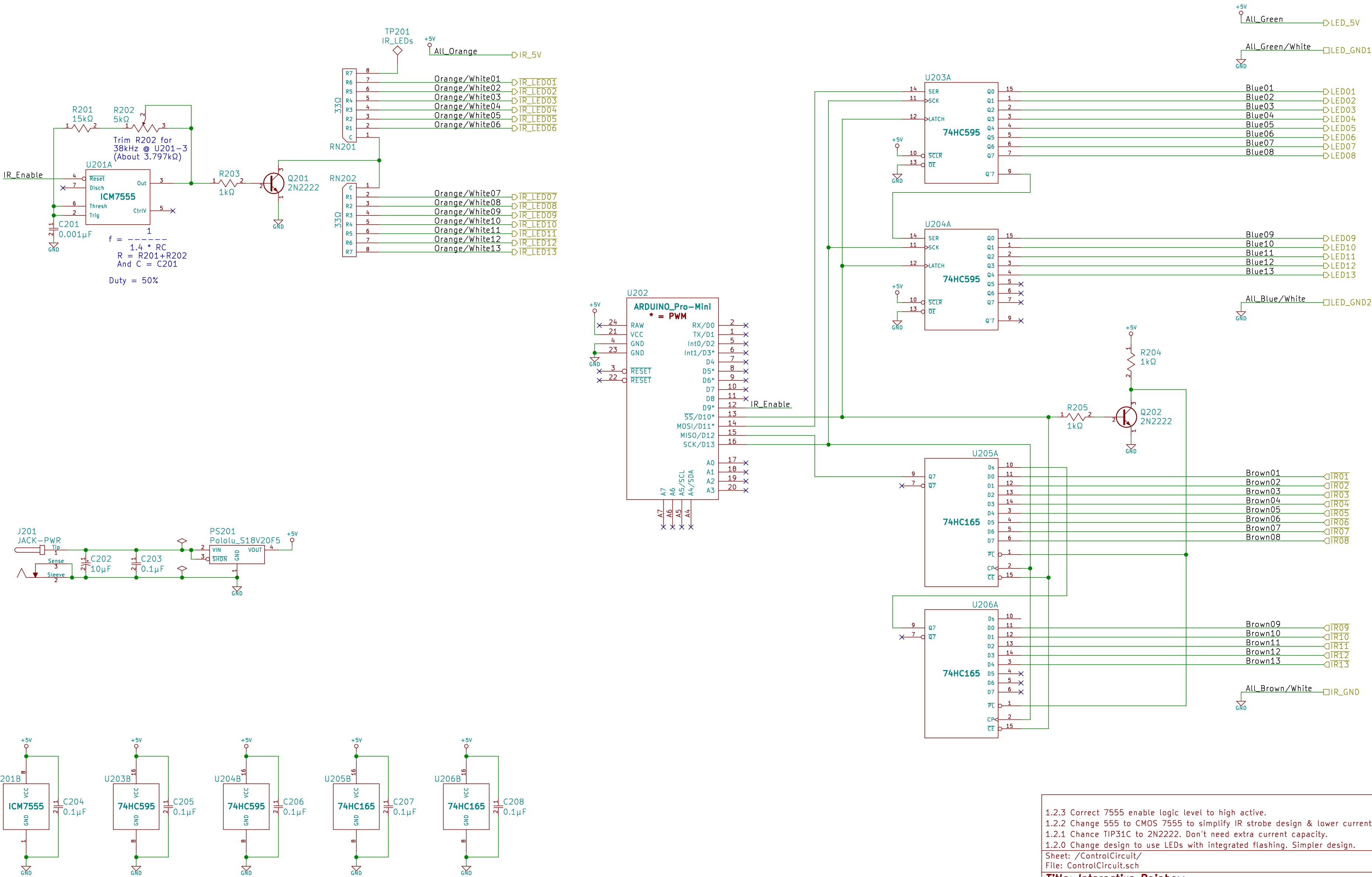


Sembazuru  
Circuits



1.2.3 Correct 7555 enable logic level to high active.		
1.2.2 Change 555 to CMOS 7555 to simplify IR strobe design & lower current.		
1.2.1 Chance TIP31C to 2N2222. Don't need extra current capacity.		
1.2.0 Change design to use LEDs with integrated flashing. Simpler design.		
Sheet: /		
File: Schematic.sch		
Title: Interactive Rainbow		
Size: C	Date: 2016-01-09	Rev: 1.2.3
KiCad E.D.A. kicad (2015-11-15 BZR 6316)-product		Id: 1/15

