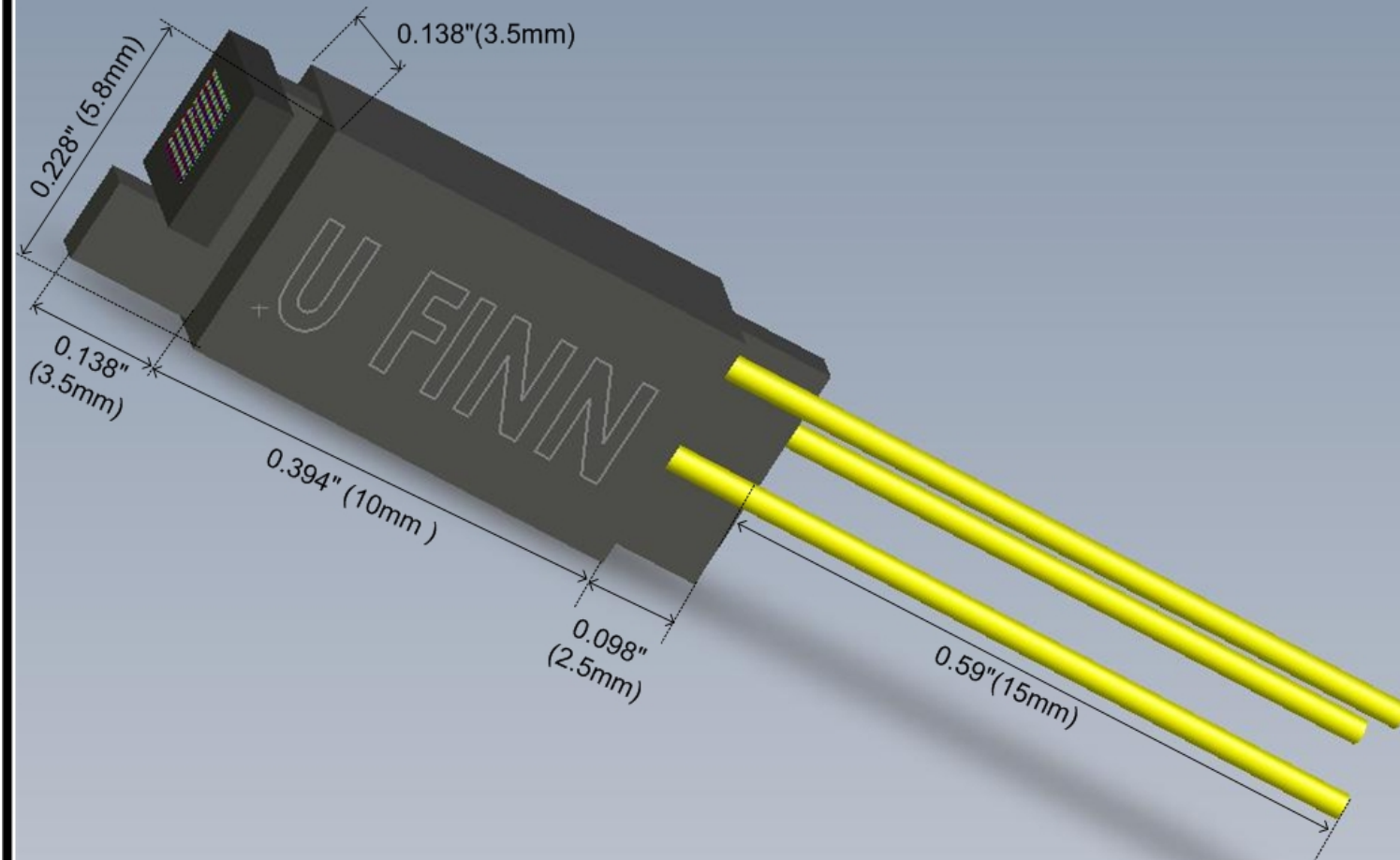
$$\text{C} = \text{Nominal } 0.25", \text{ Min } 0.1"$$

\*If **E** < 0.119" (3mm), a recessed hole or milling will be required.

\*If **E** > 0.55" (14mm), a standoff block might be required.



## Ultra FINN



## Ultra FINN Wiring Troubleshooting

### In order to troubleshoot the wiring of the Ultra FINN, please check the following items:

- 1) Measure the diode drop from Ground to Power. It should measure  $\sim 0.40\text{V}$  at  $0.5\text{mA}$ .
- 2) Measure the diode drop from Ground to Output. It should measure  $\sim 0.58\text{V}$  at  $0.5\text{mA}$ . This diode drop measures a little higher than the Ground to Power because it has an internal  $68\text{ Ohm}$  resistor in series.
- 3) Measure the diode drop from Power to Output. It should measure  $\sim 0.7\text{V}$  at  $0.5\text{mA}$ . This diode drop measures a little higher because it has the  $68\text{ Ohm}$  resistor in series and the actual diode has higher forward voltage drop.
- 4) Make sure the voltage applied to the Ultra FINN is  $5.0\text{V}$ .
- 5) The Ultra FINN should not draw more than  $\sim 30\text{mA}$  of current.

