

FIRST®

CANOPY™

BIOBUZZ Scoring Tablet Training

V26-27.1

Scoring Tablet



Official Scorers use a scoring tablet to input pre-MATCH setup and scoring achievements throughout the MATCH.

The inputs available will change for each MATCH period.

Q2 Pre-Match Setup

Blue Alliance Teams:

Team 2020 Present:

Team 555 Present:

You are standing next to the blue ALLIANCE AREA on the scoring side of the FIELD (opposite the audience). The blue DRIVE TEAMS are to your immediate left. The blue GARDEN is in your corner. There is a FLOWER 1.5 TILES to your left, and a FLOWER 4 TILES down the scoring wall. Those are the two FLOWERS you are responsible for scoring.



The blue HIVE is tilted to your left: the down side is pointing towards the audience

Q3 AUTO

HIVE TIPS 1
 4 NECTAR out of play

Blue 1 LEAVE (777):

Blue 1 PARK (777):

Blue 2 LEAVE (1111):

Blue 2 PARK (1111):

Red FOULS

MINOR: 0

MAJOR: 0

Blue FOULS

MINOR: 0

MAJOR: 0

Q3 TELEOP

HIVE TIPS 2
 3 Total TIPS
 0 NECTAR out of play

Blue ALLIANCE Wall FLOWER

Scoring Wall FLOWER



This score exceeds the physical limits of the FLOWER. Please contact support.

[FLOWER Scoring Help](#)

Note: FLOWER Scoring Help is only available during Final Review (post-MATCH).

Pre-MATCH Setup

Official Scorers select the correct MATCH, confirm team presence status and indicate they are ready.

Referees will confirm ROBOT setup and FIELD setup.

During Pre-MATCH Setup, Official Scorers input team status:

- **Present:** Both the team and their ROBOT is present
- **No Robot:** A team rep is present, but the ROBOT is not
- **No Team:** Neither a team rep nor the ROBOT are present

Then press **Ready**:

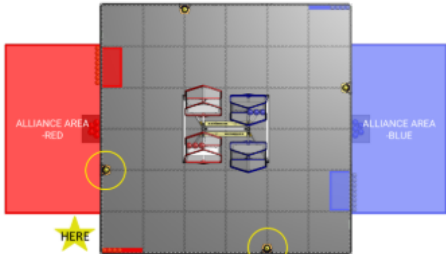
Note: Selecting "No Team" means the team will not get credit for participating in the MATCH. **Confirm "No Team" is correct with the Head Referee before choosing this option!**

Q3 Pre-Match Setup (Scorer)

Red Alliance Teams:

Team 666 Present:	No Team	No Robot	Present
Team 10101 Present:	No Team	No Robot	Present

You are standing next to the red ALLIANCE AREA on the audience side of the FIELD. The red DRIVE TEAMS are to your immediate left. The red GARDEN is in your corner. There is a FLOWER 1.5 TILES to your left, and a FLOWER 4 TILES down the audience wall. Those are the two FLOWERS you are responsible for scoring.



The red HIVE is tilted to your left: the down side is pointing away from the audience

Red Alliance Ready

AUTO

AUTO is the first 30 seconds of the MATCH. Official Scorers input the scoring achievements that they are assigned.

Q3 AUTO

Edit Pre-Match Setup

HIVE TIPS

-

1

+

4 NECTAR out of play

Blue 1 LEAVE (777):

No

Yes

Blue 1 PARK (777):

No

Yes

Blue 2 LEAVE (1111):

No

Yes

Blue 2 PARK (1111):

No

Yes

The Competition Manual specifies when a scoring achievement can be earned.

