

MECE E3430  
Engineering Design

## Design Overview

A

Acrylic

0

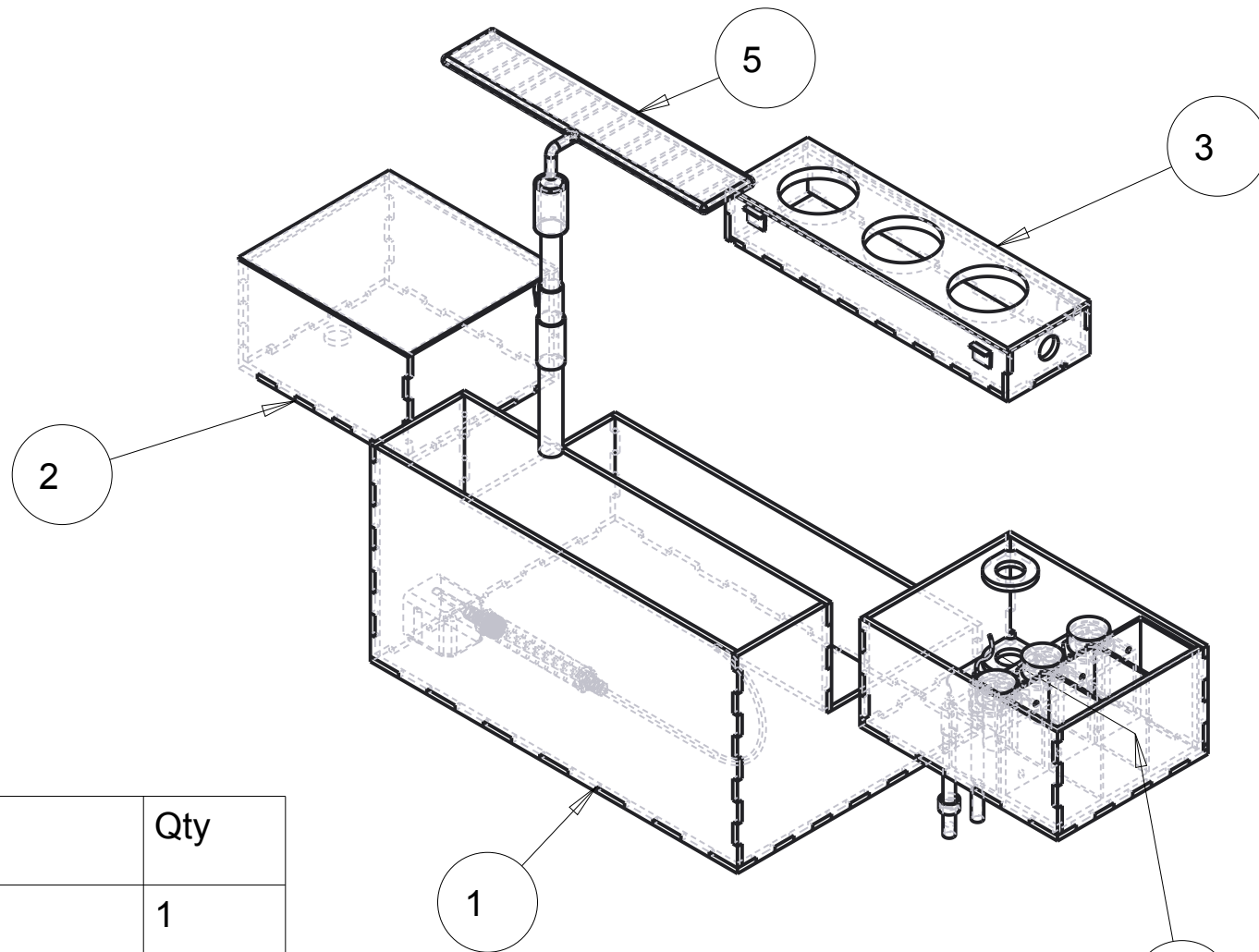
Hydropotomous

5/7/2014

SCALE: 0.250

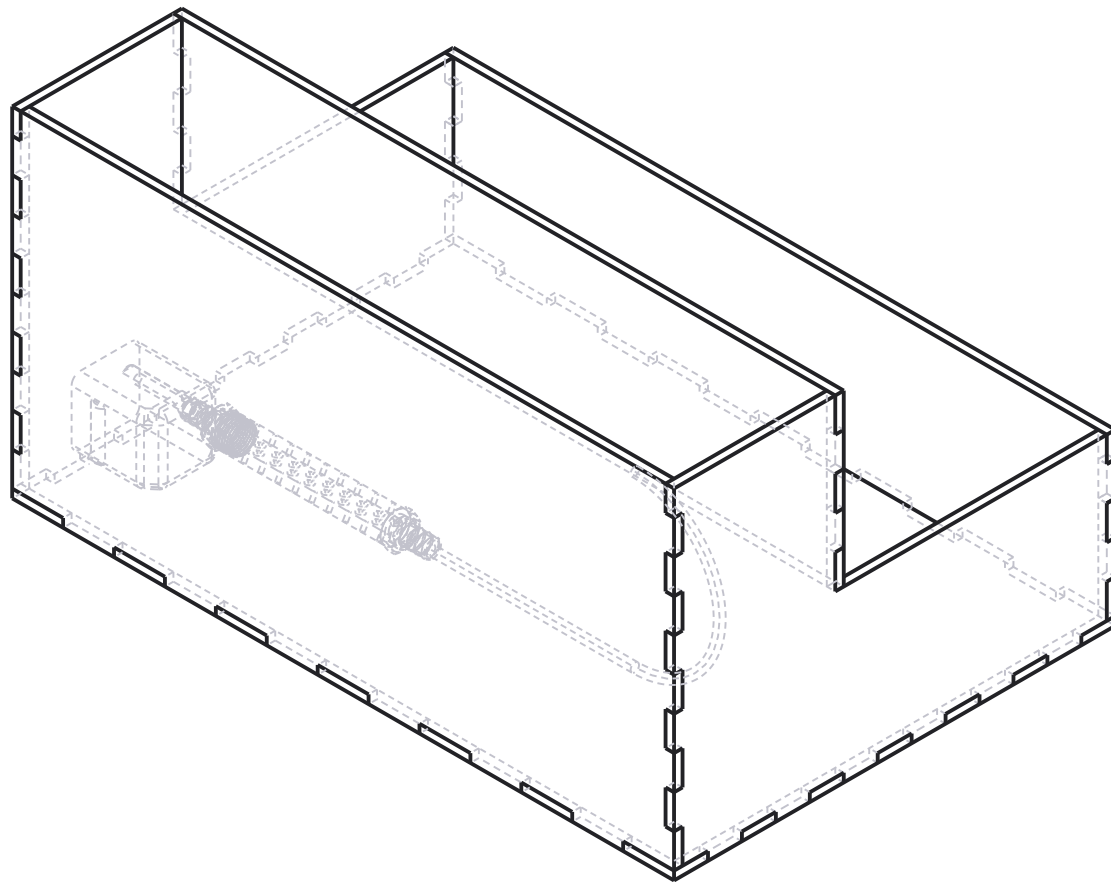
INCHES

SHEET 1 OF 37



Index	Part Name	Qty
1	1ST_RESERVOIR	1
2	2ND_RESERVOIR	1
3	CHANNELBOX	1
4	ELECTRONICSBOX	1
5	LEDLIGHT	1

MECE E3430 Engineering Design			
<b>Exp. Design</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.150	INCHES SHEET 2 OF 37



MECE E3430  
Engineering Design

# 1st Reservoir

A

Acrylic

0

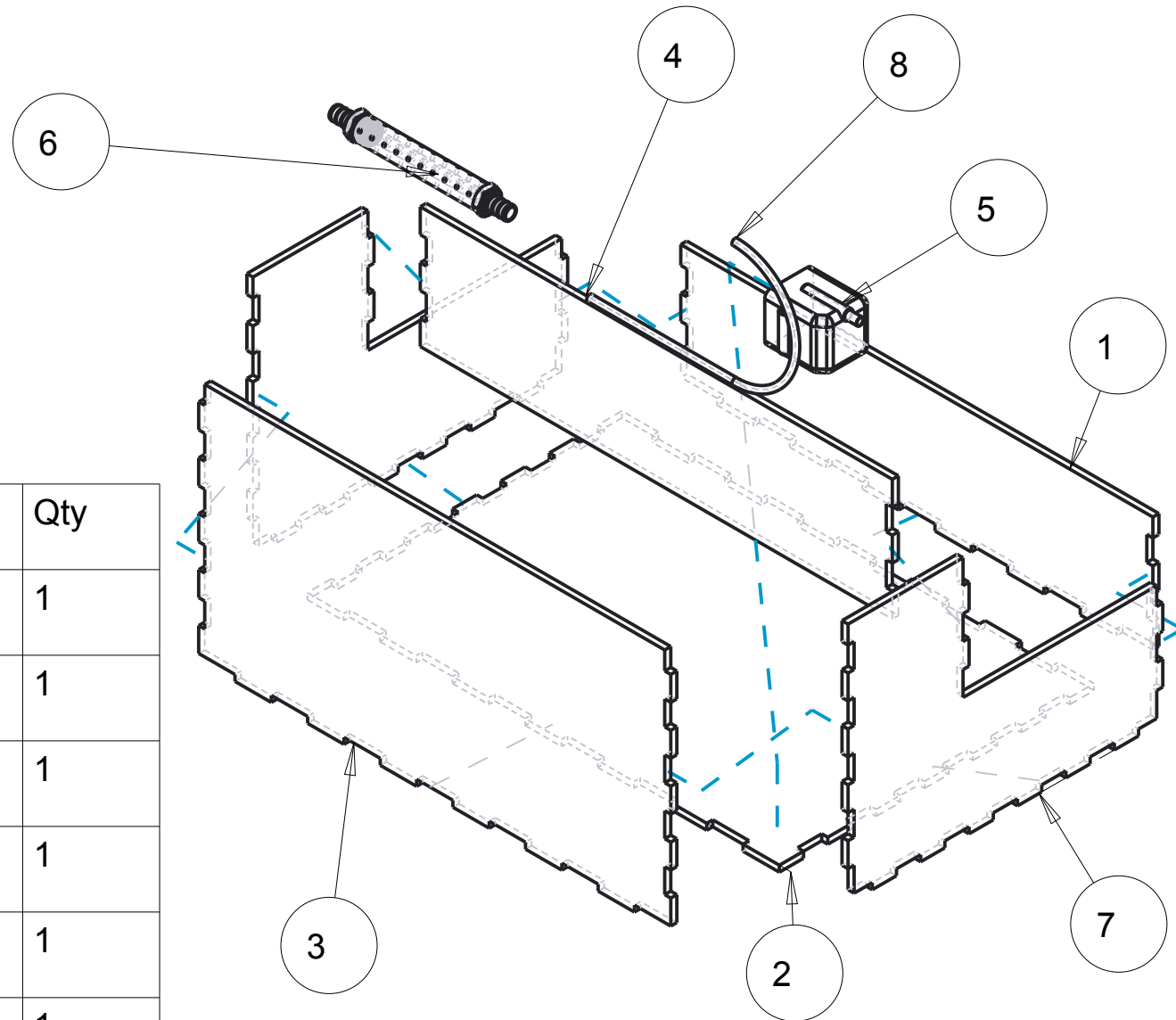
Hydropotomous

5/7/2014

SCALE: 0.250

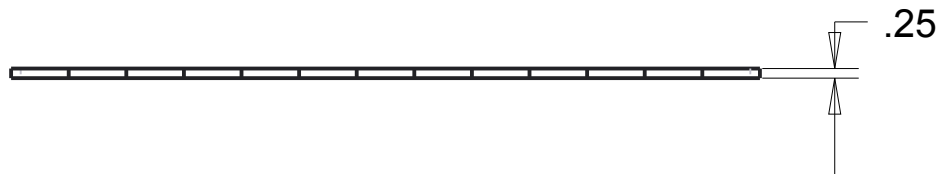
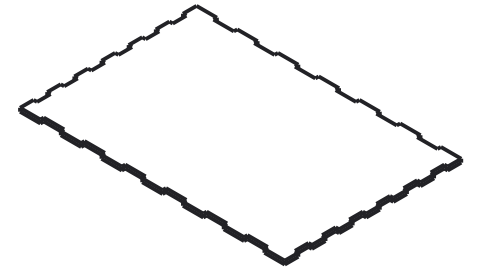
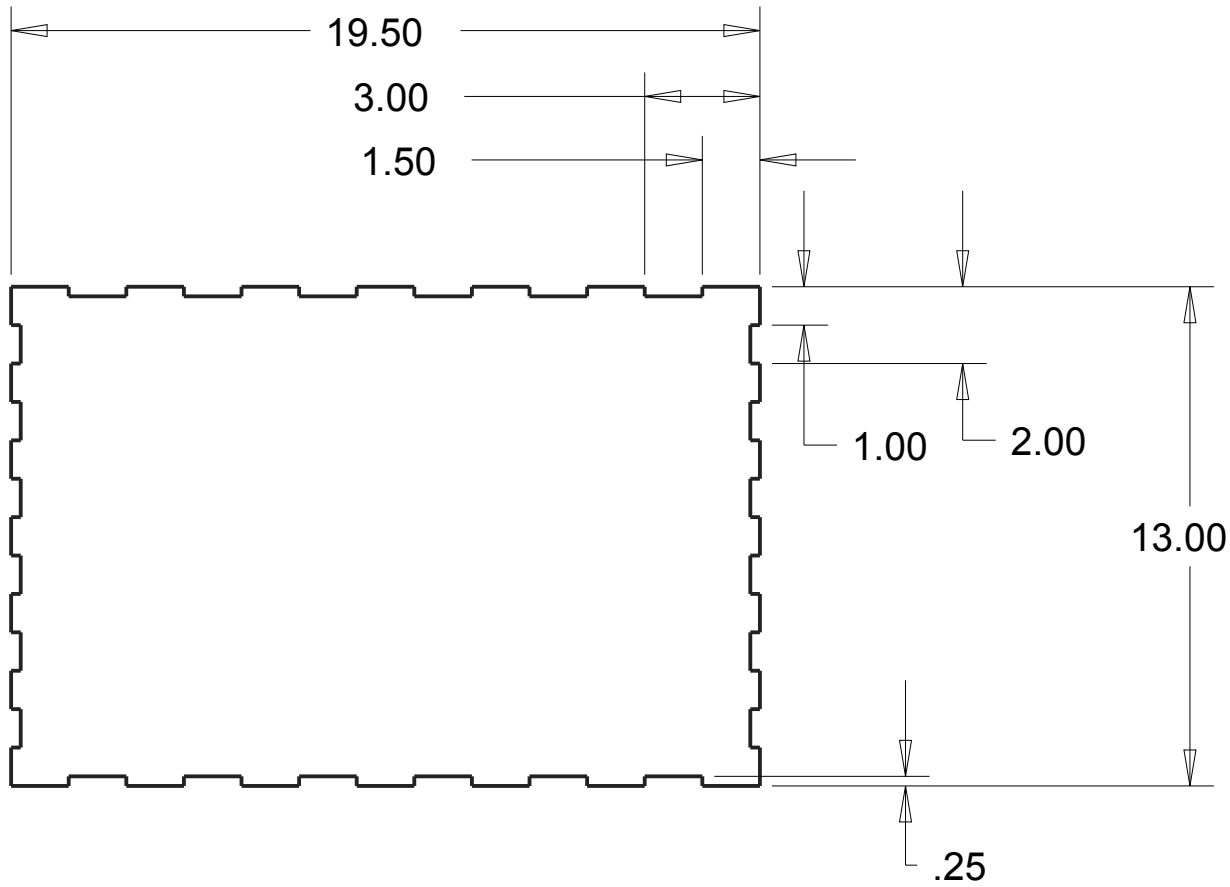
INCHES

