



Robot Inspection

Passed

ROBOT #	TEAM NAME	JUDGE NAME	DATE MM/DD	TIME 24:00
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Team Leader Name	Operator Name	Country	Table #
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2nd Robot? Explain purpose: _____

Small Robot
Class

Length	cm
Width	cm
Height	cm
Diagonal ground contact (MAN1)	cm
Ground contact width (MAN2)	cm

Emergency Stop Robot	☐
Emergency Stop GUI	☐

Autonomy on Robot	☐
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Thermal Sensor OK	☐
CO2 OK	☐
2-Way Audio	☐

Weight Robot	kg
Weight OCU	kg

Photo booth	☐
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OCU width max 110cm	☐
OCU 1 power plug only	☐
OCU max# monitors 2	☐
OCU weight max 30kg	☐

Motion Detection OK	☐
QR Code Detection OK	☐
Hazmat Detection OK	☐

Other Detections:	
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Radio Channel/ Freq	
Radio power setting	
Radio power looks OK	☐
SSID starts with RRL?	☐

With Mapping	☐
GEOTIFF map	☐
Proper colors	☐
Victim locations	☐
Object Text File OK	☐
Has 3D mapping	☐
3D mapping format OK	☐

Semi-Autonomy

Function	OK	Eligible Tests	Description



MAN 1 | CENTER IN TURNS

Total SCORE

(Tele + Semi_Total + Auto) * (100% - Penalty)

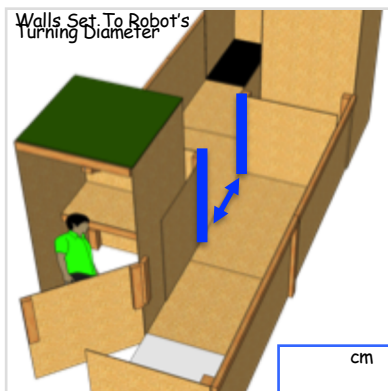
BIC SCORE

(Tele + Semi_BIC + Auto) * (100% - Penalty)

Auto SCORE

Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE	TIME
			MM/DD	24:00



TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)

Robot Reset: 2 minute penalty and return to last start point for maintenance.

Penalty: 50% per major incident: destroy arena or unsafe behavior.

FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

T1	✗
T2	✗
T3	✗
T4	✗
T5	✗
T6	✗
T7	✗
T8	✗
T9	✗
T10	✗
T11	✗
T12	✗
T13	✗
T14	✗
T15	✗
T16	✗
T17	✗
T18	✗
T19	✗
T20	✗

REP# SEMI-AUTO

S1	✗
S2	✗
S3	✗
S4	✗
S5	✗
S6	✗
S7	✗
S8	✗
S9	✗
S10	✗
S11	✗
S12	✗
S13	✗
S14	✗
S15	✗
S16	✗
S17	✗
S18	✗
S19	✗
S20	✗

REP# AUTO

A1	✗
A2	✗
A3	✗
A4	✗
A5	✗
A6	✗
A7	✗
A8	✗
A9	✗
A10	✗
A11	✗
A12	✗
A13	✗
A14	✗
A15	✗
A16	✗
A17	✗
A18	✗
A19	✗
A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
- ✗ Thermal (Cs). ____ mm
- ✗ Audio (Two Way) ____ of 10
- ✗ Gas CO₂ (Breath). ____ ppm

System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

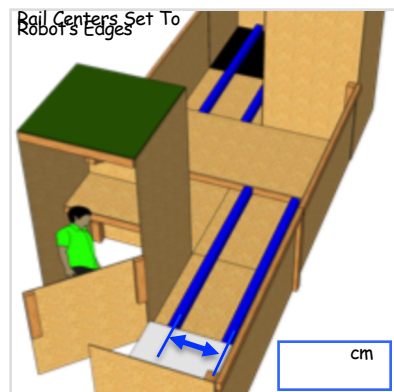
CONFIG MULTIPLIER	X	REPS	=	
CONFIG MULTIPLIER	X	REPS	X 1.5 =	Total
CONFIG MULTIPLIER	X	REPS	X 1 =	BIC
CONFIG MULTIPLIER	X 2 X	REPS	=	



MAN 2 | ALIGN EDGES

Total SCORE	BIC SCORE	Auto SCORE
(Tele + Semi_Total + Auto) * (100% - Penalty)	(Tele + Semi_BIC + Auto) * (100% - Penalty)	Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
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 FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP#	TELEOP	REP#	SEMI-AUTO	REP#	AUTO
T1	✗	S1	✗	A1	✗
T2	✗	S2	✗	A2	✗
T3	✗	S3	✗	A3	✗
T4	✗	S4	✗	A4	✗
T5	✗	S5	✗	A5	✗
T6	✗	S6	✗	A6	✗
T7	✗	S7	✗	A7	✗
T8	✗	S8	✗	A8	✗
T9	✗	S9	✗	A9	✗
T10	✗	S10	✗	A10	✗
T11	✗	S11	✗	A11	✗
T12	✗	S12	✗	A12	✗
T13	✗	S13	✗	A13	✗
T14	✗	S14	✗	A14	✗
T15	✗	S15	✗	A15	✗
T16	✗	S16	✗	A16	✗
T17	✗	S17	✗	A17	✗
T18	✗	S18	✗	A18	✗
T19	✗	S19	✗	A19	✗
T20	✗	S20	✗	A20	✗

READINESS TEST (After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
- ✗ Thermal (Cs). ____ mm
- ✗ Audio (Two Way) ____ of 10
- ✗ Gas CO₂ (Breath). ____ ppm

System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

CONFIG MULTIPLIER	X	REPS	=	
CONFIG MULTIPLIER	X	REPS	X 1.5 =	Total
CONFIG MULTIPLIER	X	REPS	X 1 =	BIC
CONFIG MULTIPLIER	X 2 X	REPS	=	



MAN 3 | TRAVERSE SLOPES

Total SCORE

(Tele + Semi_Total + Auto) * (100% - Penalty)

BIC SCORE

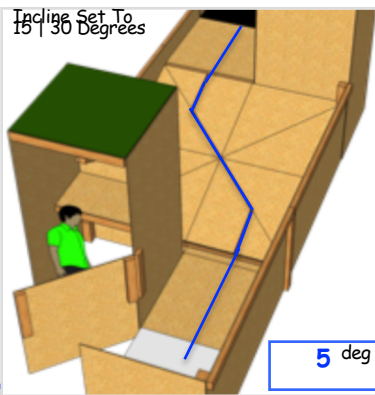
(Tele + Semi_BIC + Auto) * (100% - Penalty)