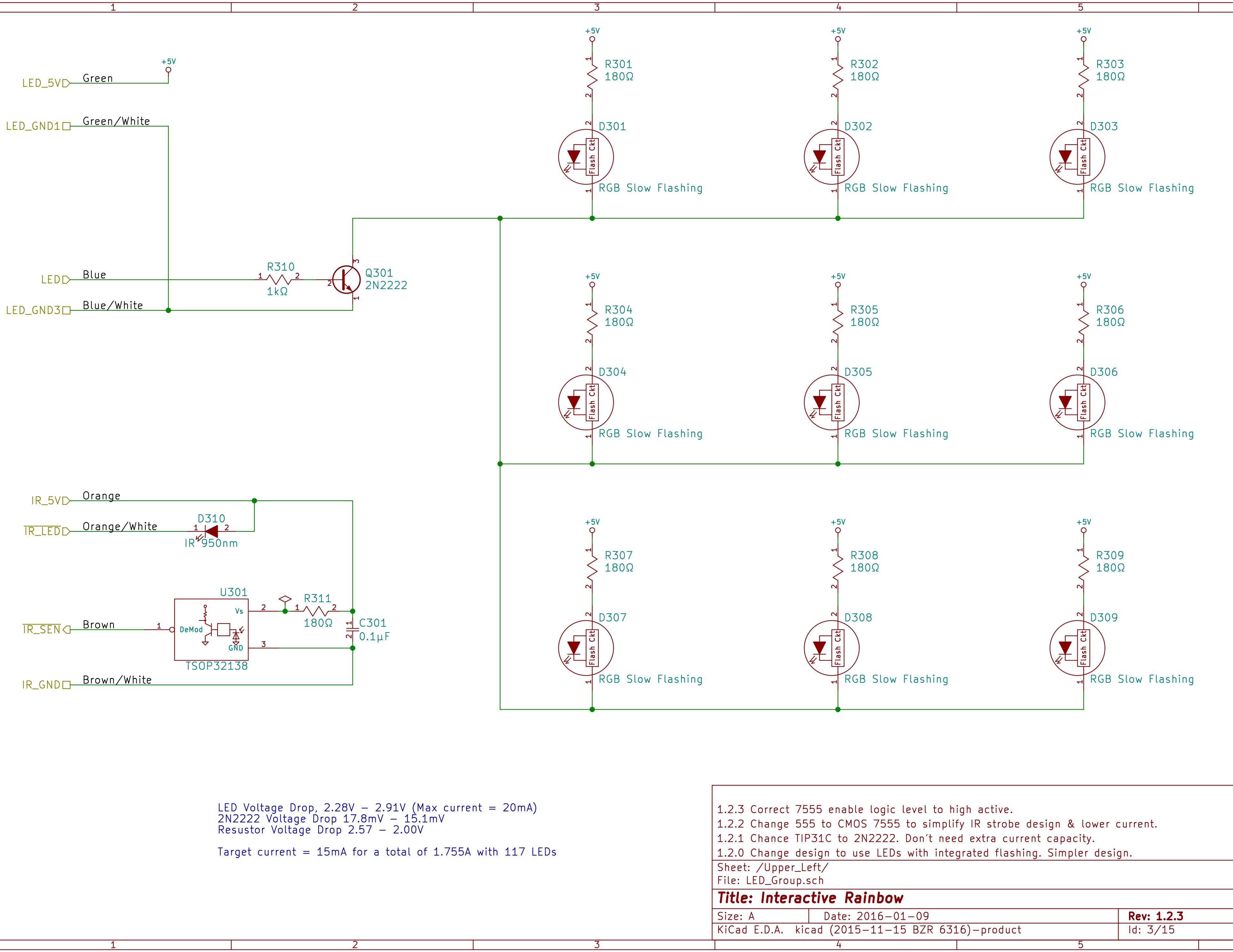


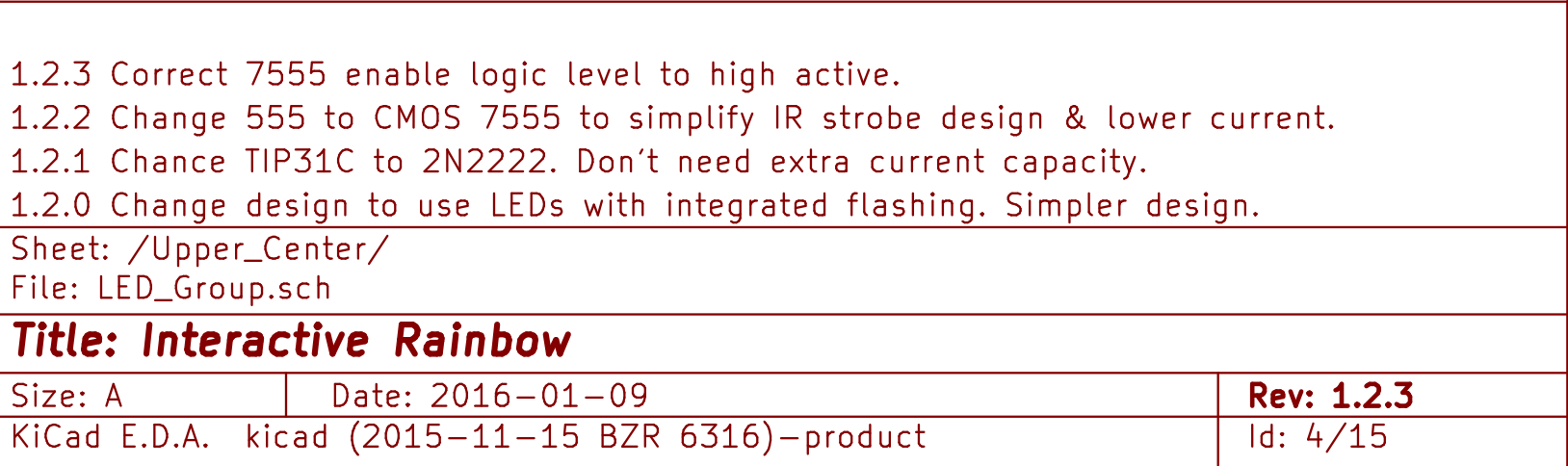
1.2.3 Correct 7555 enable logic level to high active.  
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