

To 4 limbs
3 channels per
limb

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limb

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limb

Total of 9 TLC 5947's

To 4 limbs
3 channels per
limb

TLC 5947-8

TLC 5947-7

TLC 5947-6

TLC 5947-0

To Topper
3 channels

To 3 limbs
3 channels per
limb

To 4 limbs
3 channels per
limb

To 4 limbs
3 channels per
limb

To 4 limbs
3 channels per
limb

Each TLC has 8
groups of 6 pins. A
2x3 pin plug connect
the limb's strings of
LEDs to 3 channels.

The tree has a total of 71
limbs plus the topper.

Each of the 9 TLCs
provides 24 12-bit PWM
channels (4096 levels of
brightness per channel)
(216 channels total)

Each limb uses 3 channels
to drive its strings of red,
green and blue LEDs.

Each string has 4-8 LEDs
depending on where it is in
the tree.(total of 1400+
LEDs)

Infrared
receiver

IR

Arduino
Pro Mini

5V Regulator

30V DC
Power Supply

Speaker

Speaker used for optional
audible input confirmation.

N7FF Christmas Tree
2015