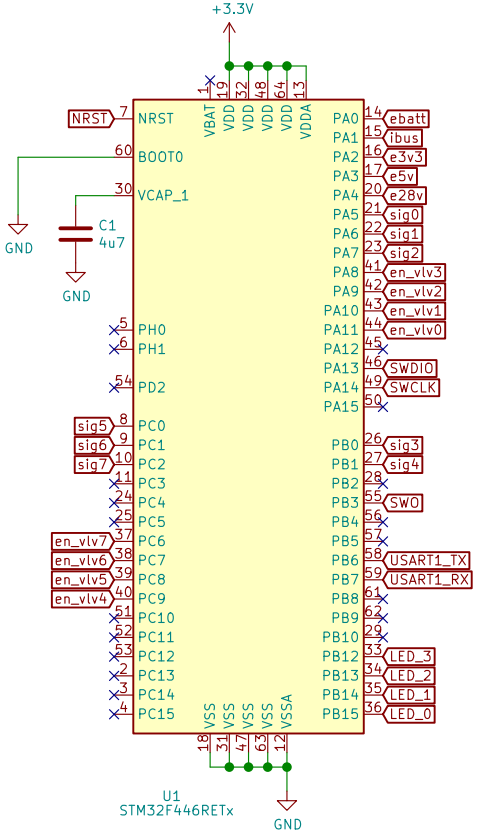
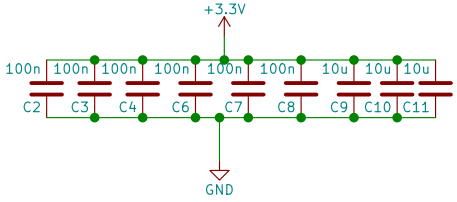
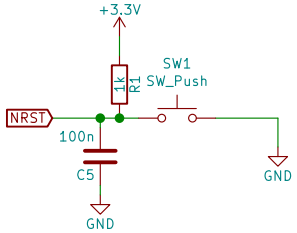
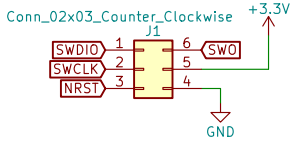



## Programming Header




power

power.sch

comms

comms.sch

valves

valves.sch

misc

misc.sch

daughter_connectors

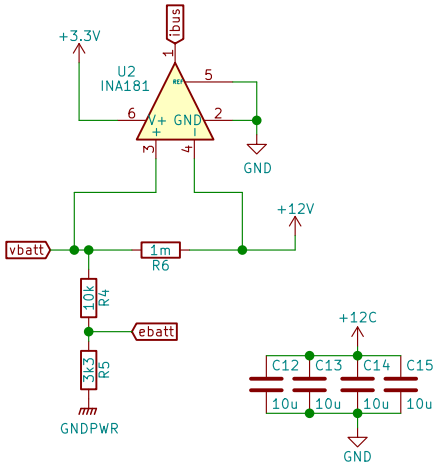
daughter_connectors.sch

Alex Davenport
**MASA**

Sheet: /
File: prop_support.sch

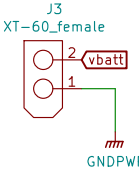
***Title: Prop Support Board***

| Size: A4 | Date: 2019-03-27 | **Rev: A** |
|---|---|---|
| KiCad E.D.A. eeschema (5.1.0)-1 | | Id: 1/14 |

