

The background features a dark navy blue field with several overlapping, semi-transparent geometric shapes. On the left, there are shapes in shades of green, cyan, orange, and pink. On the right, there are shapes in shades of cyan, blue, purple, and red. The shapes are layered, creating a sense of depth and movement.

# Traffic Light Redesign

# The Process

**The  
Problem**



**Others  
solutions**



**Things to  
consider**





## The Problem

- > Color Blind have a hard time distinguishing red and yellow
- > Especially bad at night

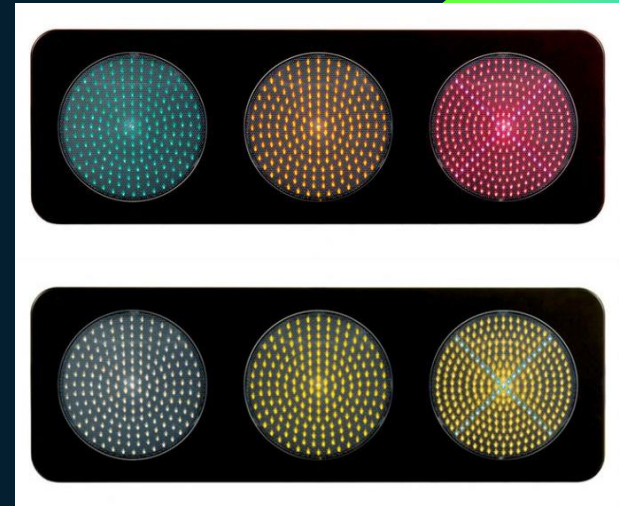
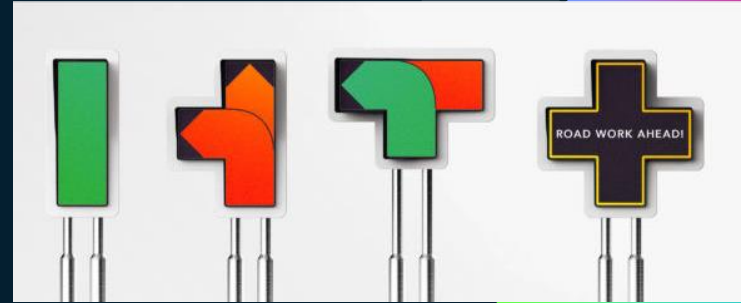
# History

- › Lester Wire designed the traffic light in 1912
- › At first there was no yellow light
- › Other than adding yellow the design has been untouched



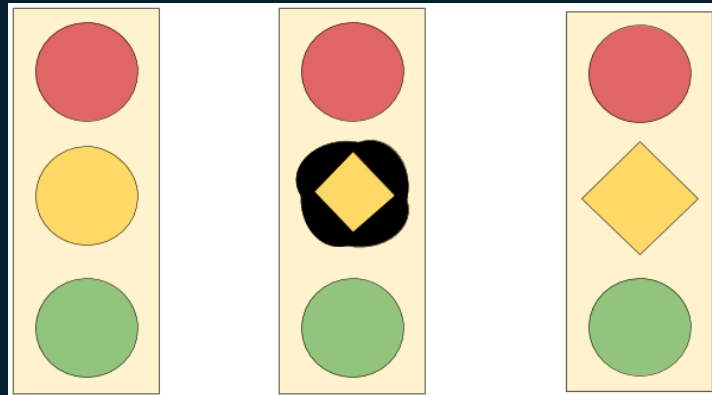
# Attempts of change

- › Evgeny Arinin redesigned the light with different shapes
  - › Self driving machines
- › Taro Ochiai redesigned red light with cyan X inside



