Welding Contest Updates

Contest will be Located on NDSCS Campus – Trade Tech 2 Rm 146
Mandatory Orientation Sunday April 19th 3:00p - 5:00p
Start time Monday April 20th

- **Secondary: 7:30 am**
- **Post-Secondary 1:00 pm**

A meal ticket for lunch will be provided.

Knowledge Exam

The Welding Knowledge exam is available through the SkillsUSA Champions Hub. Exams must be taken prior to Skilled Competitions.

Clothing Requirement

SkillsUSA official Khaki work Clothing is NOT required for this contest. Students will be required to wear attire that is acceptable for the industry as long as it DOES NOT identify them personally by name or by associated school. Penalty points will be deducted for violation.

Skilled Contest updates

Welding Processes and Equipment

The welding processes used in the competition may include:

- **OAC (Oxy-Acetylene Cutting)**
- **SMAW (Shielded Metal Arc Welding)**
- **GMAW (Gas Metal Arc Welding)**
- **GTAW (Gas Tungsten Arc Welding)**

The welding machines that may be used include:

- **Miller XMT 350**
- **Lincoln Power Wave 350**
- **Lincoln 210 MP**
- **Lincoln 350 MP**
- **Lincoln 350X**

These machines are multi-process combination welding machines**.**

Filler Metals and Parameters

SMAW

- 1/8" E7018 electrode
- 1/8" E6010 electrode
- 3/32" E7018 electrode
- 3/32" E6010 electrode

GMAW

- .035 ER70S-6 wire
- Short-circuit transfer
- C25 Shielding Gas (75% Argon / 25% CO_2)

GTAW

- 3/32" ER70S-2 filler rod
- 100% Argon Shielding Gas

Oxy-Acetylene Cutting (OAC)

Contestants will lay out a plate and use Harris and Smith oxy-acetylene equipment to cut several shapes**.** These shapes will be evaluated for:

- Accuracy
- Size and placement
- Overall cut quality

Required Welding Tools

Contestants should bring the following tools:

- Welpers / side cutters
- Combination square
- Compass
- Center punch
- Soapstone or other marking tool
- Tape measure
- Calculator (optional)
- Magnet
- Hammer
- Plier or Vise Grip

Required Personal Protective Equipment (PPE)

All contestants must wear proper PPE while working in the welding lab. The following items are required:

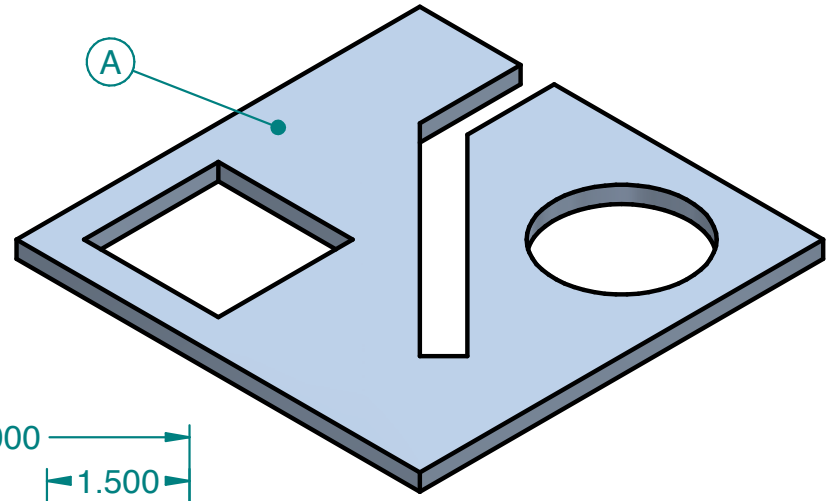
- Welding helmet with appropriate shade lens
- Safety glasses with side shields (must be worn at all times in the shop)
- Welding gloves
- Long sleeve cotton or flame-resistant shirt
- Long pants (cotton or denim, no synthetic materials)
- Leather work boots or safety toe boots (no open-toe shoes or tennis shoes)
- Hearing protection (recommended)