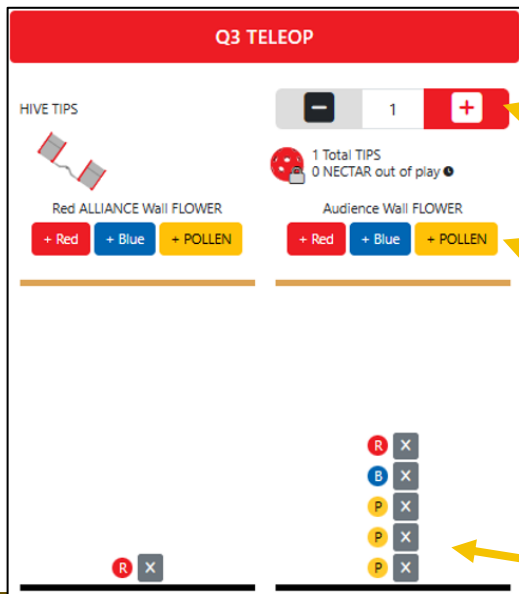
HIVE TIPS that are completed prior to the start of TELEOP are assessed as part of AUTO.
Press "+" to increase the total

PARK and **LEAVE** is assessed at the end of AUTO (at 2:00).
Press "Yes" for each achievement that each ROBOT earns.

Note: After AUTO has ended, Official Scorers must submit AUTO by the time the transition ends.

TELEOP

TELEOP is the last 2:00 of the MATCH. Official Scorers will input the scoring achievements that they are assigned.



Throughout the MATCH, Official Scorers will continue to update HIVE TIPS and FLOWER scoring in real-time.

HIVE TIPS are earned throughout TELEOP until the HIVE comes to rest after the MATCH.

Press + to increase the total

FLOWER scoring should be updated throughout the MATCH to show what is currently is in each FLOWER Scoring Volume – in order -- regardless of how it got there.

*Press "+ Red" or "+ Blue" to add the appropriate NECTAR
Press "+ POLLEN" to add a POLLEN*

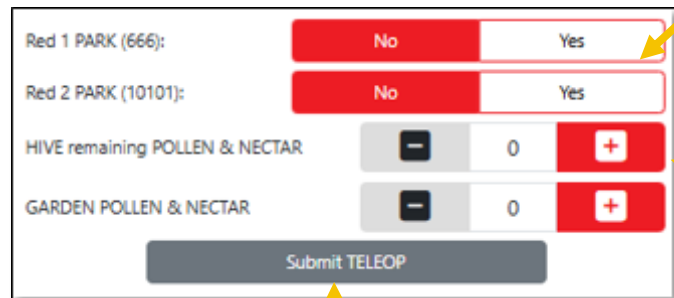
Press "x" next to each scored element to remove it

Note: If the tablet is flashing yellow, it is on the wrong screen and **AUTO must be submitted!**
There is a Final Review at the end if corrections need to be made!

Note: HIVE TIPS entry should be the primary focus during the MATCH to ensure all scores are recorded.

TELEOP – End of MATCH

At the end of the MATCH Official Scorers input the scoring achievements that they are assigned and confirm & validate inputs with a Referee.



TELEOP PARK is assessed at the end of the MATCH (at 0:00).
*Press “yes” for each **ROBOT** that achieves **PARK***

When **SCORING ELEMENTS** have come to rest after the MATCH, record:

- **SCORING ELEMENTS remaining in the HIVE CELL**, &
- **SCORING ELEMENTS in the GARDEN**

Press “+” to increase the total number achieved

Additionally, confirm final **POLLEN** and **NECTAR** scored in **FLOWERS** after the MATCH has ended.

Note: After TELEOP has ended, Official Scorers must submit TELEOP scoring achievements. Official Scorers should then **review their inputs with a Referee** before submitting the Final Review.

BIOBUZZ Scoring Achievements

This section gives a general overview of Scoring Achievements.
For more information, refer to the Competition Manual – [Section 10](#)