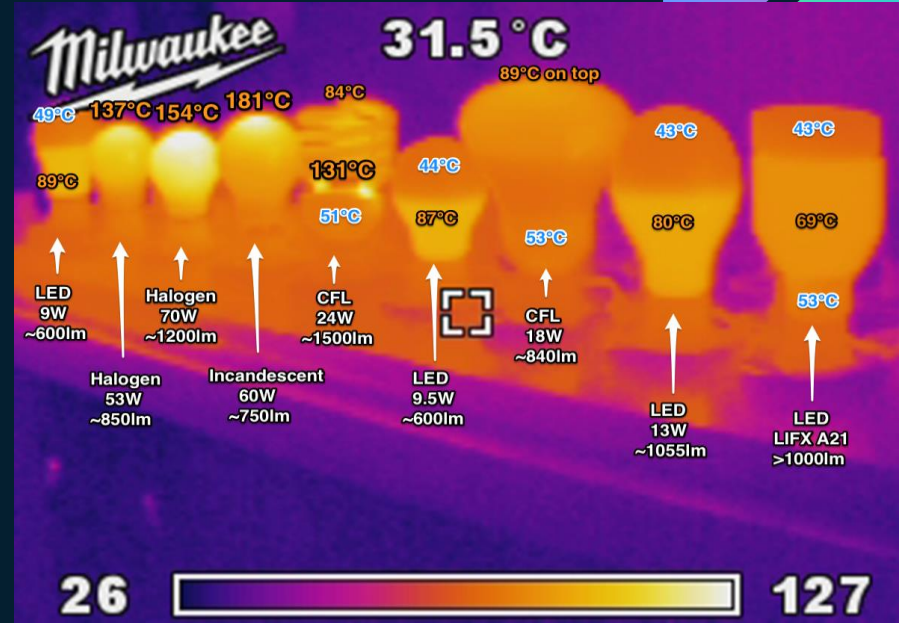
# My idea

- > Add a sticker to change the shape of the light
- > Cheap and easy
- > Nothing has to be replaced



# Things to consider

- › LED lights are being pushed
  - › Last up to 11.5 years
- › High temp vinyl can survive up to 225 degrees
  - › Also waterproof



# Traffic Light Sizes

	8in	12in
tall	30	42
wide	9.5	13.5
deep	6	8

**All Lights are 14 feet above the ground**



# Application Process

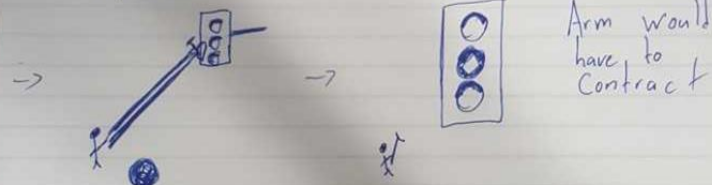
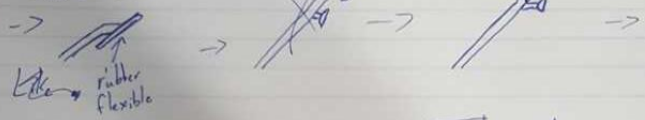
- › A sticker will be created for each light
  - › attaches to pole arm
- › Polearm can extend to apply
- › Light hood can be used to guide pole



Sticker Comes on sheet, attach to pole Sticker.



Part to press sticker on

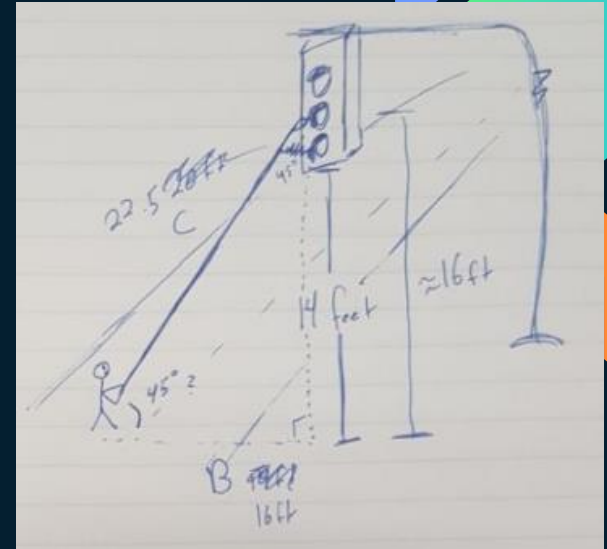


Approximate size comparison



# The Math

- › Sticker and pole arm part are either 8 or 12 in in diameter
- › Yellow light is 16ft above ground
- › Pole arm should extend up to 22.5ft
- › Person can stand 16ft from light and apply at 45 degree angle





# Work Cited

- > <https://www.wired.com/2014/06/the-hidden-genius-and-influence-of-the-traffic-light/>
- > <https://medium.com/conectric-networks/playing-with-raspberry-pi-traffic-lights-89e0d1cb51fd>
- > <http://www.xodustech.com/projects/raspberry-pi-traffic-light>