SHEET 3 OF 37



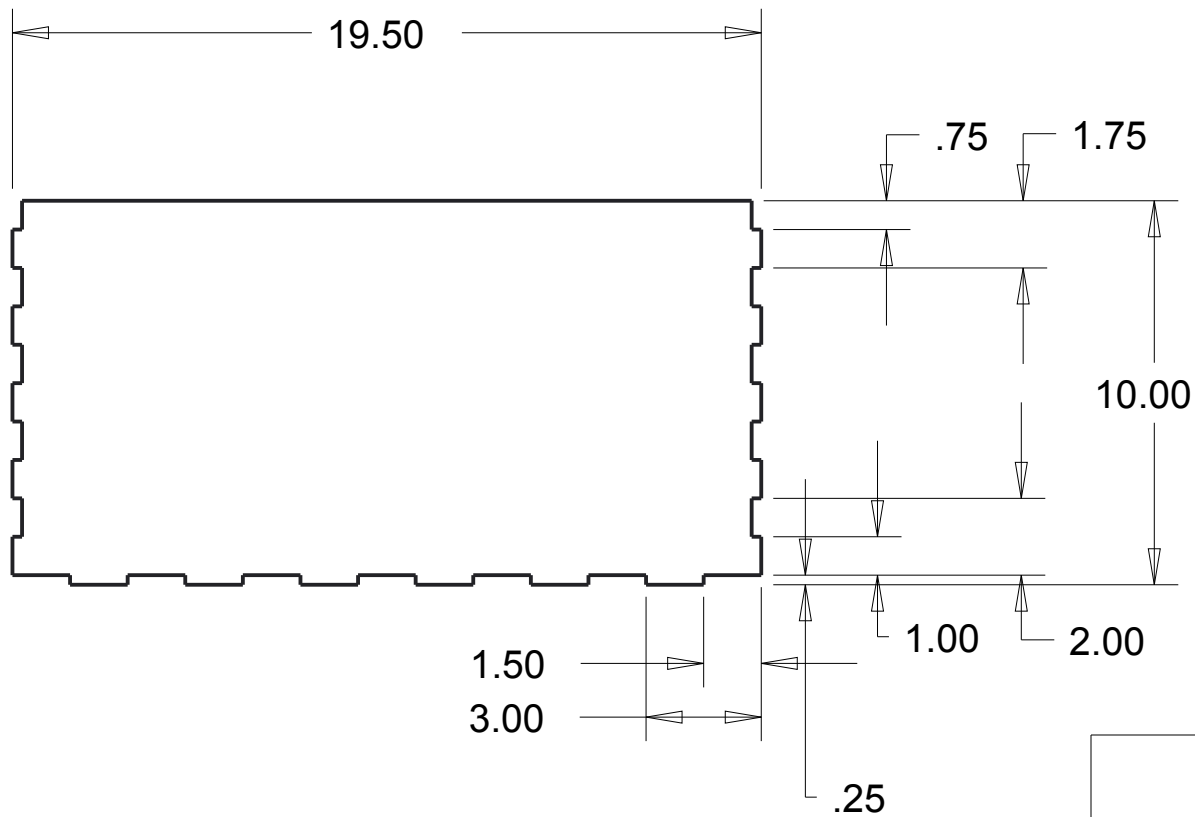
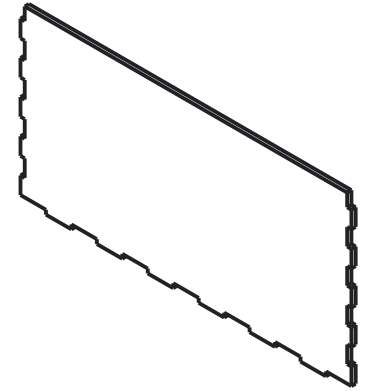
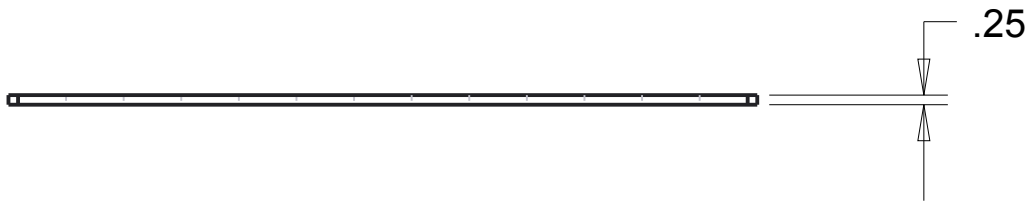
Index	Part Name	Qty
1	BACKPANEL	1
2	BASE	1
3	FRONTFACEPANEL	1
4	MIDPANEL	1
5	NUTRIENT_PUMP	1
6	PUMPFIT	1
7	SIDEPANEL	2
8	TUBE	1

MECE E3430 Engineering Design			
<b>Exp. 1st Reservoir</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.200	INCHES SHEET 4 OF 37



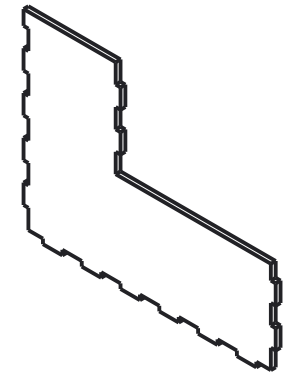
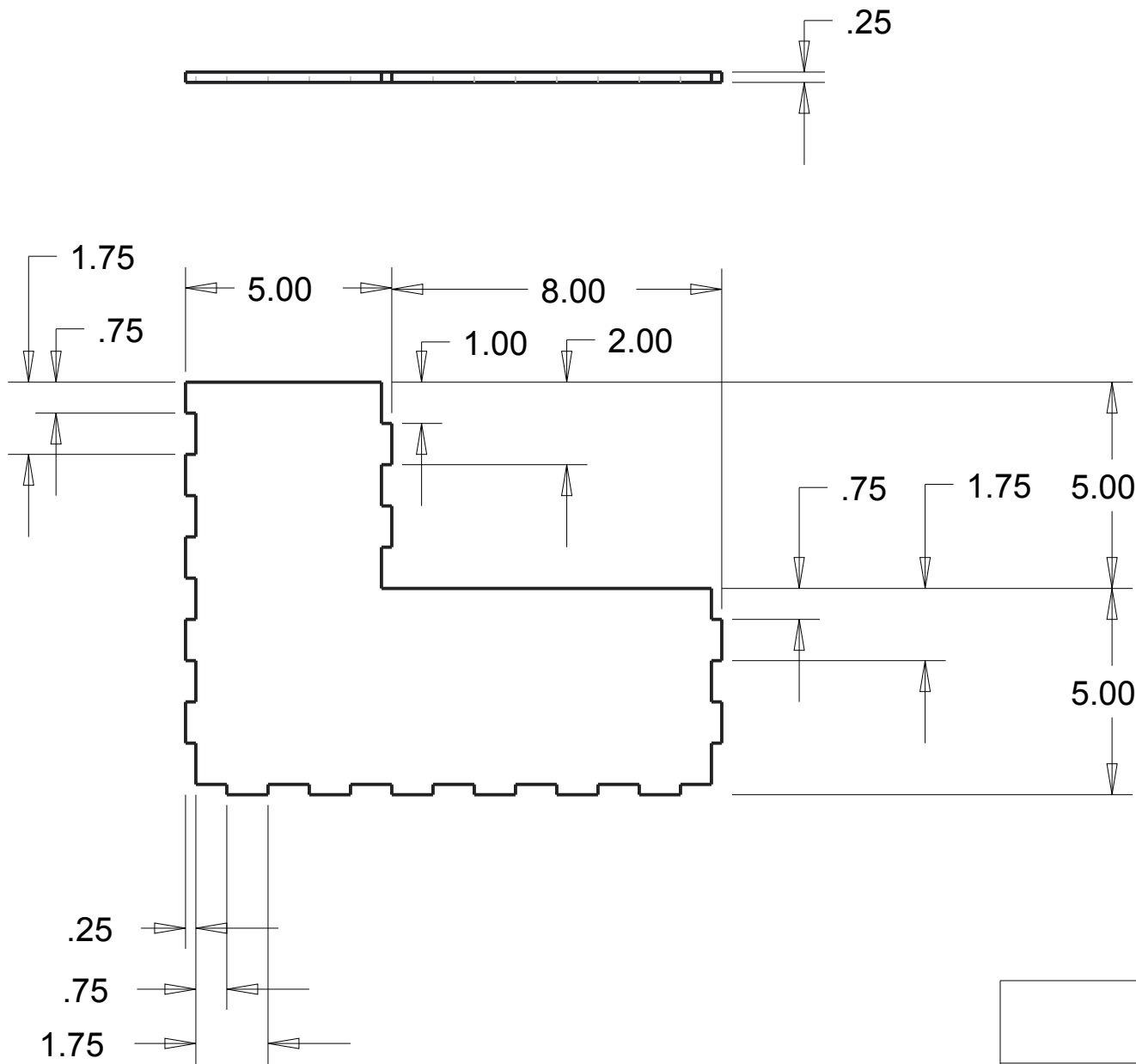
MECE E3430 Engineering Design			
<b>Base</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.200	INCHES SHEET 5 OF 37

Tolerance = 0.0004 in. unless specified



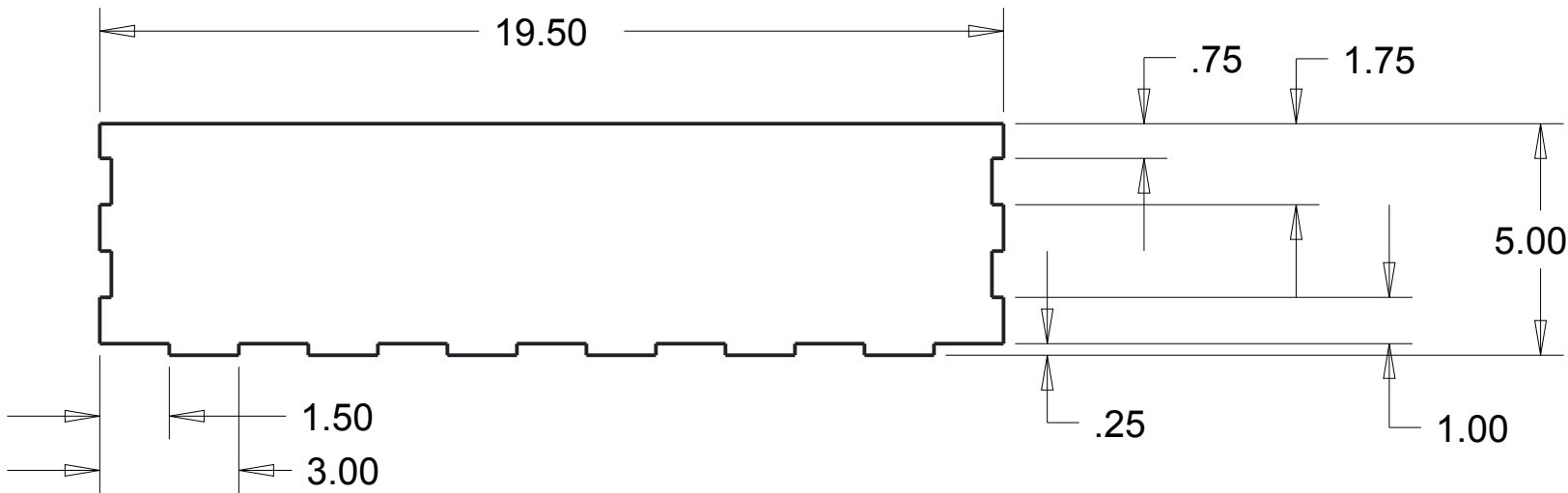
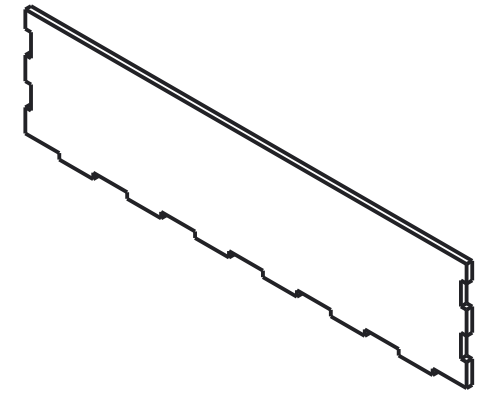
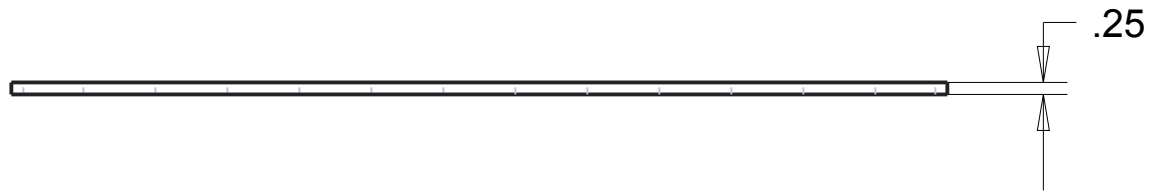
MECE E3430 Engineering Design			
<b>Front Face Panel</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.200	INCHES SHEET 6 OF 37

Tolerance = 0.0004 in. unless specified



Tolerance = 0.0004 in. unless specified

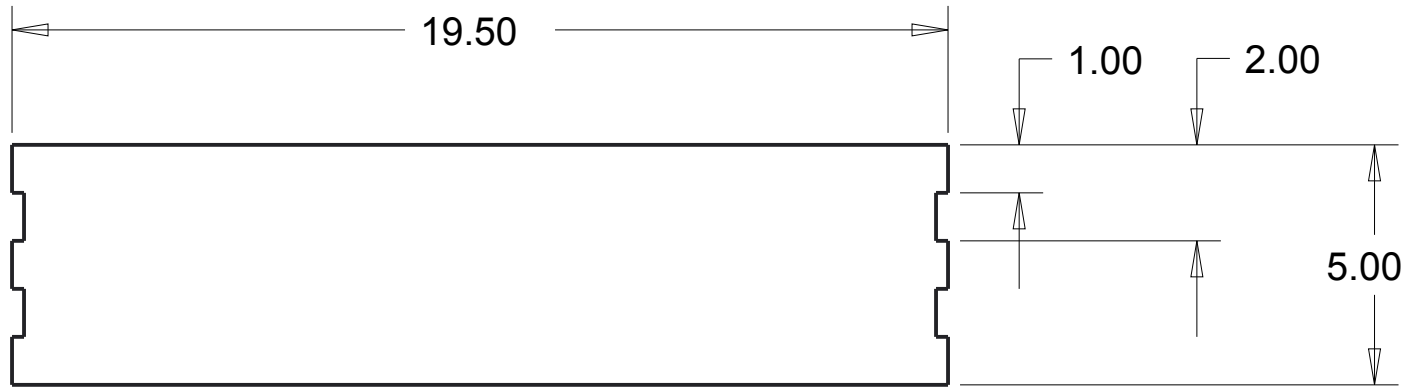
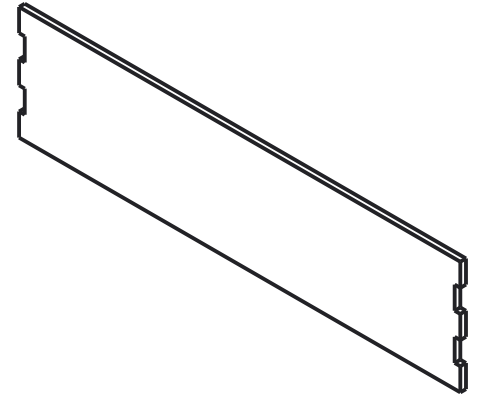
MECE E3430 Engineering Design			
<b>Side Panel</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.250	INCHES SHEET 7 OF 37



Tolerance = 0.0004 in. unless specified

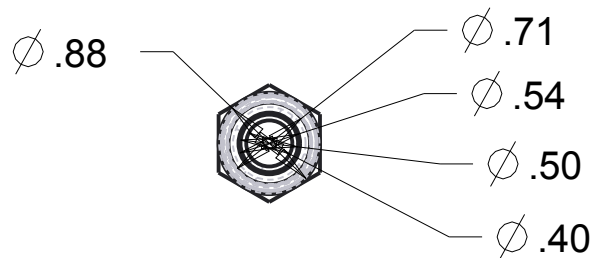
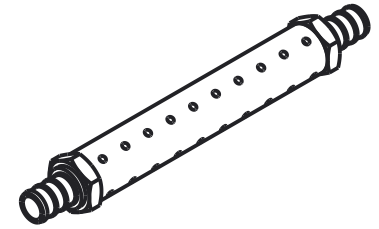
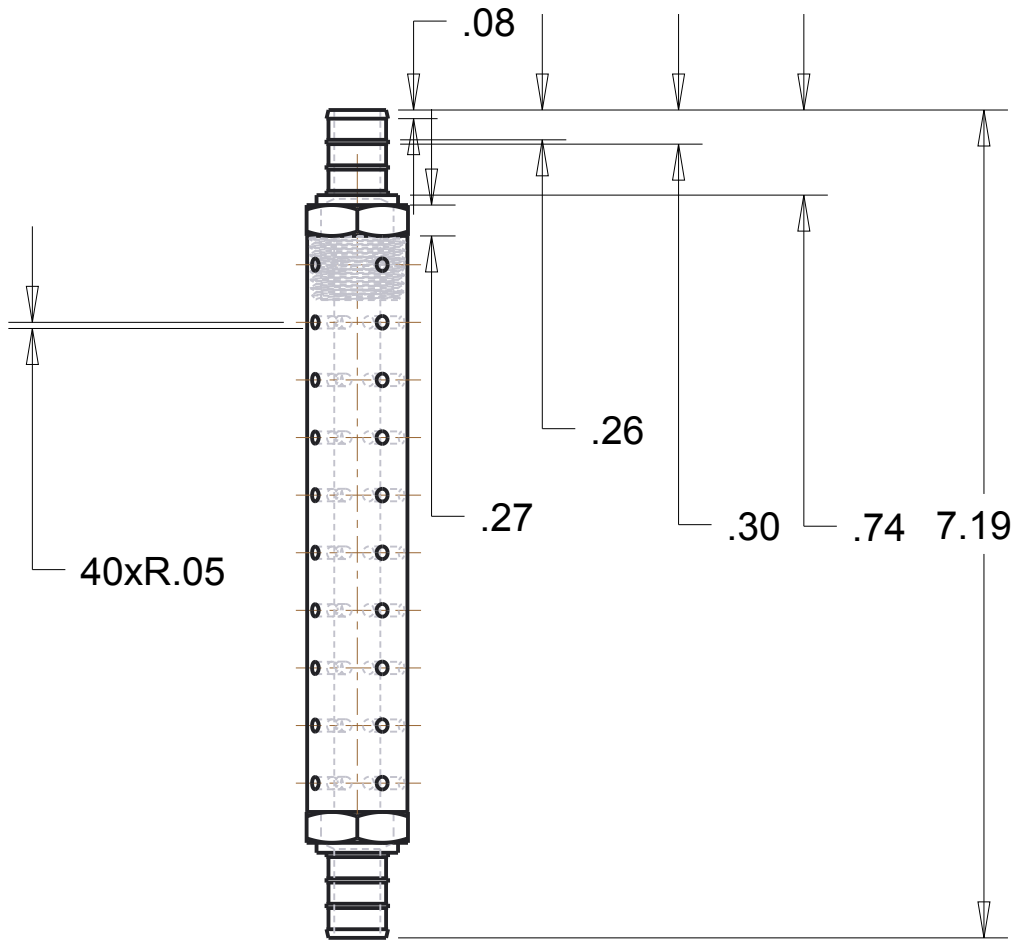
MECE E3430 Engineering Design			
<b>Back Panel</b>			
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Hydropotomous	5/7/2014	SCALE: 0.250	INCHES SHEET 8 OF 37