HIVE TIP Scoring – AUTO & TELEOP

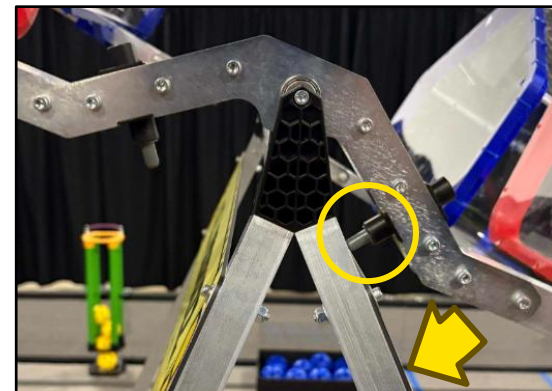
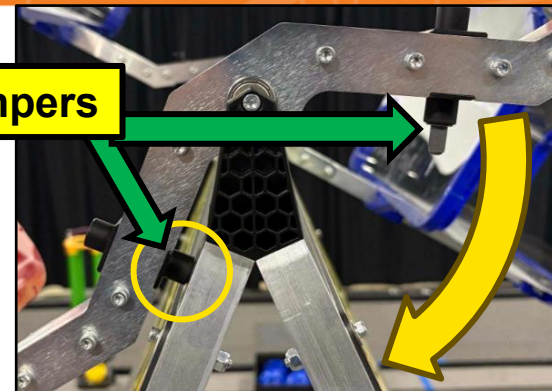
In BIOBUZZ, ROBOTS launch SCORING ELEMENTS into the upward facing CELL to cause a TIP.

A TIP is defined as scored when the downward-facing CELL becomes the upward-facing CELL, and subsequently, the damper on the HIVE that was previously not contacting the frame begins to contact the frame.

- Only TIPS are scored, not the number of SCORING ELEMENTS that cause the TIP.
- The TIP only counts as scored when the damper that was not contacting the frame before the TIP contacts the frame.

Note: If a TIP begins, but the other damper does not contact the frame before it tilts back to the damper that was just contacting the frame, no HIVE TIP has occurred.

Dampers

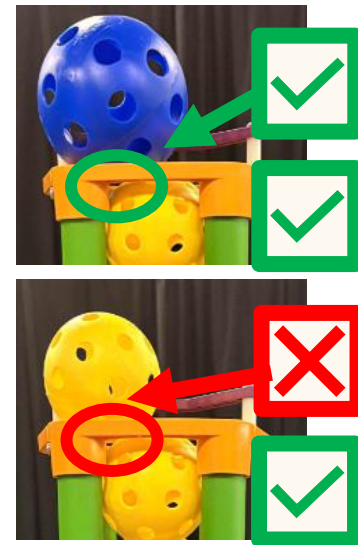


HIVE TIP scores: The damper that was not contacting the frame has begun to contact the frame.

FLOWER Scoring – TELEOP

To count as scored, POLLEN or NECTAR must be at least partially within the **FLOWER scoring volume**.

- The FLOWER scoring volume defined by the [CAD reference](#).