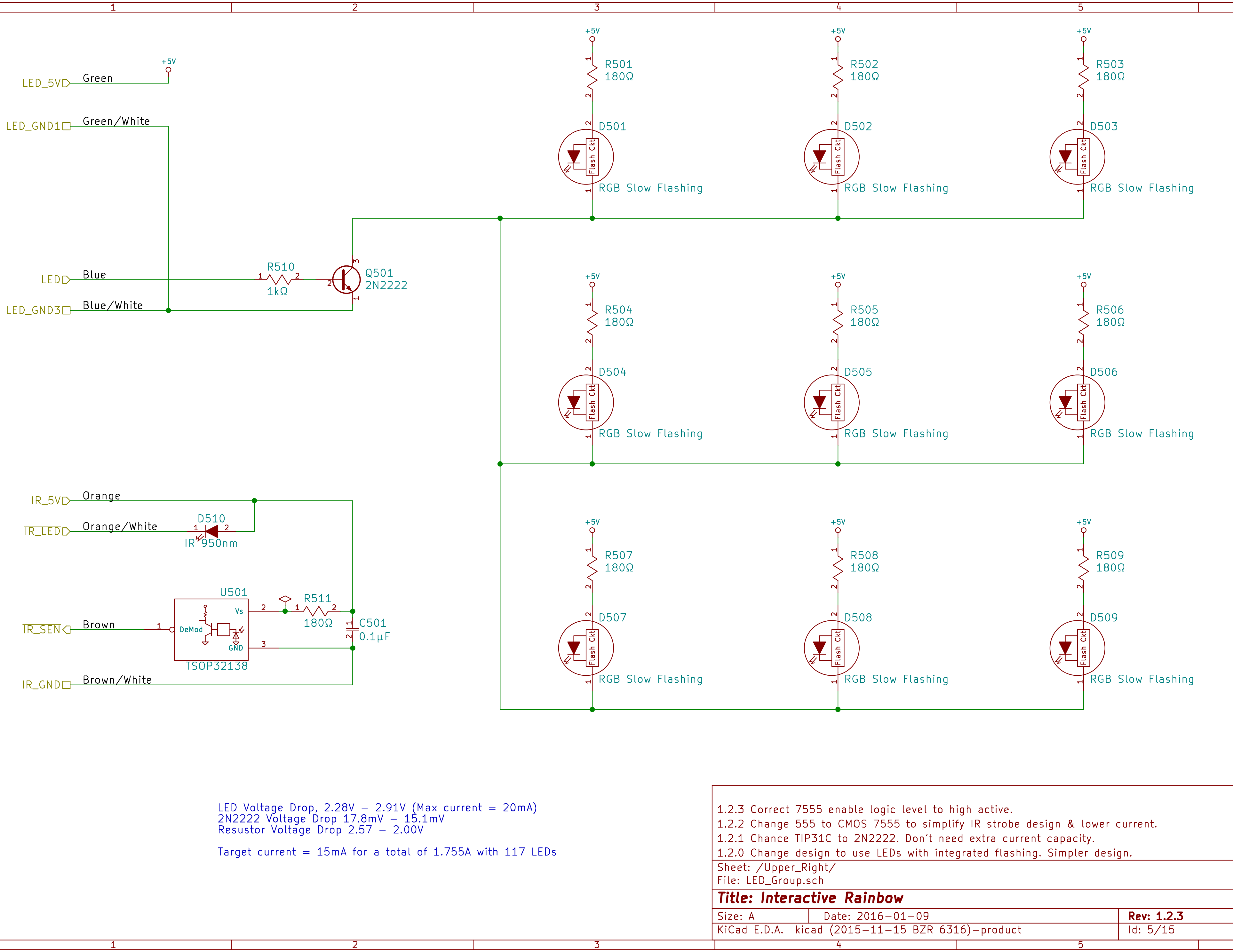
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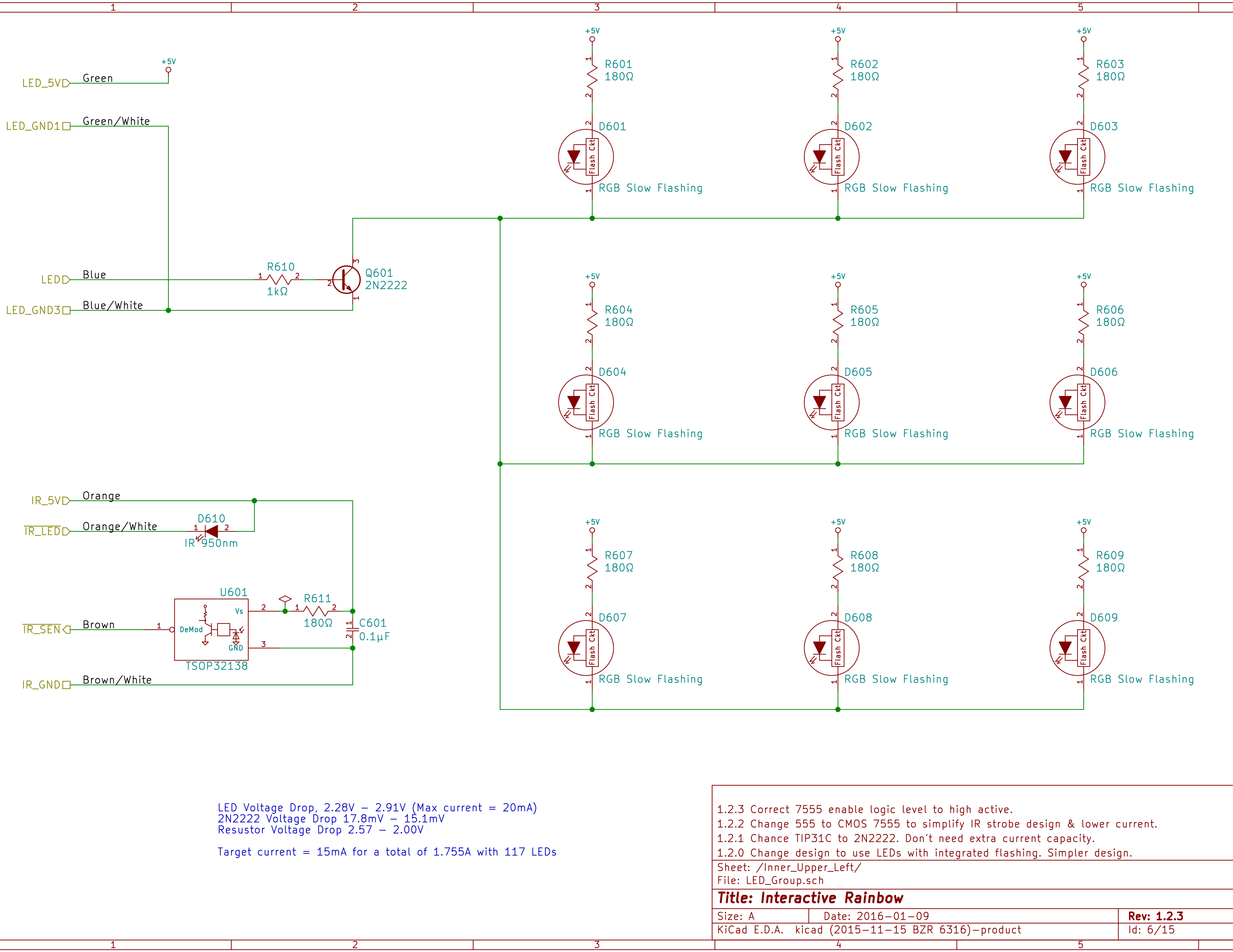
**Title: Interactive Rainbow**