Auto SCORE

Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE	TIME
			MM/DD	24:00

Incline Set To 15 | 30 Degrees



5 deg

TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)

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T5	✗
T6	✗
T7	✗
T8	✗
T9	✗
T10	✗
T11	✗
T12	✗
T13	✗
T14	✗
T15	✗
T16	✗
T17	✗
T18	✗
T19	✗
T20	✗

REP# SEMI-AUTO

S1	✗
S2	✗
S3	✗
S4	✗
S5	✗
S6	✗
S7	✗
S8	✗
S9	✗
S10	✗
S11	✗
S12	✗
S13	✗
S14	✗
S15	✗
S16	✗
S17	✗
S18	✗
S19	✗
S20	✗

REP# AUTO

A1	✗
A2	✗
A3	✗
A4	✗
A5	✗
A6	✗
A7	✗
A8	✗
A9	✗
A10	✗
A11	✗
A12	✗
A13	✗
A14	✗
A15	✗
A16	✗
A17	✗
A18	✗
A19	✗
A20	✗

READINESS TEST (After min. 18, 1 Point Each)

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- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

X

REPS

=

X

REPS

X1.5=

X 1 =

X 2 X

=



MAN 4 | CROSS RAMPS (PINWHEEL DESIGN)

Total SCORE

(Tele + Semi_Total +
Auto) * (100% - Penalty)

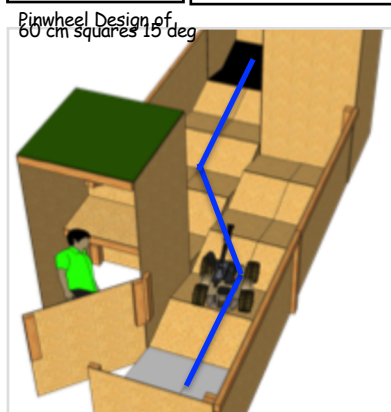
BIC SCORE

(Tele + Semi_BIC +
Auto) * (100% - Penalty)

Auto SCORE

Auto *
(100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
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T7	✗
T8	✗
T9	✗
T10	✗
T11	✗
T12	✗
T13	✗
T14	✗
T15	✗
T16	✗
T17	✗
T18	✗
T19	✗
T20	✗

REP# SEMI-AUTO

S1	✗
S2	✗
S3	✗
S4	✗
S5	✗
S6	✗
S7	✗
S8	✗
S9	✗
S10	✗
S11	✗
S12	✗
S13	✗
S14	✗
S15	✗
S16	✗
S17	✗
S18	✗
S19	✗
S20	✗

REP# AUTO

A1	✗
A2	✗
A3	✗
A4	✗
A5	✗
A6	✗
A7	✗
A8	✗
A9	✗
A10	✗
A11	✗
A12	✗
A13	✗
A14	✗
A15	✗
A16	✗
A17	✗
A18	✗
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Dexterity Tasks

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- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG
MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

CONFIG MULTIPLIER	X	REPS	=	
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SEMI_AUTO SCORES

CONFIG MULTIPLIER	X	REPS	X 1.5 =	Total
			X 1 =	BIC

AUTO SCORE

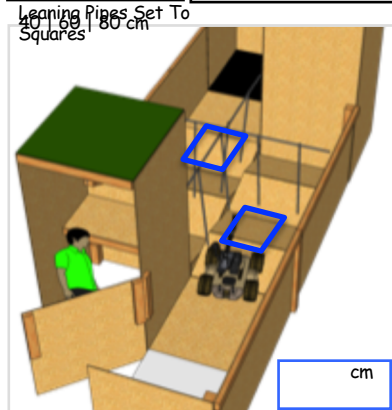
CONFIG MULTIPLIER	X 2 X	REPS	=	
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MAN 5 | NEGOTIATE 3D

Total SCORE	BIC SCORE	Auto SCORE
(Tele + Semi_Total + Auto) * (100% - Penalty)	(Tele + Semi_BIC + Auto) * (100% - Penalty)	Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
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T1	✗	S1	✗	A1	✗
T2	✗	S2	✗	A2	✗
T3	✗	S3	✗	A3	✗
T4	✗	S4	✗	A4	✗
T5	✗	S5	✗	A5	✗
T6	✗	S6	✗	A6	✗
T7	✗	S7	✗	A7	✗
T8	✗	S8	✗	A8	✗
T9	✗	S9	✗	A9	✗
T10	✗	S10	✗	A10	✗
T11	✗	S11	✗	A11	✗
T12	✗	S12	✗	A12	✗
T13	✗	S13	✗	A13	✗
T14	✗	S14	✗	A14	✗
T15	✗	S15	✗	A15	✗
T16	✗	S16	✗	A16	✗
T17	✗	S17	✗	A17	✗
T18	✗	S18	✗	A18	✗
T19	✗	S19	✗	A19	✗
T20	✗	S20	✗	A20	✗

READINESS TEST (After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
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- ✗ Audio (Two Way) ____ of 10
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System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

CONFIG MULTIPLIER	X	REPS	=	CONFIG MULTIPLIER	X	REPS	X 1.5 =	Total	CONFIG MULTIPLIER	X 2 X	REPS	=
							X 1 =	BIC				



MAN 6 | DIAGONAL CURB

Total SCORE

(Tele + Semi_Total + Auto) * (100% - Penalty)

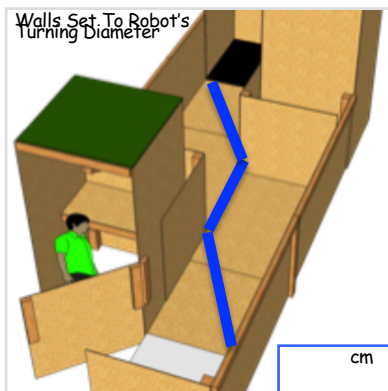
BIC SCORE

(Tele + Semi_BIC + Auto) * (100% - Penalty)

Auto SCORE

Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
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FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

