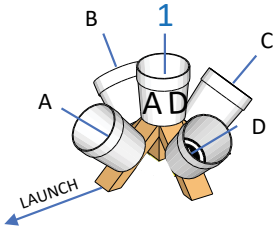
**Standard Test Methods for Small Unmanned Aircraft Systems**
ASTM International Standards Committee on Homeland Security Applications;
Response Robots (E54.09) | Website: RobotTestMethods.nist.gov

ASTM INTERNATIONAL

# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

## TOP BUCKET <u>INTERIOR BOTTOM</u>

ORIENTED TO READ LETTER UPRIGHT WHILE OVER LANDING



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

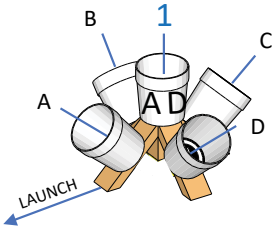
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

# 1

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

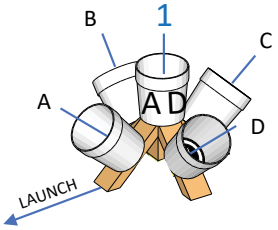
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

# 1

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

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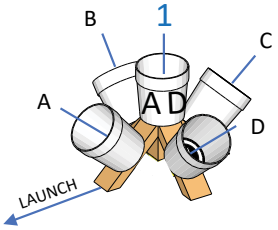
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

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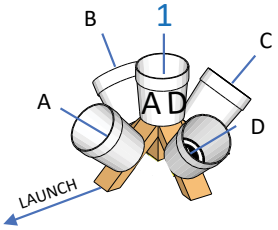
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

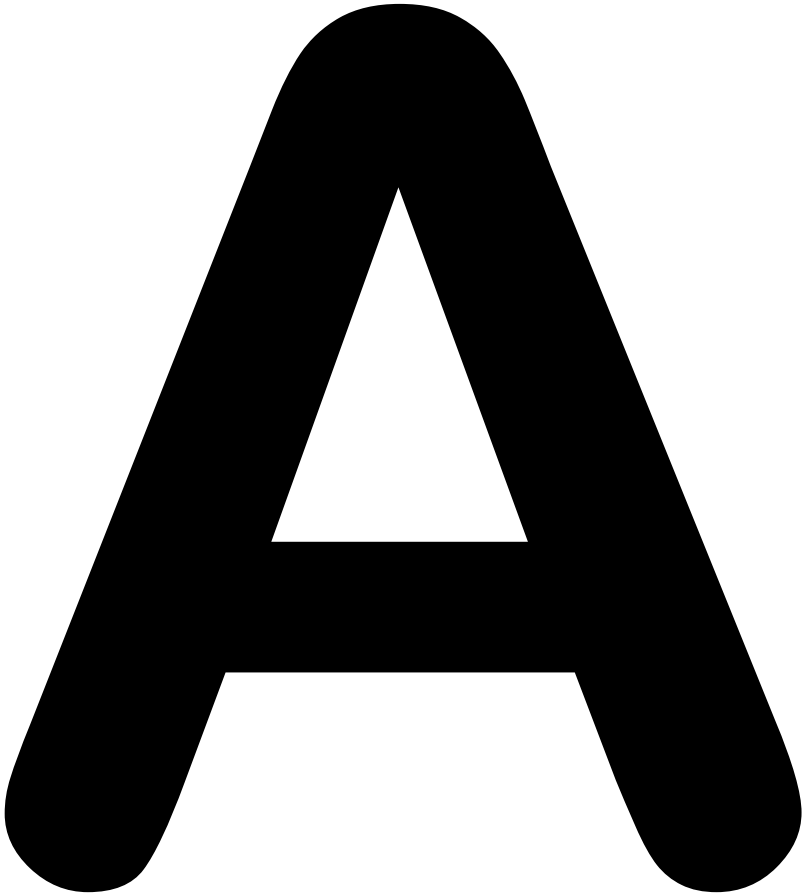
## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

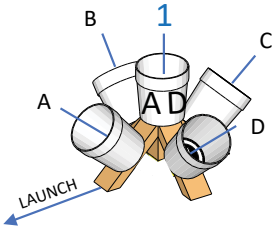
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS




TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET NEAR EXTERIOR SIDE

UPRIGHT WITH THE BUCKET SO CAN BE SEEN FROM LANDING
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

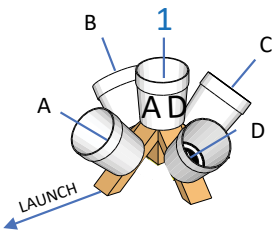
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

# B

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

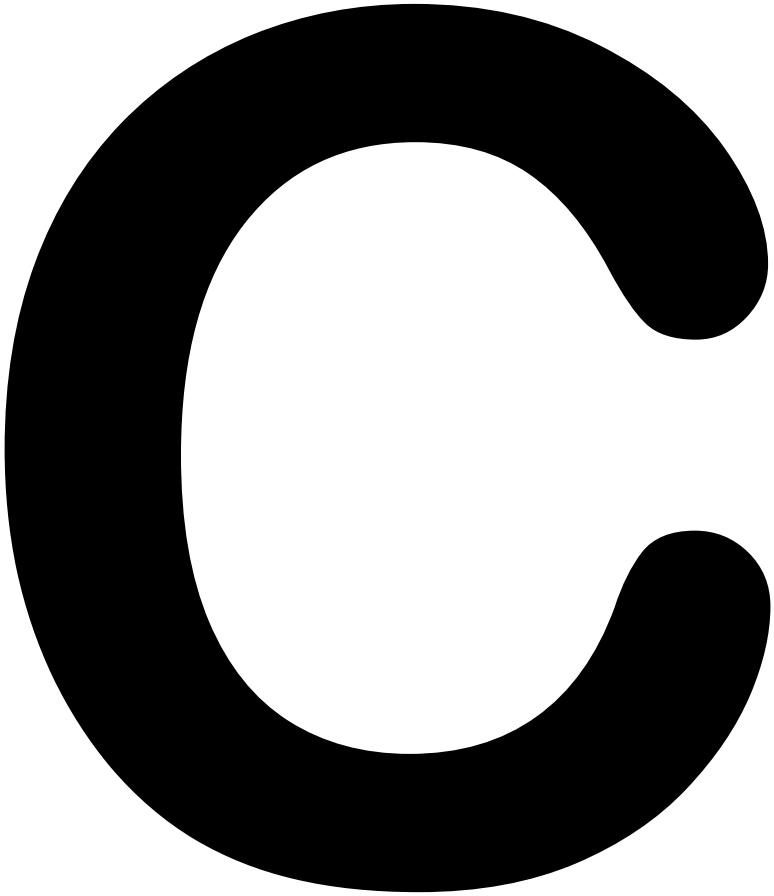
## TOP BUCKET LEFT EXTERIOR SIDE

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

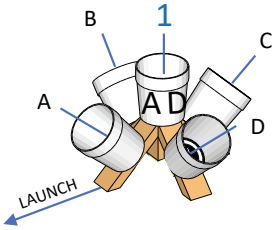
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS




TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET FAR EXTERIOR SIDE

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

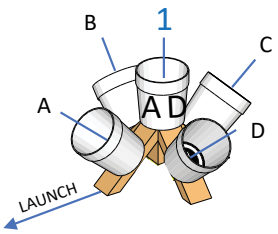
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

# D

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

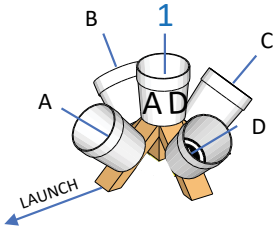
## TOP BUCKET RIGHT EXTERIOR SIDE

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



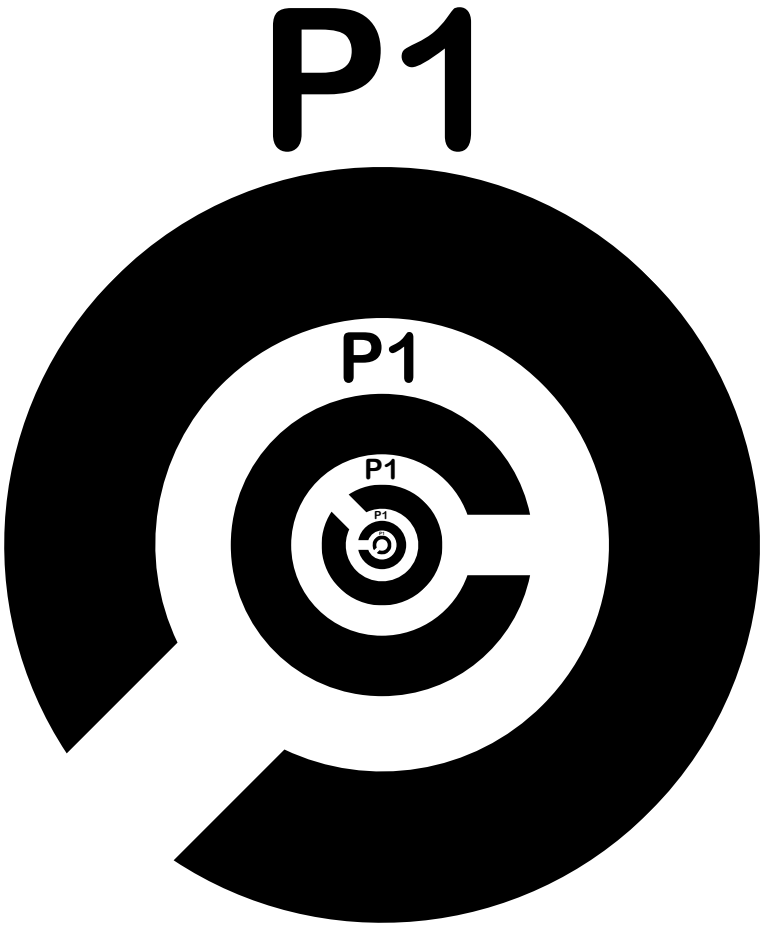
# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

## NEAR ANGLED BUCKET <u>INTERIOR BOTTOM</u>
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS



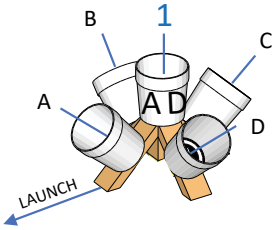

2020B

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## "A" BUCKET INTERIOR TOP SIDE