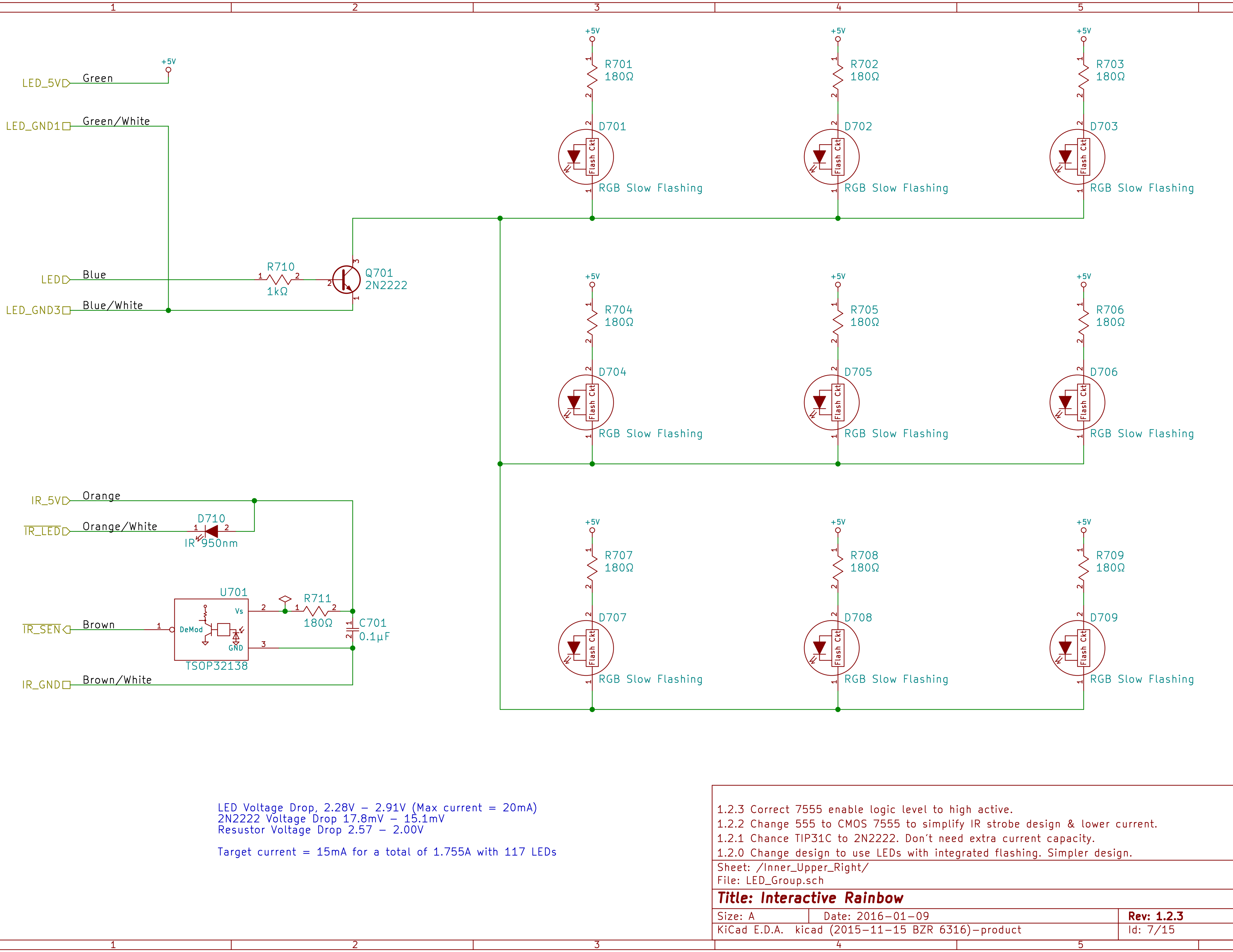
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KiCad E.D.A. kicad (2015-11-15 BZR 6316)-product		Id: 2/15



