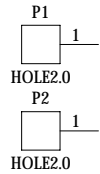
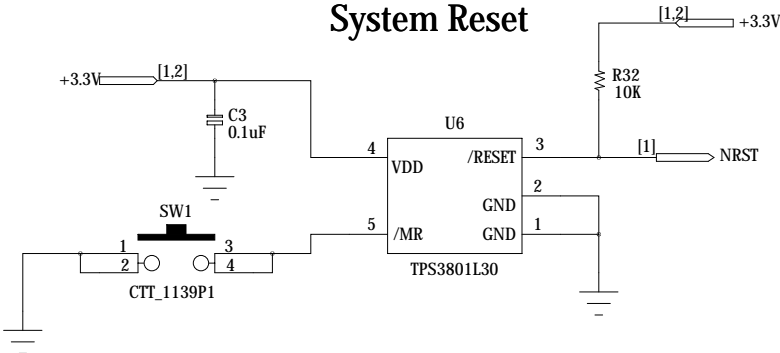


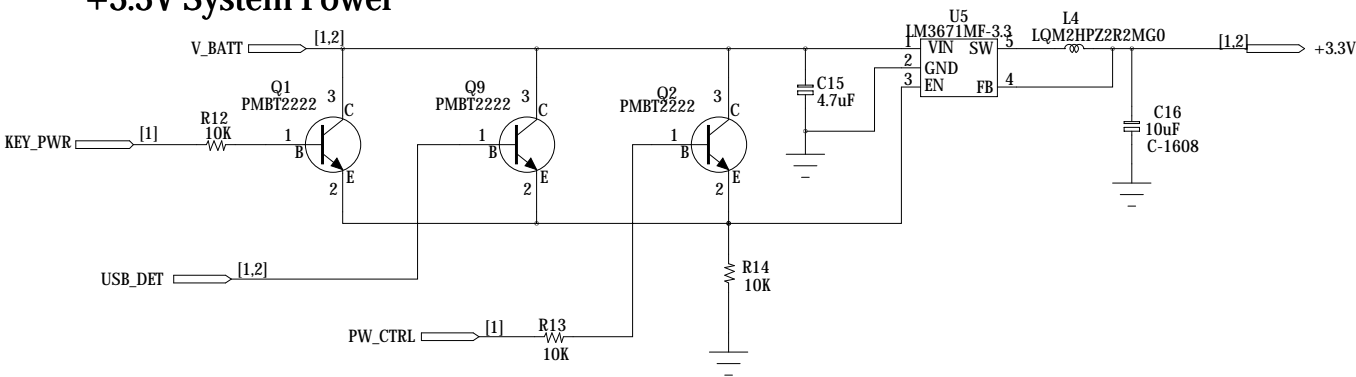
PCB HOLE 4ea



## System Reset

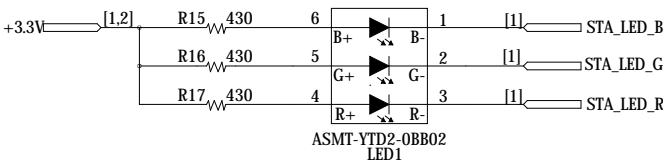
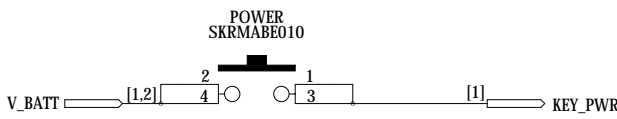