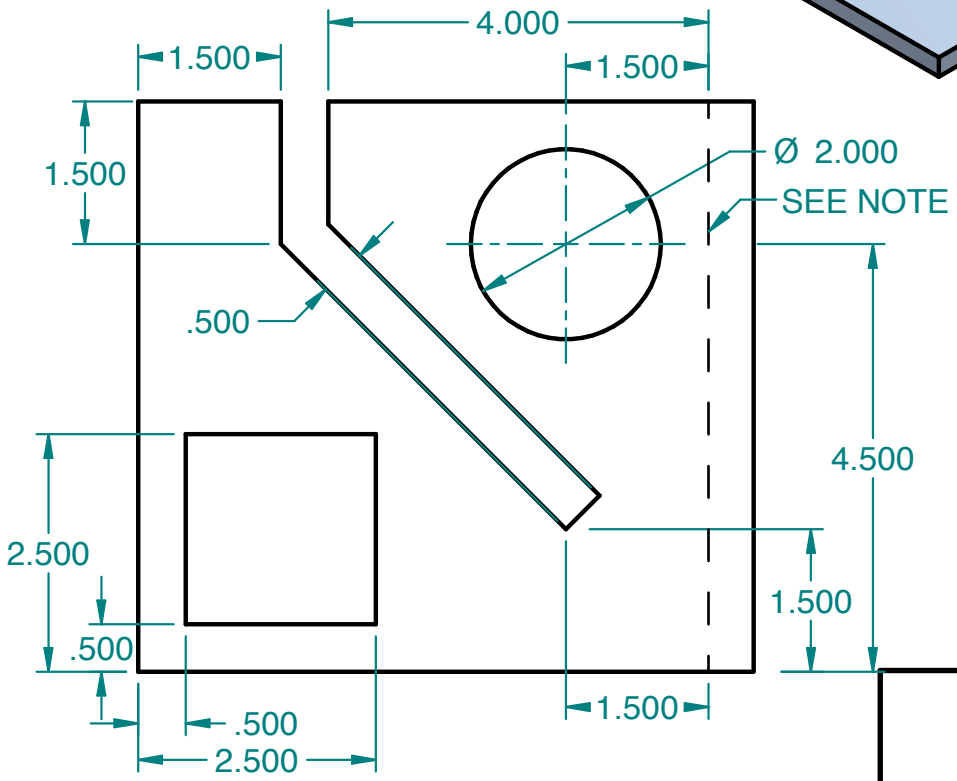
Additional PPE for Oxy-Acetylene Cutting (OAC)

- Shaded face shield or Welding helmet with cutting mode
- Safety glasses with side shields must still be worn underneath

Failure to wear proper PPE may result in **point deductions or disqualification**.

Drawing Preview will be posted on Monday, March 30th. Please check back to the updates page.