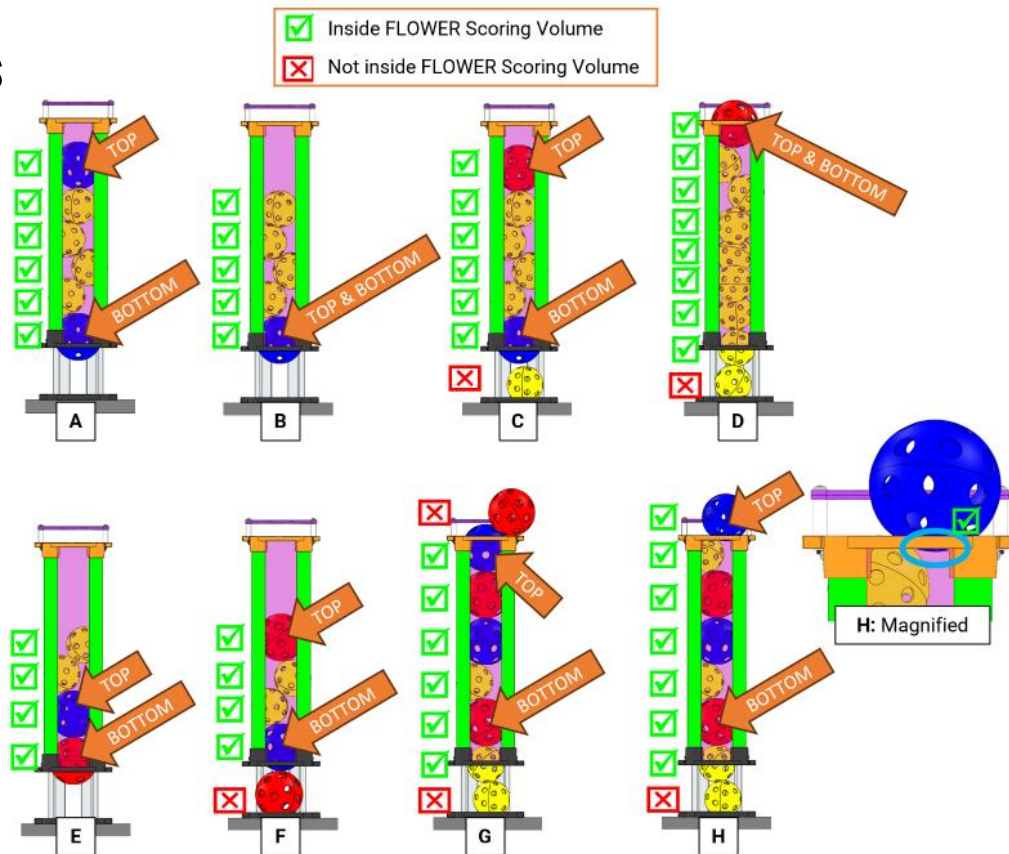


Note: SCORING ELEMENTS in the FLOWER scoring volume should always be scored, in the order they are in, & whether or not a violation occurred when they were scored. (Section 10.5.2)

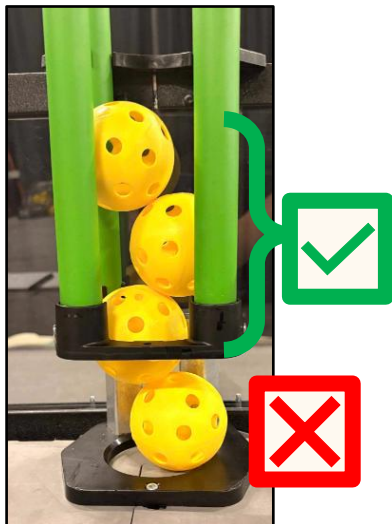
FLOWER Scoring Examples



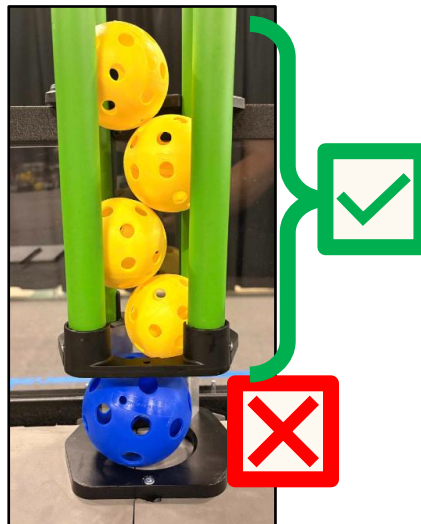
FLOWER scoring volume



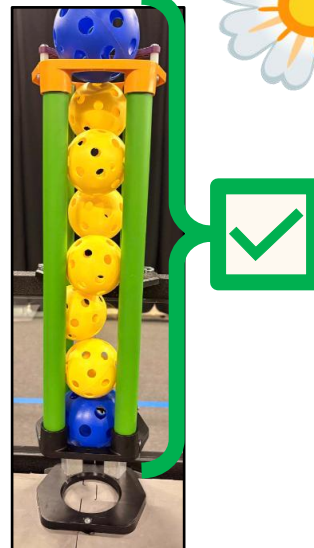
FLOWER Scoring – TELEOP



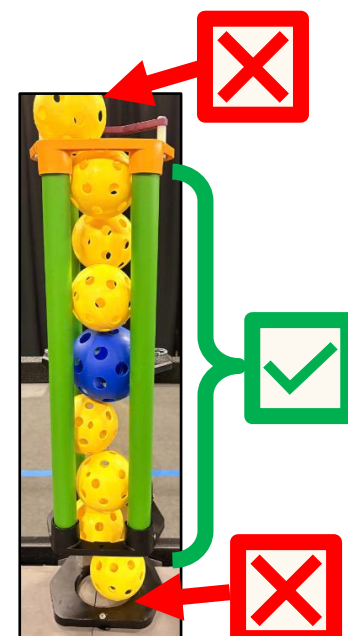
Input all 3 POLLEN partially or fully in the FLOWER scoring volume. **The bottom-most POLLEN does not meet scoring criteria** – it is not in the FLOWER scoring volume.