## +3.3V System Power

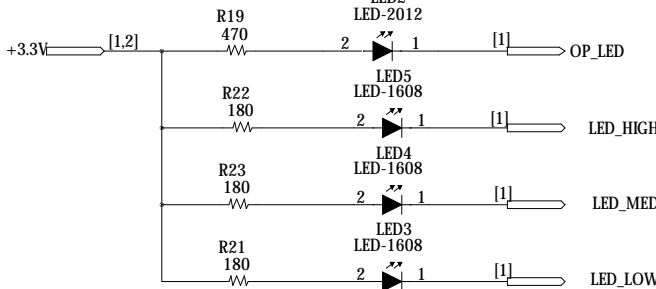
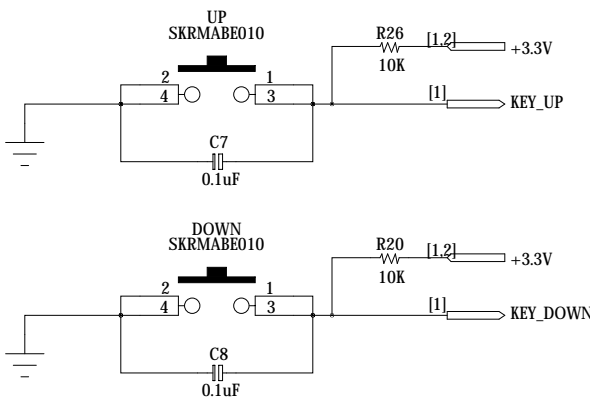


