```
r 〈 7d8b50a 〉 :: 〈 2017-08-04, by Robert 〉 :: 〈 Initial commit 〉
\downarrow < 05944d2 \rangle :: < 2017-08-04, by Rob A \rangle :: < Updated FTC App to 3.2 Beta \rangle
\downarrow < d922861 > :: < 2017-08-04, by Rob A > :: < fixing submodule issue. Removed toTC.sh >
\downarrow \langle Obf0f57 \rangle :: \langle 2017-08-04, by Rob A \rangle :: \langle Fixed submodule issue \rangle
├ 〈 a10c785 〉 :: 〈 2017-08-05, by Rob A 〉 :: 〈 lol notes 〉

ightharpoonup \langle a426297 \rangle :: \langle 2017-08-06, by Rob A \rangle :: \langle Added enum for bot actions and the bot class to be filled in. \rangle
\downarrow < c16594f > :: < 2017-08-06, by Rob A > :: < testing for slack integration >
| ⟨ ab6379d ⟩ :: ⟨ 2017-08-07, by Rob A ⟩ :: ⟨ removed slack test file ⟩
\mid \langle bdfb595 \rangle :: \langle 2017-08-07, by Rob A \rangle :: \langle slight improvements to bot class \rangle
\downarrow < e77f0d9 > :: < 2017-08-07, by Wen P > :: < Added some basic enums; we should add more as we figure out the bot's hardware >
├ < 51efa9d > :: < 2017-08-07, by Rob A > :: < minor updates to bot actions for future us to fill in (actions enum). >
\downarrow < 255bb0e \rangle :: < 2017-08-07, by Rob A \rangle :: < updates to bot class \rangle
\downarrow < 775db69 \rangle :: < 2017-08-18, by Rob A \rangle :: < update to bot \rangle
▶ < 17319a8 > :: < 2017-08-29, by Rob A > :: < updated gitignore >
├ < 12ad864 > :: < 2017-09-09, by Wen P > :: < Updated sdk? >
├ 〈 a3c0292 〉 :: 〈 2017-09-09, by Wen P 〉 :: 〈 Updated sdk 〉
\downarrow < c2e111a > :: < 2017-09-09, by Wen P > :: < Finish updating >
\downarrow < 94f2f8b > :: < 2017-09-09, by Wen P > :: < Created standalone package for enums >
├ 〈 c2165f3 〉 :: 〈 2017-09-10, by Rob A 〉 :: 〈 added telebop class and 2 auton classes — unfilled 〉
├ < 13b7c9e > :: < 2017-09-11, by Rob A > :: < Added PDFs >

ightharpoonup d1bcac3 
ightharpoonup :: \langle 2017-09-14, by Rob A 
ightharpoonup :: \langle Learning rev stuff and making robot do things for activities fair 
ightharpoonup
\downarrow 4c17073 \rangle :: \langle 2017-09-15, by Rob A \rangle :: \langle Finished tester bot \rangle
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├ 〈 75f169e 〉 :: 〈 2017-09-16, by Rob A 〉 :: 〈 moved test bot stuff into a seperate folder and made some minor adjustments to the bot class. 〉
\downarrow < 2f7d080 > :: < 2017-09-18, by Rob A > :: < Some changes to telebop - started wrok on field centric drive >
▶ < b8f69d2 > :: < 2017-09-20, by Rob A > :: < Split field centric drive work into a seperate class >
\downarrow \langle f707fel \rangle :: \langle 2017-09-22, by Rob A \rangle :: \langle lol field centric drive in 2017 \rangle
├ 〈 0d28392 〉 :: 〈 2017-09-22, by Wen P 〉 :: 〈 bzzt bzzt 〉
\downarrow \langle 35327ec \rangle :: \langle 2017-09-22, by Wen P \rangle :: \langle Made better readme for teamcode \rangle
├ < be64251 > :: < 2017-09-22, by Wen P > :: < added motor related stuff to Bot class, made init function have arguments >
\downarrow < 110b66e > :: < 2017-09-22, by Wen P > :: < hyperlul fixed that interesting drive orientation >
\vdash
| | \ \ 7f16776 \ :: \ 2017-09-22, by Wen P \ :: \ Worked on enums. Migrated movement enum to ADT to allow for Angle and easier drive function maker \