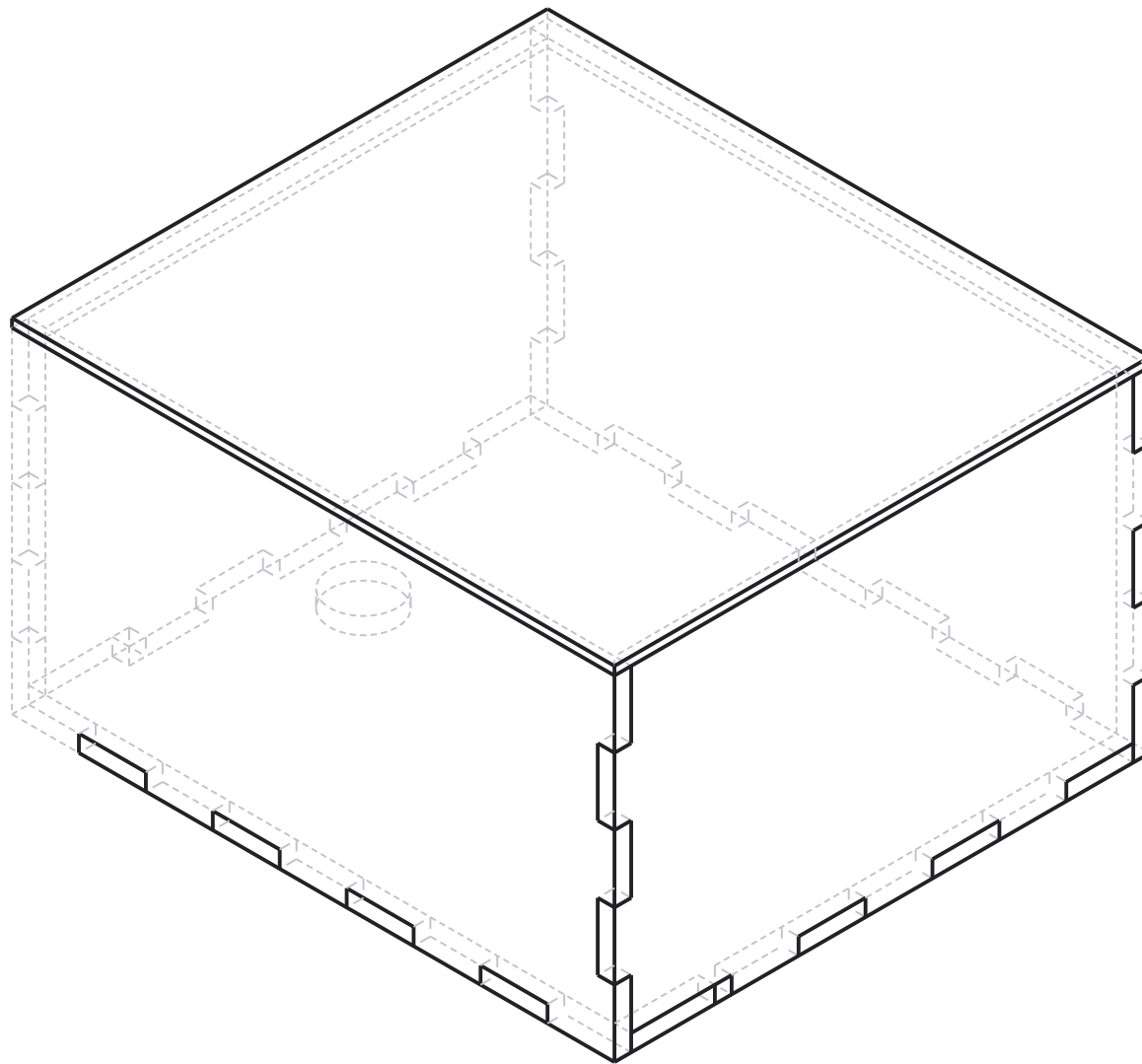
MECE E3430 Engineering Design			
<b>Mid Panel</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.250	INCHES SHEET 9 OF 37

Tolerance = 0.0004 in. unless specified



Tolerance = 0.0004 in. unless specified

MECE E3430 Engineering Design			
<b>Pump Fitting</b>			
<b>A</b>	ABS		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.600	INCHES SHEET 10 OF 37



MECE E3430  
Engineering Design

## 2nd Reservoir

A

Acrylic

0

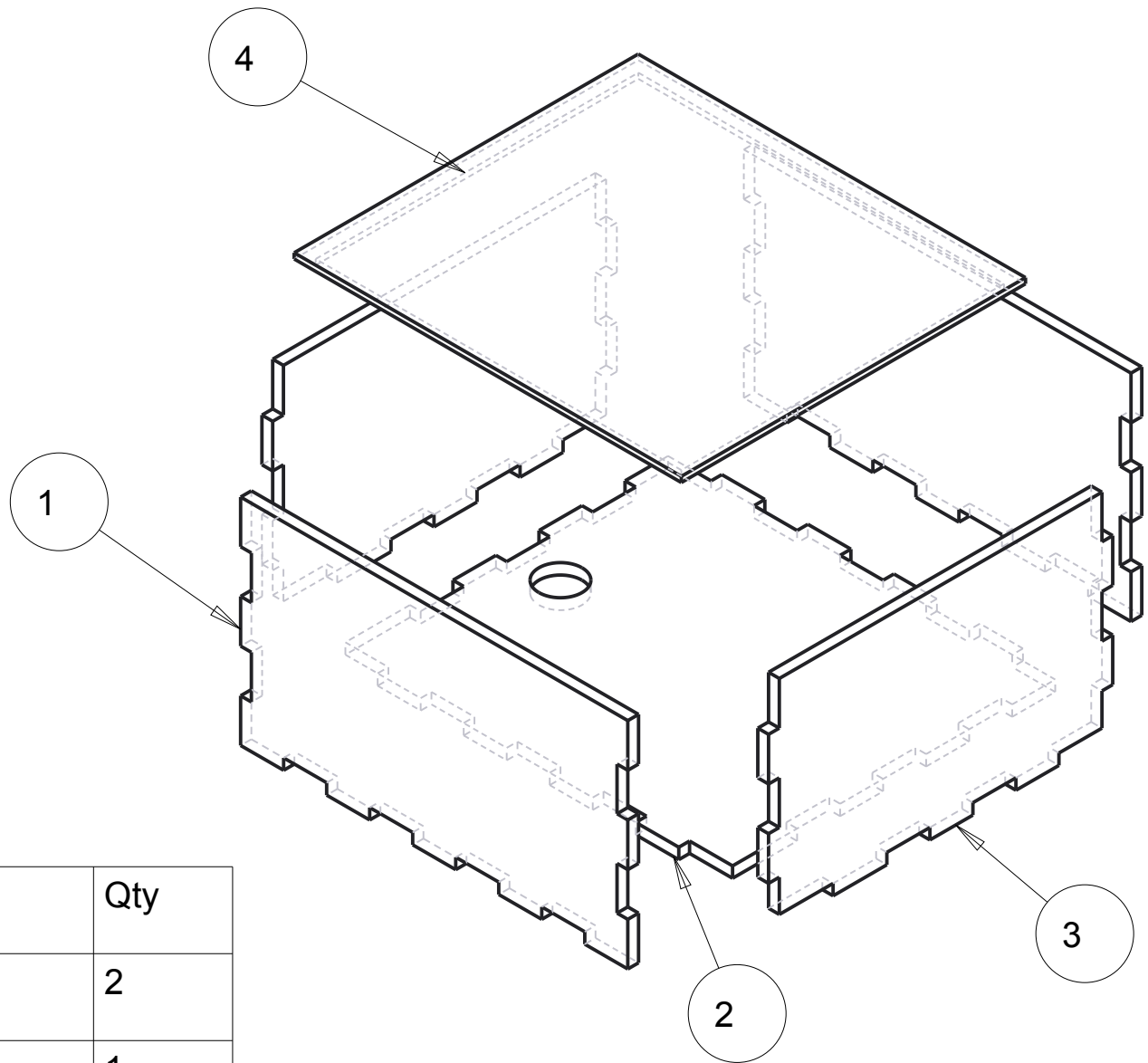
Hydropotomous

5/7/2014

SCALE: 0.500

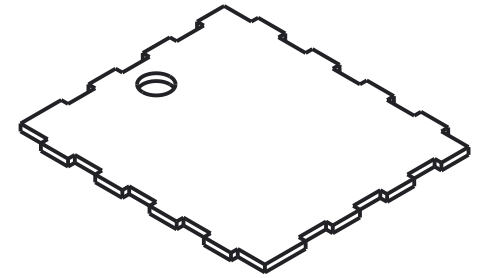
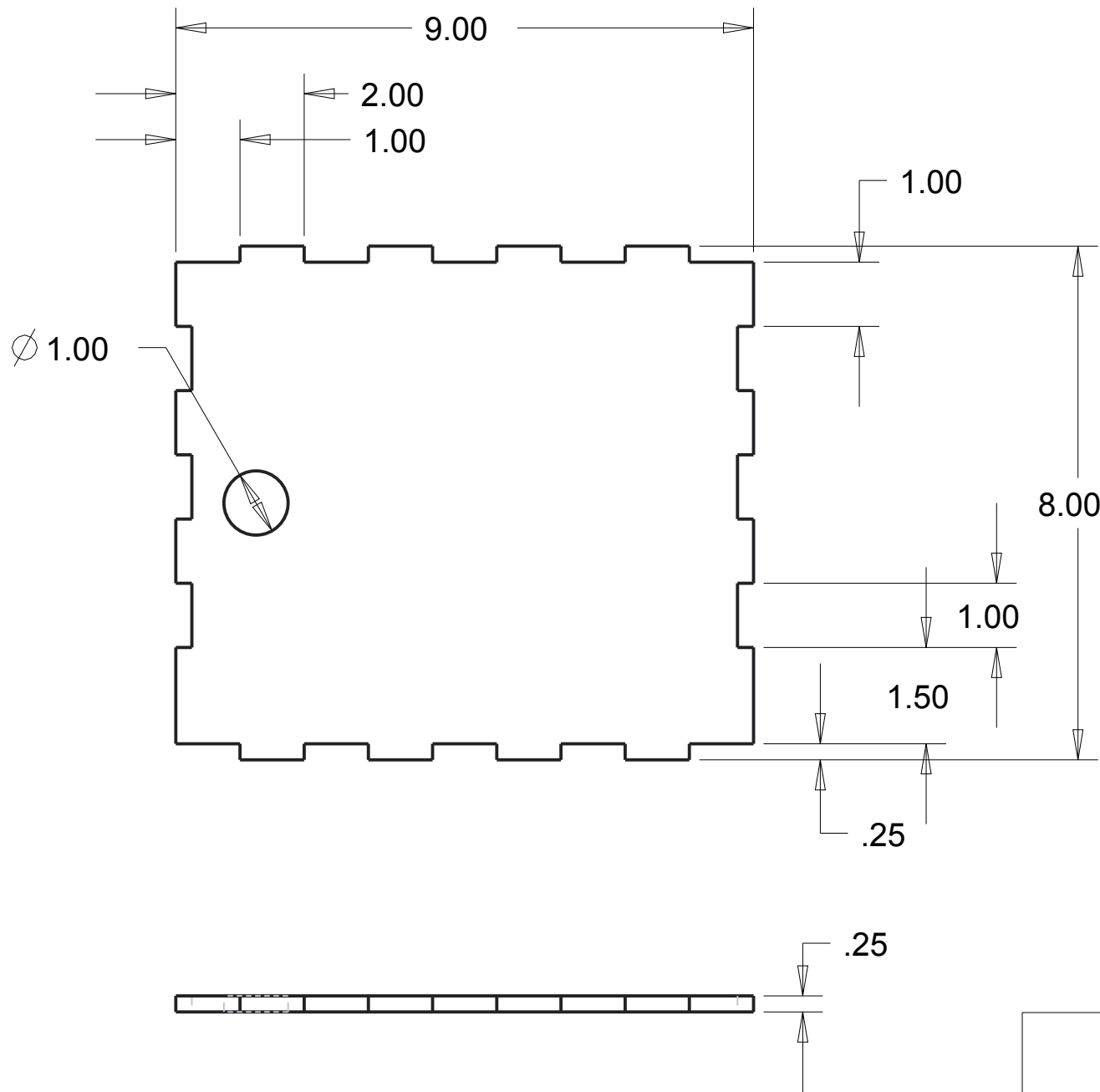
INCHES

SHEET 11 of 37



Index	Part Name	Qty
1	2ND_RES_BACK	2
2	2ND_RES_BASE	1
3	2ND_RES_SIDES	2
4	2ND_RESERVOIR_LID	1

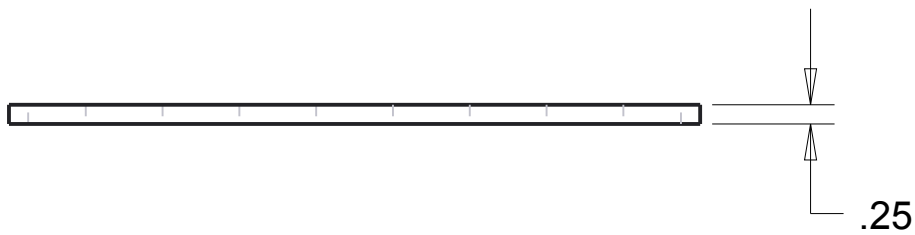
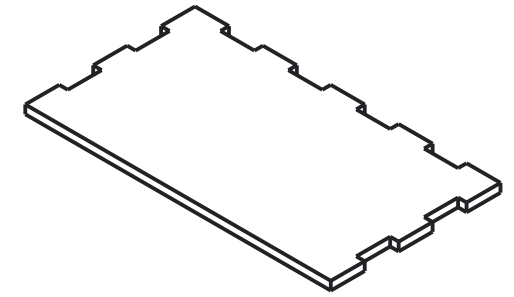
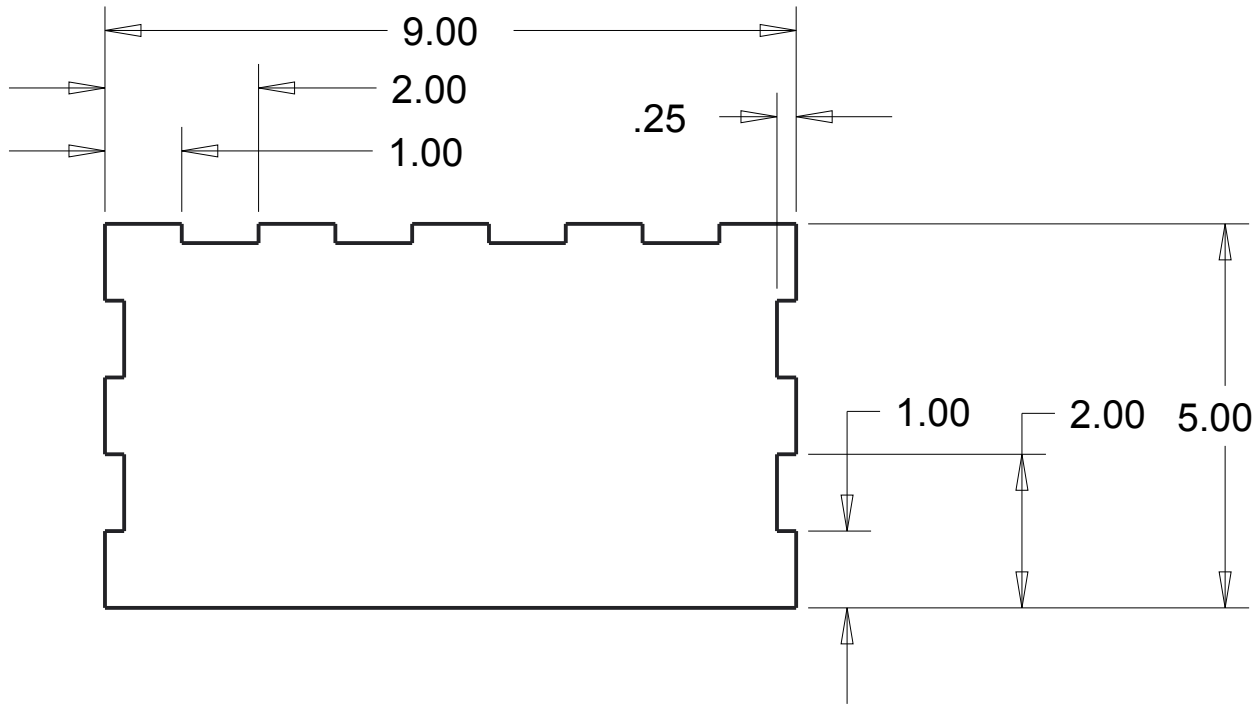
MECE E3430 Engineering Design			
<b>Exp. 2nd Reservoir</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.350	INCHES SHEET 12 OF 37