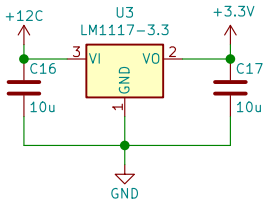




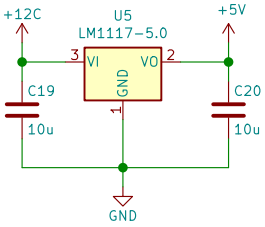


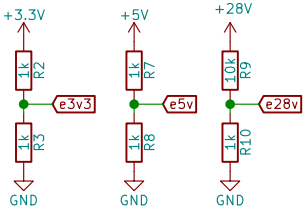


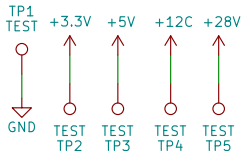

## 3.3V Linear Regulator



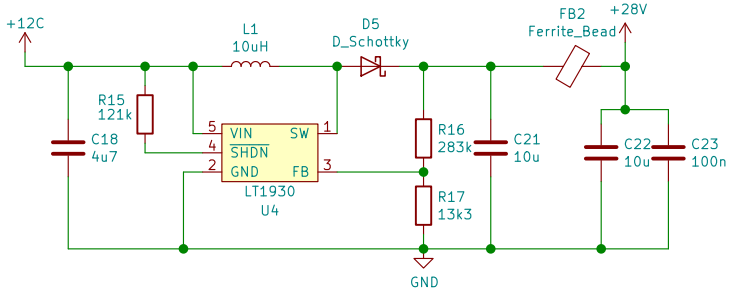

## 5V Linear Regulator

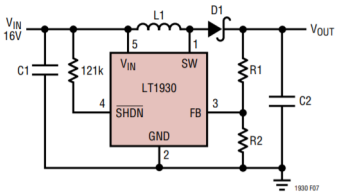



## 28V Boost Converter



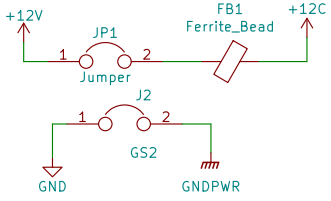



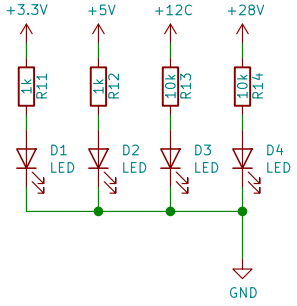

**SETTING OUTPUT VOLTAGE**

To set the output voltage, select the values of R1 and R2 (see Figure 1) according to the following equation.

$$R1 = R2\left(\frac{V_{OUT}}{1.255V} - 1\right)$$

A good value for R2 is 13.3k which sets the current in the resistor divider chain to 1.255V/13.3k = 94.7µA.