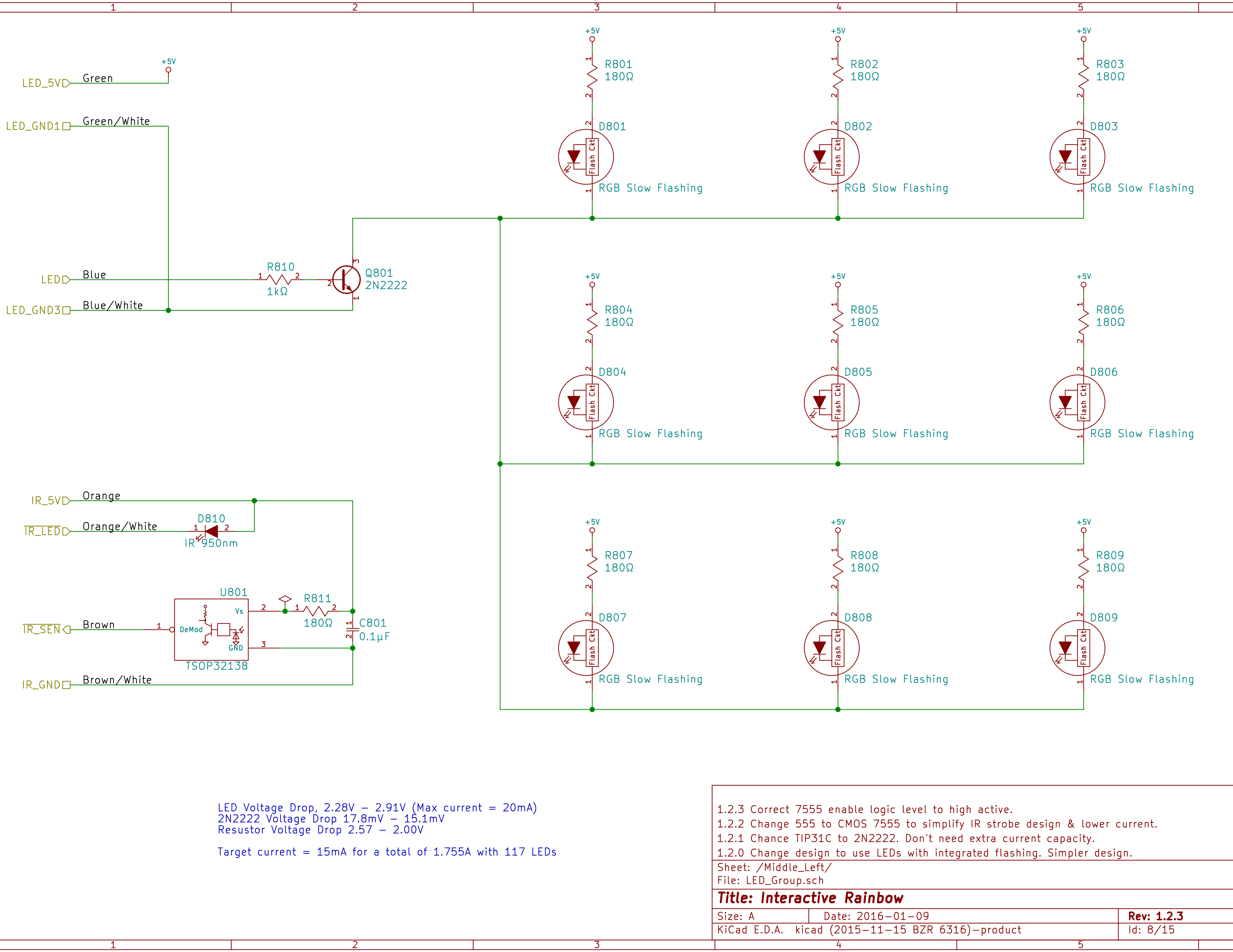




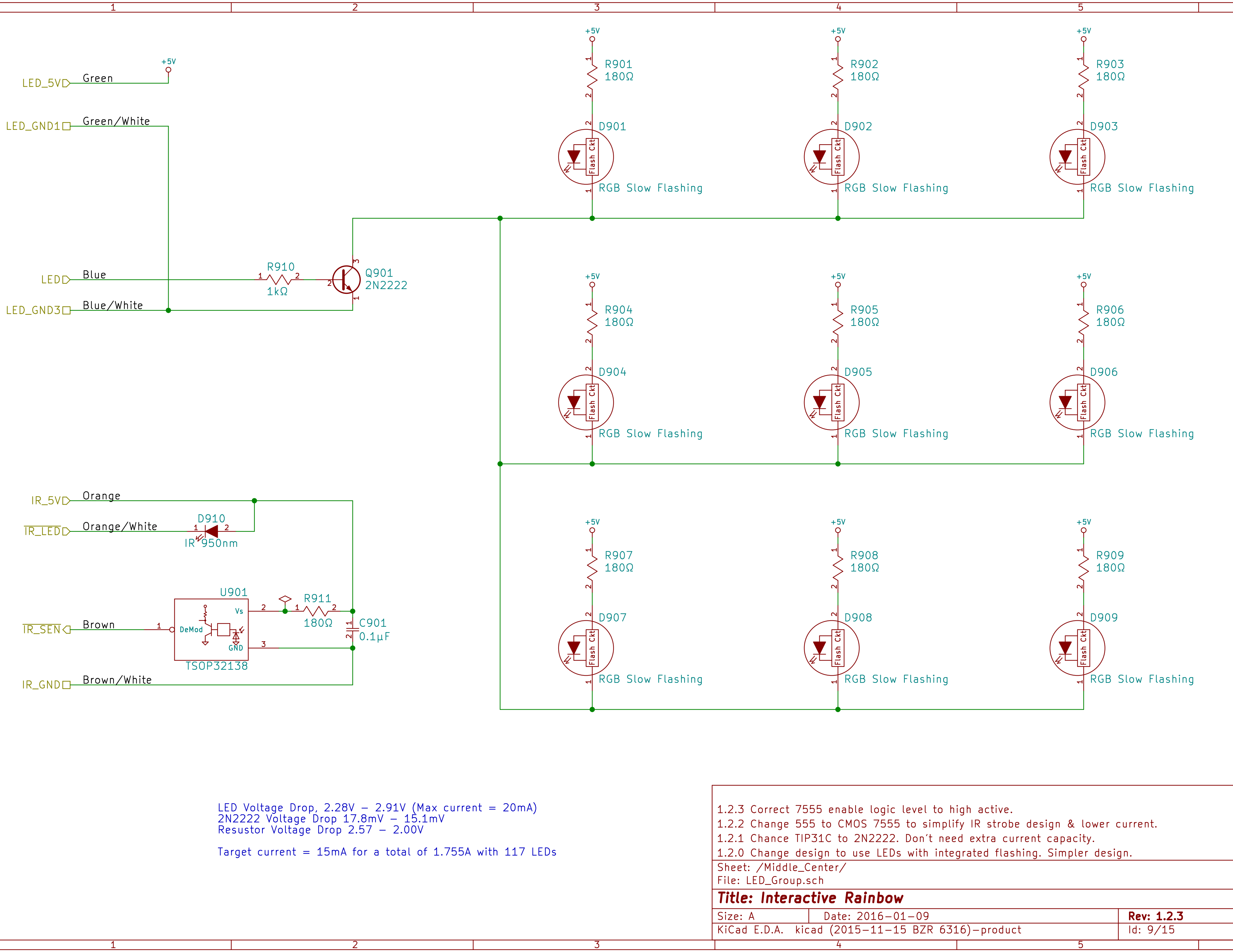


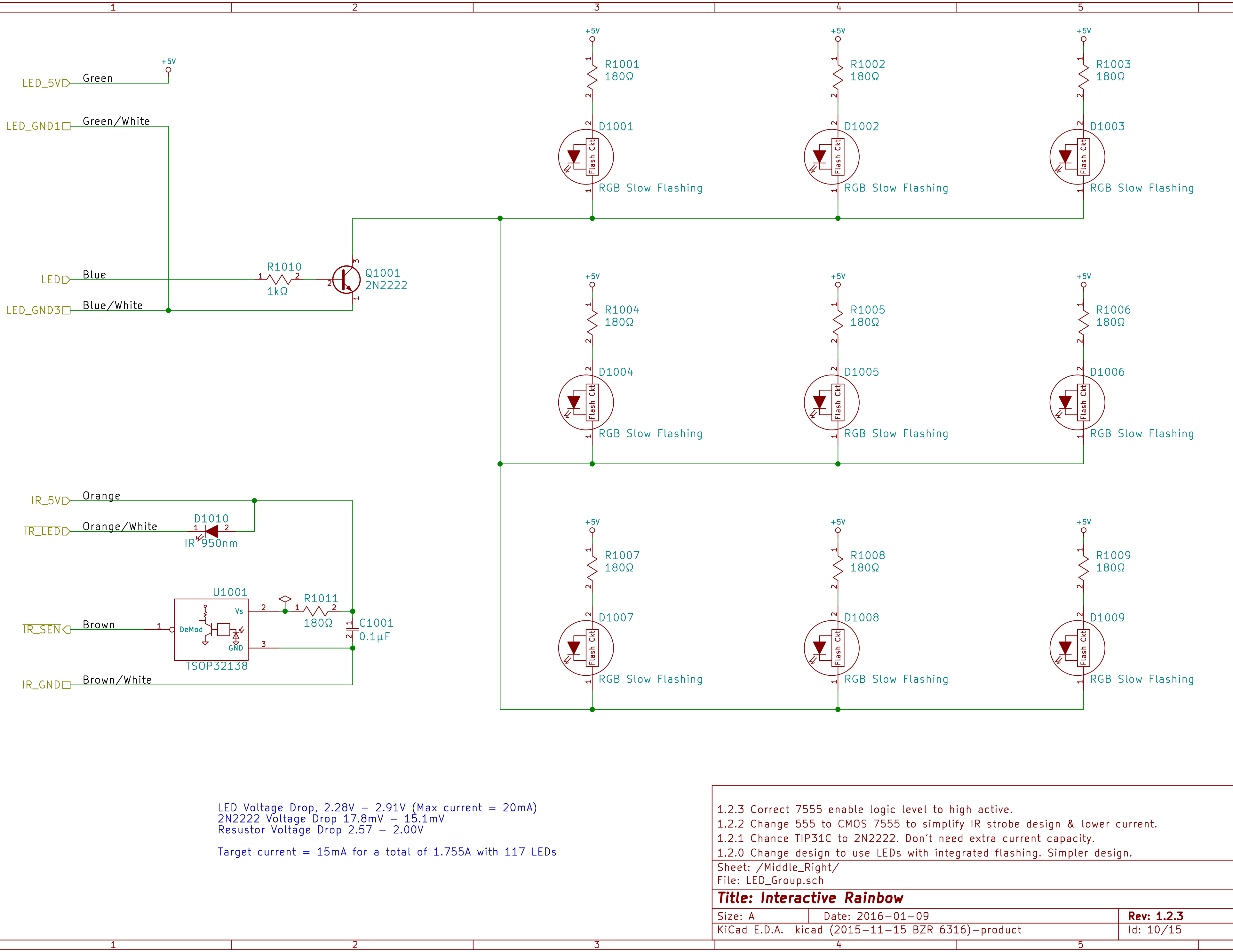


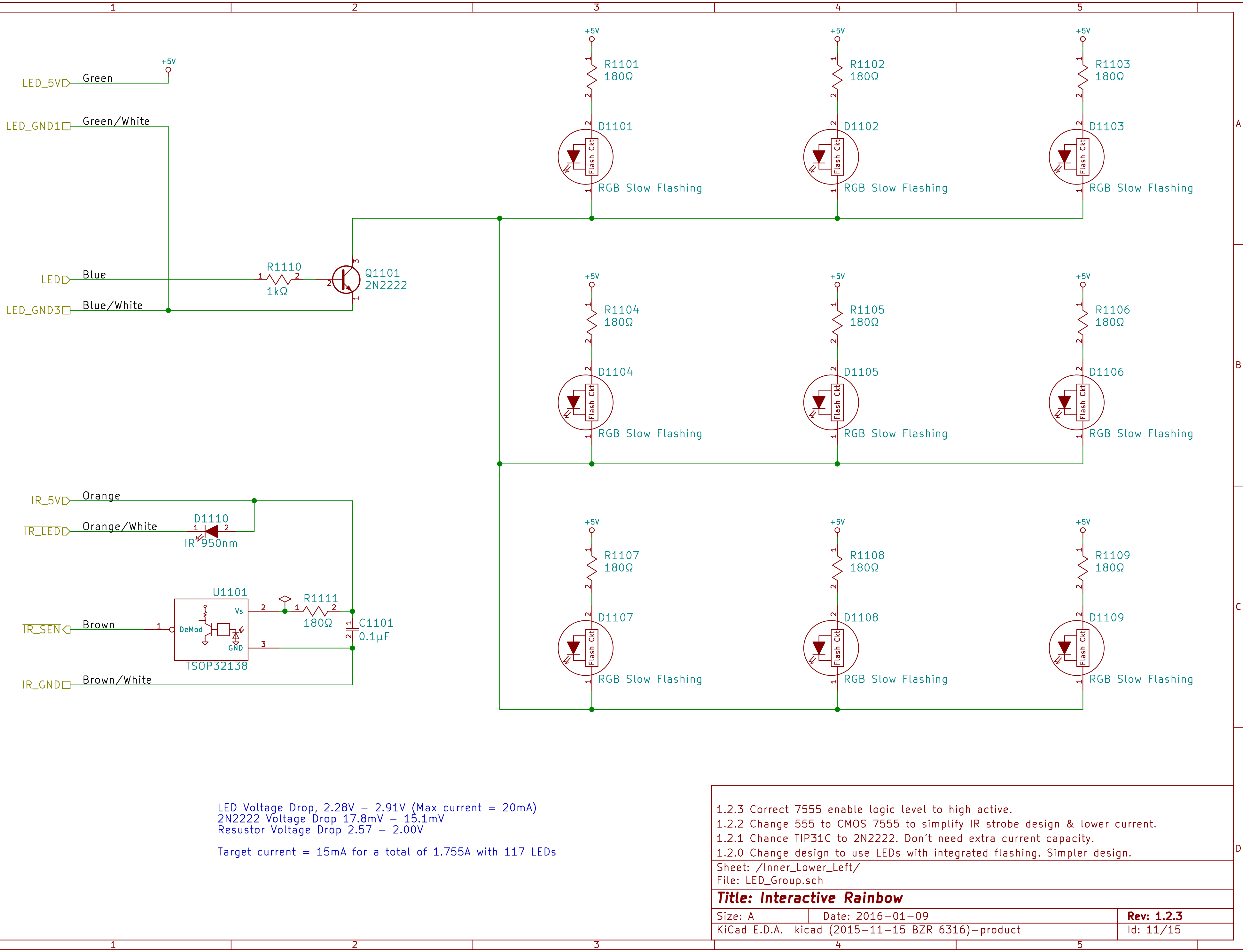






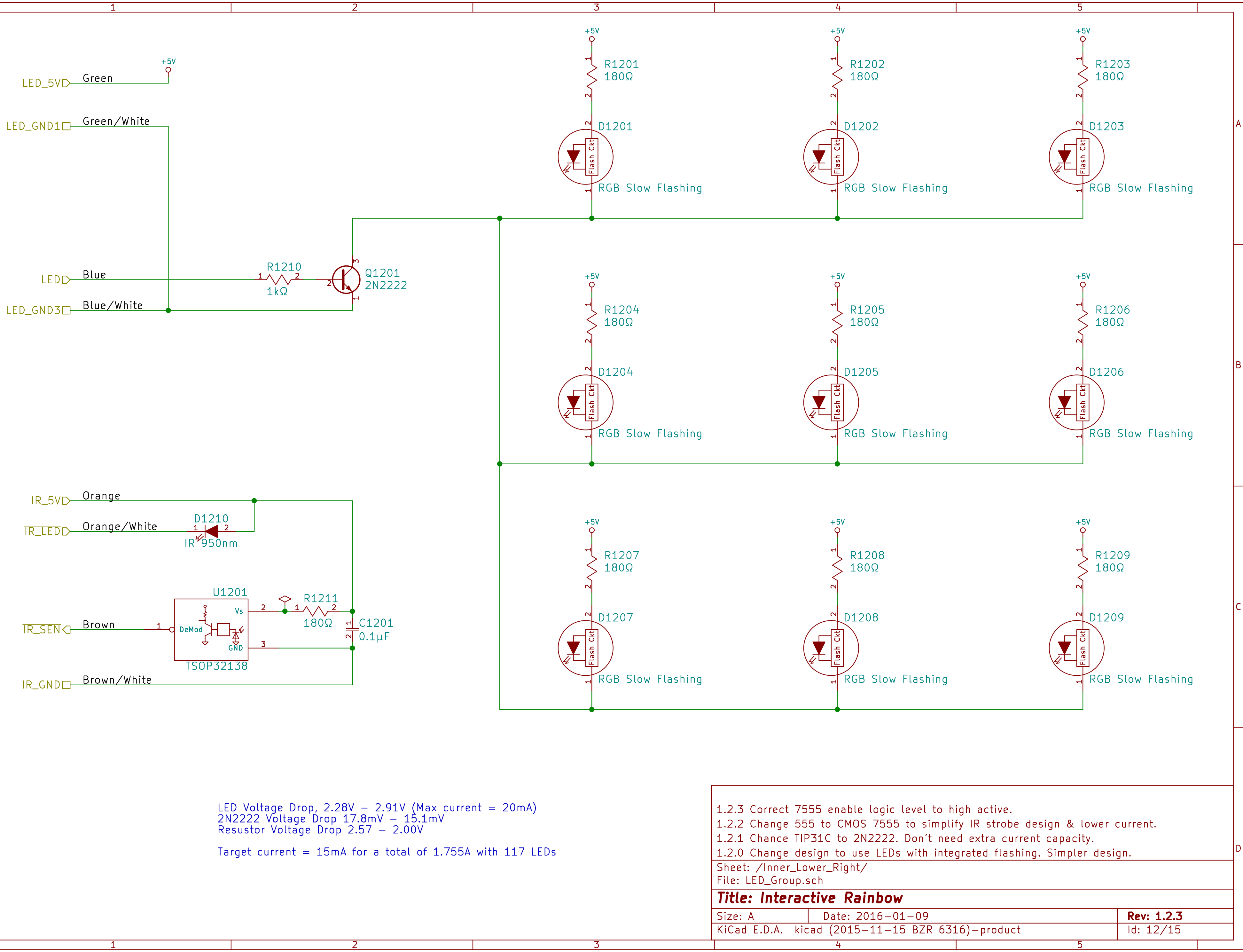


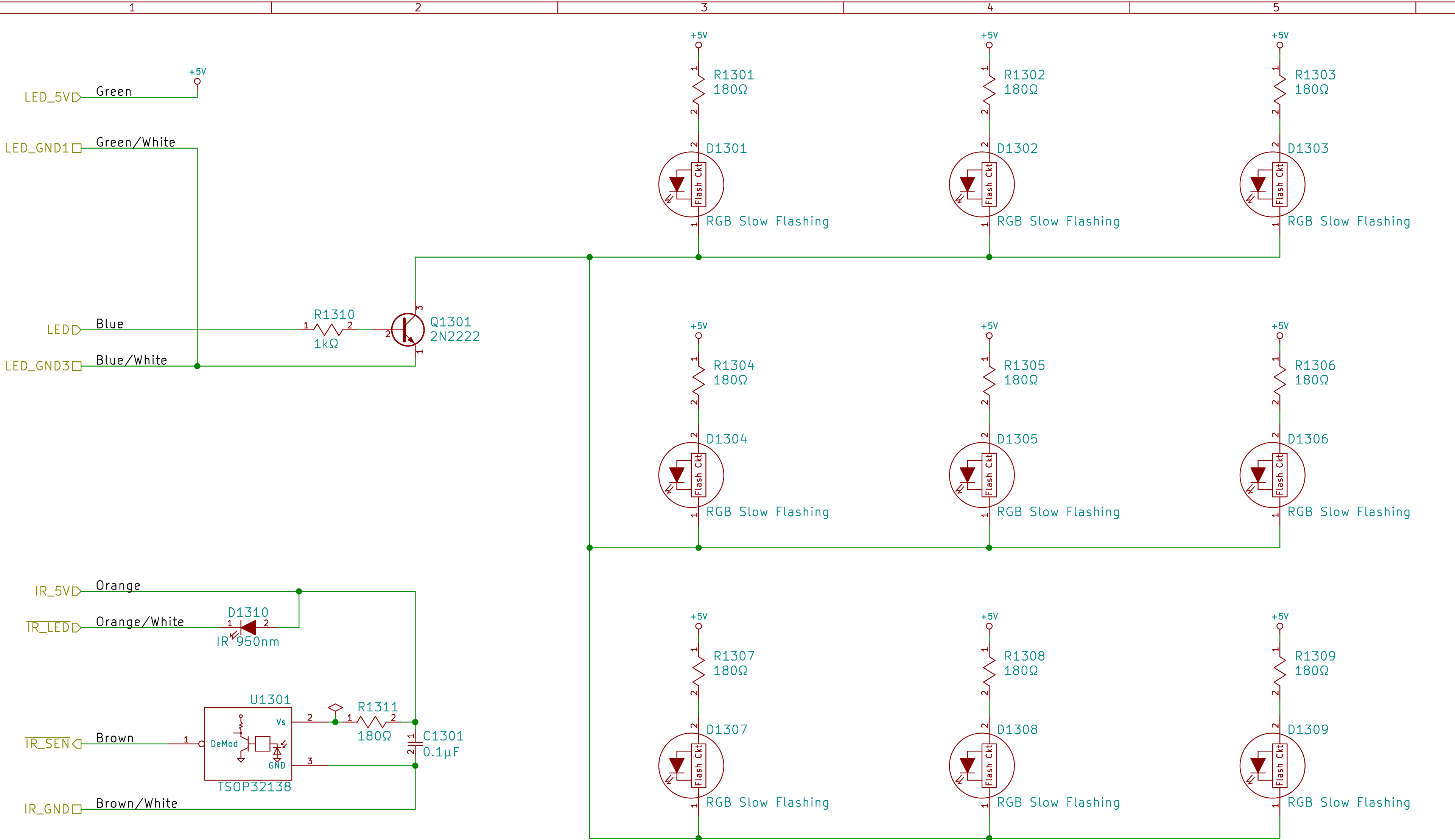




LED Voltage Drop, 2.28V – 2.91V (Max current = 20mA)  
2N2222 Voltage Drop 17.8mV – 15.1mV  
Resustor Voltage Drop 2.57 – 2.00V  
Target current = 15mA for a total of 1.755A with 117 LEDs

1.2.3 Correct 7555 enable logic level to high active. 1.2.2 Change 555 to CMOS 7555 to simplify IR strobe design & lower current. 1.2.1 Chance TIP31C to 2N2222. Don't need extra current capacity. 1.2.0 Change design to use LEDs with integrated flashing. Simpler design.		
Sheet: /Inner_Lower_Left/ File: LED_Group.sch		
Title: Interactive Rainbow		
Size: A	Date: 2016-01-09	Rev: 1.2.3
KiCad E.D.A. kicad (2015-11-15 BZR 6316)-product		Id: 11/15