Tolerance = 0.0004 in. unless specified

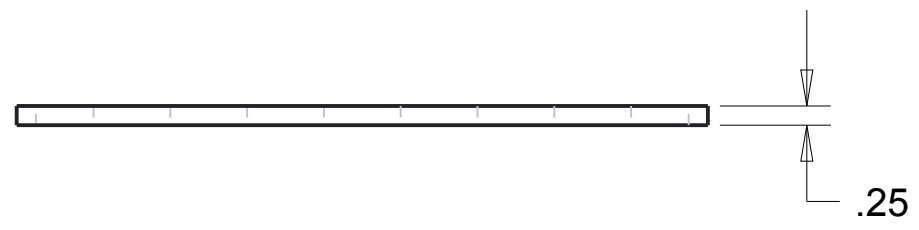
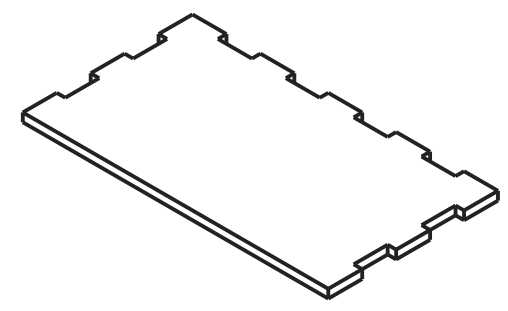
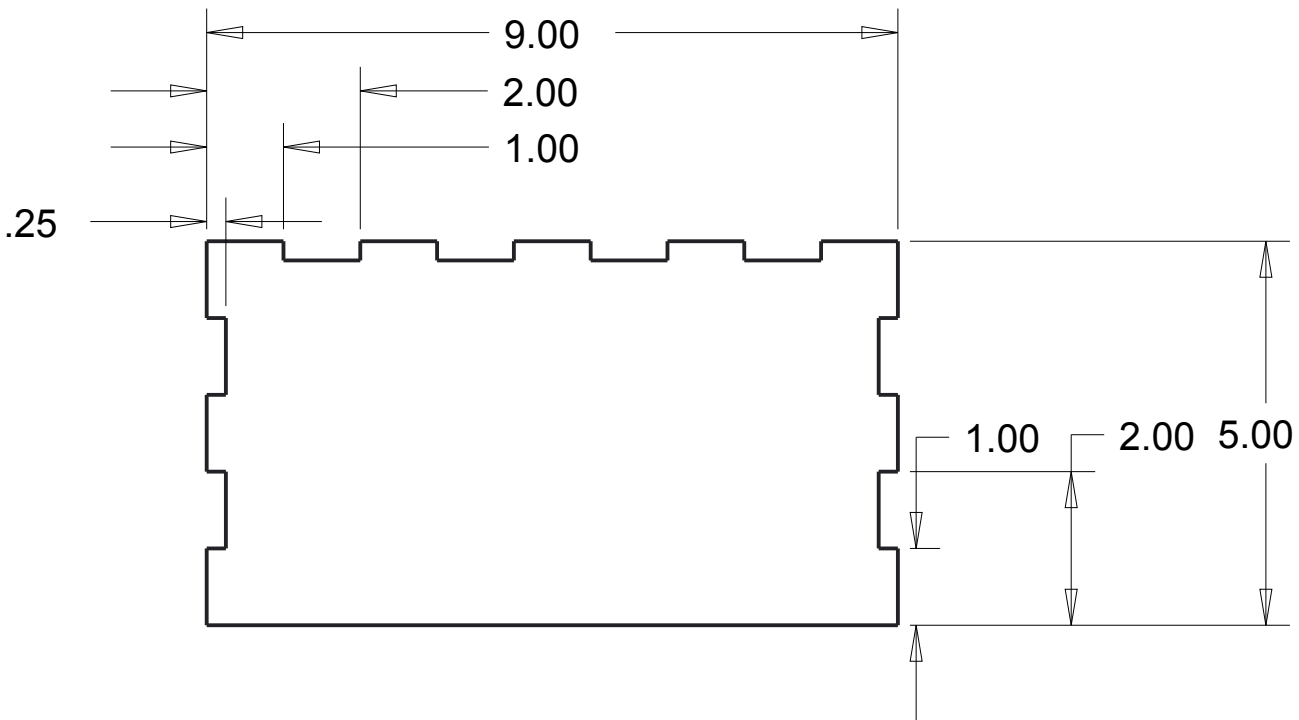
Hydropotomous	5/7/2014	SCALE: 0.400	INCHES	SHEET 13 OF 37
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MECE E3430 Engineering Design			
<b>2nd Res Base</b>			
<b>A</b>	Acrylic		<b>0</b>



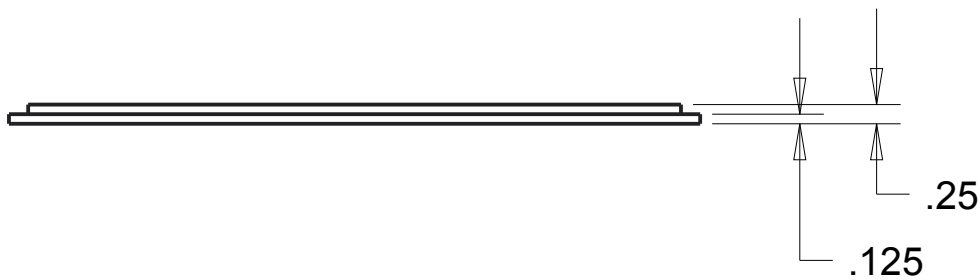
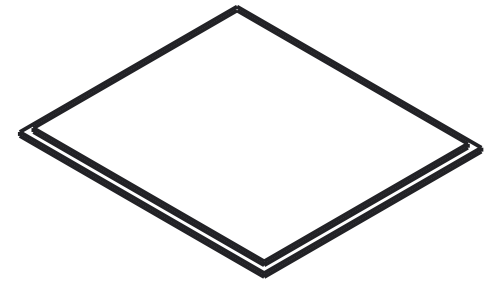
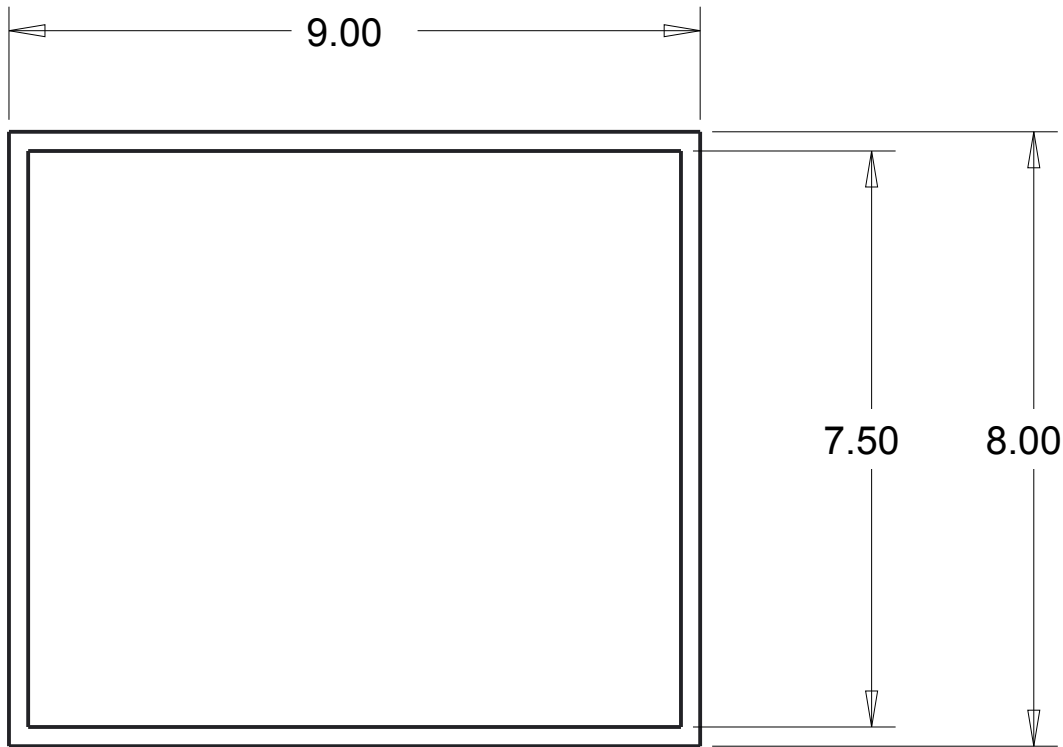
Tolerance = 0.0004 in. unless specified

MECE E3430 Engineering Design			
<b>2nd Res Back</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.400	INCHES SHEET 14 OF 37



Tolerance = 0.0004 in. unless specified

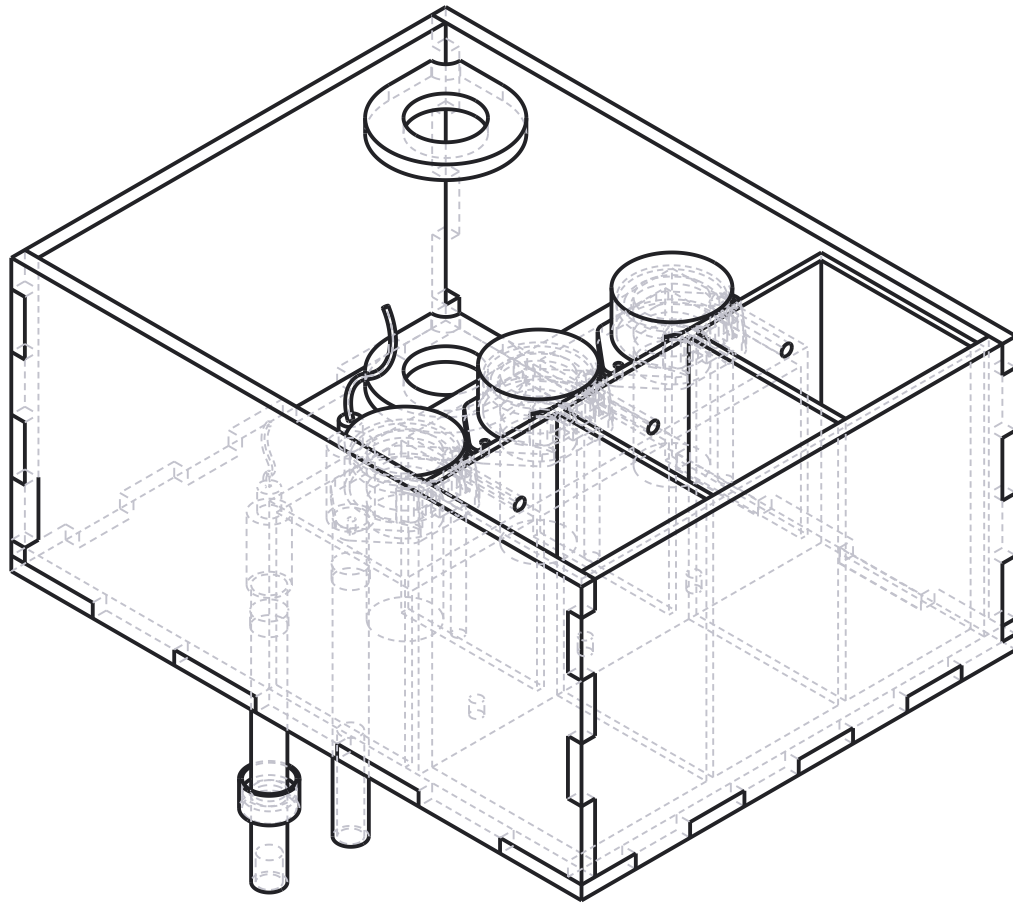
MECE E3430 Engineering Design			
<b>2nd Res Sides</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.400	INCHES SHEET 15 OF 37



Tolerance = 0.0004 in. unless specified

MECE E3430 Engineering Design			
<b>2nd Res Lid</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.400	INCHES SHEET 16 OF 37