T1	✗
T2	✗
T3	✗
T4	✗
T5	✗
T6	✗
T7	✗
T8	✗
T9	✗
T10	✗
T11	✗
T12	✗
T13	✗
T14	✗
T15	✗
T16	✗
T17	✗
T18	✗
T19	✗
T20	✗

REP# SEMI-AUTO

S1	✗
S2	✗
S3	✗
S4	✗
S5	✗
S6	✗
S7	✗
S8	✗
S9	✗
S10	✗
S11	✗
S12	✗
S13	✗
S14	✗
S15	✗
S16	✗
S17	✗
S18	✗
S19	✗
S20	✗

REP# AUTO

A1	✗
A2	✗
A3	✗
A4	✗
A5	✗
A6	✗
A7	✗
A8	✗
A9	✗
A10	✗
A11	✗
A12	✗
A13	✗
A14	✗
A15	✗
A16	✗
A17	✗
A18	✗
A19	✗
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(After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
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- ✗ Motion Resolution ____ of 2
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Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
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CONFIG MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

X

=

REPS

X

REPS

X1.5=

X 1 =

X 2 X

=

REPS



2019 MOBILITY FORMS



MOB 1 | HURDLES / STOOPS

Total SCORE

(Tele + Semi_Total + Auto) * (100% - Penalty)

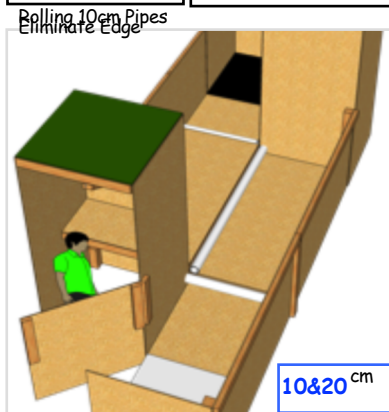
BIC SCORE

(Tele + Semi_BIC + Auto) * (100% - Penalty)

Auto SCORE

Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE	TIME
			MM/DD	24:00



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REP# TELEOP

REP# SEMI-AUTO

REP# AUTO

T1	✗	S1	✗	A1	✗
T2	✗	S2	✗	A2	✗
T3	✗	S3	✗	A3	✗
T4	✗	S4	✗	A4	✗
T5	✗	S5	✗	A5	✗
T6	✗	S6	✗	A6	✗
T7	✗	S7	✗	A7	✗
T8	✗	S8	✗	A8	✗
T9	✗	S9	✗	A9	✗
T10	✗	S10	✗	A10	✗
T11	✗	S11	✗	A11	✗
T12	✗	S12	✗	A12	✗
T13	✗	S13	✗	A13	✗
T14	✗	S14	✗	A14	✗
T15	✗	S15	✗	A15	✗
T16	✗	S16	✗	A16	✗
T17	✗	S17	✗	A17	✗
T18	✗	S18	✗	A18	✗
T19	✗	S19	✗	A19	✗
T20	✗	S20	✗	A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

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Dexterity Tasks

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CONFIG MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

CONFIG MULTIPLIER	X	REPS	=	
CONFIG MULTIPLIER	X	REPS	X 1.5 =	Total
CONFIG MULTIPLIER	X	REPS	X 1 =	BIC
CONFIG MULTIPLIER	X 2 X	REPS	=	



MOB 2 | SAND/GRAVEL HILLS

Total SCORE

(Tele + Semi_Total + Auto) * (100% - Penalty)

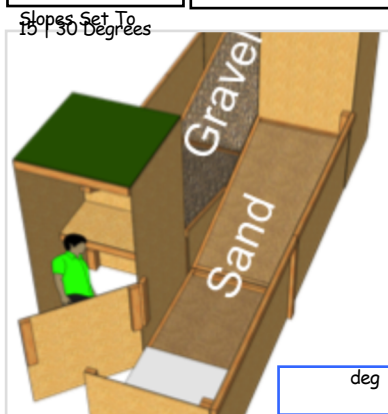
BIC SCORE

(Tele + Semi_BIC + Auto) * (100% - Penalty)

Auto SCORE

Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
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TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)

Robot Reset: 2 minute penalty and return to last start point for maintenance.

Penalty: 50% per major incident: destroy arena or unsafe behavior.

FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

T1	✗
T2	✗
T3	✗
T4	✗
T5	✗
T6	✗
T7	✗
T8	✗
T9	✗
T10	✗
T11	✗
T12	✗
T13	✗
T14	✗
T15	✗
T16	✗
T17	✗
T18	✗
T19	✗
T20	✗

REP# SEMI-AUTO

S1	✗
S2	✗
S3	✗
S4	✗
S5	✗
S6	✗
S7	✗
S8	✗
S9	✗
S10	✗
S11	✗
S12	✗
S13	✗
S14	✗
S15	✗
S16	✗
S17	✗
S18	✗
S19	✗
S20	✗

REP# AUTO

A1	✗
A2	✗
A3	✗
A4	✗
A5	✗
A6	✗
A7	✗
A8	✗
A9	✗
A10	✗
A11	✗
A12	✗
A13	✗
A14	✗
A15	✗
A16	✗
A17	✗
A18	✗
A19	✗
A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
- ✗ Thermal (Cs). ____ mm
- ✗ Audio (Two Way) ____ of 10
- ✗ Gas CO₂ (Breath). ____ ppm

System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

X

=

REPS

X

=

REPS

X1.5=

X 1 =

X 2 X

=

REPS



MOB 3 | STEPFIELD TERRAIN

Total SCORE

(Tele + Semi_Total + Auto) * (100% - Penalty)

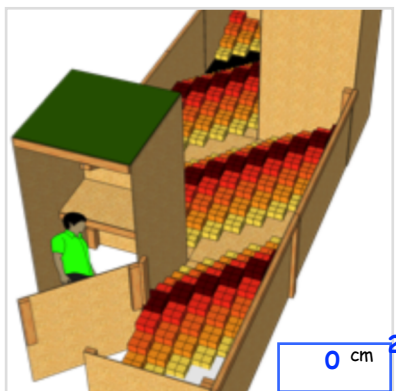
BIC SCORE

(Tele + Semi_BIC + Auto) * (100% - Penalty)

Auto SCORE

Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE	TIME
			MM/DD	24:00



0 cm

TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)

Robot Reset: 2 minute penalty and return to last start point for maintenance.

Penalty: 50% per major incident: destroy arena or unsafe behavior.

FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

T1	✗
T2	✗
T3	✗
T4	✗
T5	✗
T6	✗
T7	✗
T8	✗
T9	✗
T10	✗
T11	✗
T12	✗
T13	✗
T14	✗
T15	✗
T16	✗
T17	✗
T18	✗
T19	✗
T20	✗

REP# SEMI-AUTO

S1	✗
S2	✗
S3	✗
S4	✗
S5	✗
S6	✗
S7	✗
S8	✗
S9	✗
S10	✗
S11	✗
S12	✗
S13	✗
S14	✗
S15	✗
S16	✗
S17	✗
S18	✗
S19	✗
S20	✗

REP# AUTO

A1	✗
A2	✗
A3	✗
A4	✗
A5	✗
A6	✗
A7	✗
A8	✗
A9	✗
A10	✗
A11	✗
A12	✗
A13	✗
A14	✗
A15	✗
A16	✗
A17	✗
A18	✗
A19	✗
A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
- ✗ Thermal (Cs). ____ mm
- ✗ Audio (Two Way) ____ of 10
- ✗ Gas CO₂ (Breath). ____ ppm

System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

CONFIG MULTIPLIER	X	REPS	=	
CONFIG MULTIPLIER	X	REPS	X 1.5 =	Total
CONFIG MULTIPLIER	X	REPS	X 1 =	BIC
CONFIG MULTIPLIER	X 2 X	REPS	=	



MOB 4 | ELEVATED RAMPS

Total SCORE

(Tele + Semi_Total + Auto) * (100% - Penalty)

BIC SCORE

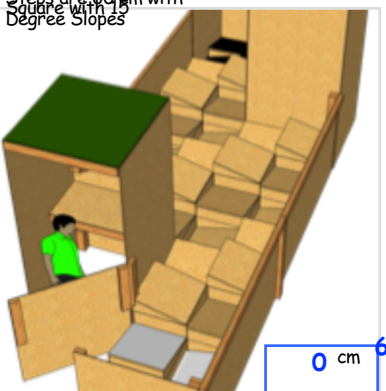
(Tele + Semi_BIC + Auto) * (100% - Penalty)

Auto SCORE

Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
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Steps are 60 cm with
Degree Slopes



TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)

Robot Reset: 2 minute penalty and return to last start point for maintenance.

Penalty: 50% per major incident: destroy arena or unsafe behavior.

FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

REP# SEMI-AUTO

REP# AUTO

T1	✗	S1	✗	A1	✗
T2	✗	S2	✗	A2	✗
T3	✗	S3	✗	A3	✗
T4	✗	S4	✗	A4	✗
T5	✗	S5	✗	A5	✗
T6	✗	S6	✗	A6	✗
T7	✗	S7	✗	A7	✗
T8	✗	S8	✗	A8	✗
T9	✗	S9	✗	A9	✗
T10	✗	S10	✗	A10	✗
T11	✗	S11	✗	A11	✗
T12	✗	S12	✗	A12	✗
T13	✗	S13	✗	A13	✗
T14	✗	S14	✗	A14	✗
T15	✗	S15	✗	A15	✗
T16	✗	S16	✗	A16	✗
T17	✗	S17	✗	A17	✗
T18	✗	S18	✗	A18	✗
T19	✗	S19	✗	A19	✗
T20	✗	S20	✗	A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
- ✗ Thermal (Cs). ____ mm
- ✗ Audio (Two Way) ____ of 10
- ✗ Gas CO₂ (Breath). ____ ppm

System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG
MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

CONFIG MULTIPLIER	X	REPS	=	
CONFIG MULTIPLIER	X	REPS	X 1.5 =	Total
CONFIG MULTIPLIER	X	REPS	X 1 =	BIC
CONFIG MULTIPLIER	X 2 X	REPS	=	



MOB 5 | STAIR DEBRIS

Total SCORE

(Tele + Semi_Total + Auto) * (100% - Penalty)

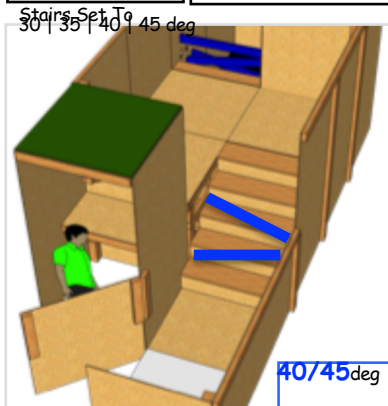
BIC SCORE

(Tele + Semi_BIC + Auto) * (100% - Penalty)

Auto SCORE

Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE	TIME
			MM/DD	24:00



TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)

Robot Reset: 2 minute penalty and return to last start point for maintenance.

Penalty: 50% per major incident: destroy arena or unsafe behavior.

FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

T1	✗
T2	✗
T3	✗
T4	✗
T5	✗
T6	✗
T7	✗
T8	✗
T9	✗
T10	✗
T11	✗
T12	✗
T13	✗
T14	✗
T15	✗
T16	✗
T17	✗
T18	✗
T19	✗
T20	✗

REP# SEMI-AUTO

S1	✗
S2	✗
S3	✗
S4	✗
S5	✗
S6	✗
S7	✗
S8	✗
S9	✗
S10	✗
S11	✗
S12	✗
S13	✗
S14	✗
S15	✗
S16	✗
S17	✗
S18	✗
S19	✗
S20	✗

REP# AUTO

A1	✗
A2	✗
A3	✗
A4	✗
A5	✗
A6	✗
A7	✗
A8	✗
A9	✗
A10	✗
A11	✗
A12	✗
A13	✗
A14	✗
A15	✗
A16	✗
A17	✗
A18	✗
A19	✗
A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ☐ Visual (Cs or QR) ____ mm
- ☐ Thermal (Cs). ____ mm
- ☐ Audio (Two Way) ____ of 10
- ☐ Gas CO₂ (Breath). ____ ppm

System Identifies

- ☐ Motion Resolution ____ of 2
- ☐ Hazmat Labels ____ of 2

Dexterity Tasks

- ☐ Inspect (Stripes in Pipes)
- ☐ Touch (2 cm Bull's Eye)
- ☐ Rotate (180 Degrees)
- ☐ Extract & Place in Crate

CONFIG MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

X

=

REPS

X

REPS

X1.5=

X 1 =

X

2 X

=

REPS



2019 DEXTERITY FORMS



DEX 1 | PARALLEL PIPE TASKS

Total SCORE

(Tele + Semi_Total + Auto) * (100% - Penalty)

BIC SCORE

(Tele + Semi_BIC + Auto) * (100% - Penalty)

Auto SCORE

Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
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TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)

Robot Reset: 2 minute penalty and return to last start point for maintenance.

Penalty: 50% per major incident: destroy arena or unsafe behavior.

FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

T1	✗
T2	✗
T3	✗
T4	✗
T5	✗
T6	✗
T7	✗
T8	✗
T9	✗
T10	✗
T11	✗
T12	✗
T13	✗
T14	✗
T15	✗
T16	✗
T17	✗
T18	✗
T19	✗
T20	✗

REP# SEMI-AUTO

S1	✗
S2	✗
S3	✗
S4	✗
S5	✗
S6	✗
S7	✗
S8	✗
S9	✗
S10	✗
S11	✗
S12	✗
S13	✗
S14	✗
S15	✗
S16	✗
S17	✗
S18	✗
S19	✗
S20	✗

REP# AUTO

A1	✗
A2	✗
A3	✗
A4	✗
A5	✗
A6	✗
A7	✗
A8	✗
A9	✗
A10	✗
A11	✗
A12	✗
A13	✗
A14	✗
A15	✗
A16	✗
A17	✗
A18	✗
A19	✗
A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
- ✗ Thermal (Cs). ____ mm
- ✗ Audio (Two Way) ____ of 10
- ✗ Gas CO₂ (Breath). ____ ppm

System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG
MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

CONFIG MULTIPLIER	X	REPS	=	
CONFIG MULTIPLIER	X	REPS	X 1.5 =	Total
CONFIG MULTIPLIER	X	REPS	X 1 =	BIC
CONFIG MULTIPLIER	X 2 X	REPS	=	



DEX 2 | OMNI PIPE TASKS

Total SCORE

(Tele + Semi_Total + Auto) * (100% - Penalty)

BIC SCORE

(Tele + Semi_BIC + Auto) * (100% - Penalty)

Auto SCORE

Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
---------	---------------------	----------------------	---------------	---------------



TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)
 Robot Reset: 2 minute penalty and return to last start point for maintenance.
 Penalty: 50% per major incident: destroy arena or unsafe behavior.
 FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ☐ Visual (Cs or QR) ____ mm
- ☐ Thermal (Cs). ____ mm
- ☐ Audio (Two Way) ____ of 10
- ☐ Gas CO₂ (Breath). ____ ppm

System Identifies

- ☐ Motion Resolution ____ of 2
- ☐ Hazmat Labels ____ of 2

Dexterity Tasks

- ☐ Inspect (Stripes in Pipes)
- ☐ Touch (2 cm Bull's Eye)
- ☐ Rotate (180 Degrees)
- ☐ Extract & Place in Crate

CONFIG MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

CONFIG MULTIPLIER	X	REPS	=	
-------------------	---	------	---	--

SEMI_AUTO SCORES

CONFIG MULTIPLIER	X	REPS	X 1.5 =	Total
			X 1 =	BIC

AUTO SCORE

CONFIG MULTIPLIER	X 2 X	REPS	=	
-------------------	-------	------	---	--

REP# TELEOP

- T1 ☐
- T2 ☐
- T3 ☐
- T4 ☐
- T5 ☐
- T6 ☐
- T7 ☐
- T8 ☐
- T9 ☐
- T10 ☐
- T11 ☐
- T12 ☐
- T13 ☐
- T14 ☐
- T15 ☐
- T16 ☐
- T17 ☐
- T18 ☐
- T19 ☐
- T20 ☐

REP# SEMI-AUTO

- S1 ☐
- S2 ☐
- S3 ☐
- S4 ☐
- S5 ☐
- S6 ☐
- S7 ☐
- S8 ☐
- S9 ☐
- S10 ☐
- S11 ☐
- S12 ☐
- S13 ☐
- S14 ☐
- S15 ☐
- S16 ☐
- S17 ☐
- S18 ☐
- S19 ☐
- S20 ☐

REP# AUTO

- A1 ☐
- A2 ☐
- A3 ☐
- A4 ☐
- A5 ☐
- A6 ☐
- A7 ☐
- A8 ☐
- A9 ☐
- A10 ☐
- A11 ☐
- A12 ☐
- A13 ☐
- A14 ☐
- A15 ☐
- A16 ☐
- A17 ☐
- A18 ☐
- A19 ☐
- A20 ☐



DEX 3 | Cylindrical Pipes

Total SCORE

 $(\text{Tele} + \text{Semi_Total} + \text{Auto}) * (100\% - \text{Penalty})$

BIC SCORE

 $(\text{Tele} + \text{Semi_BIC} + \text{Auto}) * (100\% - \text{Penalty})$

Auto SCORE

 $\text{Auto} * (100\% - \text{Penalty})$

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
---------	---------------------	----------------------	---------------	---------------

TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)
 Robot Reset: 2 minute penalty and return to last start point for maintenance.
 Penalty: 50% per major incident: destroy arena or unsafe behavior.
 FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

T1	✗	VISUAL
T2	✗	THERMAL
T3	✗	AUDIO
T4	✗	MOTION
T5	✗	HAZMAT
T6	✗	VISUAL
T7	✗	THERMAL
T8	✗	AUDIO
T9	✗	MOTION
T10	✗	HAZMAT
T11	✗	VISUAL
T12	✗	THERMAL
T13	✗	AUDIO
T14	✗	MOTION
T15	✗	HAZMAT
T16	✗	VISUAL
T17	✗	THERMAL
T18	✗	AUDIO
T19	✗	MOTION
T20	✗	HAZMAT

REP# SEMI-AUTO

S1	✗	VISUAL
S2	✗	THERMAL
S3	✗	AUDIO
S4	✗	MOTION
S5	✗	HAZMAT
S6	✗	VISUAL
S7	✗	THERMAL
S8	✗	AUDIO
S9	✗	MOTION
S10	✗	HAZMAT
S11	✗	VISUAL
S12	✗	THERMAL
S13	✗	AUDIO
S14	✗	MOTION
S15	✗	HAZMAT
S16	✗	VISUAL
S17	✗	THERMAL
S18	✗	AUDIO
S19	✗	MOTION
S20	✗	HAZMAT

REP# AUTO

A1	✗	VISUAL
A2	✗	THERMAL
A3	✗	AUDIO
A4	✗	MOTION
A5	✗	HAZMAT
A6	✗	VISUAL
A7	✗	THERMAL
A8	✗	AUDIO
A9	✗	MOTION
A10	✗	HAZMAT
A11	✗	VISUAL
A12	✗	THERMAL
A13	✗	AUDIO
A14	✗	MOTION
A15	✗	HAZMAT
A16	✗	VISUAL
A17	✗	THERMAL
A18	✗	AUDIO
A19	✗	MOTION
A20	✗	HAZMAT

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
- ✗ Thermal (Cs). ____ mm
- ✗ Audio (Two Way) ____ of 10
- ✗ Gas CO₂ (Breath). ____ ppm