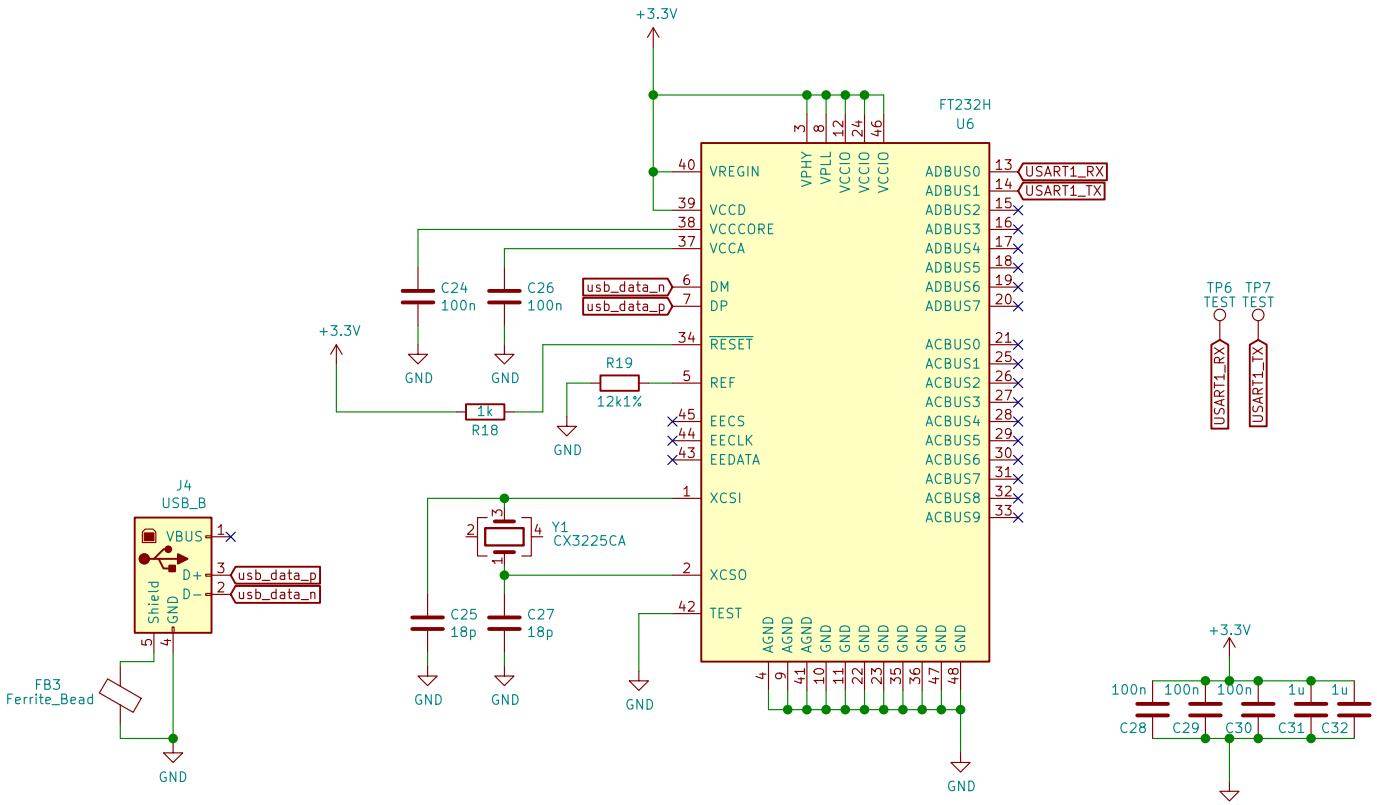




Alex Davenport
**MASA**

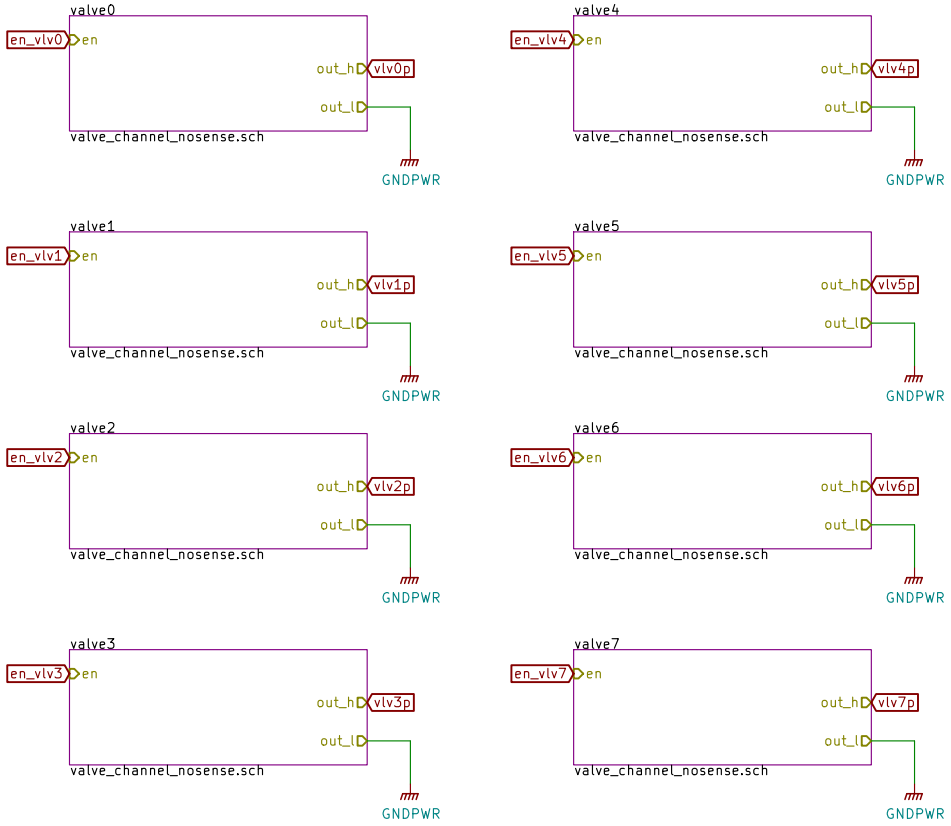
Sheet: /power/
File: power.sch

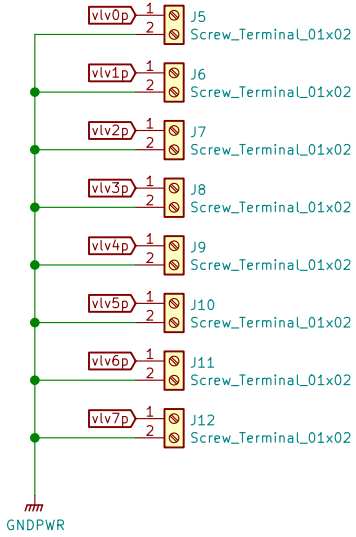
**Title: Prop Support Board**

| Size: A4 | Date: 2019-03-27 | **Rev: A** |
|---|---|---|
| KiCad E.D.A. eeschema (5.1.0)-1 | | Id: 2/14 |