MECE E3430  
Engineering Design

# Electronics Box

**A**

Acrylic

**0**

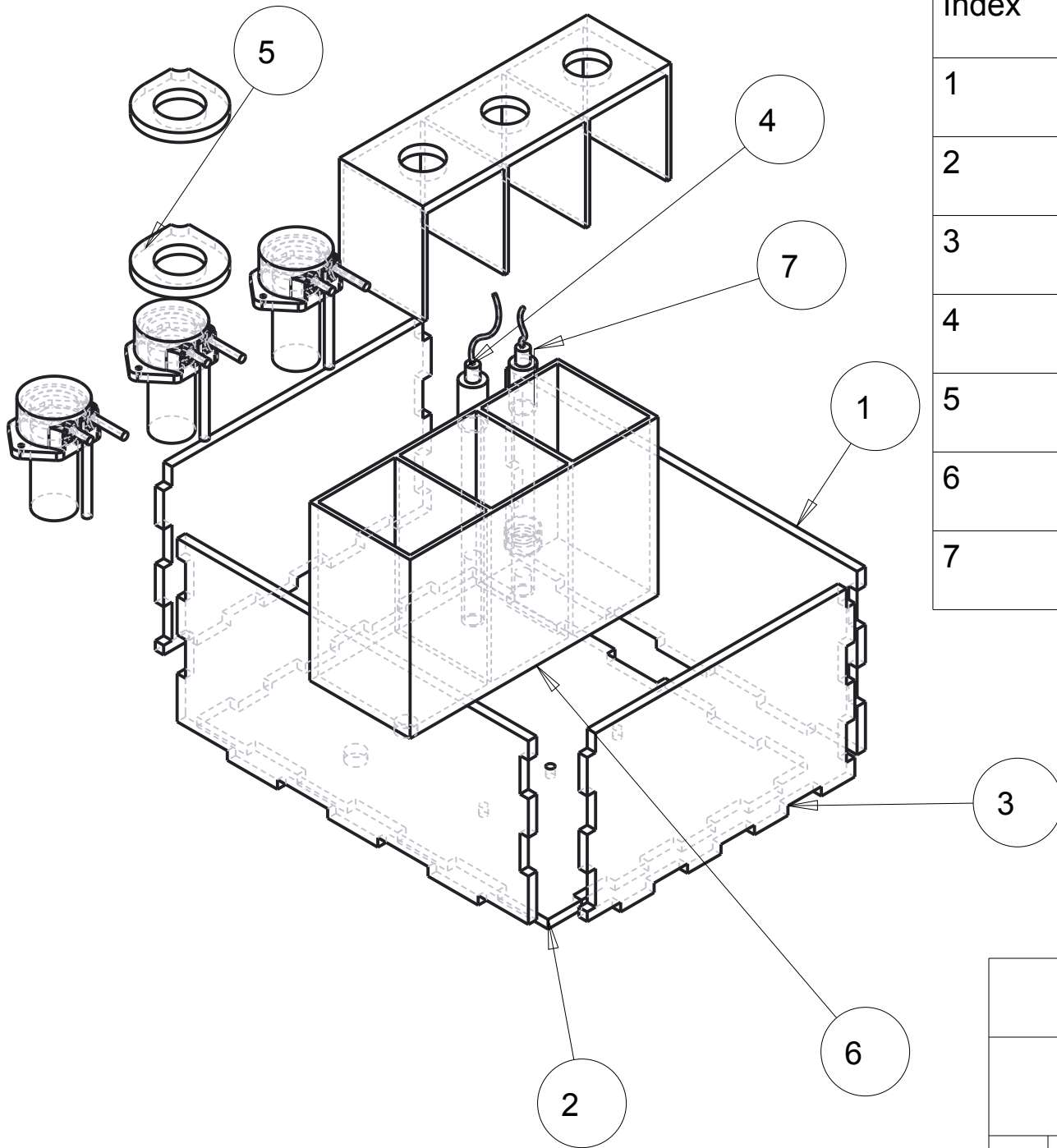
Hydropotomous

5/7/2014

SCALE: 0.400

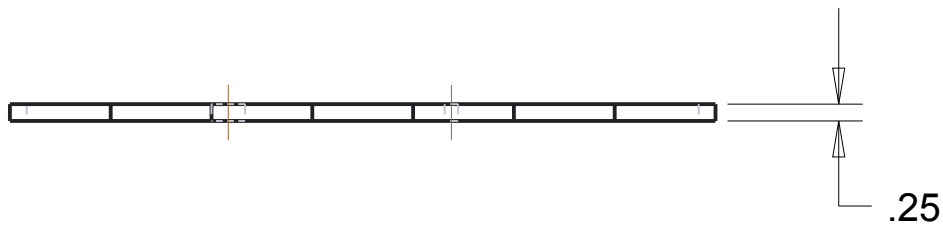
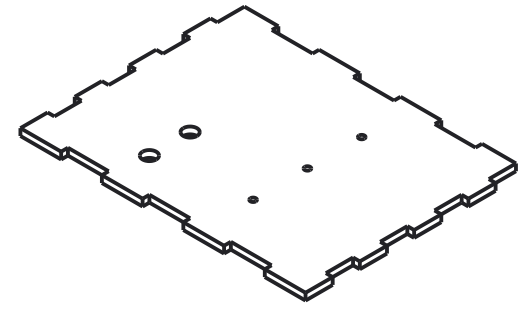
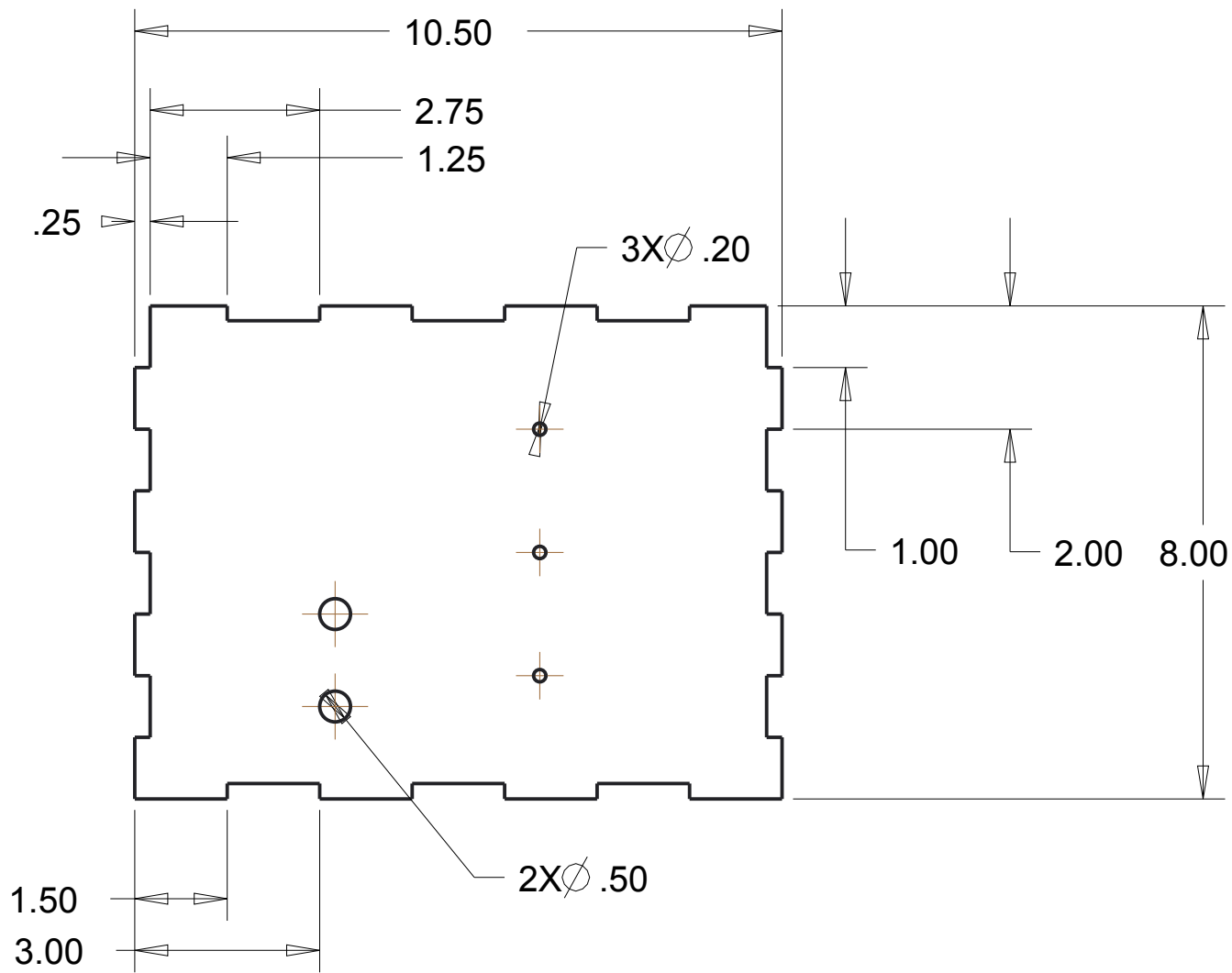
INCHES

SHEET 17 OF 37



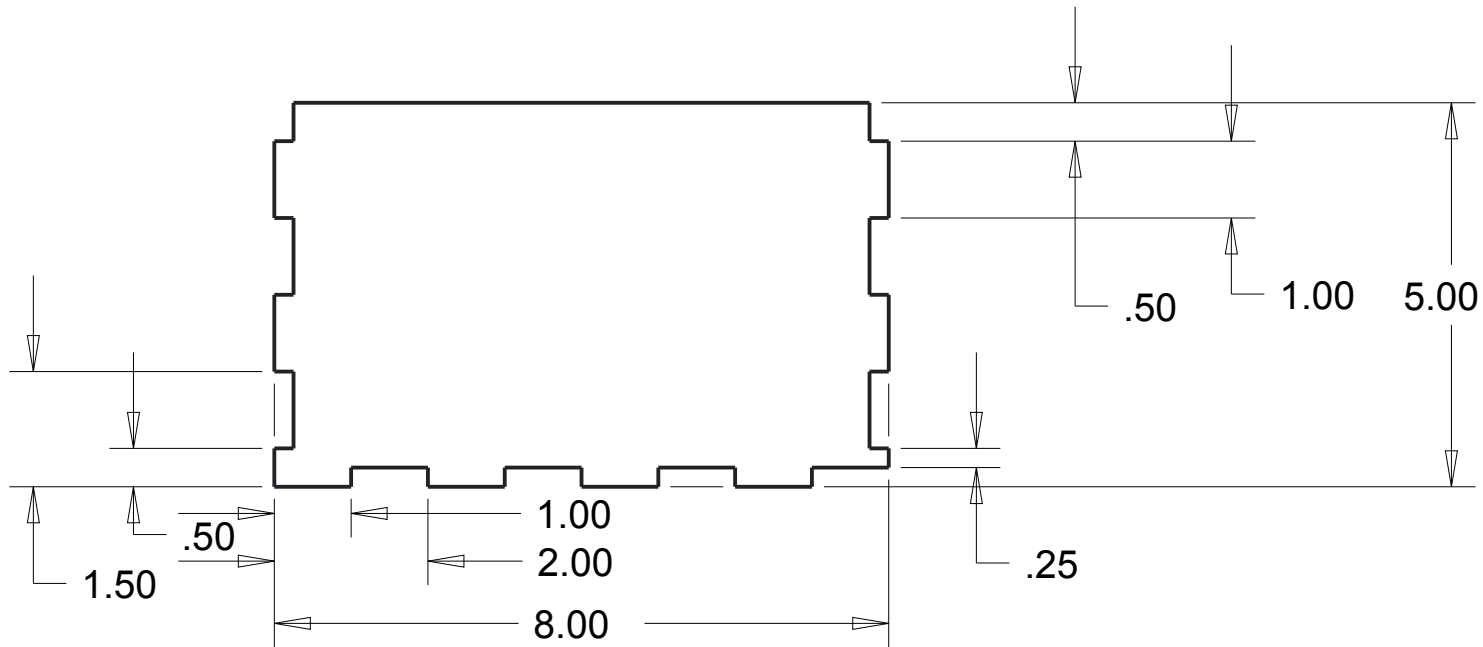
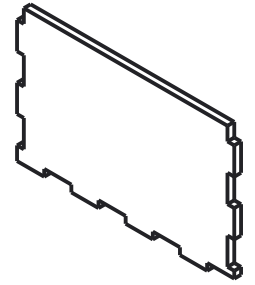
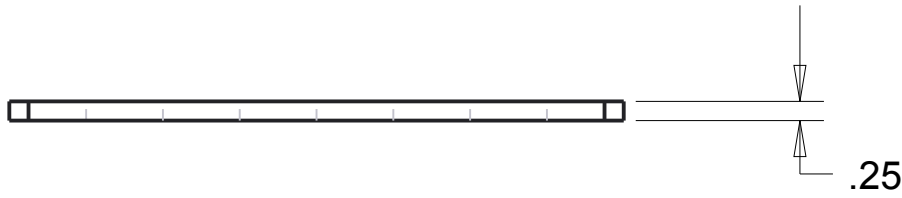
Index	Part Name	Qty
1	E_BACKPANEL	2
2	E_BASE	1
3	E_BOX_SIDE	2
4	EC_PROBE	1
5	LAMP MOUNTS	2
6	PERISTALTIC PUMP	1
7	PH_PROBE	1

MECE E3430 Engineering Design			
<b>Exp. Electronics Box</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.300	INCHES SHEET 18 OF 37



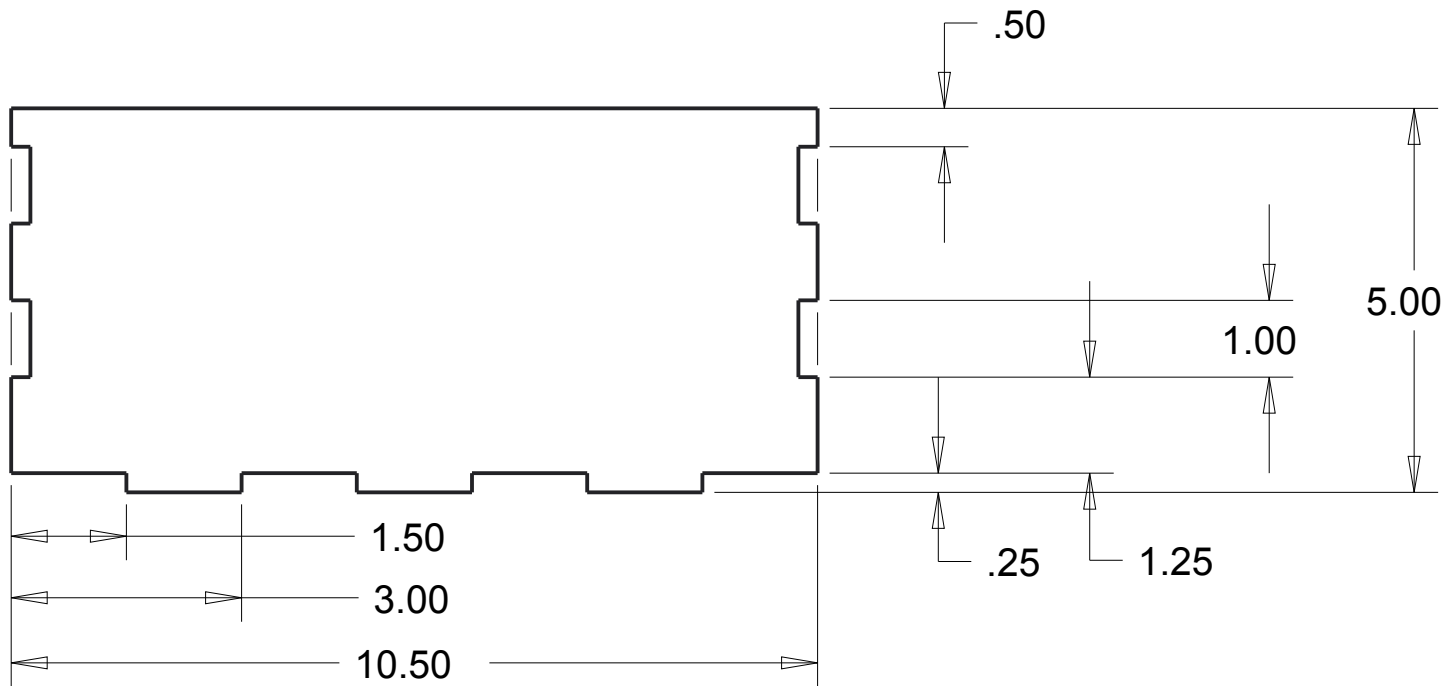
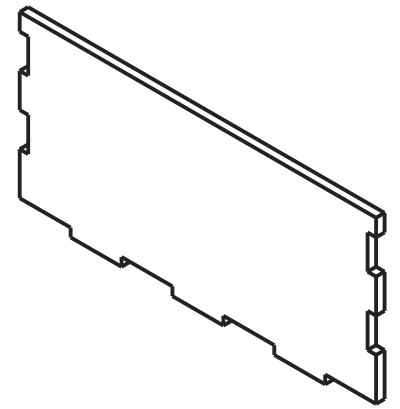
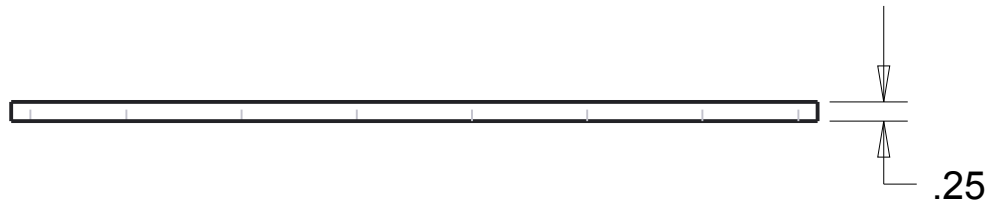
Tolerance = 0.0004 in. unless specified

MECE E3430 Engineering Design			
<b>E Base</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydroptomous	5/7/2014	SCALE: 0.350	INCHES SHEET 19 OF 37



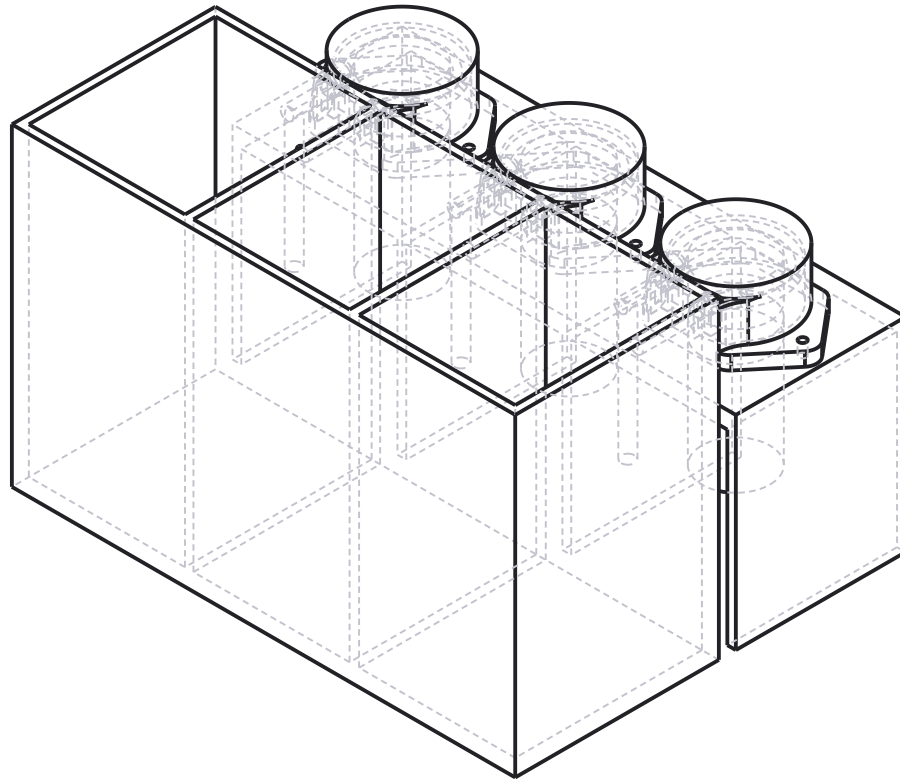
Tolerance = 0.0004 in. unless specified

MECE E3430 Engineering Design			
<b>E Box Side</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	3/1/2014	SCALE: 0.400	INCHES SHEET 20 OF 37



MECE E3430 Engineering Design			
<b>E Back Panel</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.400	INCHES SHEET 21 OF 37