All 4 POLLEN are in the FLOWER scoring volume. **The blue NECTAR does not score.** It is not in the FLOWER scoring volume.



Input all 2 NECTAR and 6 POLLEN shown. **All are in the FLOWER scoring volume.**



Input all 6 POLLEN and 1 NECTAR partially or fully in the FLOWER scoring volume. **The bottom POLLEN and top POLLEN shown do not score.**

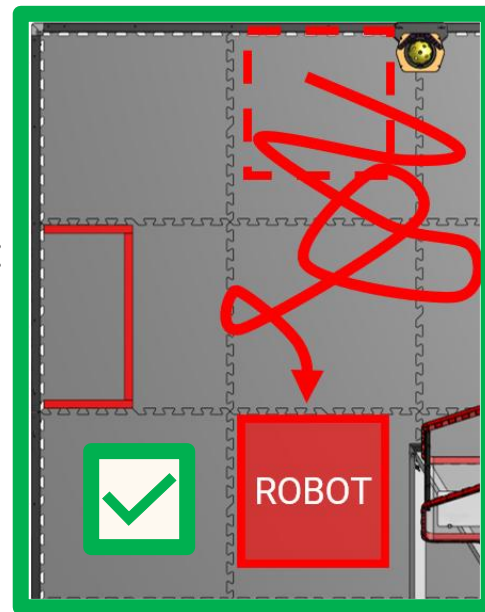
ROBOT LEAVE Scoring – AUTO

This achievement is only scored at the end of AUTO.

At the end of AUTO (T=2:00), the ROBOT has achieved LEAVE if:

- The ROBOT is no longer touching a wall.

Tip: Work with a Referee with a different vantage point to confirm Robot scoring achievements.



Note: This is based on a "snapshot" at the end of AUTO! A ROBOT that has met LEAVE criteria at some point during AUTO – but not at the end of AUTO, **OR** if a ROBOT only meets the criteria after the period has ended does not earn the LEAVE achievement.

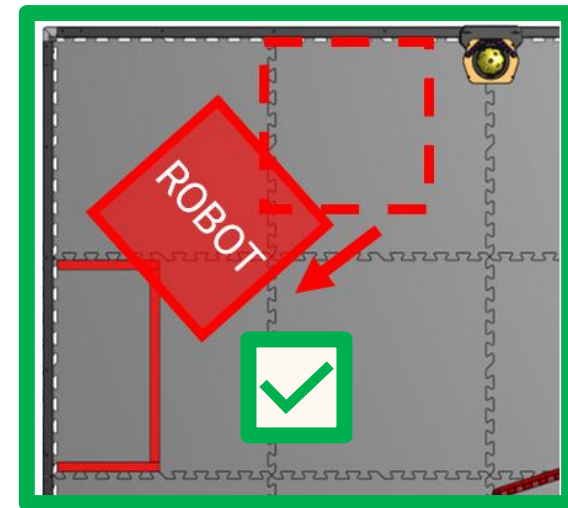
ROBOT PARK Scoring – AUTO & TELEOP

This achievement is scored at the end of AUTO and again at the end of TELEOP.

The ROBOT has achieved a PARK, if at the end of the period when T=2:00 or T=0:00:

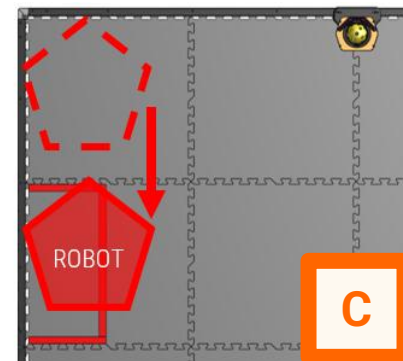
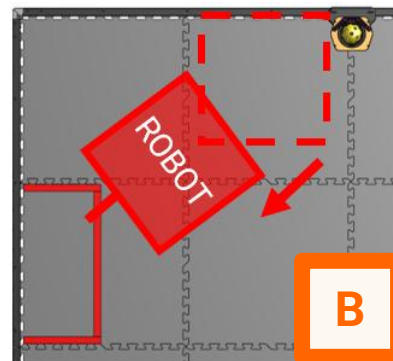
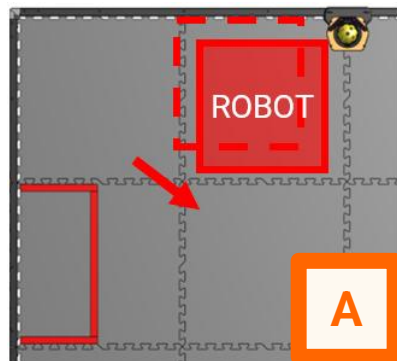
- The ROBOT is at least partially in the LOADING ZONE.
 - The tape is part of the LOADING ZONE.