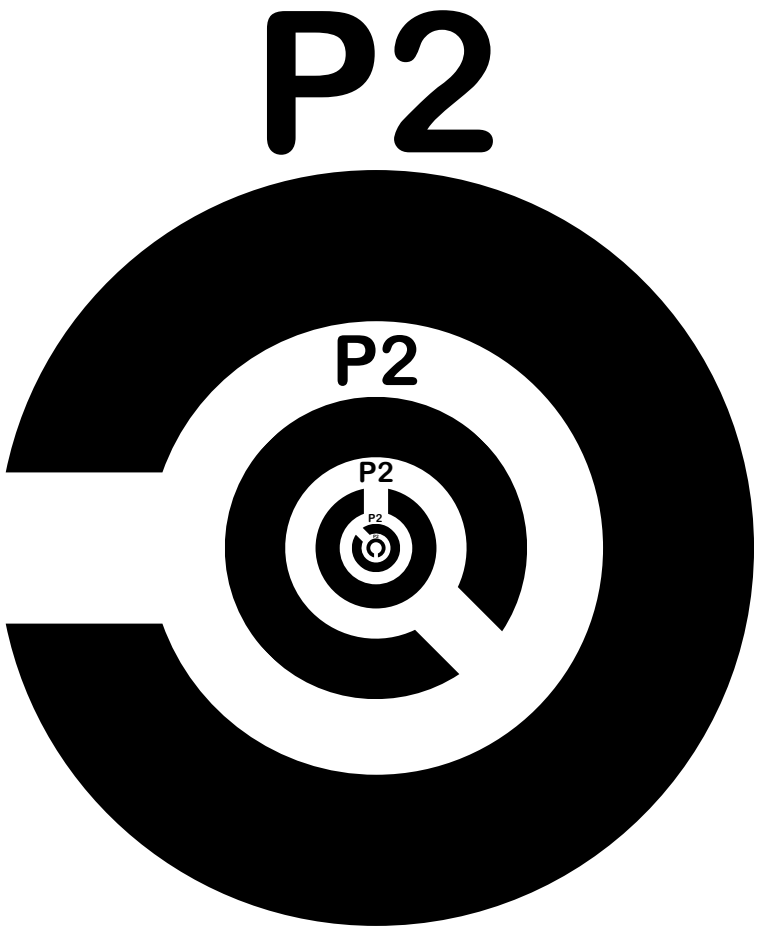
FACING LANDING

Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS



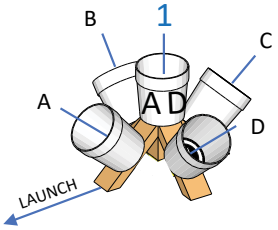

2020B

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

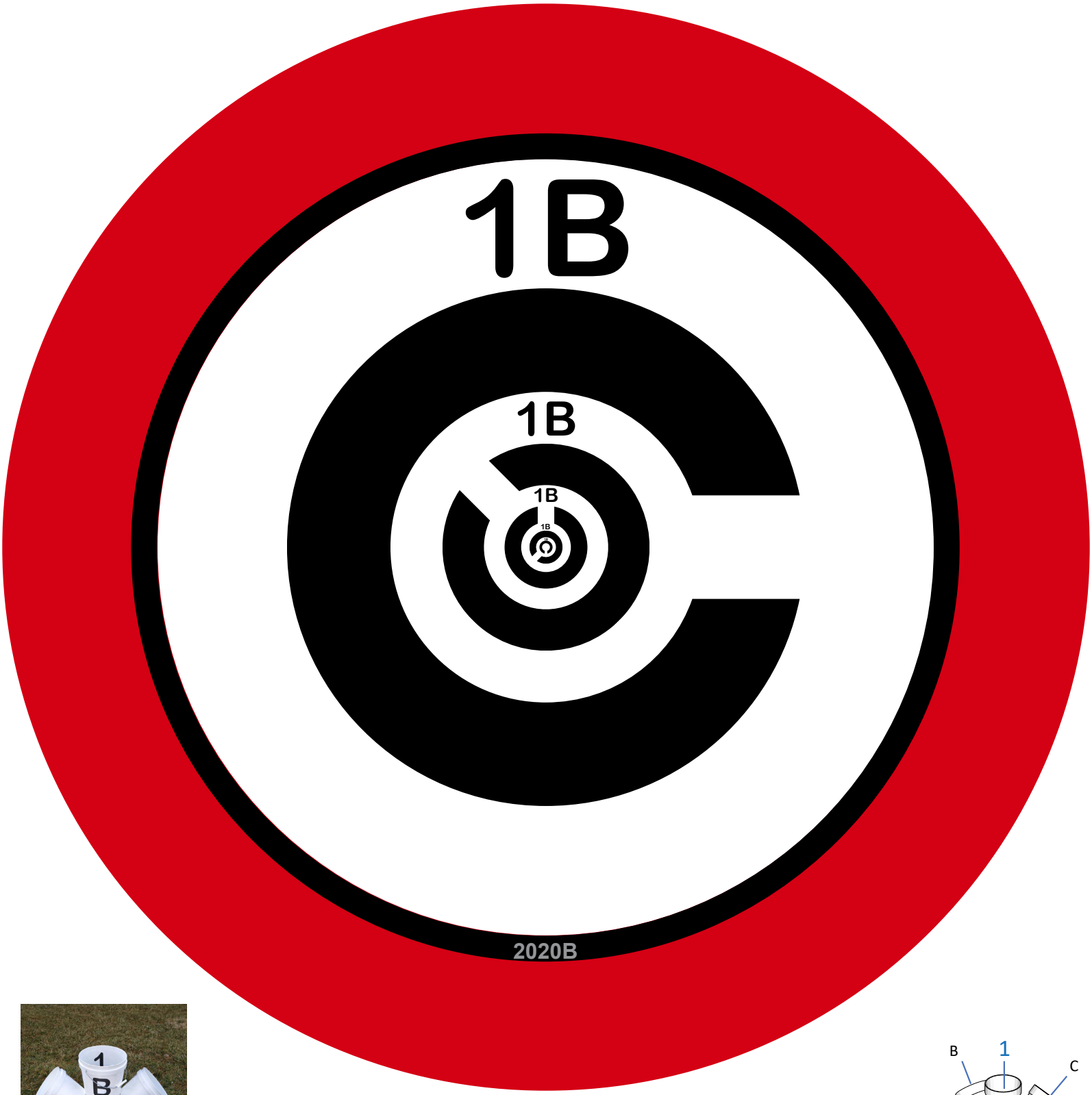
## "A" BUCKET EXTERIOR UNDERNEATH SIDE

FACING LANDING

Trim as indicated. Justify to top of bucket.

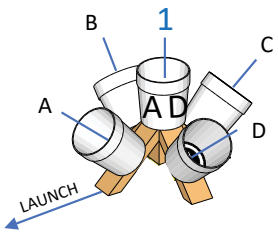


# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)



## LEFT ANGLED BUCKET <u>INTERIOR BOTTOM</u>

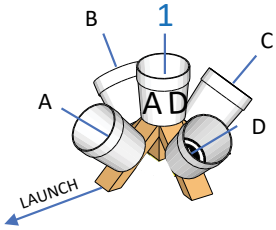
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

## FAR ANGLED BUCKET INTERIOR BOTTOM

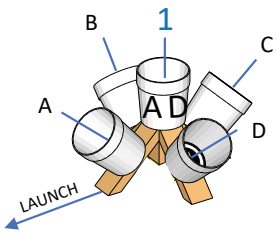
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

## RIGHT ANGLED BUCKET <u>INTERIOR BOTTOM</u>

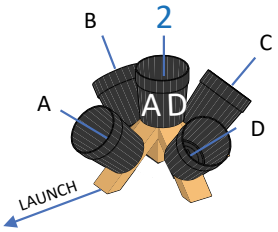
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED



# OPEN LANES AND SCENARIOS, Black and White
**(Black Bucket)**

## TOP BUCKET <u>INTERIOR BOTTOM</u>

ORIENTED TO READ LETTER UPRIGHT WHEN IN FRONT OF BUCKET A



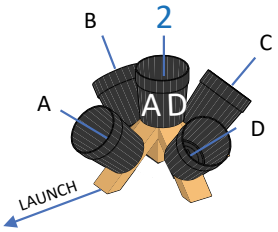
# OPEN LANES AND SCENARIOS, Black and White
**(Black Bucket)**

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



National Institute of Standards and Technology
U.S. Department of Commerce
Compiled
2021-10-14 14:22

# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
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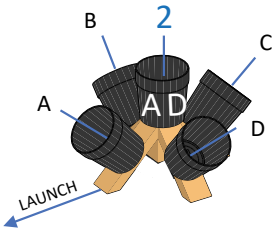

# OPEN LANES AND SCENARIOS, Black and White
**(Black Bucket)**

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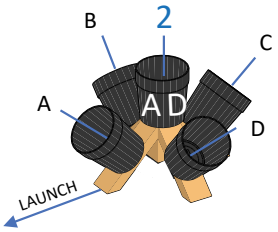

# OPEN LANES AND SCENARIOS, Black and White
**(Black Bucket)**

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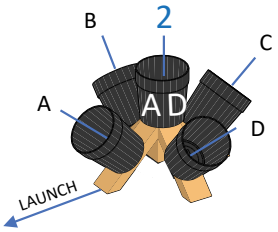


National Institute of Standards and Technology
U.S. Department of Commerce
Compiled
2021-10-14 14:22

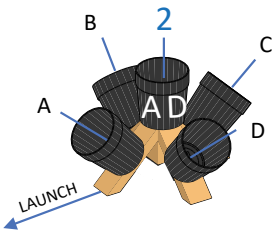
# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET NEAR EXTERIOR SIDE

UPRIGHT WITH THE BUCKET POINTING TOWARDS LANDING
Trim as indicated. Justify to top of bucket.

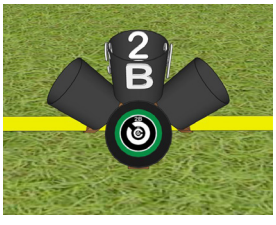


# OPEN LANES AND SCENARIOS, Black and White
**(Black Bucket)**

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

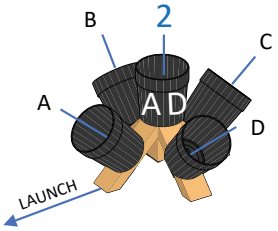
B

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS




## TOP BUCKET LEFT EXTERIOR SIDE

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.