Tolerance = 0.0004 in. unless specified



MECE E3430  
Engineering Design

# Peristaltic Pump

A

Acrylic

0

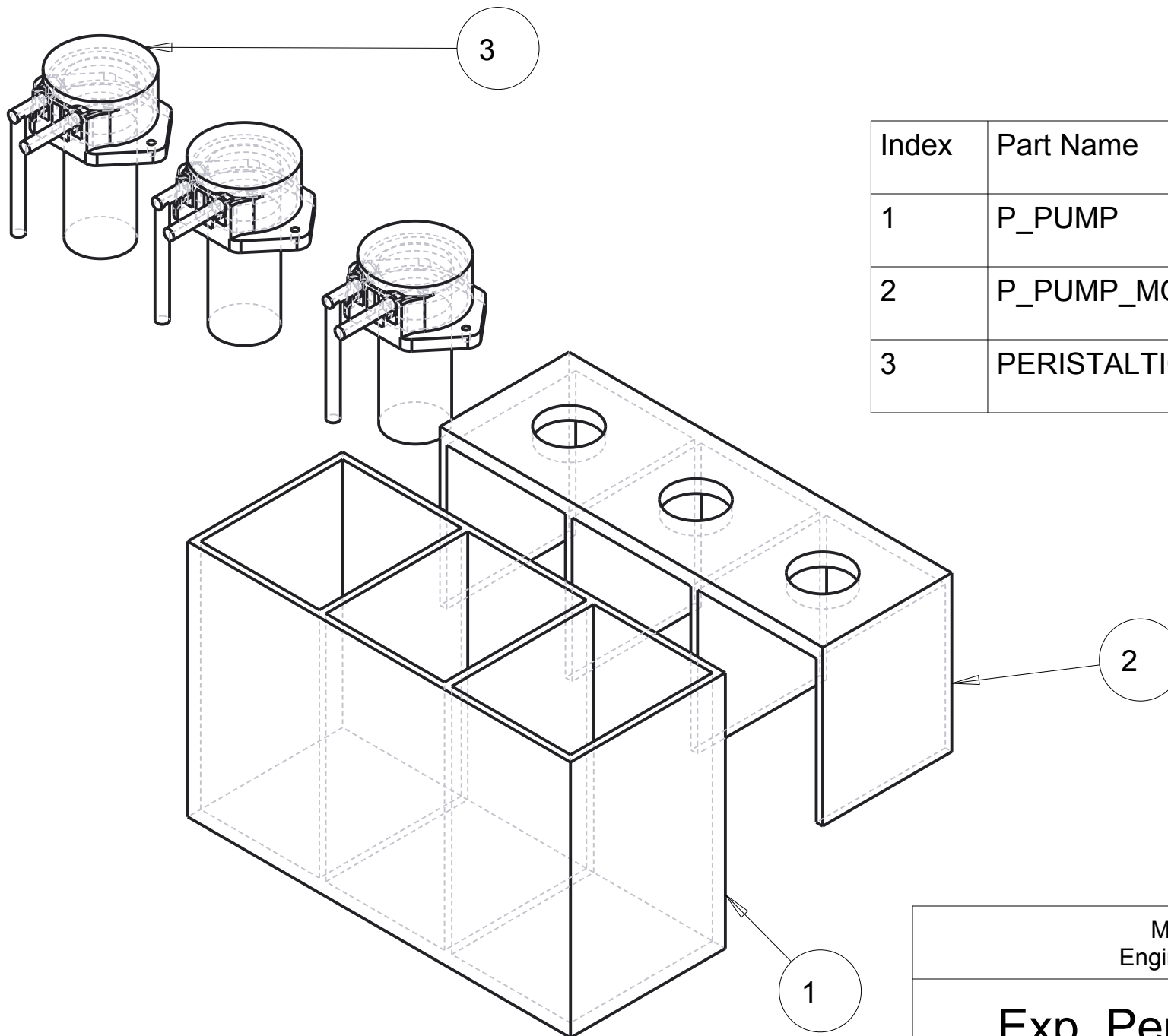
Hydropotomous

5/7/2014

SCALE: 0.500

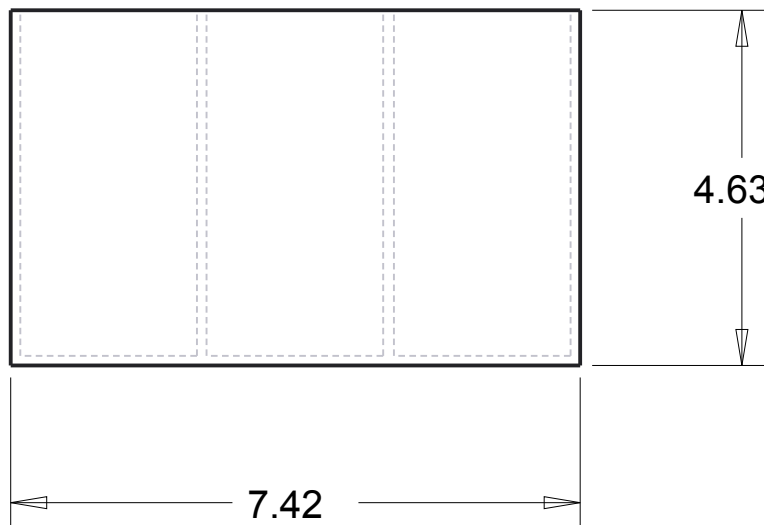
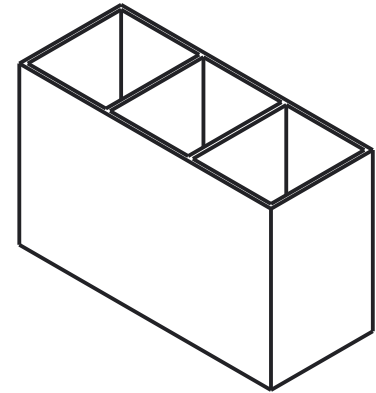
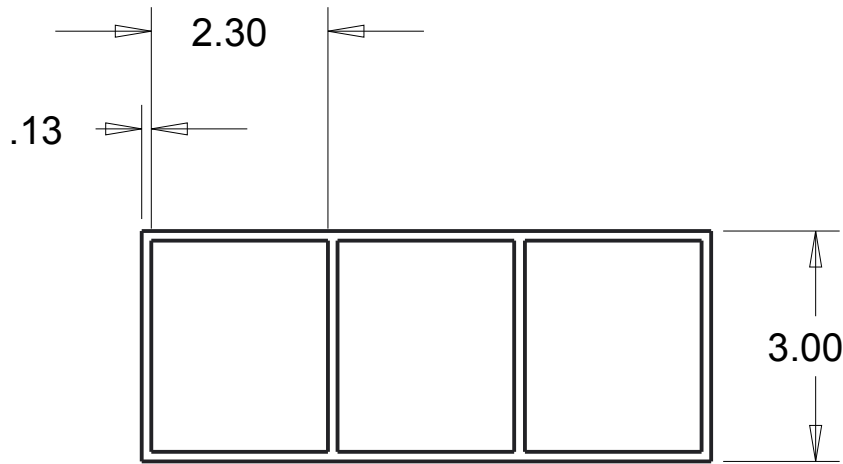
INCHES

SHEET 22 OF 37



Index	Part Name	Qty
1	P_PUMP	1
2	P_PUMP_MOUNT	1
3	PERISTALTIC_PUMP	3

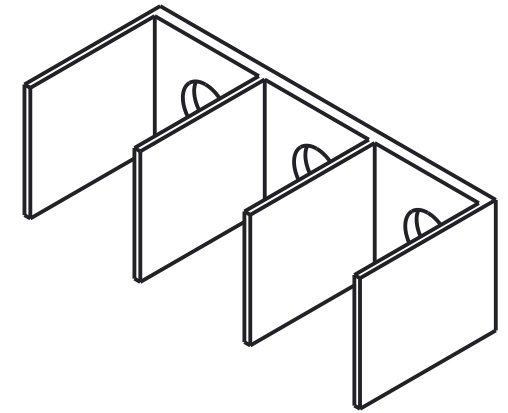
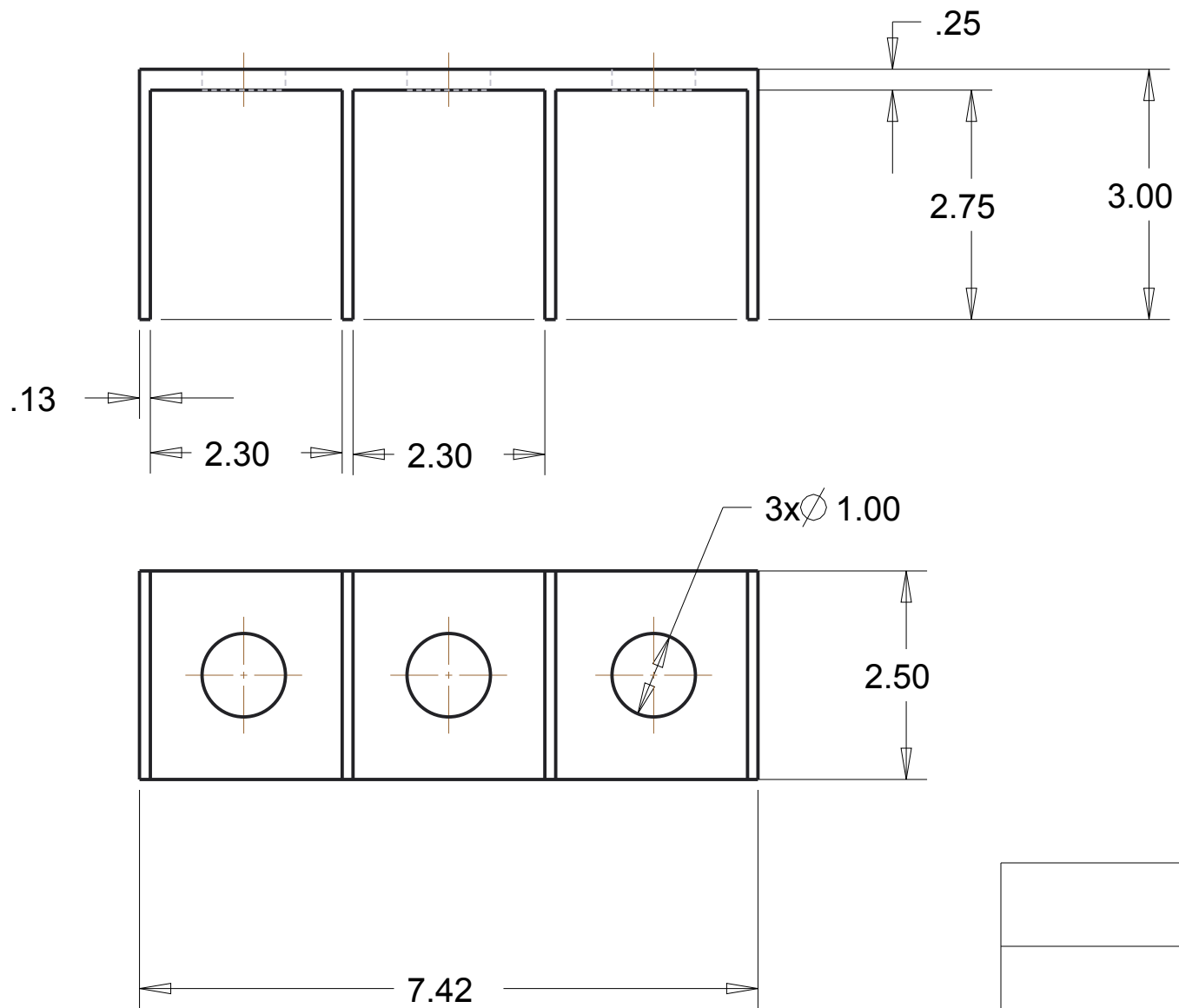
MECE E3430 Engineering Design			
<b>Exp. Peristaltic Pump</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.500	INCHES SHEET 23 OF 37



MECE E3408 COMPUTER GRAPHICS AND DESIGN			
<b>P Pump</b>			
<b>A</b>	ABS		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.400	INCHES SHEET 24 OF 37

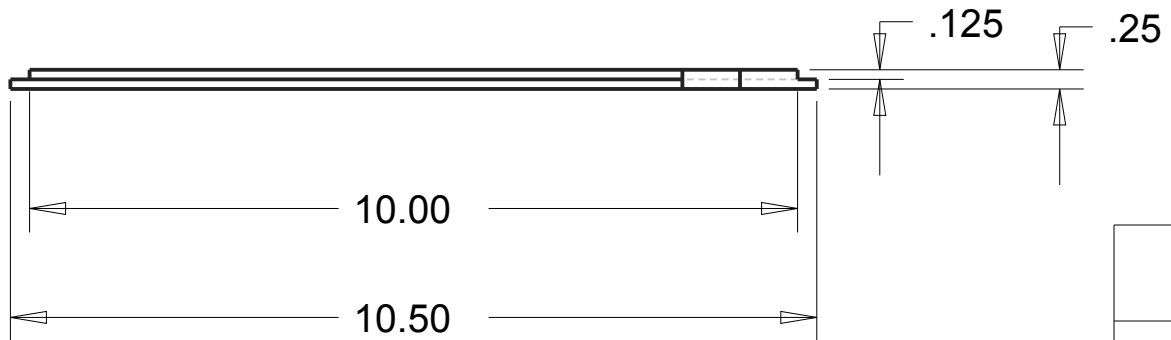
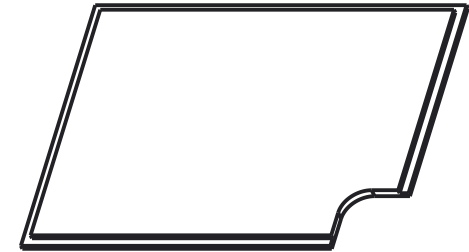
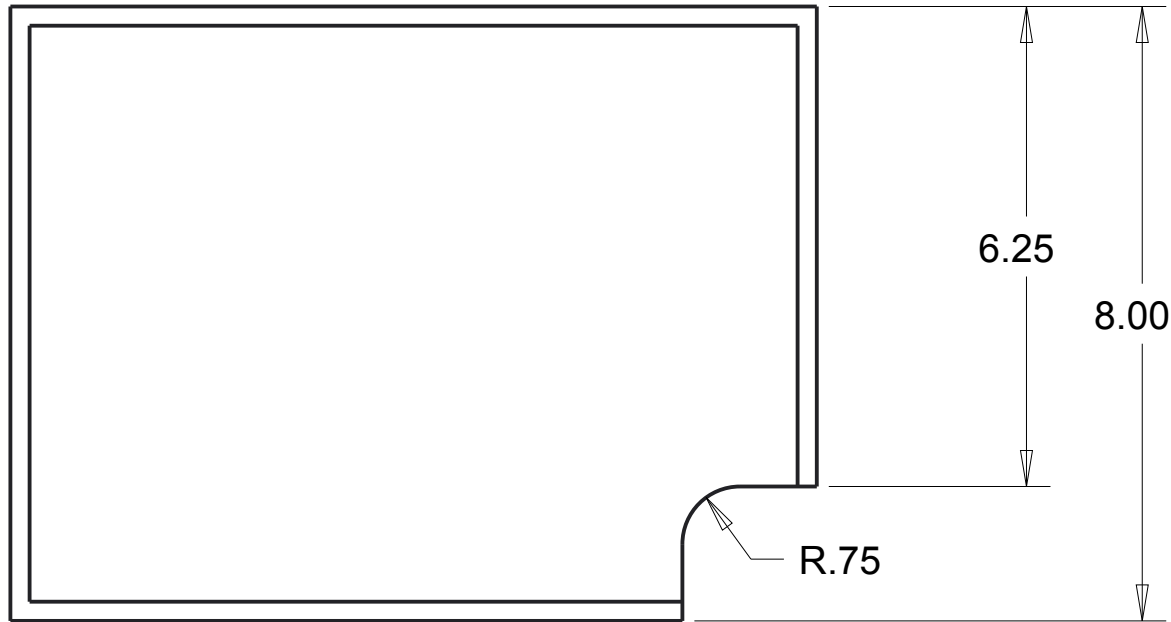
Tolerance = 0.0004 in. unless specified





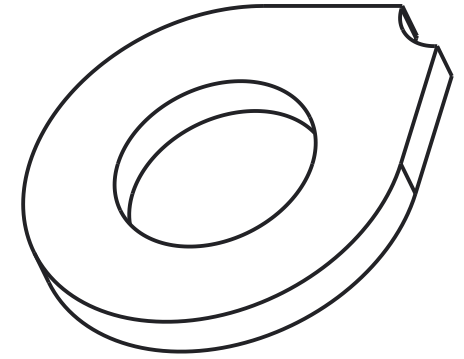
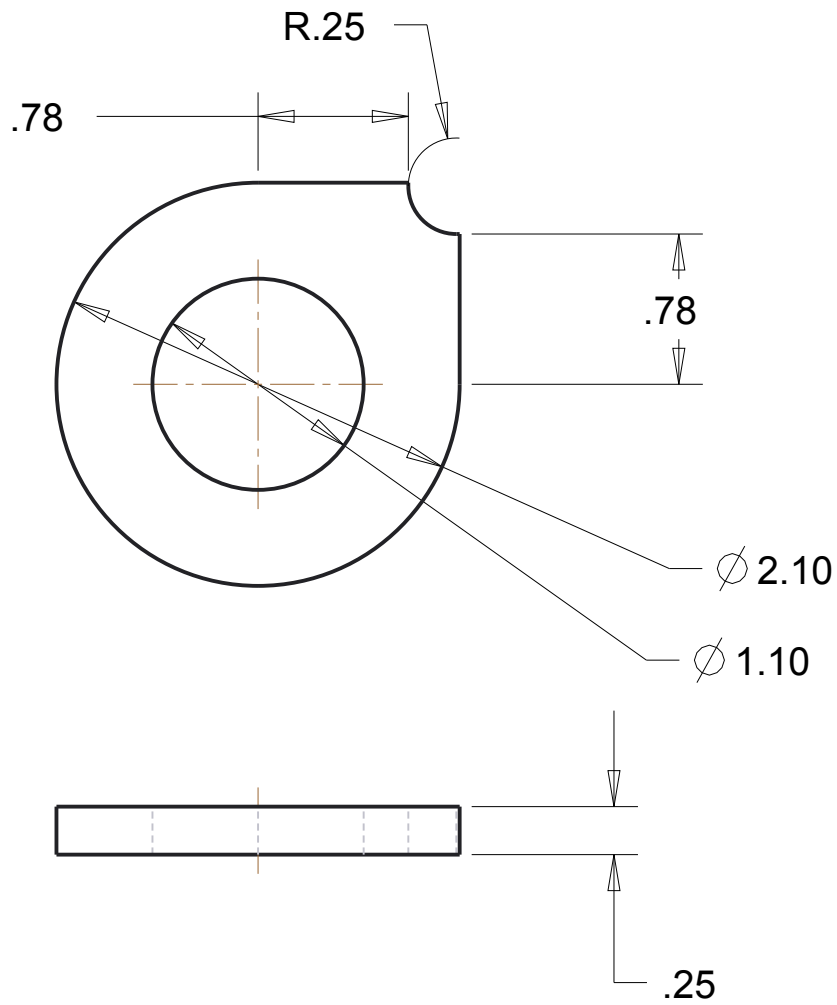
Tolerance = 0.0004 in. unless specified

MECE E3430 Engineering Design				
<b>P Pump Mount</b>				
<b>A</b>	ABS			<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.500	INCHES	SHEET 25 OF 37