| | | |
|---|---|---|
| Alex Davenport | | |
| **MASA** | | |
| Sheet: /comms/ | | |
| File: comms.sch | | |
| ***Title: Prop Support Board*** | | |
| Size: A4 | Date: 2019-03-27 | **Rev: A** |
| KiCad E.D.A. eeschema (5.1.0)-1 | | Id: 3/14 |



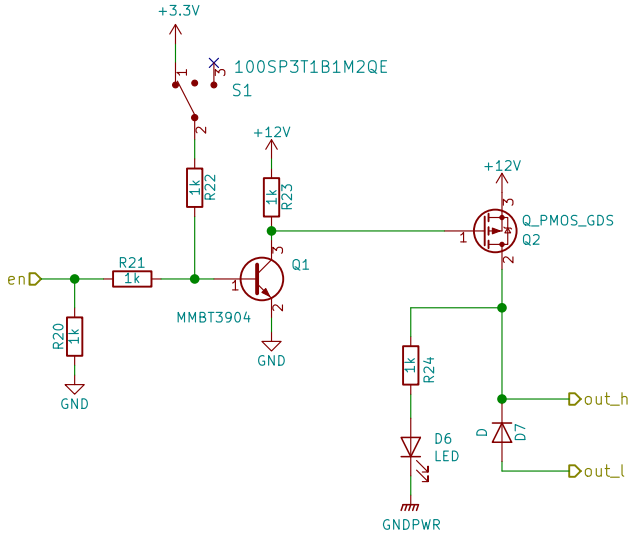




Alex Davenport
**MASA**

Sheet: /valves/
File: valves.sch

***Title: Prop Support Board***

| | | |
|---|---|---|
| Size: A4 | Date: 2019-03-27 | **Rev: A** |
| KiCad E.D.A. eeschema (5.1.0)-1 | | Id: 4/14 |




| | | |
|---|---|---|
| Alex Davenport<br>**MASA** | | |
| Sheet: /valves/valve0/<br>File: valve_channel_nosense.sch | | |
| ***Title: Prop Support Board*** | | |
| Size: A4 | Date: 2019-03-27 | **Rev: A** |
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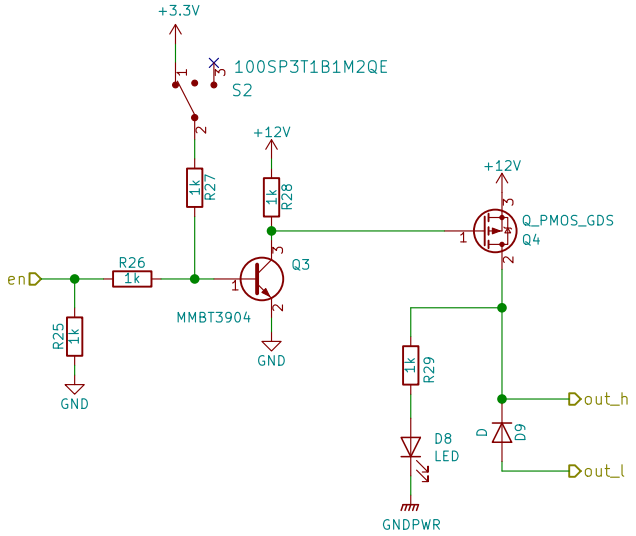