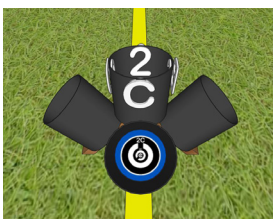


# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

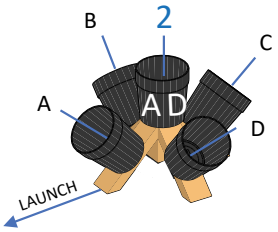
C

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS



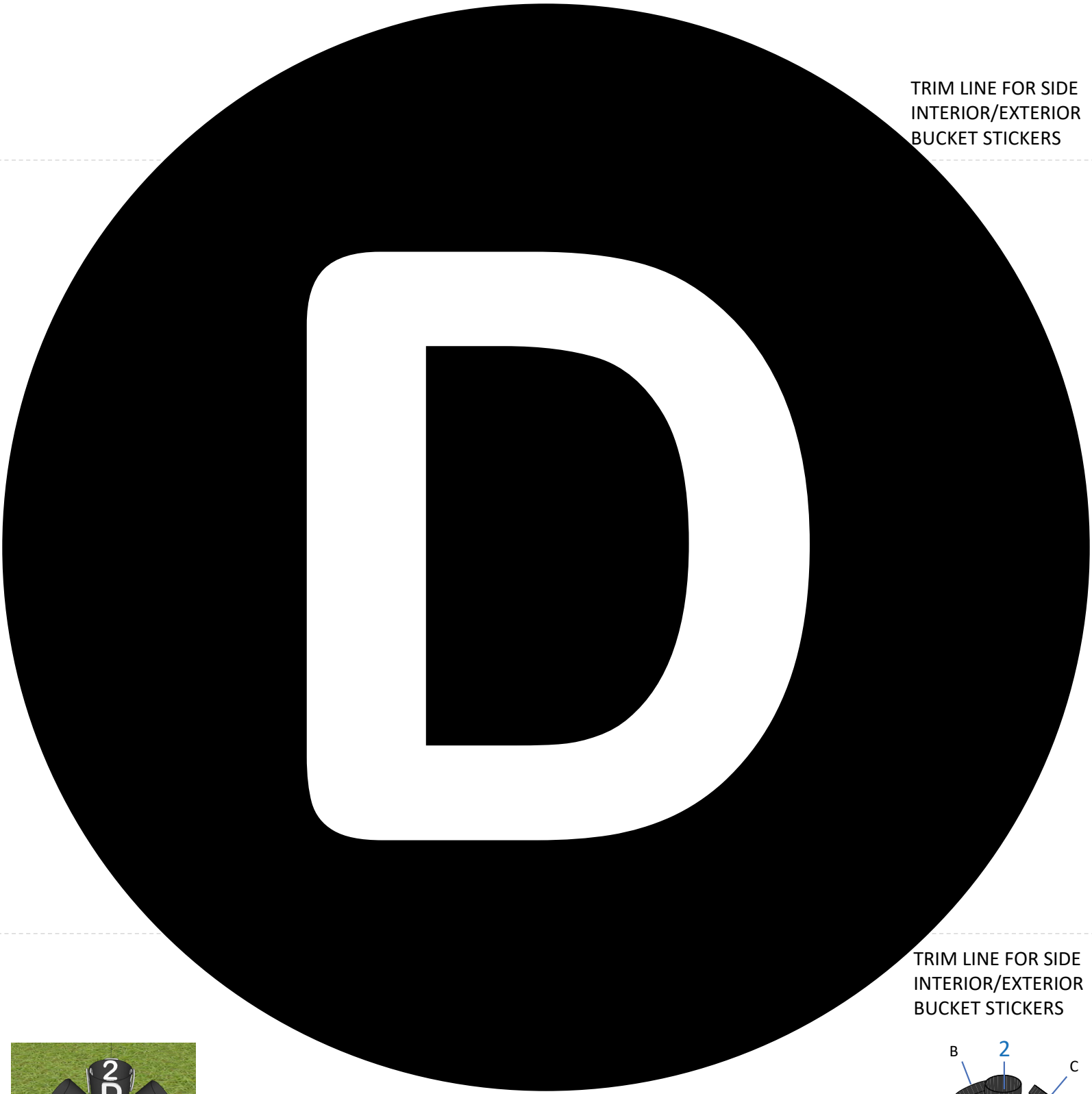

## TOP BUCKET FAR EXTERIOR SIDE

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.

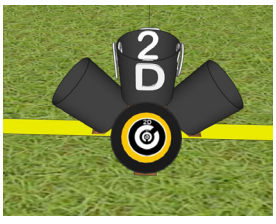


# OPEN LANES AND SCENARIOS, Black and White
**(Black Bucket)**

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

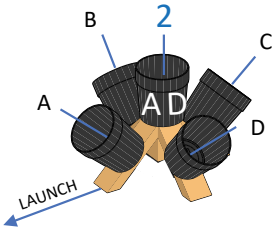



TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

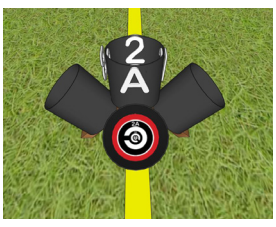



## TOP BUCKET RIGHT EXTERIOR SIDE

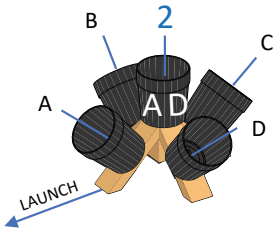
UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



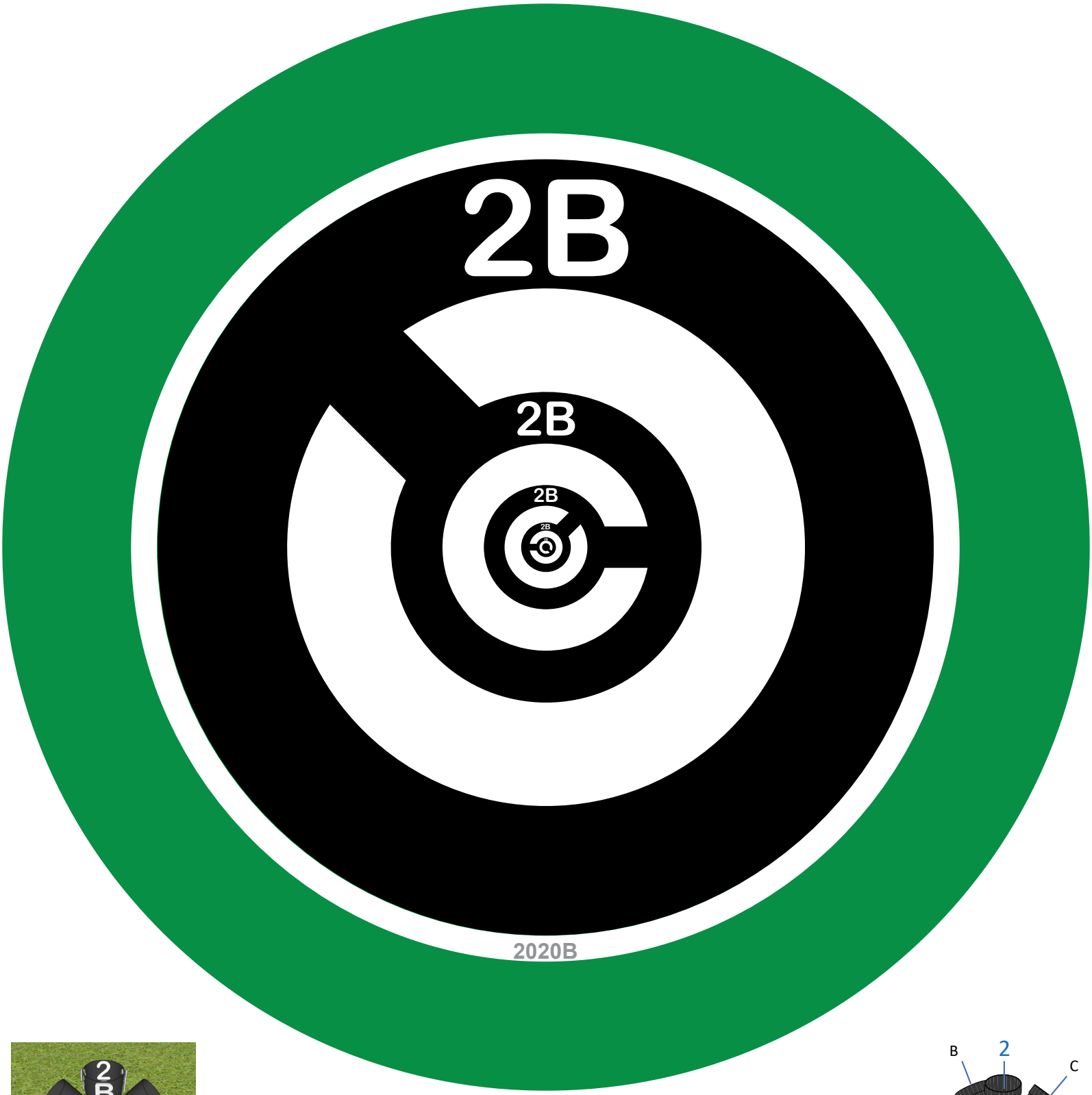
# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)

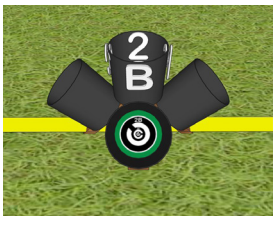



## NEAR ANGLED BUCKET <u>INTERIOR BOTTOM</u>
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED

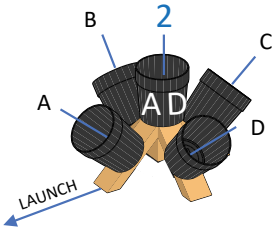


# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)