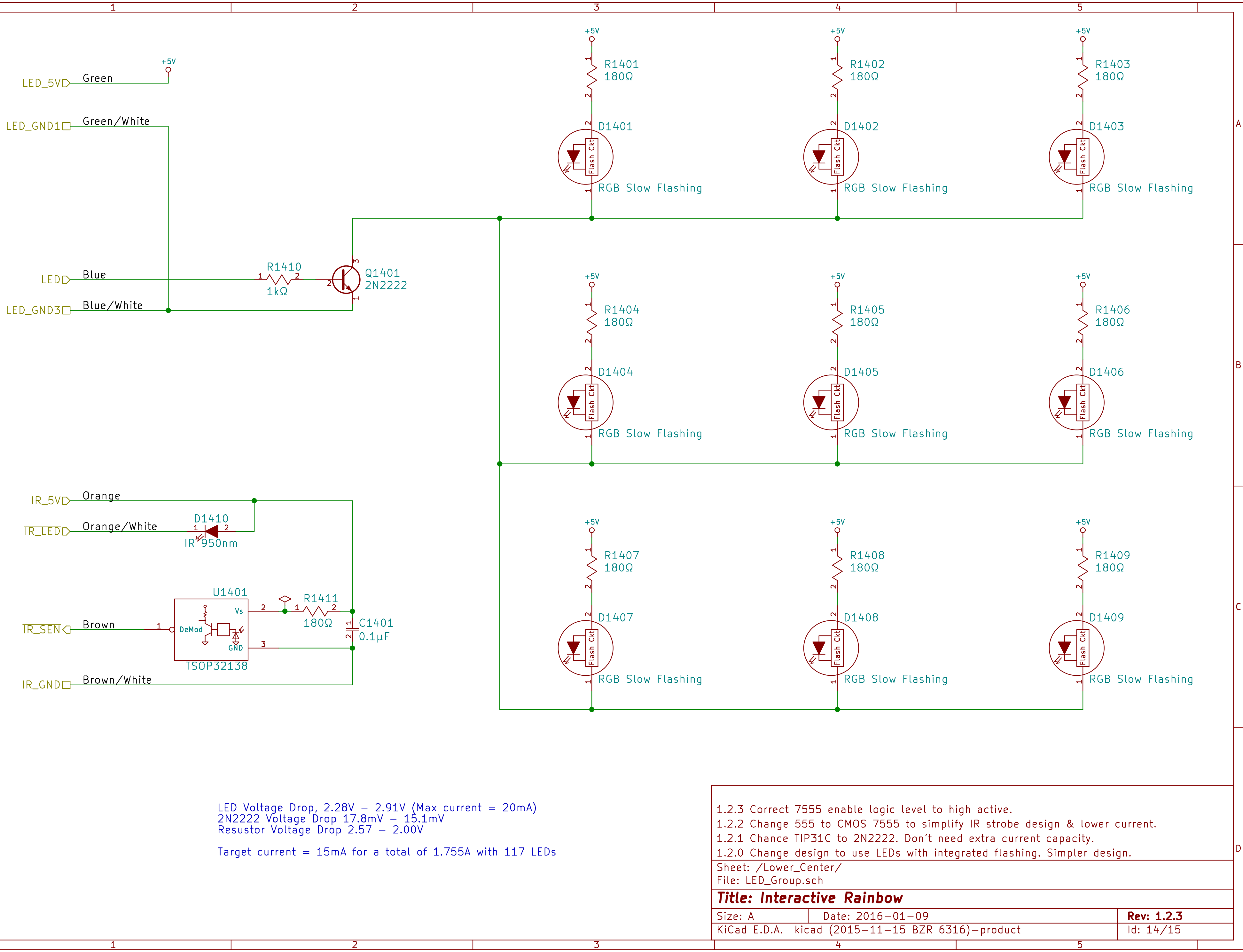


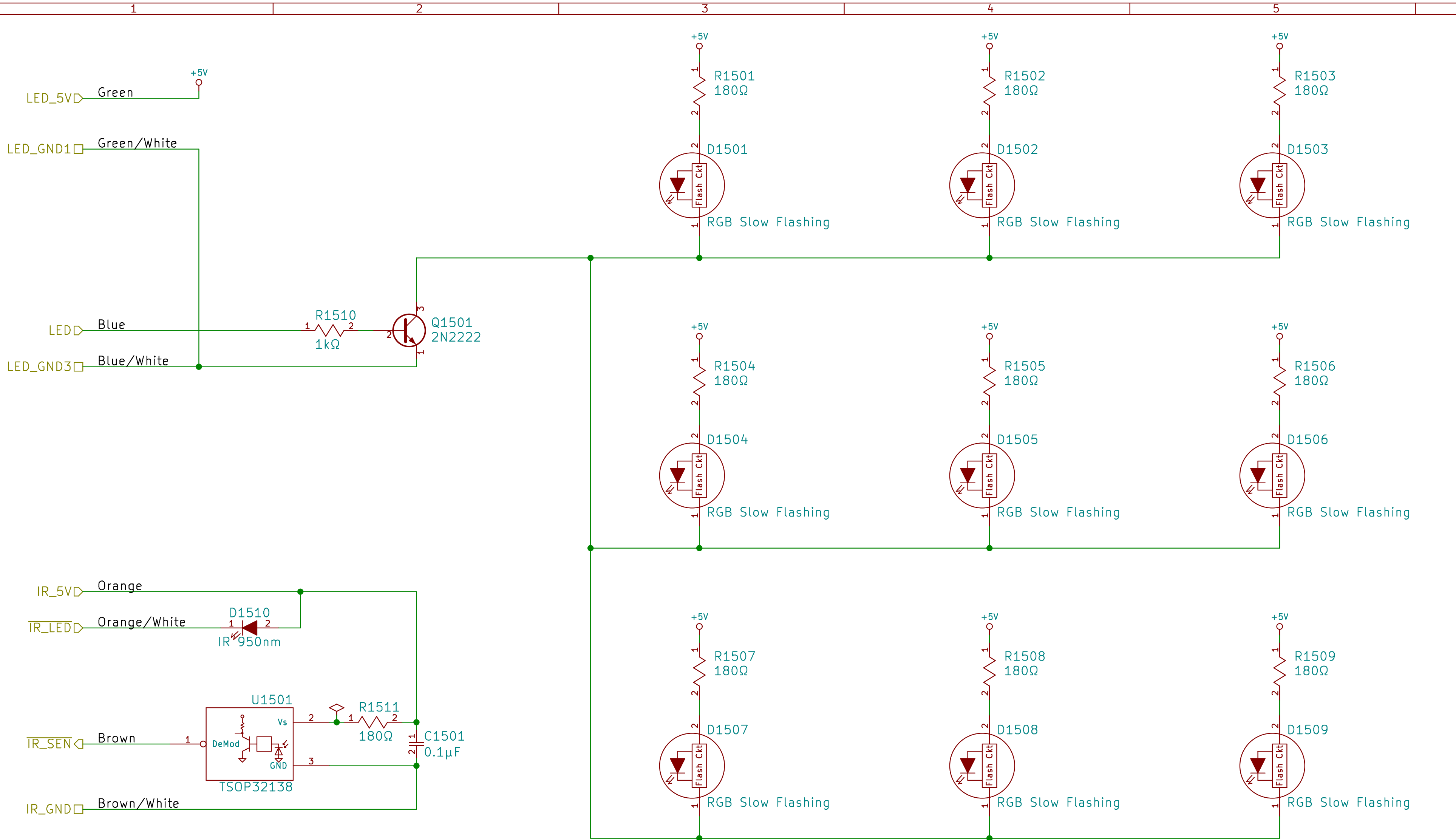


LED Voltage Drop, 2.28V – 2.91V (Max current = 20mA)  
2N2222 Voltage Drop 17.8mV – 15.1mV  
Resistor Voltage Drop 2.57 – 2.00V  
Target current = 15mA for a total of 1.755A with 117 LEDs

- 1.2.3 Correct 7555 enable logic level to high active.
- 1.2.2 Change 555 to CMOS 7555 to simplify IR strobe design & lower current.
- 1.2.1 Change TIP31C to 2N2222. Don't need extra current capacity.
- 1.2.0 Change design to use LEDs with integrated flashing. Simpler design.

Sheet: /Lower_Left/ File: LED_Group.sch		
<b>Title: Interactive Rainbow</b>		
Size: A	Date: 2016-01-09	Rev: 1.2.3
KiCad E.D.A. kicad (2015-11-15 BZR 6316)-product		Id: 13/15





LED Voltage Drop, 2.28V – 2.91V (Max current = 20mA)  
2N2222 Voltage Drop 17.8mV – 15.1mV  
Resustor Voltage Drop 2.57 – 2.00V  
Target current = 15mA for a total of 1.755A with 117 LEDs

- 1.2.3 Correct 7555 enable logic level to high active.
- 1.2.2 Change 555 to CMOS 7555 to simplify IR strobe design & lower current.
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- 1.2.0 Change design to use LEDs with integrated flashing. Simpler design.

Sheet: /Lower\_Right/  
File: LED\_Group.sch

**Title: Interactive Rainbow**

Size: A	Date: 2016-01-09	Rev: 1.2.3
KiCad E.D.A. kicad (2015-11-15 BZR 6316)-product		Id: 15/15