System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

CONFIG MULTIPLIER

X

REPS

=

CONFIG MULTIPLIER

X

REPS

X1.5=

X1=

Total

BIC

CONFIG MULTIPLIER

X

2 X

=

REPS



DEX 4 | OPEN DOORS

Total SCORE

(Tele + Semi_Total + Auto) * (100% - Penalty)

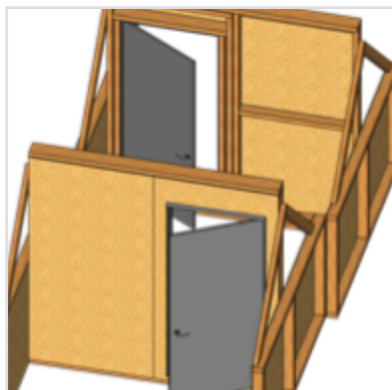
BIC SCORE

(Tele + Semi_BIC + Auto) * (100% - Penalty)

Auto SCORE

Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
---------	---------------------	----------------------	---------------	---------------



TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)

Robot Reset: 2 minute penalty and return to last start point for maintenance.

Penalty: 50% per major incident: destroy arena or unsafe behavior.

FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

T1	✗
T2	✗
T3	✗
T4	✗
T5	✗
T6	✗
T7	✗
T8	✗
T9	✗
T10	✗
T11	✗
T12	✗
T13	✗
T14	✗
T15	✗
T16	✗
T17	✗
T18	✗
T19	✗
T20	✗

REP# SEMI-AUTO

S1	✗
S2	✗
S3	✗
S4	✗
S5	✗
S6	✗
S7	✗
S8	✗
S9	✗
S10	✗
S11	✗
S12	✗
S13	✗
S14	✗
S15	✗
S16	✗
S17	✗
S18	✗
S19	✗
S20	✗

REP# AUTO

A1	✗
A2	✗
A3	✗
A4	✗
A5	✗
A6	✗
A7	✗
A8	✗
A9	✗
A10	✗
A11	✗
A12	✗
A13	✗
A14	✗
A15	✗
A16	✗
A17	✗
A18	✗
A19	✗
A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
- ✗ Thermal (Cs). ____ mm
- ✗ Audio (Two Way) ____ of 10
- ✗ Gas CO₂ (Breath). ____ ppm

System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG
MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

CONFIG
MULTIPLIER

X

REPS

=

CONFIG
MULTIPLIER

X

REPS

X1.5=

X 1 =

Total
BIC

CONFIG
MULTIPLIER

X 2 X

REPS

=



DEX 5.1 | SHORING COLUMN

Total SCORE

(Tele + Semi_Total + Auto) * (100% - Penalty)

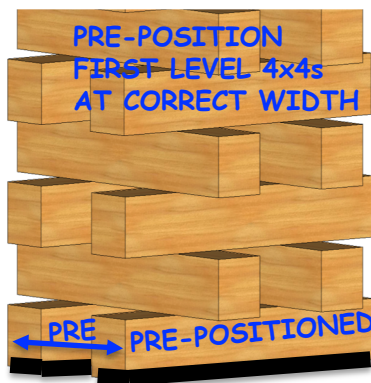
BIC SCORE

(Tele + Semi_BIC + Auto) * (100% - Penalty)

Auto SCORE

Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
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TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)
 Robot Reset: 2 minute penalty and return to last start point for maintenance.
 Penalty: 50% per major incident: destroy arena or unsafe behavior.
 FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

REP# SEMI-AUTO

REP# AUTO

T1	✗	S1	✗	A1	✗
T2	✗	S2	✗	A2	✗
T3	✗	S3	✗	A3	✗
T4	✗	S4	✗	A4	✗
T5	✗	S5	✗	A5	✗
T6	✗	S6	✗	A6	✗
T7	✗	S7	✗	A7	✗
T8	✗	S8	✗	A8	✗
T9	✗	S9	✗	A9	✗
T10	✗	S10	✗	A10	✗
T11	✗	S11	✗	A11	✗
T12	✗	S12	✗	A12	✗
T13	✗	S13	✗	A13	✗
T14	✗	S14	✗	A14	✗
T15	✗	S15	✗	A15	✗
T16	✗	S16	✗	A16	✗
T17	✗	S17	✗	A17	✗
T18	✗	S18	✗	A18	✗
T19	✗	S19	✗	A19	✗
T20	✗	S20	✗	A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
- ✗ Thermal (Cs). ____ mm
- ✗ Audio (Two Way) ____ of 10
- ✗ Gas CO₂ (Breath). ____ ppm

System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

CONFIG MULTIPLIER	X	REPS	=	TELEOP SCORE
CONFIG MULTIPLIER	X	REPS	=	SEMI_AUTO SCORES
CONFIG MULTIPLIER	X	REPS	=	AUTO SCORE

X1.5=

X 1 =

Total

BIC

X 2 X



DEX 5.2 | SHIELDING WALL

Total SCORE

(Tele + Semi_Total + Auto) * (100% - Penalty)

BIC SCORE

(Tele + Semi_BIC + Auto) * (100% - Penalty)

Auto SCORE

Auto * (100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
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TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)

Robot Reset: 2 minute penalty and return to last start point for maintenance.

Penalty: 50% per major incident: destroy arena or unsafe behavior.

FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

T1	✗
T2	✗
T3	✗
T4	✗
T5	✗
T6	✗
T7	✗
T8	✗
T9	✗
T10	✗
T11	✗
T12	✗
T13	✗
T14	✗
T15	✗
T16	✗
T17	✗
T18	✗
T19	✗
T20	✗

REP# SEMI-AUTO

S1	✗
S2	✗
S3	✗
S4	✗
S5	✗
S6	✗
S7	✗
S8	✗
S9	✗
S10	✗
S11	✗
S12	✗
S13	✗
S14	✗
S15	✗
S16	✗
S17	✗
S18	✗
S19	✗
S20	✗

REP# AUTO

A1	✗
A2	✗
A3	✗
A4	✗
A5	✗
A6	✗
A7	✗
A8	✗
A9	✗
A10	✗
A11	✗
A12	✗
A13	✗
A14	✗
A15	✗
A16	✗
A17	✗
A18	✗
A19	✗
A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
- ✗ Thermal (Cs). ____ mm
- ✗ Audio (Two Way) ____ of 10
- ✗ Gas CO₂ (Breath). ____ ppm

System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG
MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