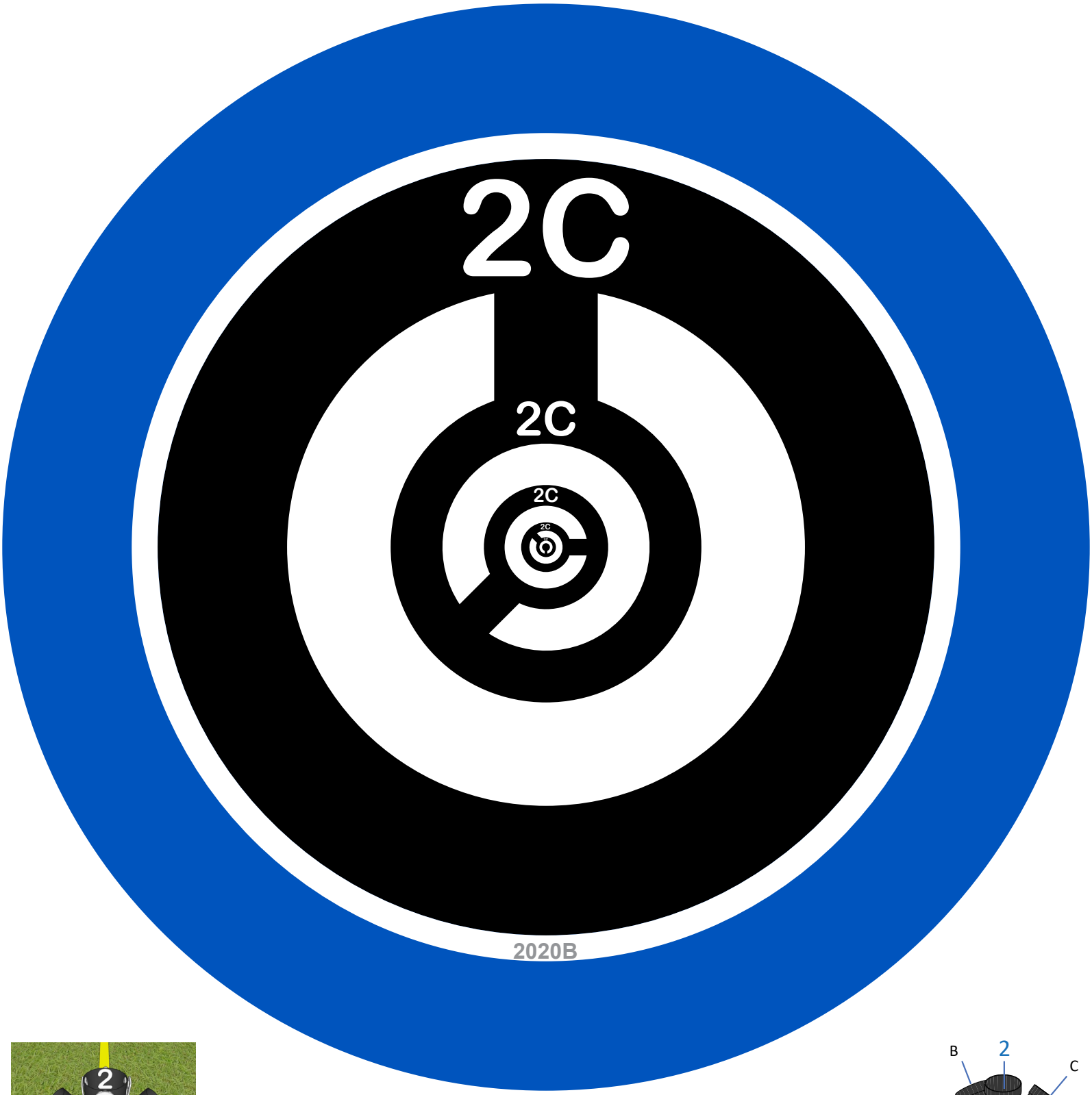


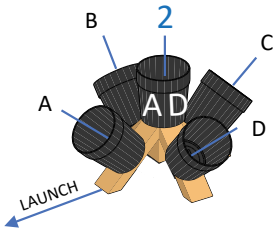

## LEFT ANGLED BUCKET <u>INTERIOR BOTTOM</u>
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED



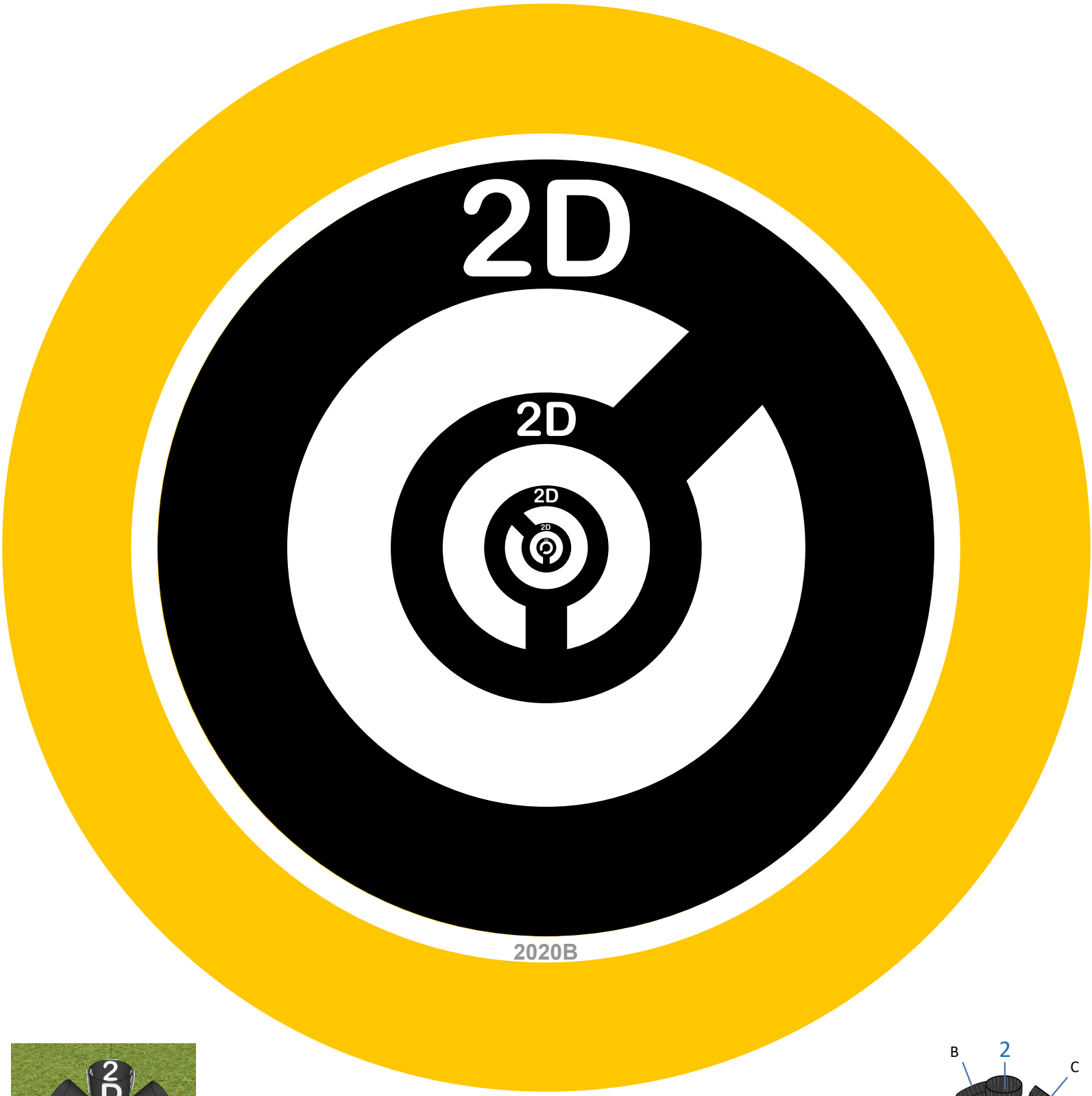
# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)

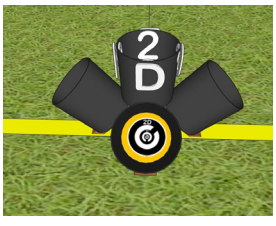


**FAR ANGLED BUCKET <u>INTERIOR BOTTOM</u>**
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED

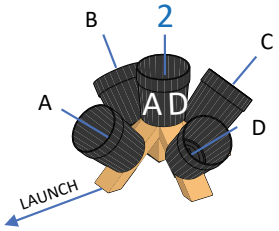


# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)



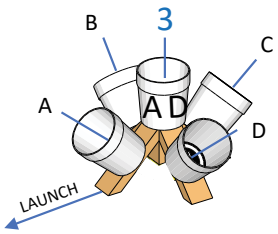

## RIGHT ANGLED BUCKET <u>INTERIOR BOTTOM</u>
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

## TOP BUCKET <u>INTERIOR BOTTOM</u>

ORIENTED TO READ LETTER UPRIGHT OVER LANDING



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

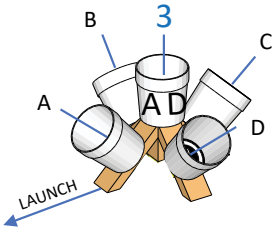
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

# 3

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

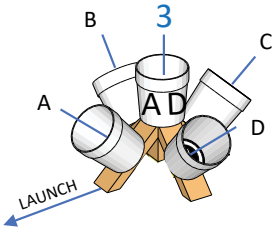
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

# 3

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

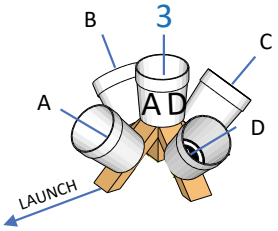
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

# 3

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

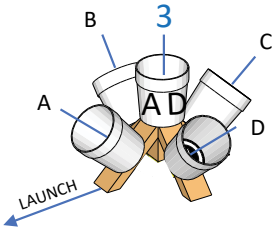
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

# 3

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

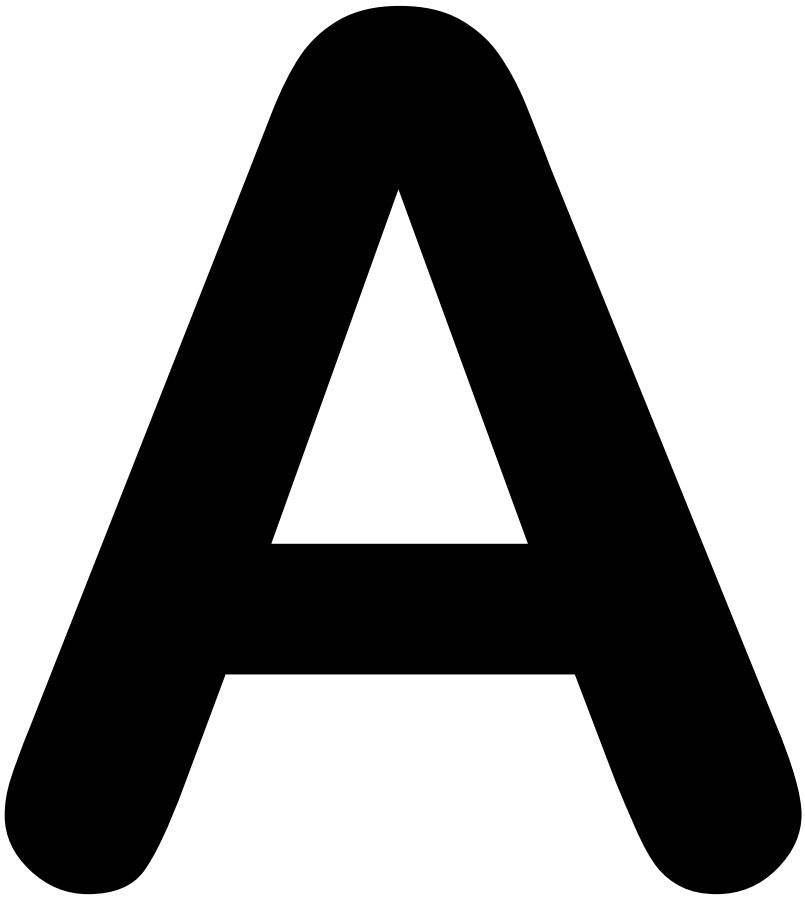
## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

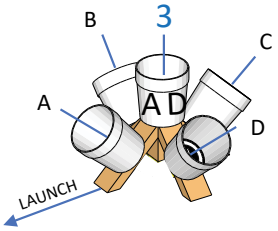
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS




TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET NEAR EXTERIOR SIDE

UPRIGHT WITH THE BUCKET SO CAN BE SEEN FROM LANDING
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

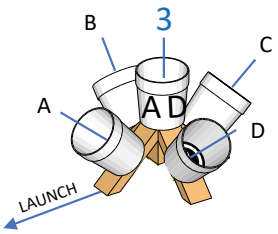
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

# B

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

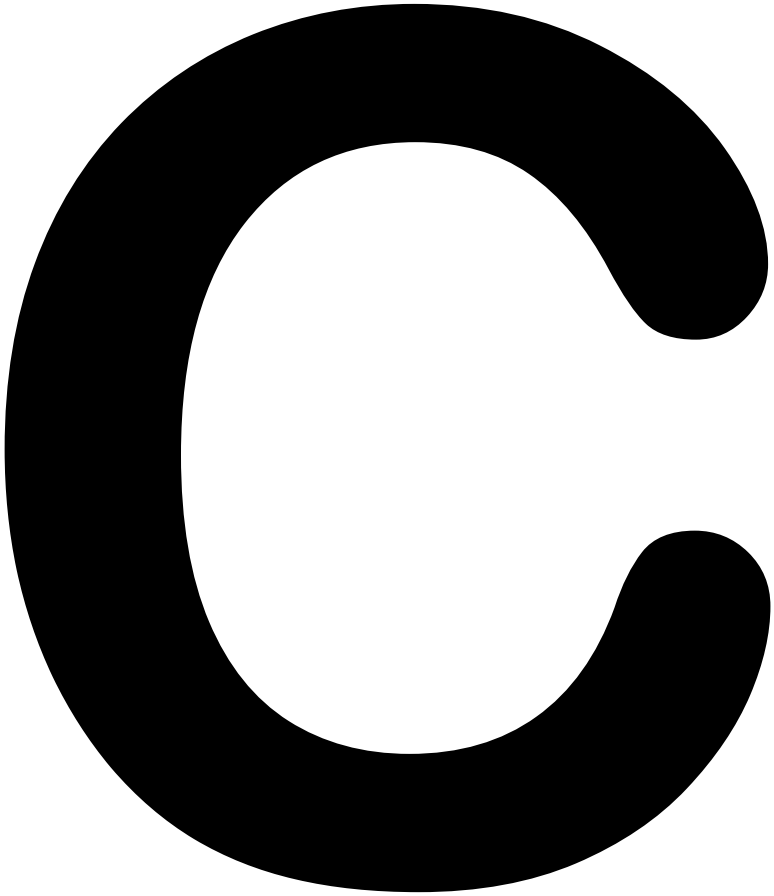
## TOP BUCKET LEFT EXTERIOR SIDE

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

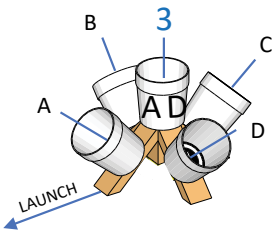
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS




TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET FAR EXTERIOR SIDE

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)

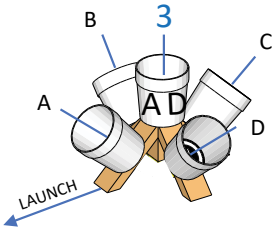
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

D

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET RIGHT EXTERIOR SIDE

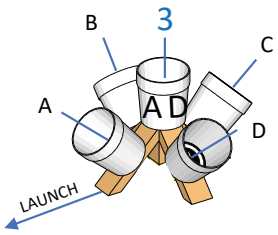
UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



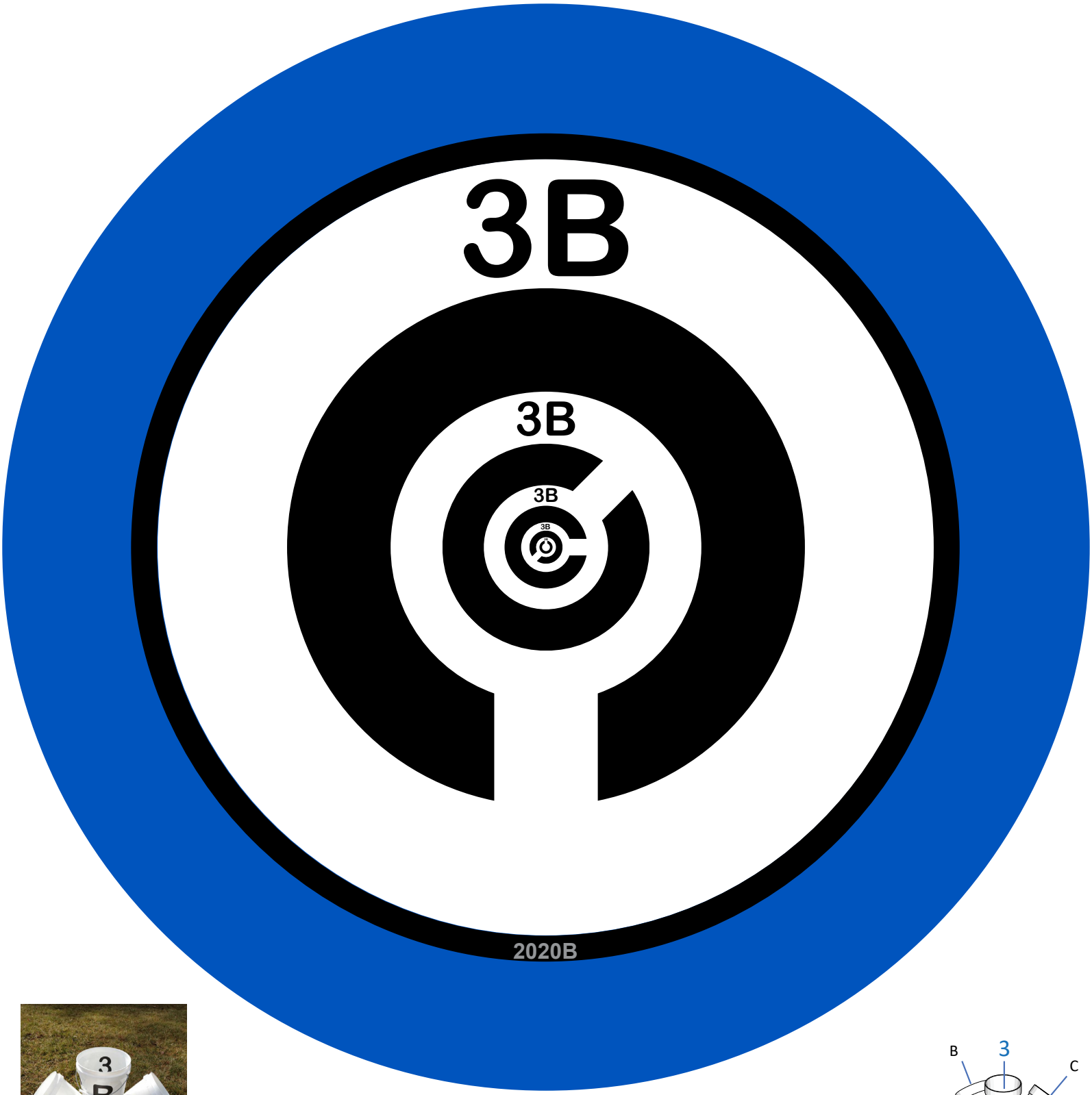
# OPEN LANES AND SCENARIOS, Black and White
**(White Bucket)**

## NEAR ANGLED BUCKET <u>INTERIOR BOTTOM</u>

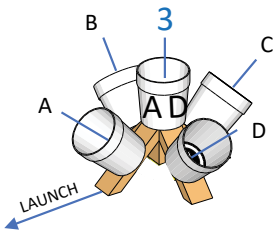
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED



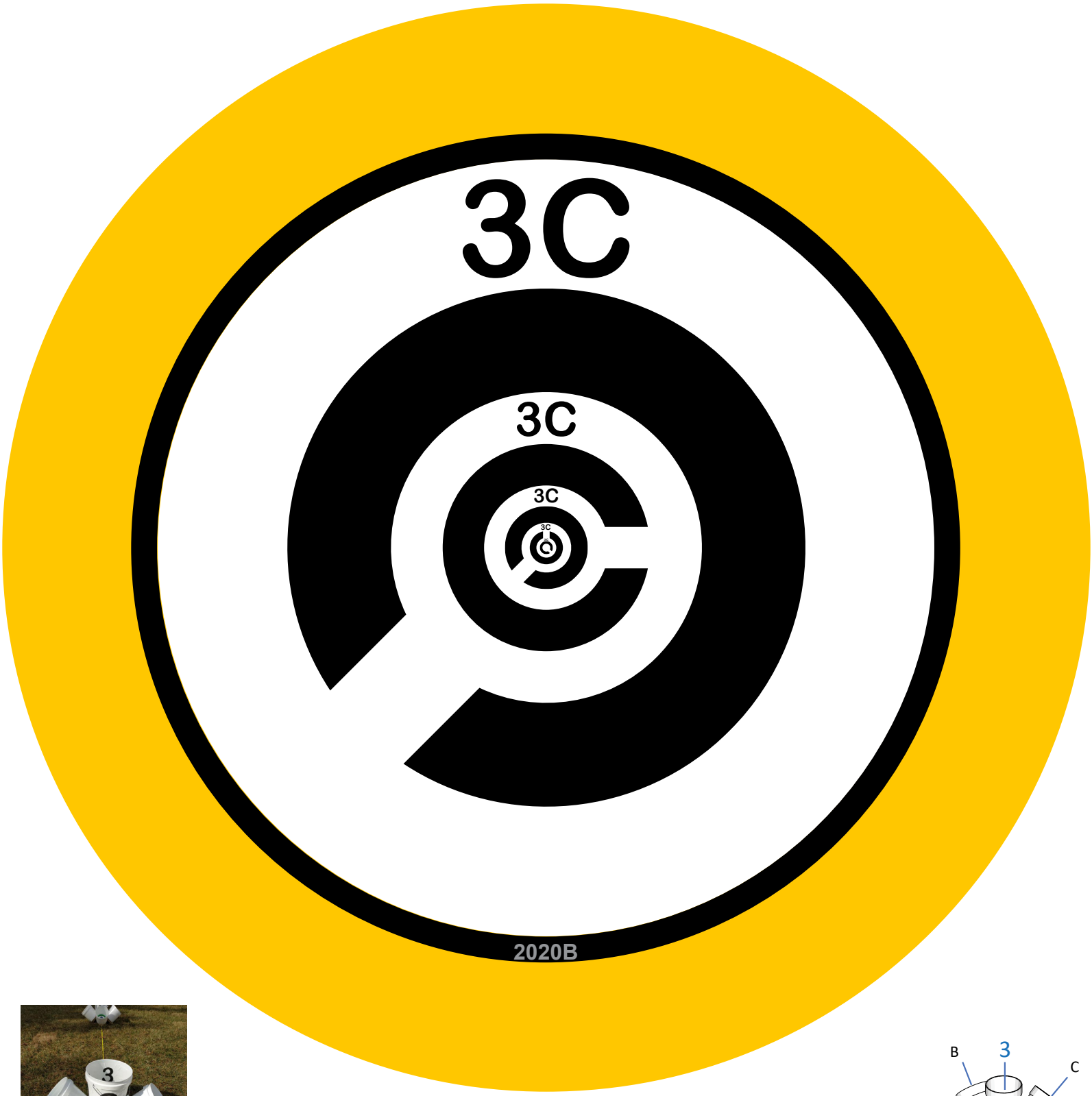
# OPEN LANES AND SCENARIOS, Black and White
**(White Bucket)**