## Status LED

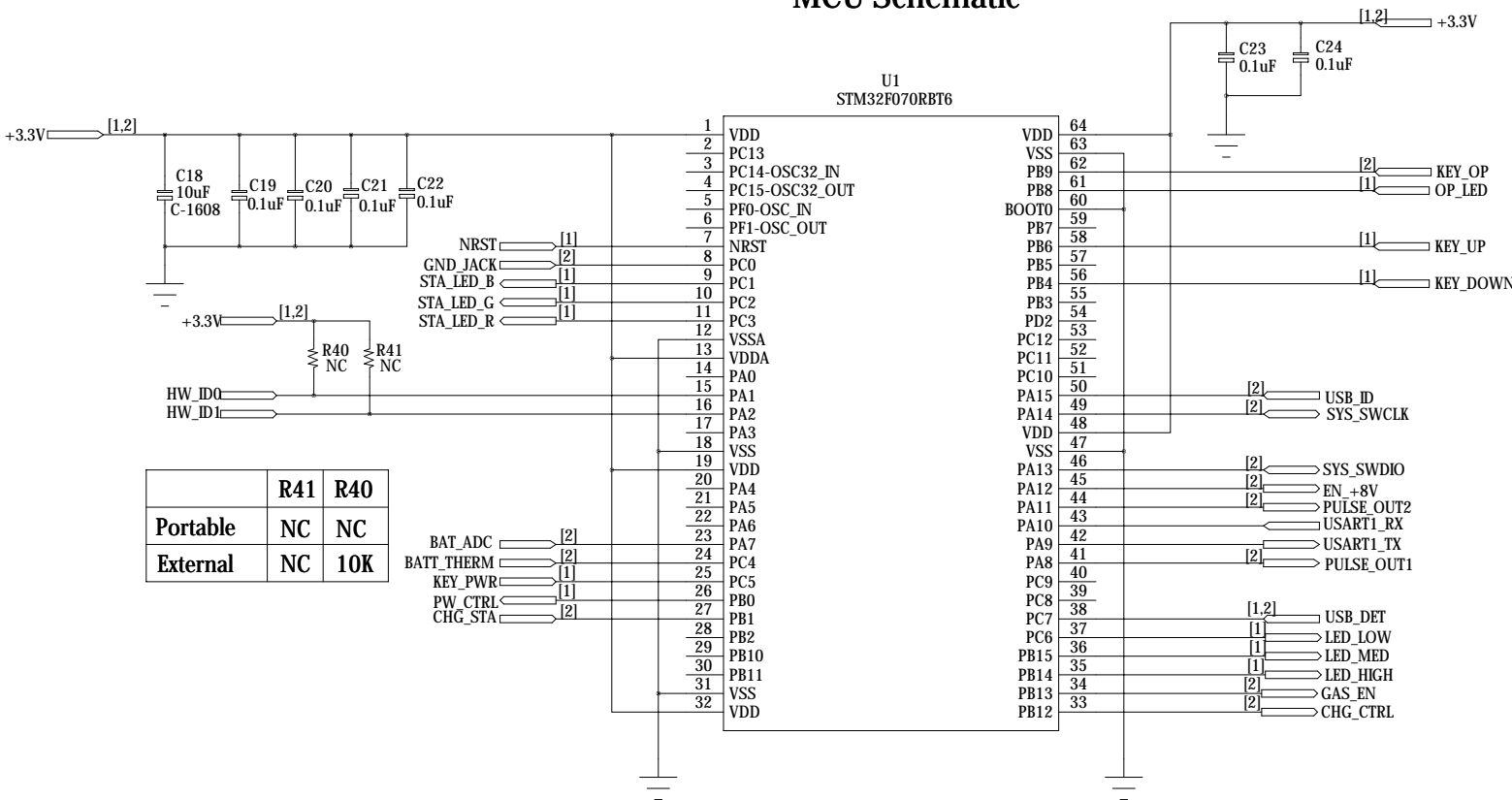
## Power Key



## Plasma On LED



## MCU Schematic



DRAWN By:	Company Name: Femto Science Inc.	
CHECKED By:	Model Name: Plasma Pipette Main	
DATE: 2019-05-20	Sheet Name: MCU	
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Schematic diagram of the BATT module. The module is represented by a box labeled "BATT" with pins 1 and 2. Pin 1 is connected to a common ground line. Pin 2 is connected to a ground symbol. The common ground line is also connected to a 10uF capacitor (C1, C-1608) to ground. The line continues to a 3.3V output labeled "V\_BATT" with pins [1,2]. It then passes through a 10K resistor (R1) to a 4.7uF capacitor (C2) to ground. The line then splits into two outputs: "+3.3V" with pins [1,2] and "BATT\_THERM" with pin [1].

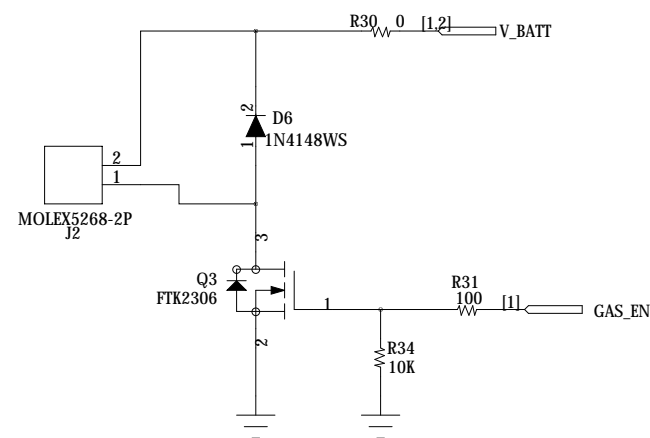
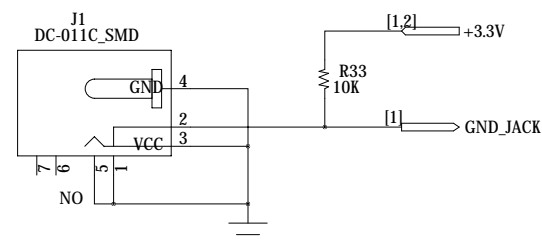
The diagram shows the USB connector (J4, HI05-AG0272) connected to the MCP7383IT\_2ACKOT (U2). The USB pins are connected as follows:

- USB\_VBUS (Pin 1) to VBUS, with a 5.1K resistor (R2) to USB\_DET.
- USB- (Pin 2) to GND.
- USB+ (Pin 3) to VBUS.
- ID (Pin 4) to ID, with a 10K resistor (R3) to GND.
- GND (Pin 5) to GND.

The MCP7383 is configured with the following components:

- VDD (Pin 4) to VBUS, with a 470pF capacitor (C4) and a 4.7uF capacitor (C5) to GND.
- VBAT (Pin 3) to VBAT.
- PROG (Pin 5) to GND, with a 2K resistor (R6) to GND.
- VSS (Pin 2) to GND.
- STAT (Pin 1) to STAT, with a 10K resistor (R7) to GND.
- CHG\_STA (Pin 1) to CHG\_STA.

The battery management system includes a PMBT2222 (Q5) and a 430 resistor (R29) connected to the battery terminals. The battery is connected to the VBAT pin of the MCP7383. The battery is also connected to the CHG\_CTRL pin (Pin 1) via a 10K resistor (R28).



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CHECKED By:	Model Name: <b>Plasma Pipette Main</b>		
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Revision: <b>V5.0</b>	TEAM: <b>HW Team</b>		PAGE: <b>2 / 2</b>