CONFIG
MULTIPLIER

X

REPS

=

SEMI_AUTO SCORES

CONFIG
MULTIPLIER

X

REPS

X1.5=

X 1 =

Total

BIC

AUTO SCORE

CONFIG
MULTIPLIER

X 2 X

REPS

=



2019 EXPLORATION FORMS



EXP 1 | MAP ON CONTINUOUS

Total SCORE

 $(\text{Tele} + \text{Semi_Total} + \text{Auto}) * (100\% - \text{Penalty})$

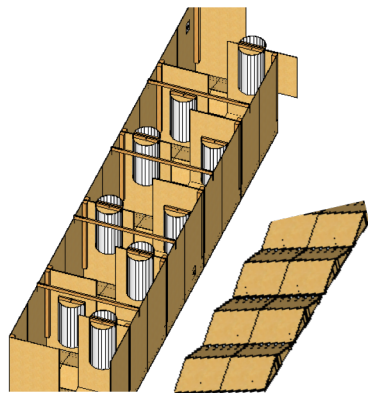
BIC SCORE

 $(\text{Tele} + \text{Semi_BIC} + \text{Auto}) * (100\% - \text{Penalty})$

Auto SCORE

 $\text{Auto} * (100\% - \text{Penalty})$

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
---------	---------------------	----------------------	---------------	---------------



TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)

Robot Reset: 2 minute penalty and return to last start point for maintenance.

Penalty: 50% per major incident: destroy arena or unsafe behavior.

FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

T1	✗
T2	✗
T3	✗
T4	✗
T5	✗
T6	✗
T7	✗
T8	✗
T9	✗
T10	✗
T11	✗
T12	✗
T13	✗
T14	✗
T15	✗
T16	✗
T17	✗
T18	✗
T19	✗
T20	✗

REP# SEMI-AUTO

S1	✗
S2	✗
S3	✗
S4	✗
S5	✗
S6	✗
S7	✗
S8	✗
S9	✗
S10	✗
S11	✗
S12	✗
S13	✗
S14	✗
S15	✗
S16	✗
S17	✗
S18	✗
S19	✗
S20	✗

REP# AUTO

A1	✗
A2	✗
A3	✗
A4	✗
A5	✗
A6	✗
A7	✗
A8	✗
A9	✗
A10	✗
A11	✗
A12	✗
A13	✗
A14	✗
A15	✗
A16	✗
A17	✗
A18	✗
A19	✗
A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
- ✗ Thermal (Cs). ____ mm
- ✗ Audio (Two Way) ____ of 10
- ✗ Gas CO₂ (Breath). ____ ppm

System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG
MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

CONFIG MULTIPLIER	X	REPS	=	
CONFIG MULTIPLIER	X	REPS	X 1.5 =	Total
CONFIG MULTIPLIER	X	REPS	X 1 =	BIC
CONFIG MULTIPLIER	X 2 X	REPS	=	



EXP 2 | MAP-CROSSING RAMPS

Total SCORE

(Tele + Semi_Total +
Auto) * (100% - Penalty)

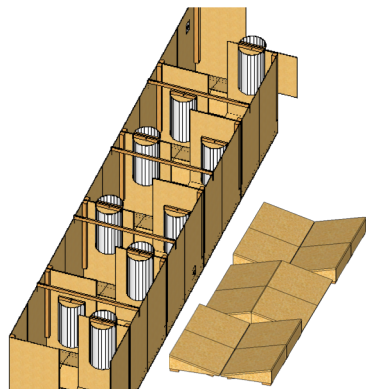
BIC SCORE

(Tele + Semi_BIC +
Auto) * (100% - Penalty)

Auto SCORE

Auto *
(100% - Penalty)

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
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TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)

Robot Reset: 2 minute penalty and return to last start point for maintenance.

Penalty: 50% per major incident: destroy arena or unsafe behavior.

FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

T1	✗
T2	✗
T3	✗
T4	✗
T5	✗
T6	✗
T7	✗
T8	✗
T9	✗
T10	✗
T11	✗
T12	✗
T13	✗
T14	✗
T15	✗
T16	✗
T17	✗
T18	✗
T19	✗
T20	✗

REP# SEMI-AUTO

S1	✗
S2	✗
S3	✗
S4	✗
S5	✗
S6	✗
S7	✗
S8	✗
S9	✗
S10	✗
S11	✗
S12	✗
S13	✗
S14	✗
S15	✗
S16	✗
S17	✗
S18	✗
S19	✗
S20	✗

REP# AUTO

A1	✗
A2	✗
A3	✗
A4	✗
A5	✗
A6	✗
A7	✗
A8	✗
A9	✗
A10	✗
A11	✗
A12	✗
A13	✗
A14	✗
A15	✗
A16	✗
A17	✗
A18	✗
A19	✗
A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
- ✗ Thermal (Cs). ____ mm
- ✗ Audio (Two Way) ____ of 10
- ✗ Gas CO₂ (Breath). ____ ppm

System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG
MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

CONFIG MULTIPLIER	X	REPS	=	
CONFIG MULTIPLIER	X	REPS	X 1.5 =	Total
CONFIG MULTIPLIER	X	REPS	X 1 =	BIC
CONFIG MULTIPLIER	X 2 X	REPS	=	



EXP 3 | IDENTIFY OBJECTS

Total SCORE

 $(\text{Tele} + \text{Semi_Total} + \text{Auto}) * (100\% - \text{Penalty})$

BIC SCORE

 $(\text{Tele} + \text{Semi_BIC} + \text{Auto}) * (100\% - \text{Penalty})$

Auto SCORE

 $\text{Auto} * (100\% - \text{Penalty})$

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
---------	---------------------	----------------------	---------------	---------------



TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)
 Robot Reset: 2 minute penalty and return to last start point for maintenance.
 Penalty: 50% per major incident: destroy arena or unsafe behavior.
 FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ☐ Visual (Cs or QR) ____ mm
- ☐ Thermal (Cs). ____ mm
- ☐ Audio (Two Way) ____ of 10
- ☐ Gas CO₂ (Breath). ____ ppm

System Identifies

- ☐ Motion Resolution ____ of 2
- ☐ Hazmat Labels ____ of 2

Dexterity Tasks

- ☐ Inspect (Stripes in Pipes)
- ☐ Touch (2 cm Bull's Eye)
- ☐ Rotate (180 Degrees)
- ☐ Extract & Place in Crate