\mid \cdot \mid \langle 97 \text{ebcb4} \rangle :: \langle 2017 - 09 - 22, \text{ by Wen P} \rangle :: \langle \text{removed impo from Bot.java} \rangle
├ | ⟨ 9ca949b ⟩ :: ⟨ 2017-09-22, by Rob A ⟩ :: ⟨ Worked on Field Centric Driving, NOTE: problem with setting negative powers on wheels ⟩
Н
├ 〈 fb7d18d 〉 :: 〈 2017-09-22, by Rob A 〉 :: 〈 Merge branch 'master' of https://github.com/0207-Critical-Mass/0207-Relic-Recovery 〉
\downarrow < a91f55b > :: < 2017-09-22, by Rob A > :: < fixed the field centric drive (I think) >
├ < ebfe628 > :: < 2017-09-22, by Rob A > :: < commented the field centric drive code - requires testing still. >
\downarrow \langle 9dc5483 \rangle :: \langle 2017-09-22, by Rob A \rangle :: \langle Moved around old testbot opmodes \rangle
\downarrow < 686665b > :: < 2017-09-22, by Rob A > :: < Minor changes to the field centric drive opmode >
├ < 6a16c6b > :: < 2017-09-22, by Robert > :: < Update README.md >
├ 〈 bfedca0 〉 :: 〈 2017-09-23, by Rob A 〉 :: 〈 minor change to bot class and bug fixes in Field Centric 〉
\downarrow < 0fd860a \rangle :: \langle 2017-09-25, by Wen P \rangle :: \langle made it lowercase folder \rangle
\downarrow < 7c3b8c8 > :: < 2017-09-25, by Wen P > :: < Added some comments >
```

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\vdash
\mid \cdot \mid \langle 033b1f4 \rangle :: \langle 2017-09-26, \text{ by Rob A} \rangle :: \langle \text{Added OpMode for calibration of the gyro.} \rangle
| ├ ⟨ 8dac403 ⟩ :: ⟨ 2017-09-26, by Rob A ⟩ :: ⟨ Minor changes to Field Centric so that we can effectively test the new CalibrateGyro opmode ⟩
├ | 〈 990d96c 〉 :: 〈 2017-09-29, by Wen P 〉 :: 〈 Worked on bot clas, added imu related code, added simple example drive function 〉
Н
├ < c0f39f7 > :: < 2017-09-29, by Wen P > :: < Merge branch 'master' of https://github.com/0207-Critical-Mass/0207-Relic-Recovery >
\downarrow \langle 322df22 \rangle :: \langle 2017-09-29, by Wen P \rangle :: \langle created the teleopautobalance teleop \rangle
\downarrow \langle 9d6d133 \rangle :: \langle 2017-09-29, by Wen P \rangle :: \langle removed extra created by comment \rangle
\downarrow < a8bc827 > :: < 2017-09-29, by Wen P > :: < added a comment, but finishing yp for the day so logging it even though its small >
\downarrow \langle 7a8e6f5 \rangle :: \langle 2017-10-08, by Rob A \rangle :: \langle field centric thing \rangle
\downarrow < 72abd86 \rangle :: < 2017-10-08, by Rob A \rangle :: < stuff for workshop \rangle
\downarrow \langle d97f8be \rangle :: \langle 2017-10-08, by Wen P \rangle :: \langle Added basic tank drive teleop for 10/8/17 \rangle
├ 〈 bdae268 〉 :: 〈 2017-10-08, by Rob A 〉 :: 〈 Rob stuff, pushing so wen can fix natural log 〉
\downarrow \langle 531dfd7 \rangle :: \langle 2017-10-20, by Rob A \rangle :: \langle updates from work session 10/20/17 \rangle
\downarrow < ac631b8 > :: < 2017-10-20, by Rob A > :: < updates from work session 10/20/17 >
\downarrow \langle feb2bf9 \rangle :: \langle 2017-10-23, by Rob A \rangle :: \langle Bot class updates \rangle
\downarrow < 95786bf \rangle :: \langle 2017-10-23, by Rob A \rangle :: \langle bot changes + vuforia test \rangle

ightharpoonup \langle d3a3a12 \rangle :: \langle 2017-10-23, by Rob A \rangle :: \langle updates to autons and bot class \rangle