Item	Qty.	Description
A	1	0.25 x 6 x 6.5

ALL PROCESSES TO BE COMPLETED WITH THE MATERIALS PROVIDED

NOTE: PERFORM A SQUARE CUT ALONG DASHED LINE

SkillsUSA

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

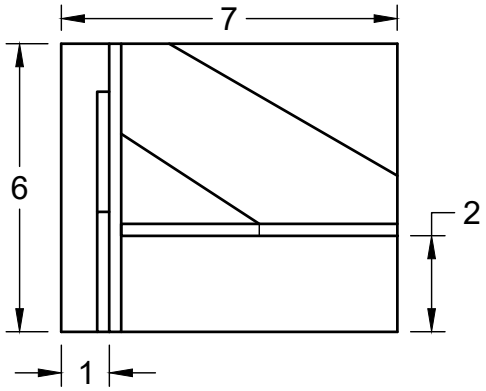
SkillsUSA Welding Contest

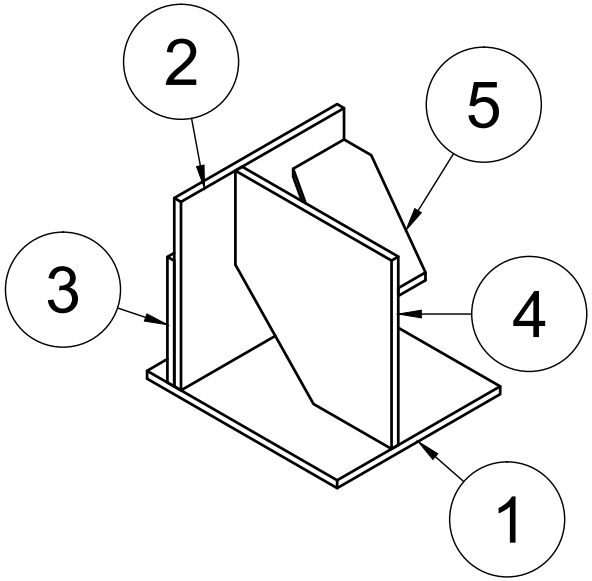
TITLE

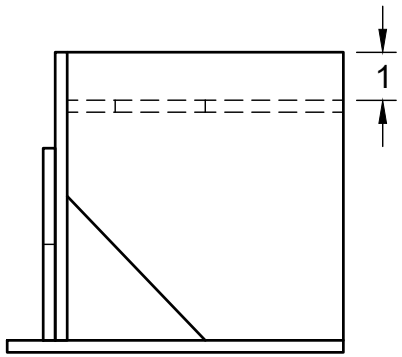
PAC or OFC

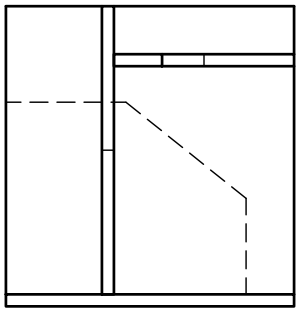
SIZE **A**

SHEET 1 OF 1









PART	DESCRIPTION	QTY
1	.25X6X7	1
2	.25X6X6	1
3	.25X4X5	1
4	.25X5.75X6	1
5	.25X3.75X5.75	1

UNLESS OTHERWISE SPECIFIED DIMENTIONS ARE IN INCHES

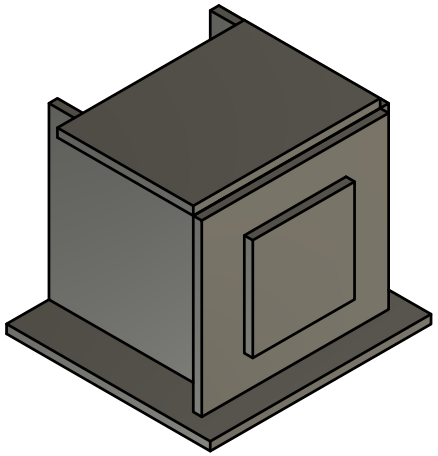
PROJECT

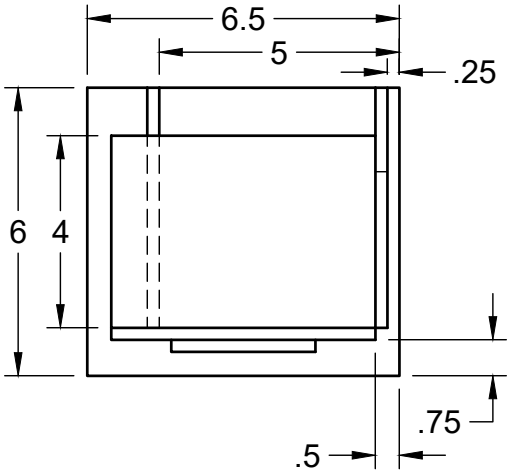
Skills USA Welding Contest

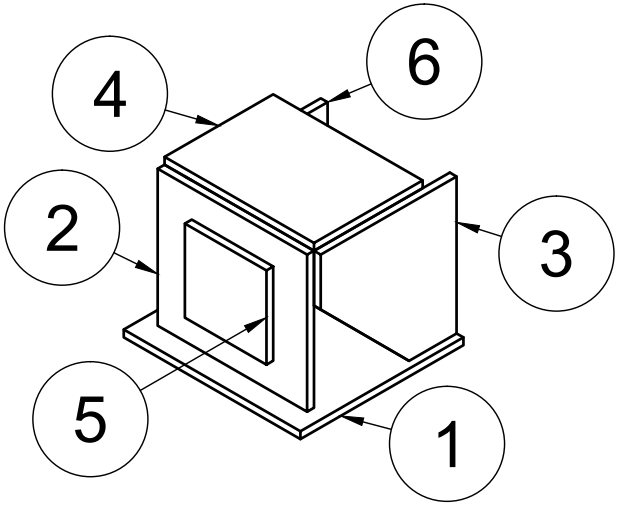