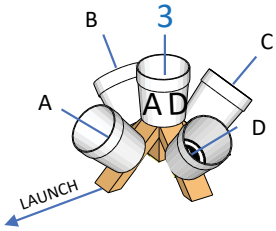
## LEFT ANGLED BUCKET <u>INTERIOR BOTTOM</u>
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED



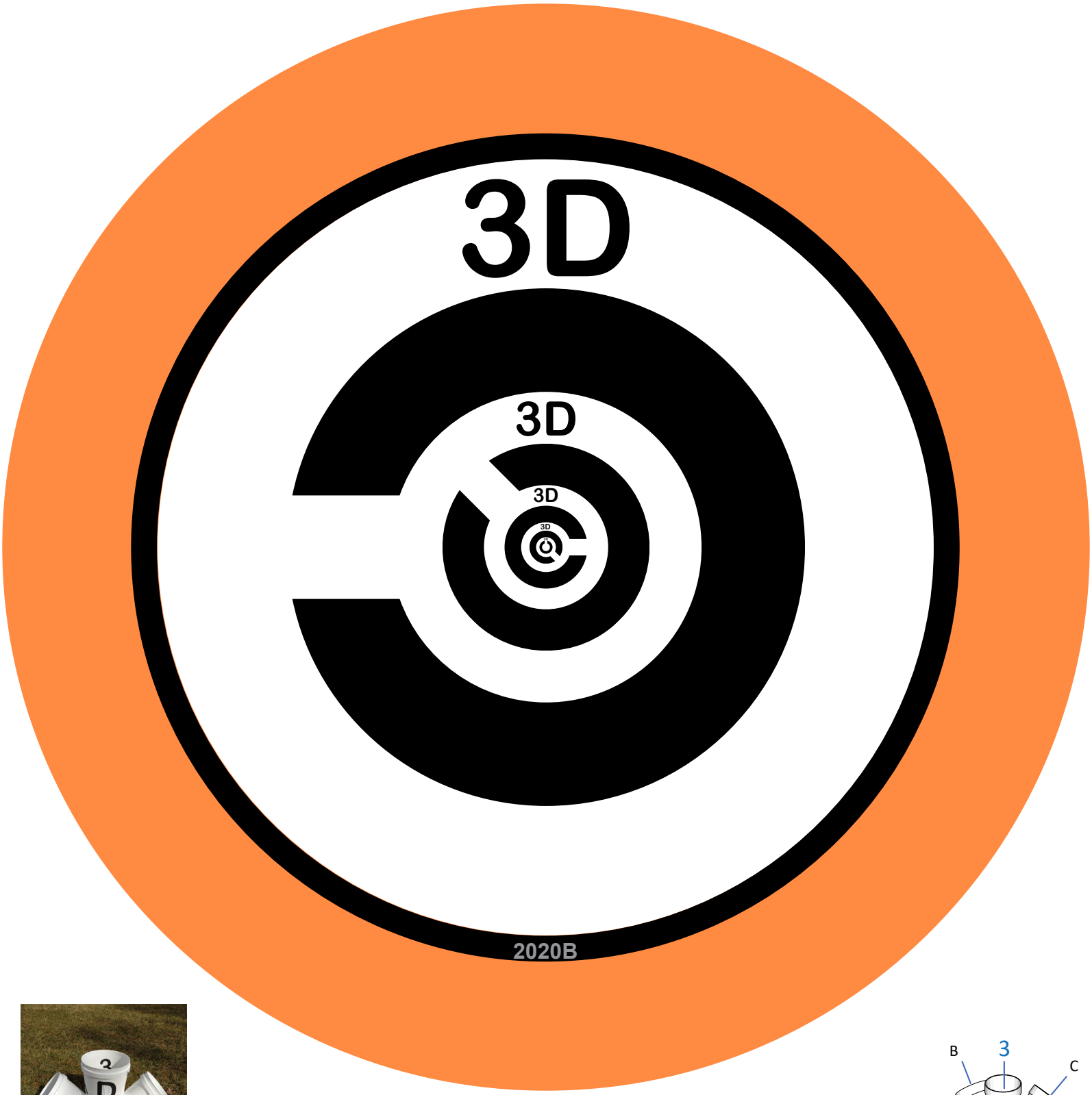
# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)



**FAR ANGLED BUCKET <u>INTERIOR BOTTOM</u>**
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED

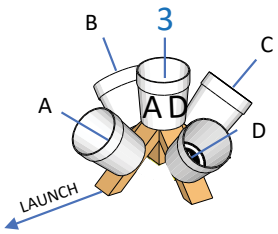


# OPEN LANES AND SCENARIOS, Black and White
## (White Bucket)



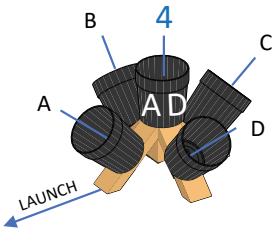
## RIGHT ANGLED BUCKET <u>INTERIOR BOTTOM</u>

ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED



# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)

**TOP BUCKET <u>INTERIOR BOTTOM</u>**
ORIENTED TO READ LETTER UPRIGHT WHEN IN FRONT OF BUCKET A



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U.S. Department of Commerce
Compiled
2021-10-14 14:23

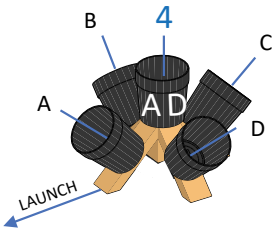
# OPEN LANES AND SCENARIOS, Black and White
**(Black Bucket)**

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



National Institute of Standards and Technology
U.S. Department of Commerce
Compiled
2021-10-14 14:23

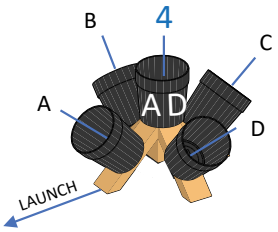
# OPEN LANES AND SCENARIOS, Black and White
**(Black Bucket)**

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



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U.S. Department of Commerce
Compiled
2021-10-14 14:23

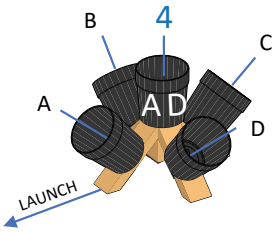
# OPEN LANES AND SCENARIOS, Black and White
**(Black Bucket)**

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



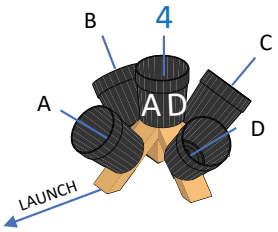
# OPEN LANES AND SCENARIOS, Black and White
**(Black Bucket)**

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## TOP BUCKET <u>INTERIOR 4 SIDES</u>

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



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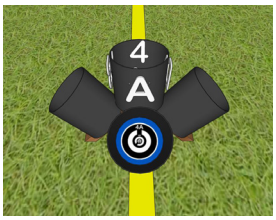
2021-10-14 14:23

# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)

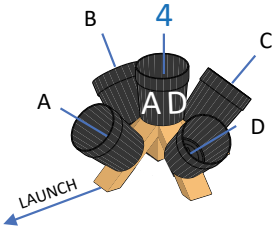
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS




## TOP BUCKET NEAR EXTERIOR SIDE

UPRIGHT WITH THE BUCKET POINTING TOWARDS LANDING
Trim as indicated. Justify to top of bucket.



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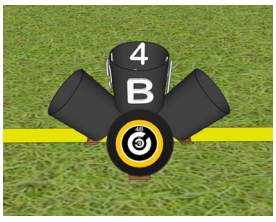
U.S. Department of Commerce
Compiled
2021-10-14 14:23

# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)

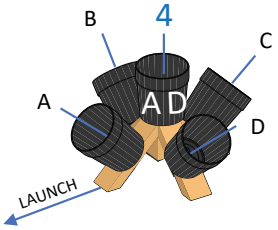
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS