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|---|---|---|
| Alex Davenport<br>**MASA** | | |
| Sheet: /valves/valve1/<br>File: valve_channel_nosense.sch | | |
| ***Title: Prop Support Board*** | | |
| Size: A4 | Date: 2019-03-27 | **Rev: A** |
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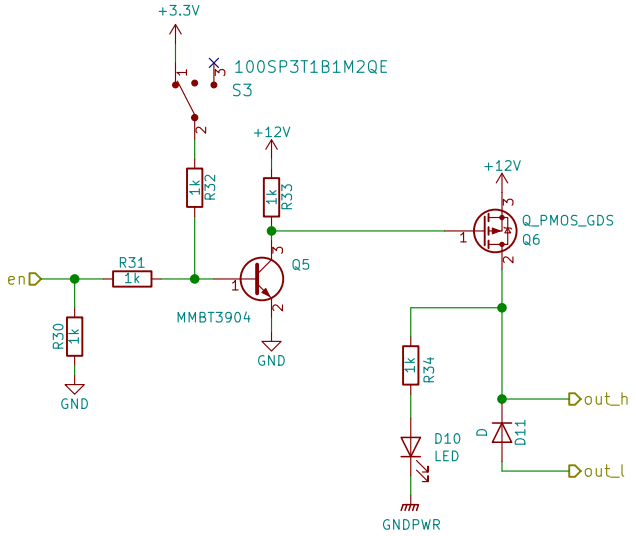
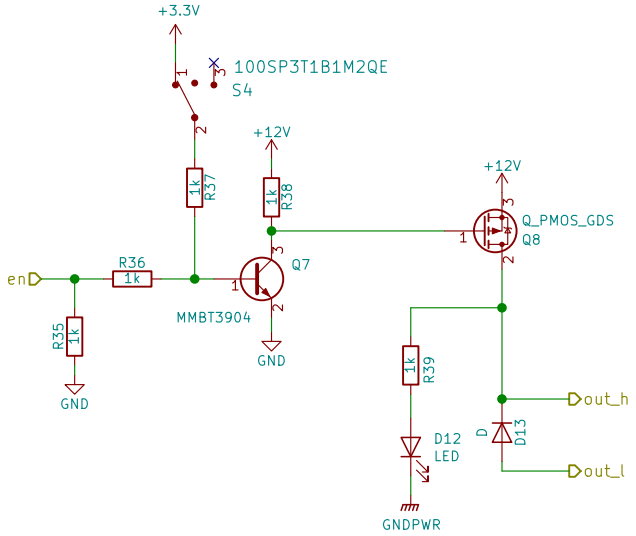



| | | |
|---|---|---|
| Alex Davenport<br>**MASA** | | |
| Sheet: /valves/valve2/<br>File: valve_channel_nosense.sch | | |
| ***Title: Prop Support Board*** | | |
| Size: A4 | Date: 2019-03-27 | **Rev: A** |
| KiCad E.D.A. eeschema (5.1.0)-1 | | Id: 7/14 |




| | | |
|---|---|---|
| Alex Davenport<br>**MASA** | | |
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| ***Title: Prop Support Board*** | | |
| Size: A4 | Date: 2019-03-27 | **Rev: A** |
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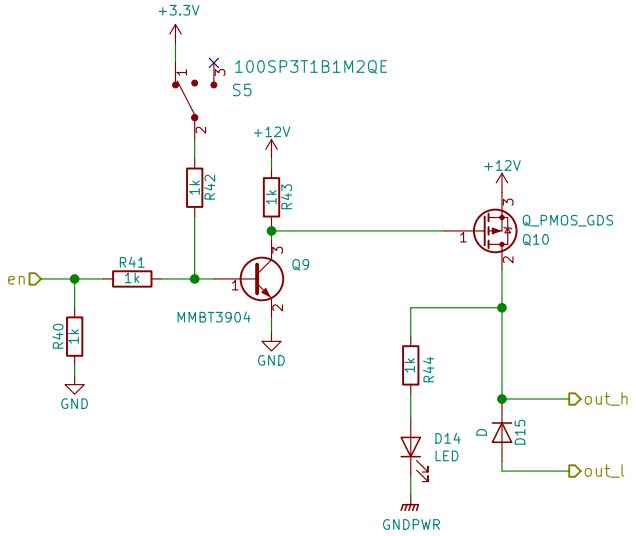