TITLE

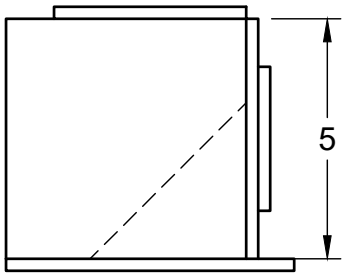
SKILLS ND SMAW

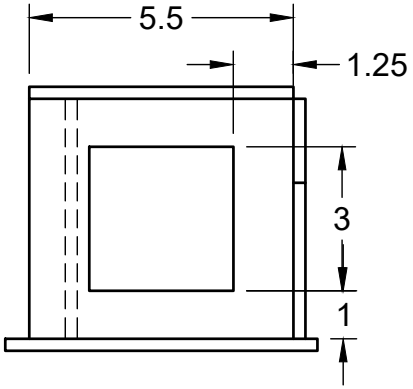
SIZE			REV
A			
SCALE 1:4		SHEET 1/1	

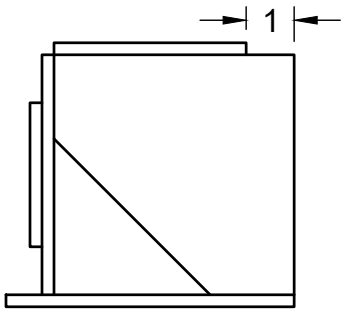








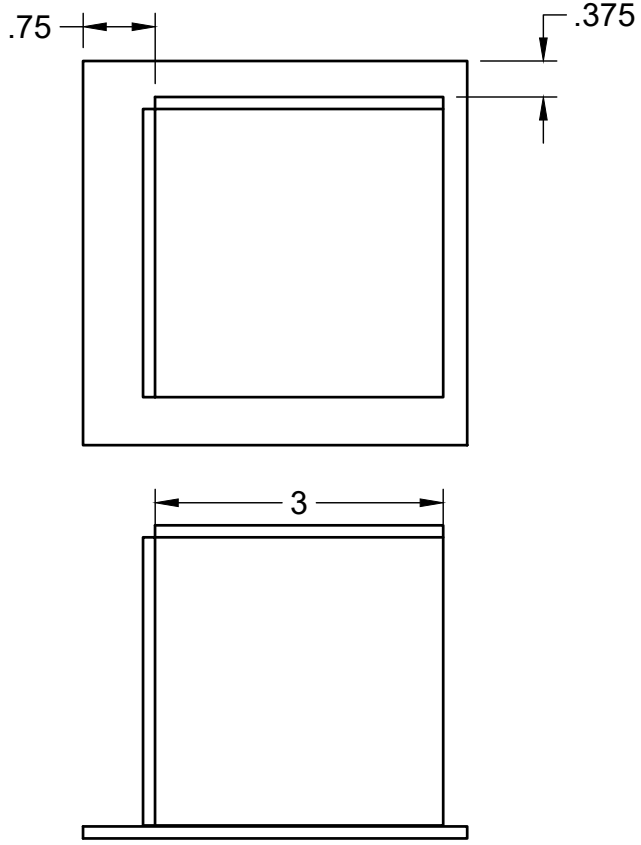


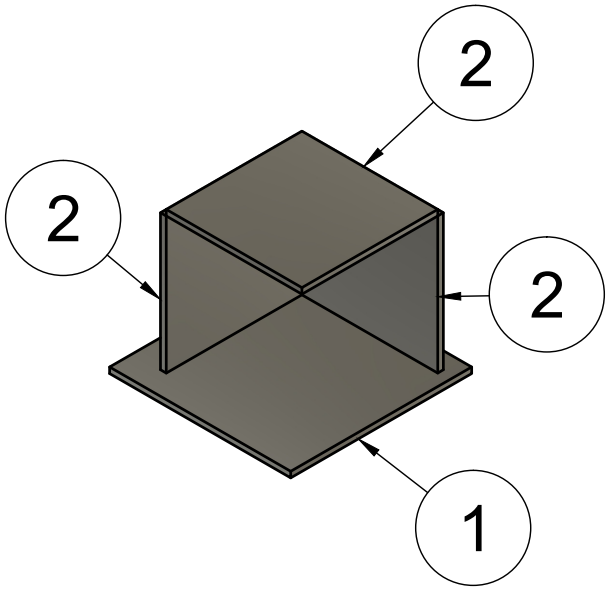


ITEM	QTY	DESCRIPTION
1	1	.25X6X6.5
2	1	.25X5X5.5
3	1	.25X5X5
4	1	.25X4X5.5
5	1	.25X3X3
6	1	.25X5X5

Parts List

SKILLS USA	**SKILLS ND WELDING CONTEST**
	TITLE: **SKILLS ND GMAW-S**
UNLESS OTHERWISE SPECIFIED DIMENTIONS ARE IN INCHES	SIZE **A**
	SHEET 1 OF 1





SKILLS USA

ITEM	QTY	DESCRIPTION
1	1	.125X4X4
2	3	.125X3X3

PARTS LIST

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

PROJECT
Skills USA Welding Contest

TITLE
SKILLS ND GTAW

SIZE
A

SHEET 1/1