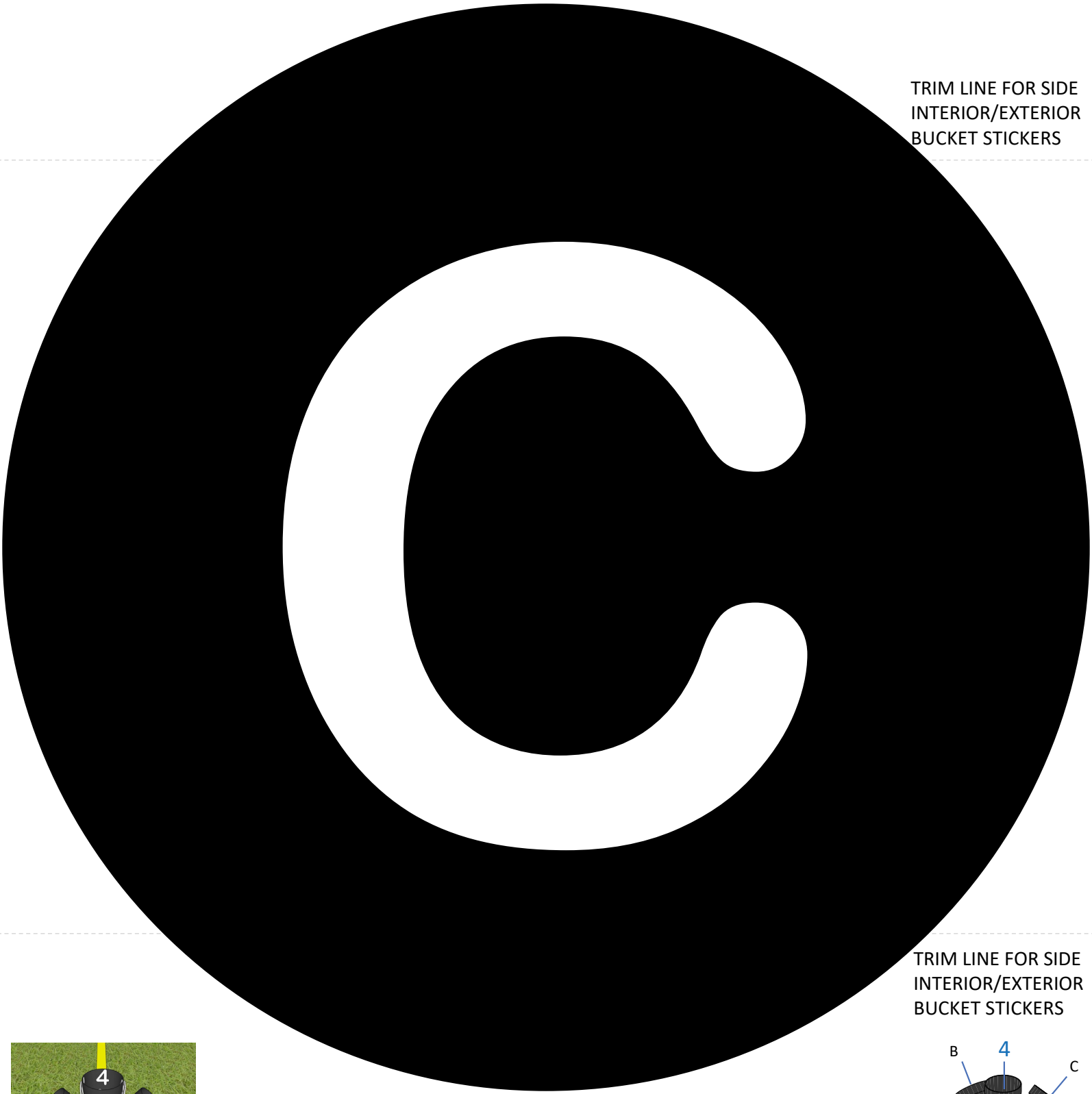

## TOP BUCKET LEFT EXTERIOR SIDE

UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.

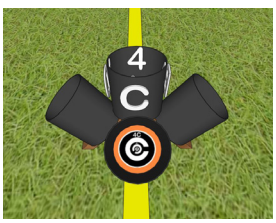


# OPEN LANES AND SCENARIOS, Black and White
**(Black Bucket)**

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

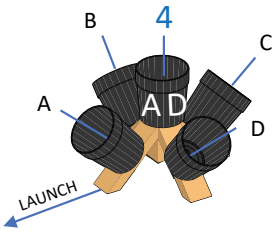



TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS




## TOP BUCKET FAR EXTERIOR SIDE

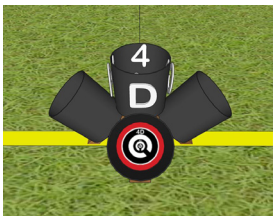
UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



# OPEN LANES AND SCENARIOS, Black and White
**(Black Bucket)**

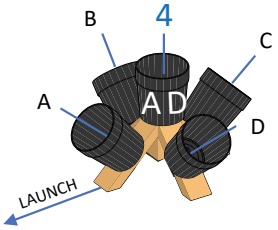
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

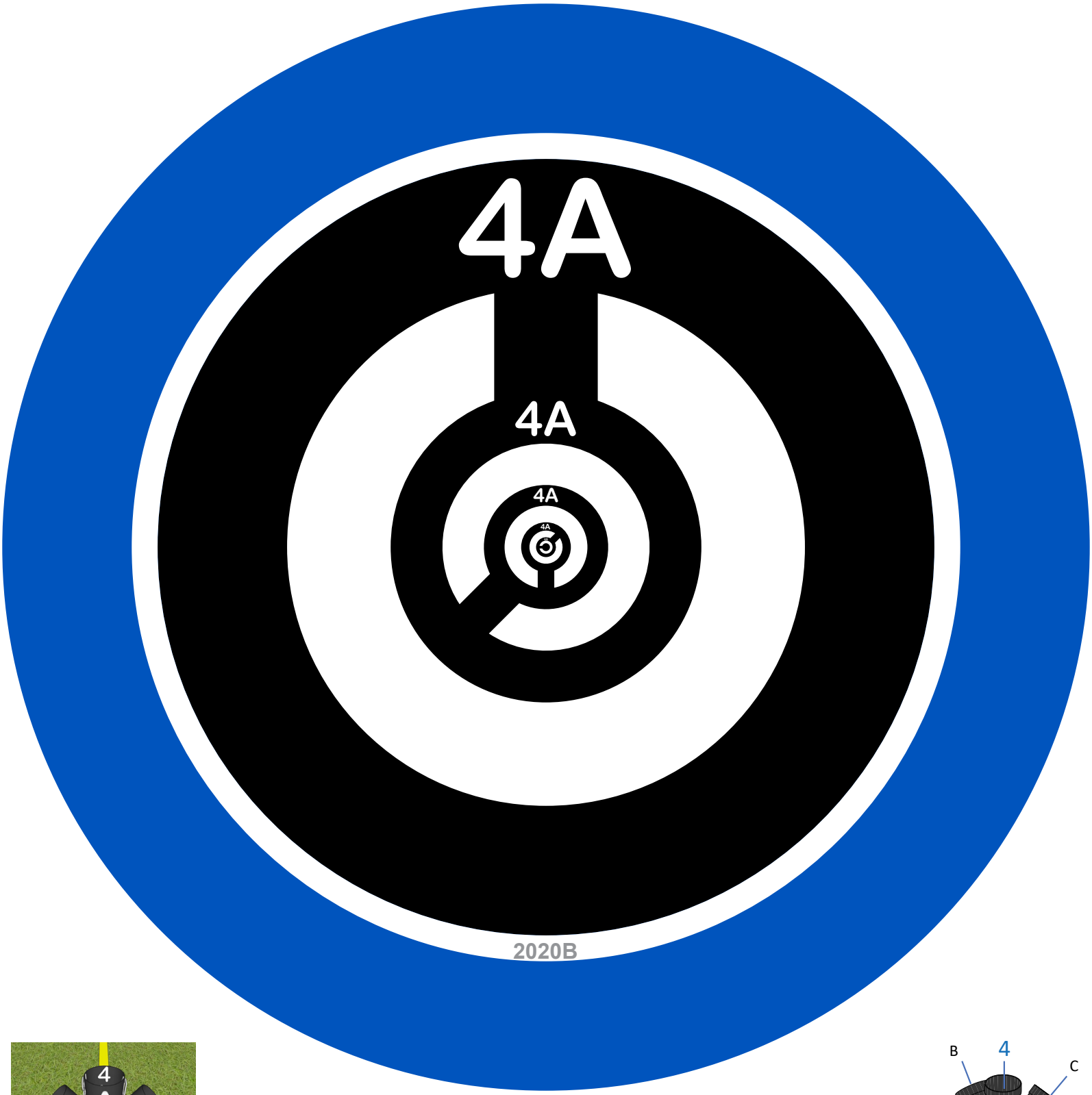



## TOP BUCKET RIGHT EXTERIOR SIDE

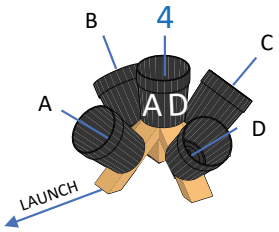
UPRIGHT WITH THE BUCKET
Trim as indicated. Justify to top of bucket.



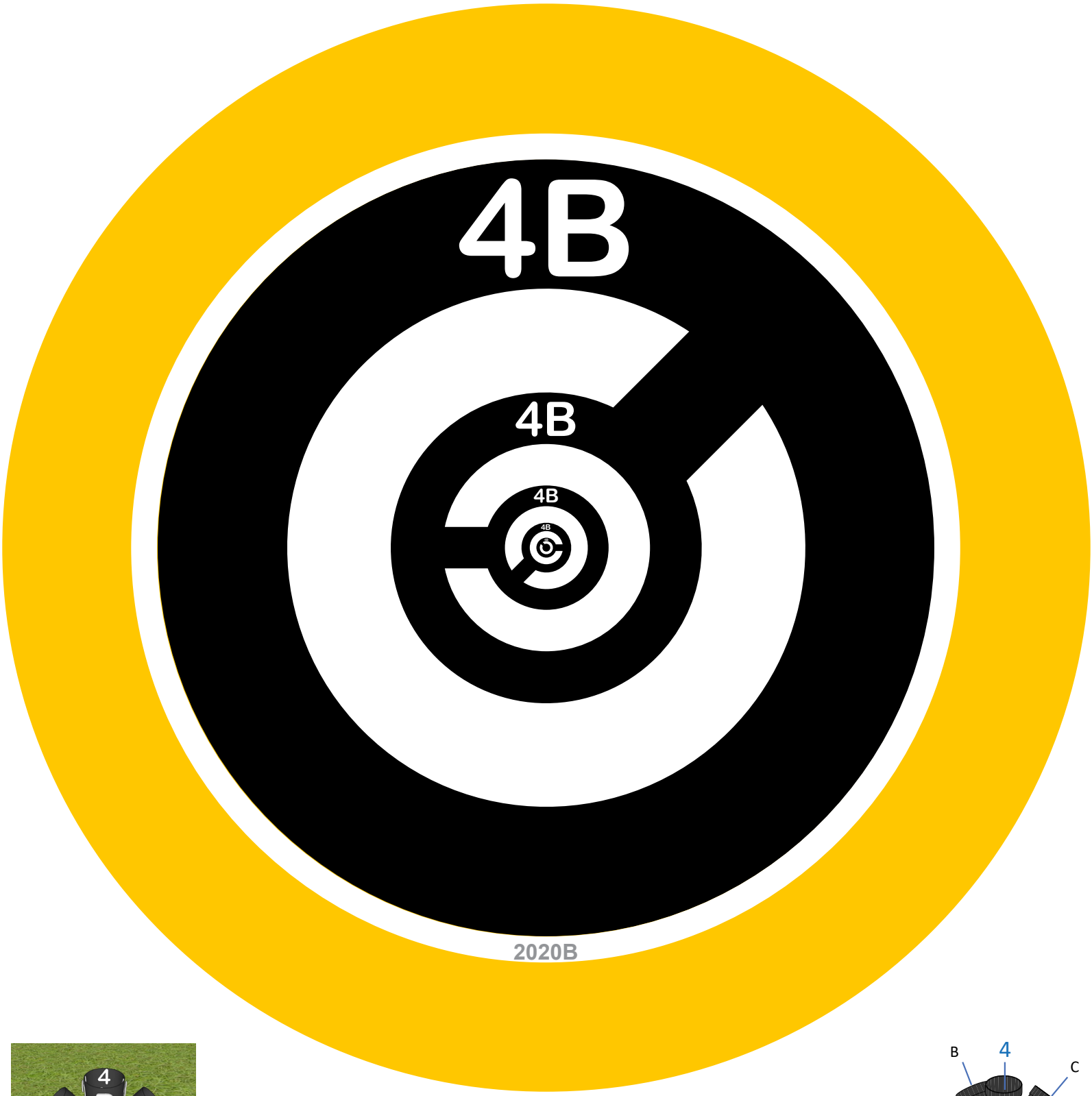
# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)