| | | |
|---|---|---|
| Alex Davenport<br>**MASA** | | |
| Sheet: /valves/valve4/<br>File: valve_channel_nosense.sch | | |
| ***Title: Prop Support Board*** | | |
| Size: A4 | Date: 2019-03-27 | **Rev: A** |
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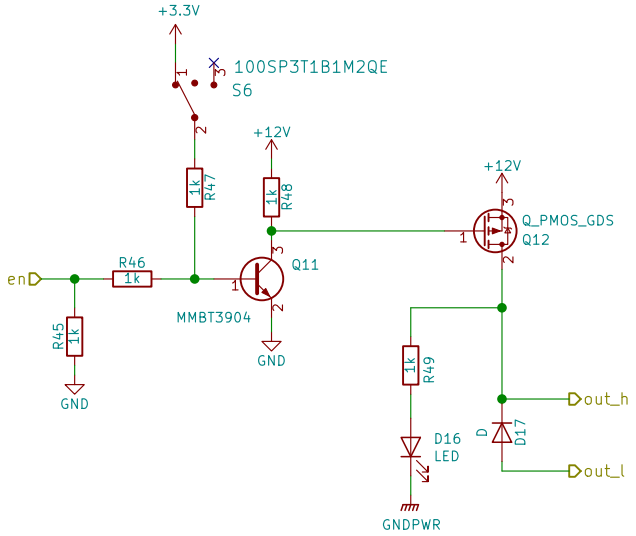


| | | |
|---|---|---|
| Alex Davenport<br>**MASA** | | |
| Sheet: /valves/valve5/<br>File: valve_channel_nosense.sch | | |
| ***Title: Prop Support Board*** | | |
| Size: A4 | Date: 2019-03-27 | **Rev: A** |
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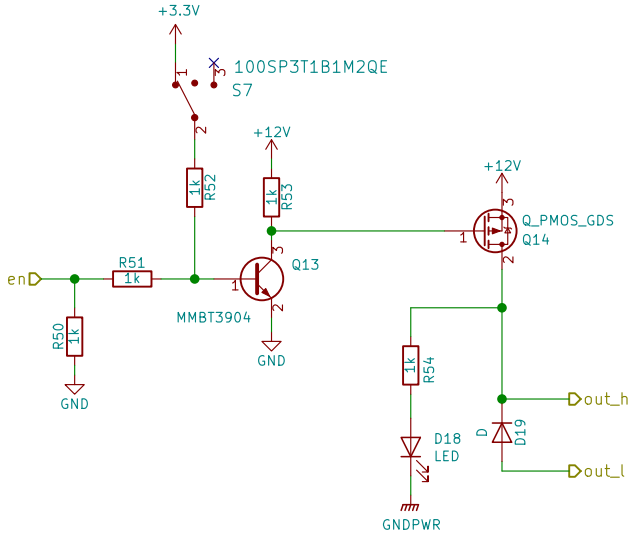


Alex Davenport
**MASA**

Sheet: /valves/valve6/
File: valve_channel_nosense.sch

***Title: Prop Support Board***

| Size: A4 | Date: 2019-03-27 | **Rev: A** |
|---|---|---|
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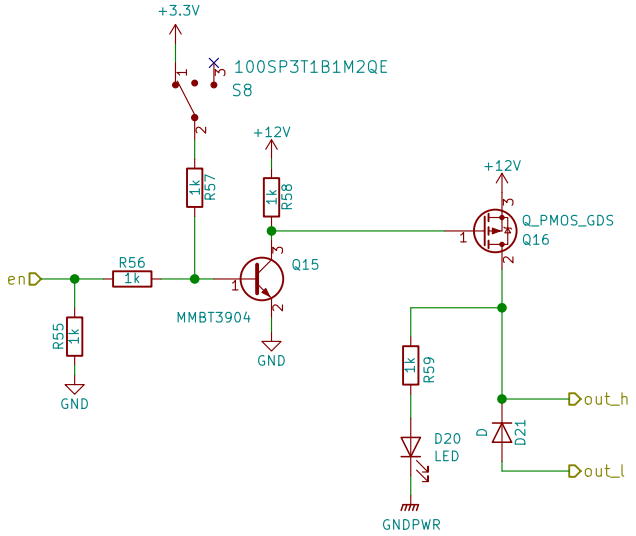