CONFIG
MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

CONFIG MULTIPLIER X REPS =

SEMI_AUTO SCORES

CONFIG MULTIPLIER X REPS

X1.5=

X 1 =

Total
BIC

AUTO SCORE

CONFIG MULTIPLIER X 2 X REPS =



EXP 4 | AVOID HOLES

Total SCORE

 $(\text{Tele} + \text{Semi_Total} + \text{Auto}) * (100\% - \text{Penalty})$

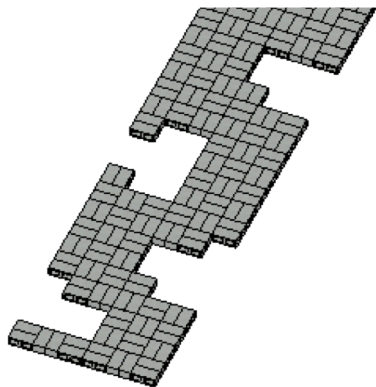
BIC SCORE

 $(\text{Tele} + \text{Semi_BIC} + \text{Auto}) * (100\% - \text{Penalty})$

Auto SCORE

 $\text{Auto} * (100\% - \text{Penalty})$

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
---------	---------------------	----------------------	---------------	---------------



TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)
 Robot Reset: 2 minute penalty and return to last start point for maintenance.
 Penalty: 50% per major incident: destroy arena or unsafe behavior.
 FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

REP# SEMI-AUTO

REP# AUTO

T1	✗	S1	✗	A1	✗
T2	✗	S2	✗	A2	✗
T3	✗	S3	✗	A3	✗
T4	✗	S4	✗	A4	✗
T5	✗	S5	✗	A5	✗
T6	✗	S6	✗	A6	✗
T7	✗	S7	✗	A7	✗
T8	✗	S8	✗	A8	✗
T9	✗	S9	✗	A9	✗
T10	✗	S10	✗	A10	✗
T11	✗	S11	✗	A11	✗
T12	✗	S12	✗	A12	✗
T13	✗	S13	✗	A13	✗
T14	✗	S14	✗	A14	✗
T15	✗	S15	✗	A15	✗
T16	✗	S16	✗	A16	✗
T17	✗	S17	✗	A17	✗
T18	✗	S18	✗	A18	✗
T19	✗	S19	✗	A19	✗
T20	✗	S20	✗	A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ✗ Visual (Cs or QR) ____ mm
- ✗ Thermal (Cs). ____ mm
- ✗ Audio (Two Way) ____ of 10
- ✗ Gas CO₂ (Breath). ____ ppm

System Identifies

- ✗ Motion Resolution ____ of 2
- ✗ Hazmat Labels ____ of 2

Dexterity Tasks

- ✗ Inspect (Stripes in Pipes)
- ✗ Touch (2 cm Bull's Eye)
- ✗ Rotate (180 Degrees)
- ✗ Extract & Place in Crate

CONFIG

MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

CONFIG MULTIPLIER	X	REPS	=	✗
CONFIG MULTIPLIER	X	REPS	=	X1.5 =
CONFIG MULTIPLIER	X	REPS	=	X1 =
CONFIG MULTIPLIER	X	2 X	=	REPS



EXP 5 | AVOID TERRAINS

Total SCORE

 $(\text{Tele} + \text{Semi_Total} + \text{Auto}) * (100\% - \text{Penalty})$

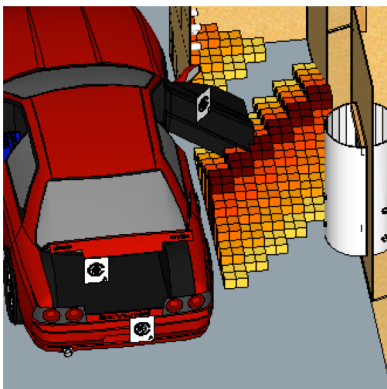
BIC SCORE

 $(\text{Tele} + \text{Semi_BIC} + \text{Auto}) * (100\% - \text{Penalty})$

Auto SCORE

 $\text{Auto} * (100\% - \text{Penalty})$

ROBOT #	COUNTRY TEAM NAME	COUNTRY JUDGE NAME	DATE MM/DD	TIME 24:00
---------	---------------------	----------------------	---------------	---------------



TIME: Setup (0:00-3:00) → Run (3:00 - 26:00) → Readiness (18:00 - 26:00) → Run (18:00 - 26:00) → Exit (26:00 - 30:00)

Robot Reset: 2 minute penalty and return to last start point for maintenance.

Penalty: 50% per major incident: destroy arena or unsafe behavior.

FILL IN: ● Successful Repetition ✗ Not Successful — "End of Trial"

REP# TELEOP

REP# SEMI-AUTO

REP# AUTO

T1	✗	S1	✗	A1	✗
T2	✗	S2	✗	A2	✗
T3	✗	S3	✗	A3	✗
T4	✗	S4	✗	A4	✗
T5	✗	S5	✗	A5	✗
T6	✗	S6	✗	A6	✗
T7	✗	S7	✗	A7	✗
T8	✗	S8	✗	A8	✗
T9	✗	S9	✗	A9	✗
T10	✗	S10	✗	A10	✗
T11	✗	S11	✗	A11	✗
T12	✗	S12	✗	A12	✗
T13	✗	S13	✗	A13	✗
T14	✗	S14	✗	A14	✗
T15	✗	S15	✗	A15	✗
T16	✗	S16	✗	A16	✗
T17	✗	S17	✗	A17	✗
T18	✗	S18	✗	A18	✗
T19	✗	S19	✗	A19	✗
T20	✗	S20	✗	A20	✗

READINESS TEST

(After min. 18, 1 Point Each)

Operator Identifies

- ☐ Visual (Cs or QR) ____ mm
- ☐ Thermal (Cs). ____ mm
- ☐ Audio (Two Way) ____ of 10
- ☐ Gas CO₂ (Breath). ____ ppm

System Identifies

- ☐ Motion Resolution ____ of 2
- ☐ Hazmat Labels ____ of 2

Dexterity Tasks

- ☐ Inspect (Stripes in Pipes)
- ☐ Touch (2 cm Bull's Eye)
- ☐ Rotate (180 Degrees)
- ☐ Extract & Place in Crate

CONFIG
MULTIPLIER

Penalties (%)

of 10

TELEOP SCORE

SEMI_AUTO SCORES

AUTO SCORE

CONFIG MULTIPLIER	X	REPS	=	✗
CONFIG MULTIPLIER	X	REPS	=	X1.5 =
CONFIG MULTIPLIER	X	REPS	=	X1 =
CONFIG MULTIPLIER	X	2 X	=	REPS