Tip: Work with a Referee with a different vantage point to confirm ROBOT scoring achievements.



Note: This is based on a "snapshot" at the end of the MATCH period! A ROBOT that has met PARK criteria at some point during the MATCH period – but not at the end of the period, OR if a ROBOT only meets the criteria after the period has ended does not earn the PARK achievement.

ROBOT LEAVE & PARK Scoring – AUTO & TELEOP



Position at
T=2:00 for AUTO or
T= 0:00 for TELEOP

Scenario	A	B	C
LEAVE	Yes	Yes	No
PARK	No	Yes	Yes

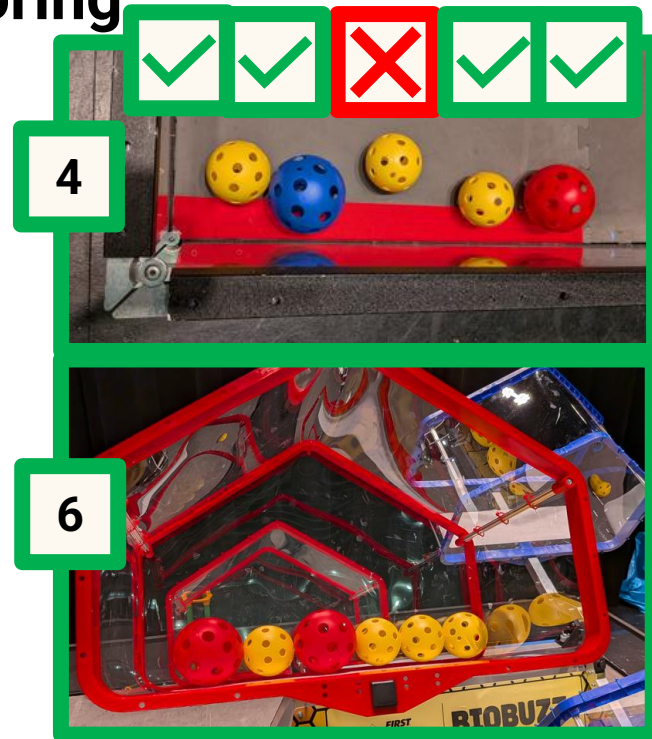
Note: At the end of AUTO (T=2:00), both LEAVE and PARK are scored.
At the end of TELEOP (T=0:00), only PARK is scored.

End of MATCH: NECTAR & POLLEN Scoring

When SCORING ELEMENTS and ROBOTS have come to rest following the end of the MATCH, count and input:

- NECTAR + POLLEN in the GARDEN
- NECTAR + POLLEN in the upward-facing CELL

Note: Count the total quantity of SCORING ELEMENTS, regardless of type or color.



Top Tips for Official Scorers

- **Score what you see!**
 - If the conditions have been met, enter the scoring achievement.
 - Do not try to change or not input the scoring achievement due to:
 - Blue scoring for Red or vice-versa.
 - A violation occurring while scoring.
 - Do not use any tools (i.e., "paper tests") to assess scoring achievements.
 - Do not enter the Field to score – move around the outside of the Field to see.
- If you aren't sure about a score for AUTO, do your best and advance to the next phase of the Match in order to not miss anything. Review the issue with the Head Referee post-Match prior to submitting the Final Review.
 - Ensure the Final Review has been submitted for the Match.
- You are not expected to know the points for the scoring actions, Match results (including scores), or whether ranking points were achieved. The scoring system manages all the calculations in the background.
- The Head Referee should handle all team interactions. Direct teams with questions to the Question Box.