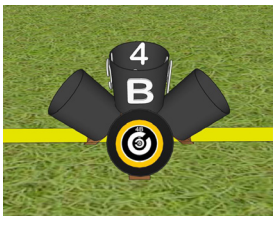


## NEAR ANGLED BUCKET <u>INTERIOR BOTTOM</u>
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED

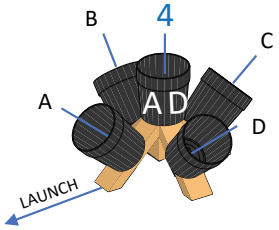


# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)

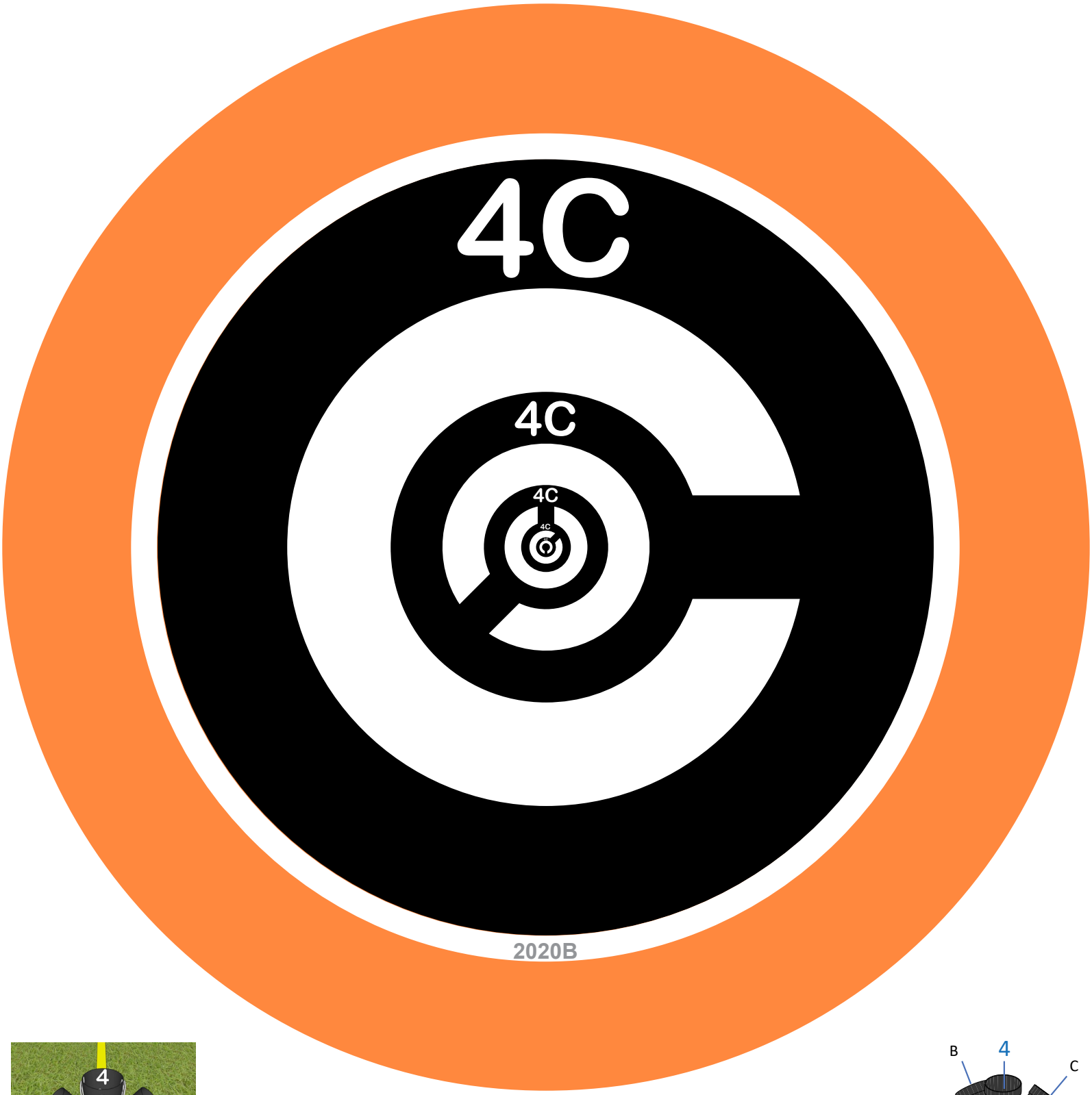


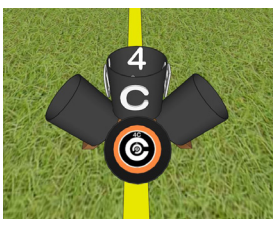




## LEFT ANGLED BUCKET <u>INTERIOR BOTTOM</u>
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED

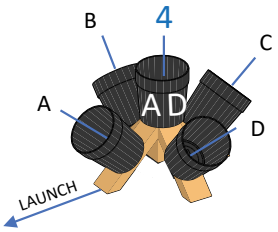


# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)

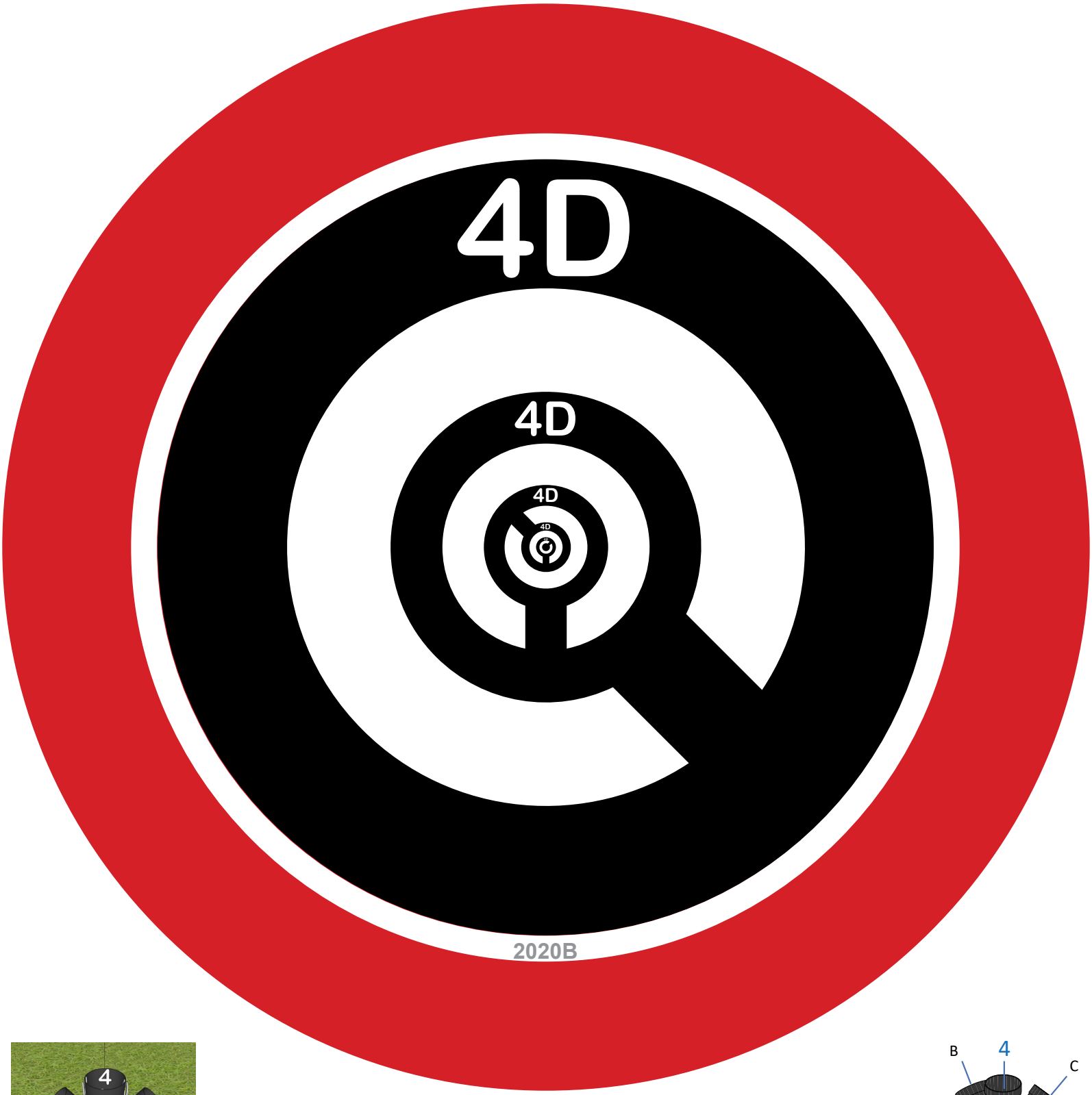


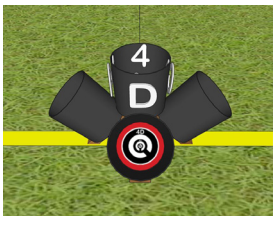




## FAR ANGLED BUCKET <u>INTERIOR BOTTOM</u>
ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED



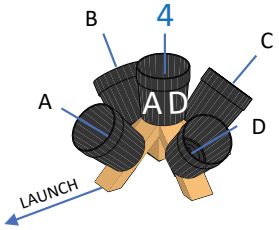
# OPEN LANES AND SCENARIOS, Black and White
## (Black Bucket)




## RIGHT ANGLED BUCKET <u>INTERIOR BOTTOM</u>

ORIENTED TO READ LETTER UPRIGHT WHEN MOUNTED



# OPEN LANES AND SCENARIOS, Black and White

TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

NIST

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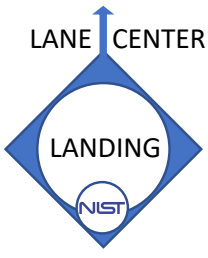
TRIM LINE FOR SIDE INTERIOR/EXTERIOR BUCKET STICKERS

## LAUNCH/LAND PLATFORM

ORIENTED TO READ CORRECTLY WHEN FACING CENTER OF LANE

Place at bottom of panel, beyond landing circle if there is room.



# OPEN LANES AND SCENARIOS, Black and White

## LAUNCH/LAND PLATFORM

ORIENTED TO READ CORRECTLY WHEN FACING CENTER OF LANE

Place at top of panel, beyond landing circle if there is room.

# OPEN LANES AND SCENARIOS, Black and White

## LAUNCH/LAND PLATFORM

ORIENTED TO READ CORRECTLY WHEN FACING CENTER OF LANE

Place in middle of panel.