| | | |
|---|---|---|
| Alex Davenport<br>**MASA** | | |
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| ***Title: Prop Support Board*** | | |
| Size: A4 | Date: 2019-03-27 | **Rev: A** |
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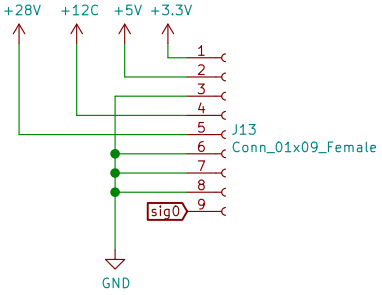
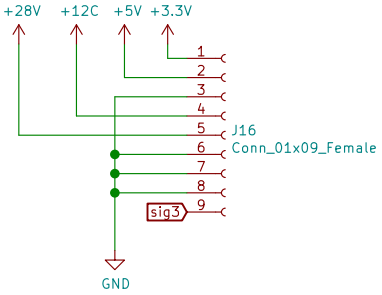
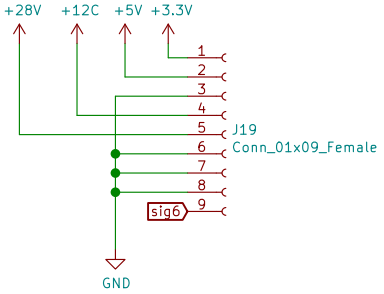
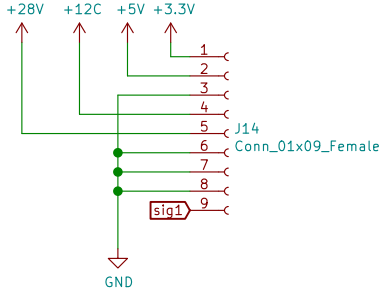
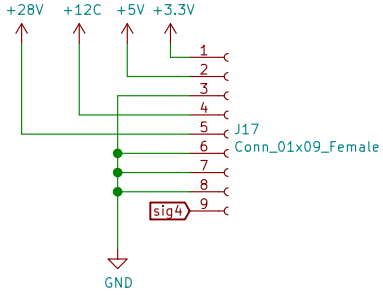
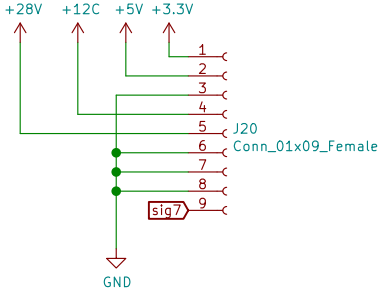


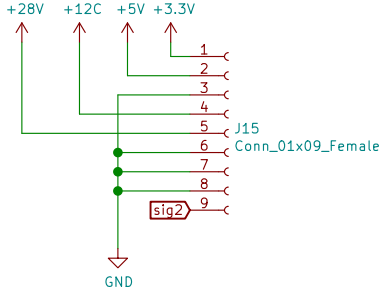



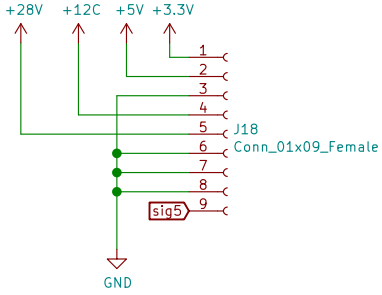



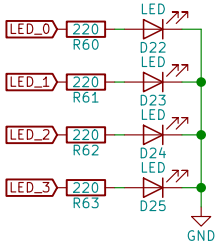



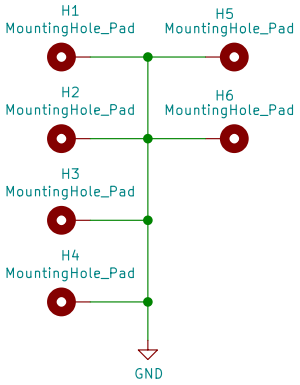

Alex Davenport
**MASA**

Sheet: /daughter_connectors/
File: daughter_connectors.sch

***Title: Prop Support Board***

| Size: A4 | Date: 2019-03-27 | **Rev: A** |
|---|---|---|
| KiCad E.D.A. eeschema (5.1.0)-1 | | Id: 13/14 |




Alex Davenport
**MASA**

Sheet: /misc/
File: misc.sch

***Title: Prop Support Board***

| Size: A4 | Date: 2019-03-27 | **Rev: A** |
|---|---|---|
| KiCad E.D.A. eeschema (5.1.0)-1 | | Id: 14/14 |