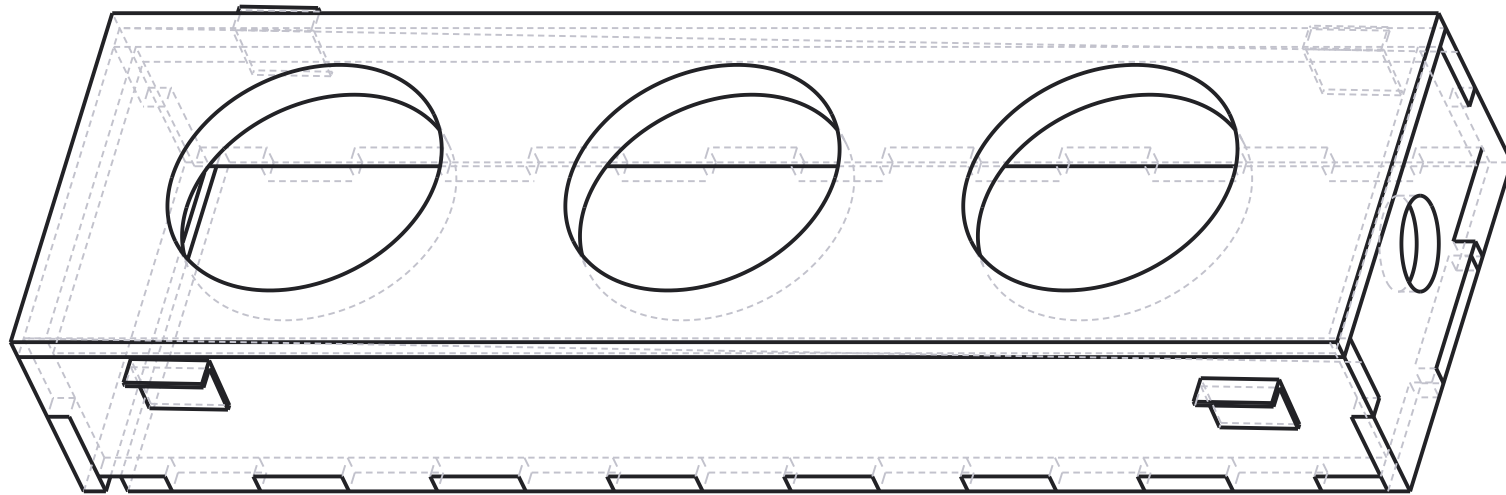
MECE E3430 Engineering Design			
<b>E Box Lid</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.400	INCHES SHEET 26 OF 37

Tolerance = 0.0004 in. unless specified



MECE E3430 Engineering Design			
<b>Lamp Mounts</b>			
<b>A</b>	ABS		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.750	INCHES SHEET 27 OF 37

Tolerance = 0.0004 in. unless specified



MECE E3430  
Engineering Design

# Channel Box

**A**

Acrylic

**0**

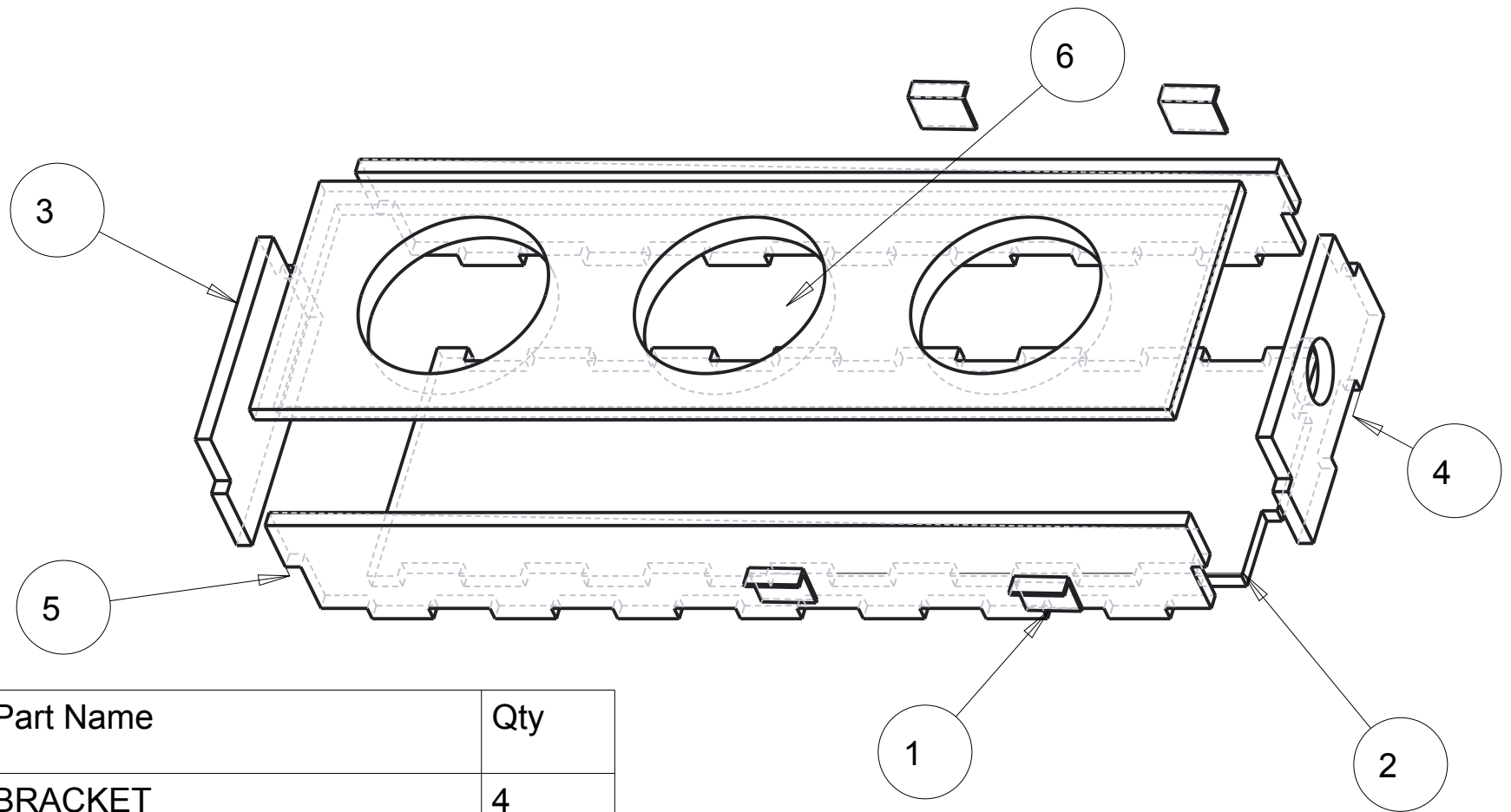
Hydropotomous

5/7/2014

SCALE: 0.500

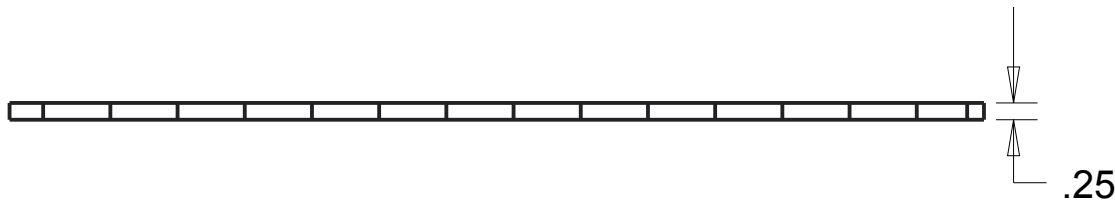
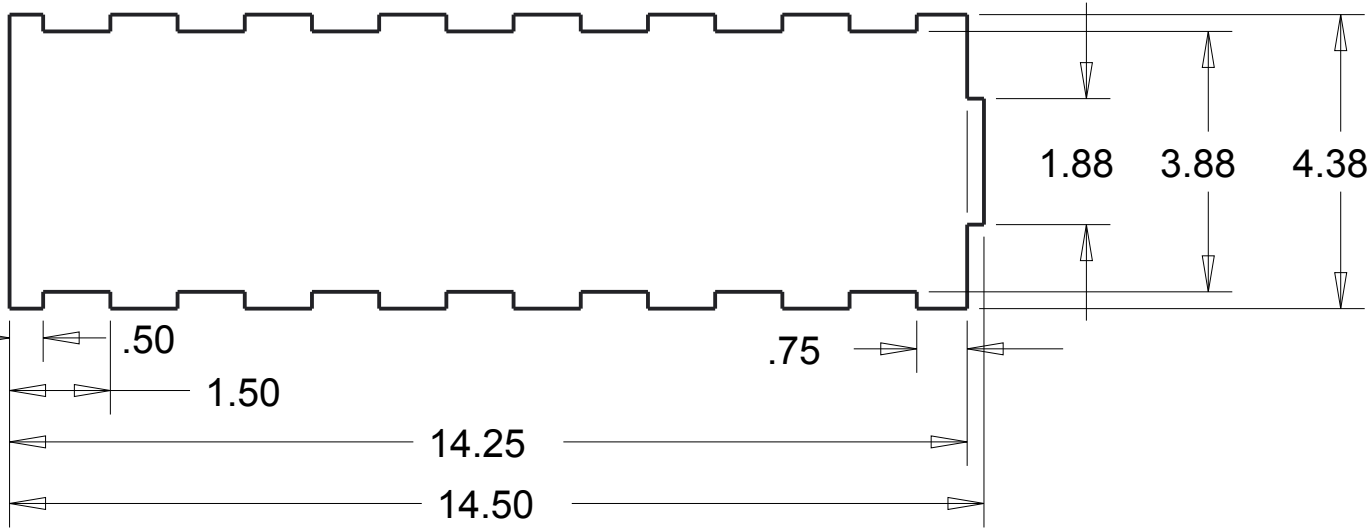
INCHES

SHEET 28 OF 37



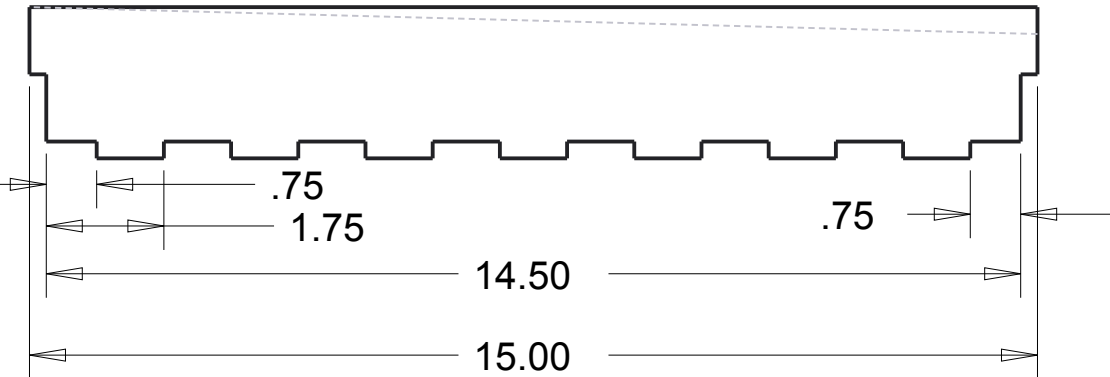
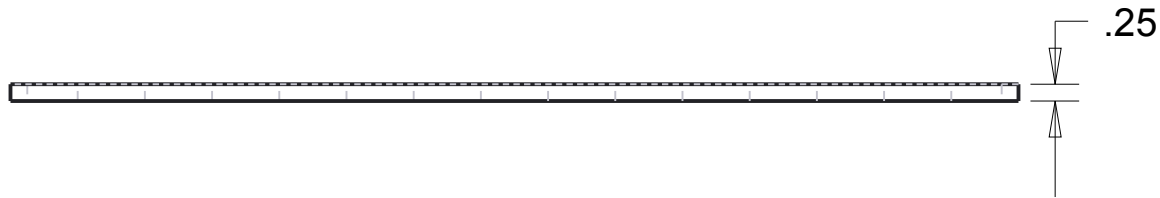
Index	Part Name	Qty
1	BRACKET	4
2	CHANNELBASE	1
3	CHANNELENDOUTLET	1
4	CHANNELEND	1
5	CHANNELSIDE PANEL	2
6	TOPCHANNEL	1

MECE E3430 Engineering Design			
<b>Exp. Channel Box</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.400	INCHES SHEET 29 OF 37



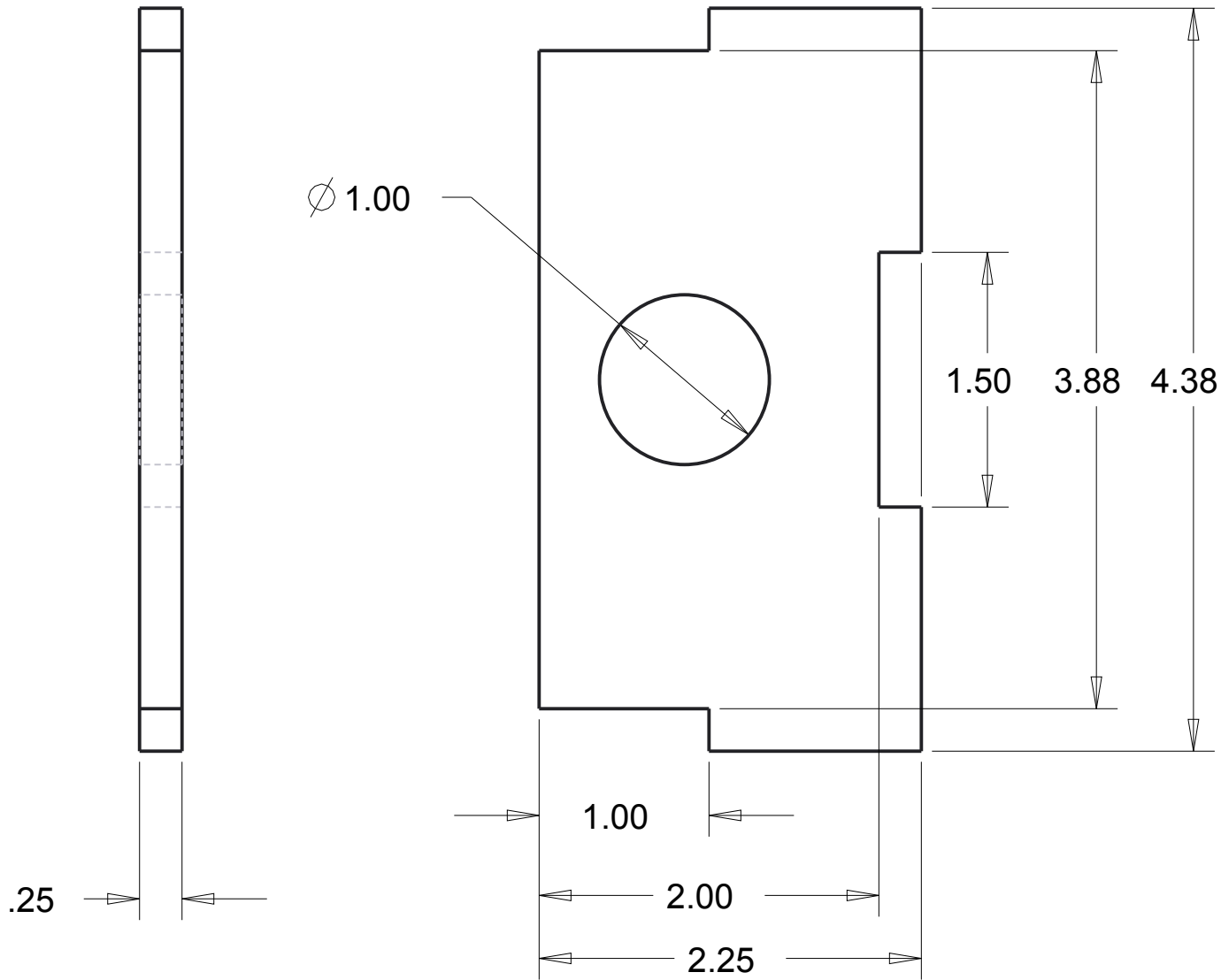
MECE E3430 Engineering Design			
<b>Channel Base</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.350	INCHES SHEET 30 OF 37

Tolerance = 0.0004 in. unless specified



Tolerance = 0.0004 in. unless specified

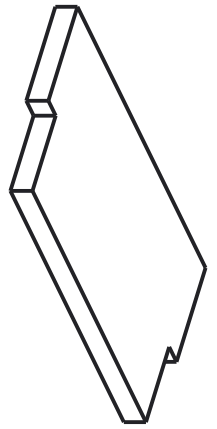
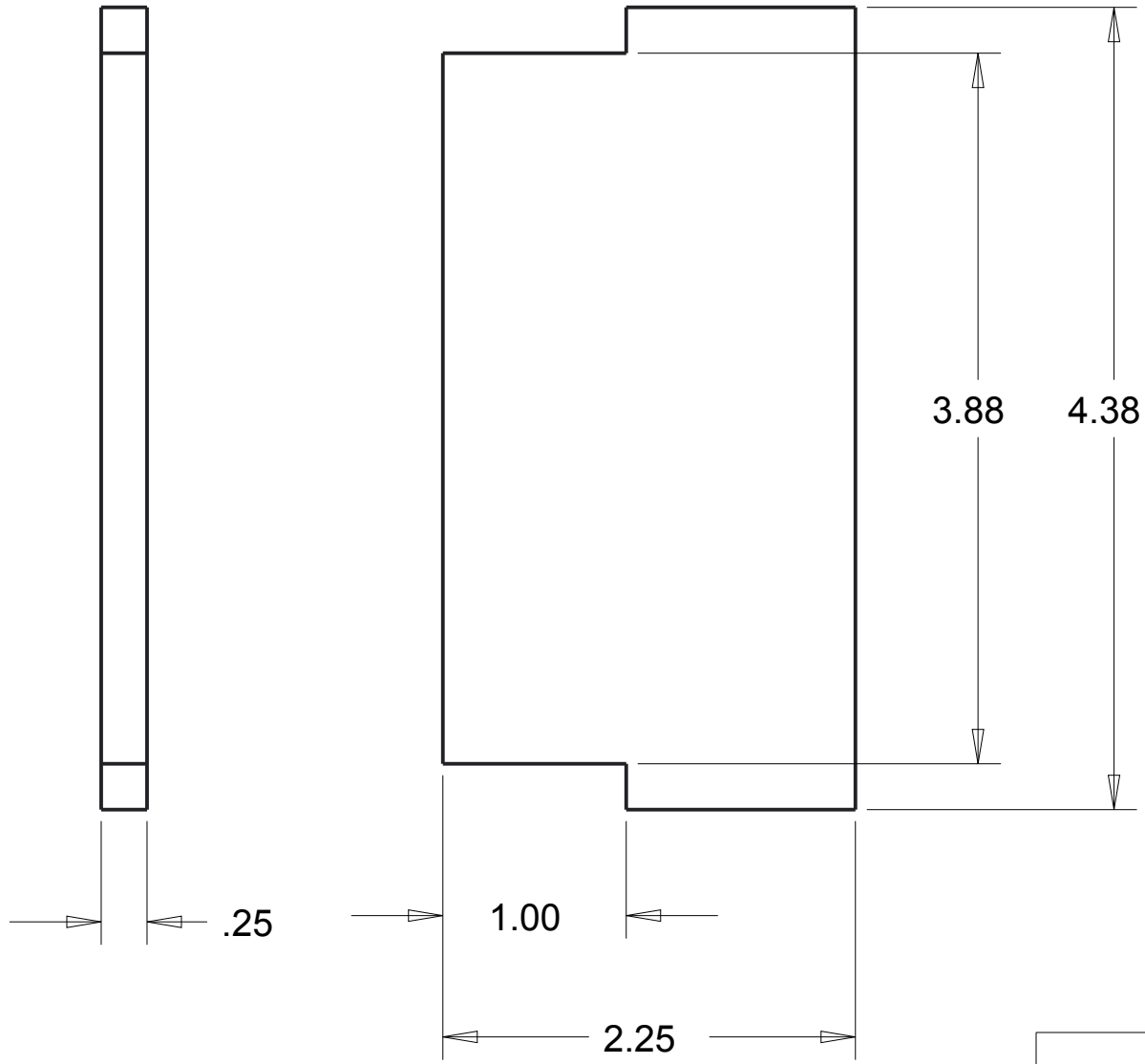
MECE E3430 Engineering Design			
<b>Channel Side Panel</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.350	INCHES SHEET 31 OF 37



Tolerance = 0.0004 in. unless specified

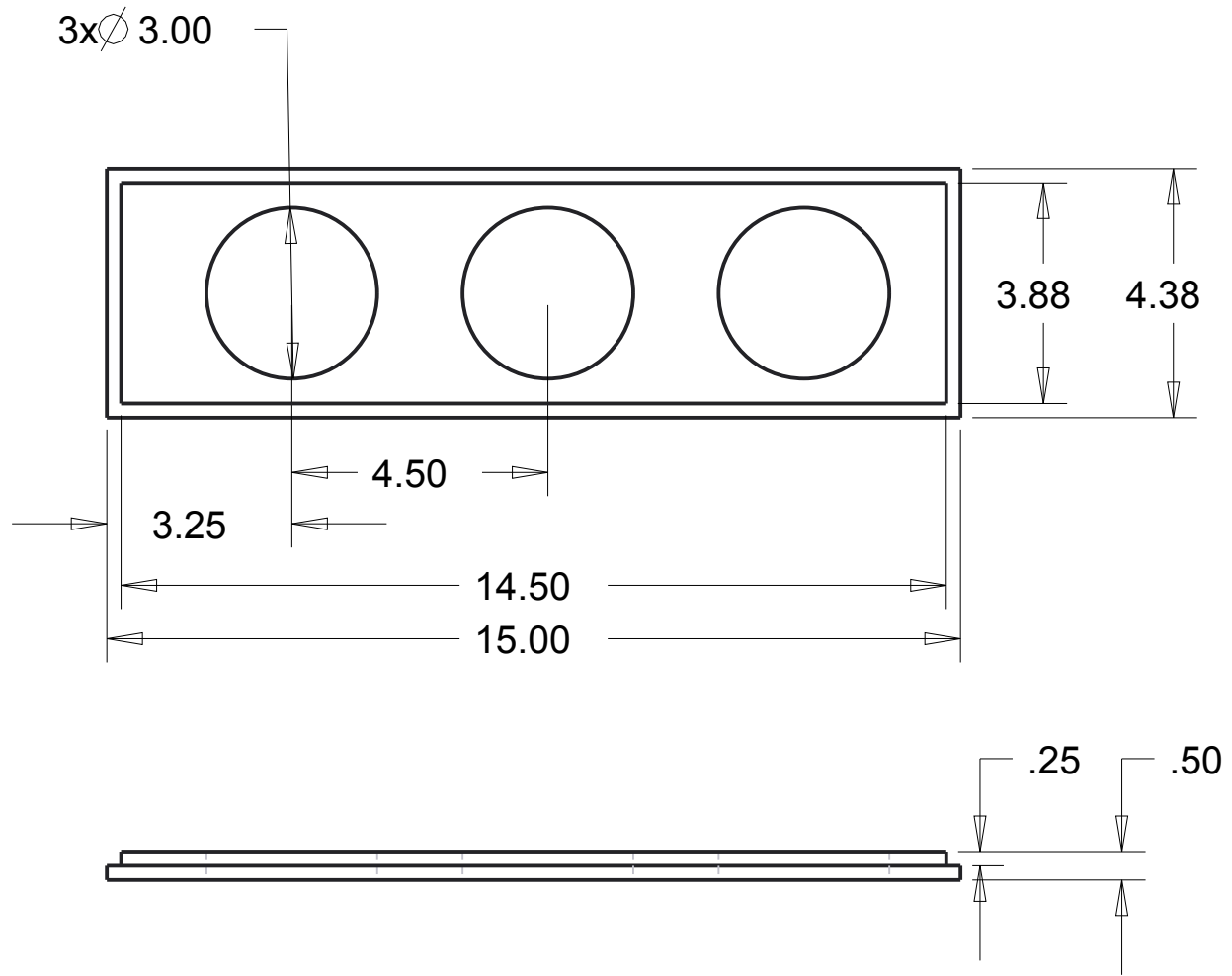
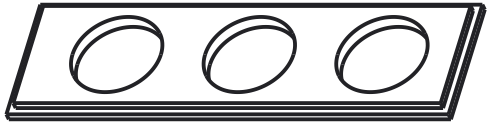
MECE E3430 Engineering Design			
<b>Channel End</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 1.000	INCHES SHEET 32 OF 37





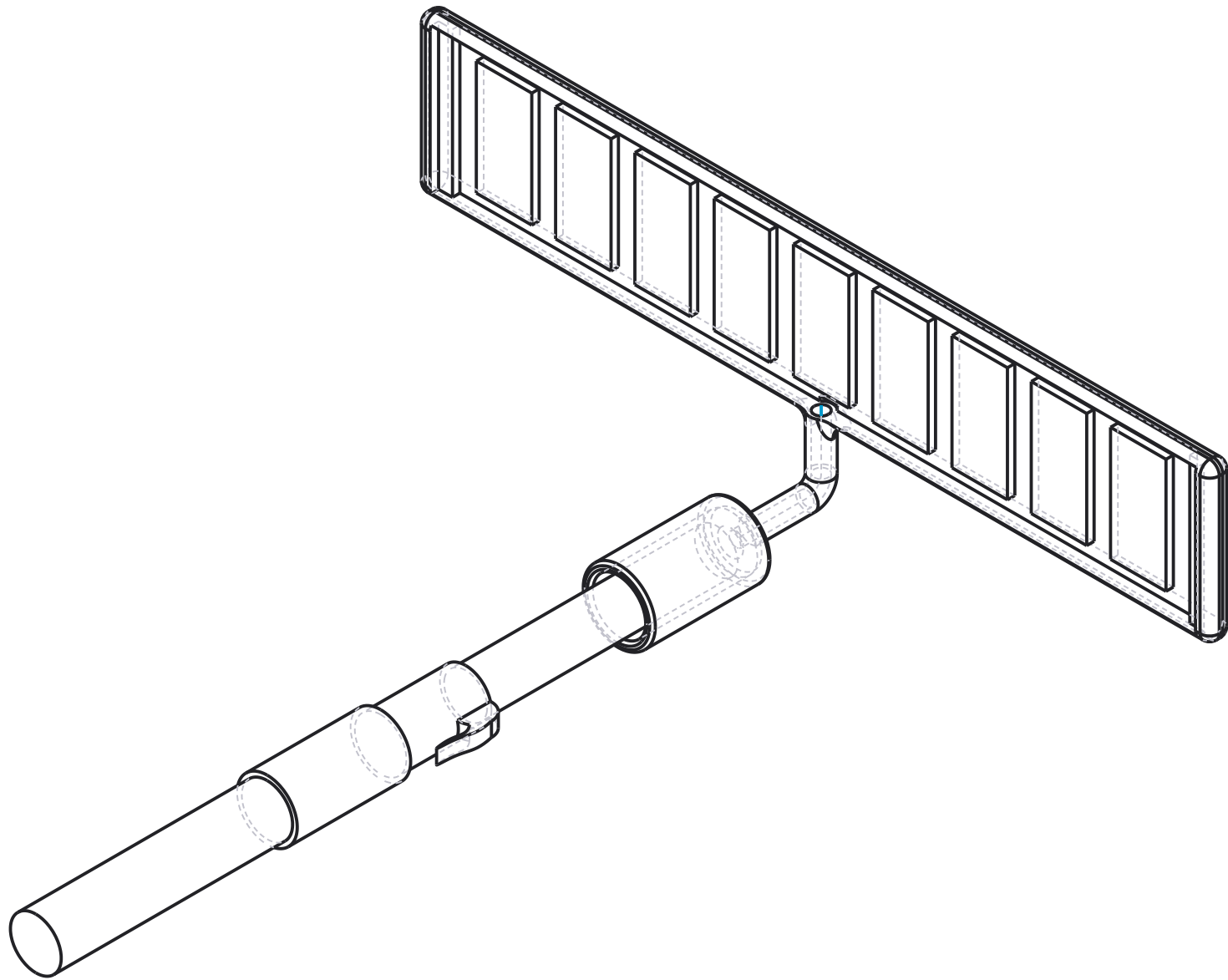
MECE E3430 Engineering Design			
<b>Channel End Outlet</b>			
<b>A</b>	Acrylic		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 1.000	INCHES SHEET 33 OF 37

Tolerance = 0.0004 in. unless specified



MECE E3430 Engineering Design			
<b>Top Channel</b>			
<b>A</b>	Acrylic	###-##	<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.300	INCHES SHEET 34 OF 37

Tolerance = 0.0004 in. unless specified



MECE E3430  
Engineering Design

# Light Assembly

A

ABS

0

Hydropotomous

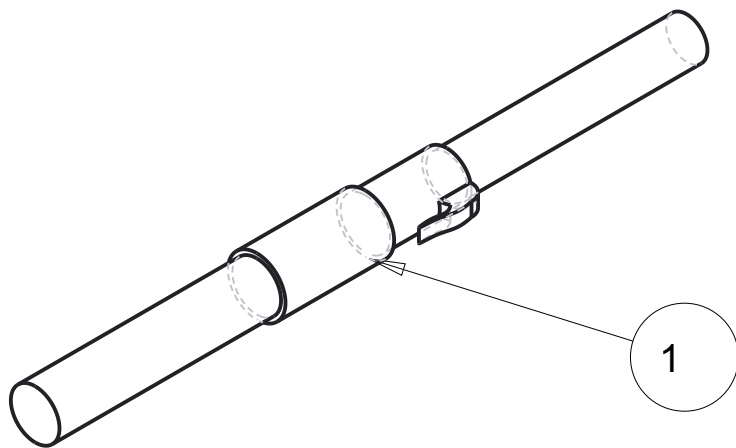
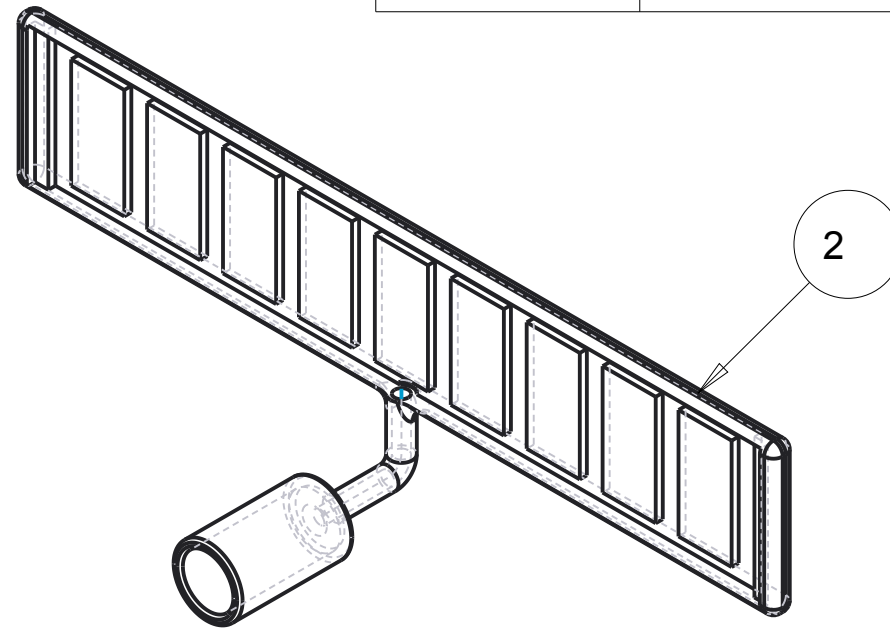
5/7/2014

SCALE: 0.500

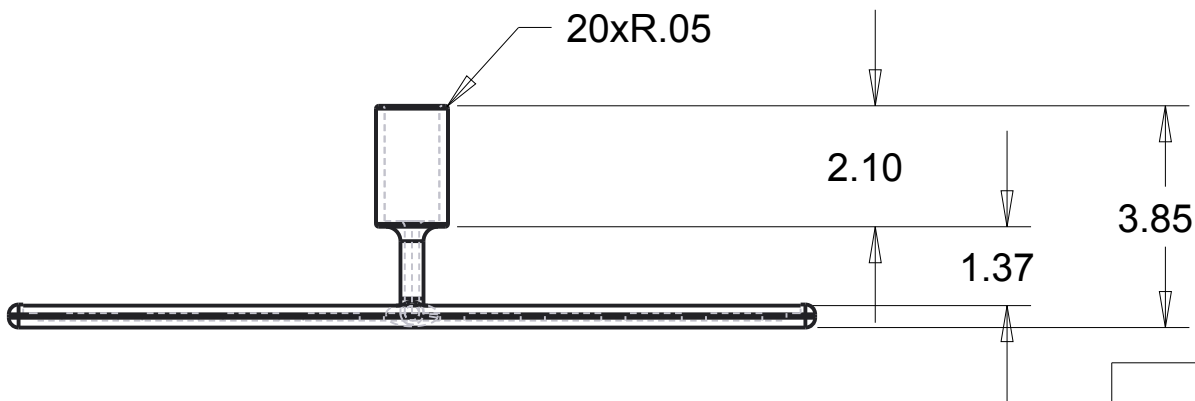
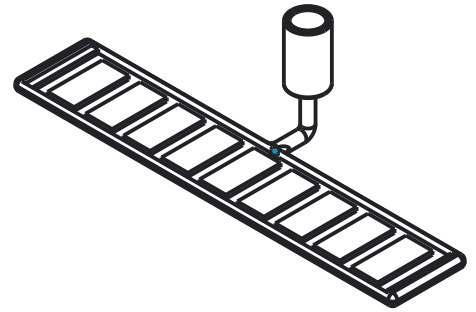
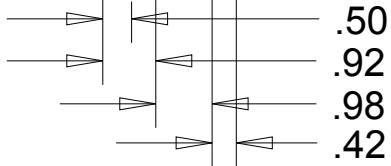
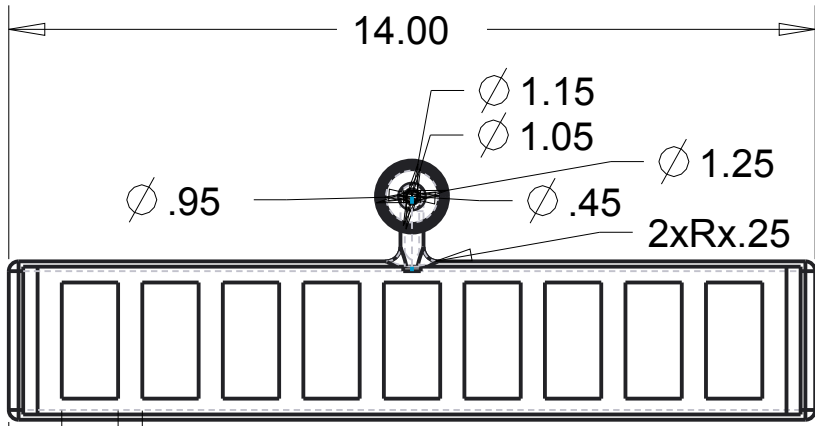
INCHES

SHEET 35 OF 37

Index	Part Name	QTY
1	CLAMP	1
2	LIGHTASSEMBLY	1



MECE E3430 Engineering Design			
<b>Exp. Light Assembly</b>			
A	ABS		0
Hydropotomous	5/7/2014	SCALE: 0.400	INCHES SHEET 36 OF 37



MECE E3430 Engineering Design			
<b>LED Light</b>			
<b>A</b>	ABS		<b>0</b>
Hydropotomous	5/7/2014	SCALE: 0.300	INCHES SHEET 37 OF 37

Tolerance = 0.0004 in. unless specified