\downarrow \langle 34ea701 \rangle :: \langle 2017-10-23, by Rob A \rangle :: \langle Added subclass autonbot and teleopbot \rangle

ightharpoonup \langle d4c1fcc \rangle :: \langle 2017-10-23, by Rob A \rangle :: \langle removed constructor from bot class \rangle
\downarrow < 55404b0 \rangle :: \langle 2017-10-23, by Rob A \rangle :: \langle removed the autonbot and telebopbot classes to make room for wen's new system \rangle
\downarrow < 101441f > :: < 2017-10-27, by Rob A > :: < updated to 3.0-> gradles etx change >
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\downarrow < e0ac1bd > :: < 2017-10-27, by Rob A > :: < PUSH >
\downarrow < a7e7e08 > :: < 2017-10-30, by Rob A > :: < edits to bot class and telebop >
\downarrow < cab994f > :: < 2017-10-30, by Rob A > :: < removed field centric drive opmode >
├ < 8897bf7 > :: < 2017-10-31, by Rob A > :: < Added more functions and motors to bot class, cleaned autons up using improved class. >
\blacktriangleright \langle 8e9a547 \rangle :: \langle 2017-11-01, by Wen P \rangle :: \langle updated sdk to 3.5 \rangle
├ < 501e3f7 > :: < 2017-11-01, by Wen P > :: < added arm servo stuff to bot, hopefully it works >

brack \langle 5f64187 \rangle :: \langle 2017-11-01, by Wen P \rangle :: \langle idk possibly added arm stuff \rangle
\vdash
ΙН
НΙ
├ | ⟨ 3e66963 ⟩ :: ⟨ 2017-11-02, by Rob A ⟩ :: ⟨ Merge branch 'master' of https://github.com/Dwight-Englewood-Robotics/0207-Relic-Recovery ⟩
\mid \mid \langle 24d0854 \rangle :: \langle 2017-11-03, by Wen P \rangle :: \langle added more comment: \rangle
| ├ ⟨ 844d263 ⟩ :: ⟨ 2017-11-03, by Wen P ⟩ :: ⟨ added OneButtonMan Teleop for testing motor and configuration ⟩
| ├ < 93b6c0a > :: < 2017-11-03, by Wen P > :: < chagned some stuff in bot and teleop to make other stuff work >
\mid \mid \langle 52c710f \rangle :: \langle 2017-11-03, by Wen P \rangle :: \langle added start of system for the ASM based robot/subsystem design: \rangle
I \vdash 
| ├ | ⟨ fc1f16e ⟩ :: ⟨ 2017-11-03, by Wen P ⟩ :: ⟨ fixed a type making the armBottomExtendyServo not work properly ⟩
\mid \cdot \mid \cdot \mid \langle 8de32d8 \rangle :: \langle 2017-11-03, by Rob A \rangle :: \langle rob bot stuff \rangle
```

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НΙ
14
| ├ < 1c4c1a9 > :: < 2017-11-03, by Wen P > :: < Merge branch 'master' of https://github.com/Dwight-Englewood-Robotics/0207-Relic-Recovery >
\mid \cdot \mid \langle 788023e \rangle :: \langle 2017-11-03, by Rob A \rangle :: \langle Random crap \rangle
\vdash
├ < 3aee82b > :: < 2017-11-03, by Rob A > :: < Merge branch 'master' of https://github.com/Dwight-Englewood-Robotics/0207-Relic-Recovery >
\vdash
\mid \mid \langle 749bdff \rangle :: \langle 2017-11-03, by Wen P \rangle :: \langle changed onebuttonman so it doesnt have the bad releaseTheKraken \rangle
ΙН
\mid \mid \mid \langle 607df86 \rangle :: \langle 2017-11-03, by Rob A \rangle :: \langle changed to range clip \rangle
НΙ
├ | ⟨ 3a01764 ⟩ :: ⟨ 2017-11-03, by Rob A ⟩ :: ⟨ Merge branch 'master' of https://github.com/Dwight-Englewood-Robotics/0207-Relic-Recovery ⟩
НΙ
|| \cdot | \cdot | 79f92dd \rangle :: \langle 2017-11-03, by Wen P \rangle :: \langle releaseTheGiantQuid \rangle
14
| ├ ⟨ 8c73387 ⟩ :: ⟨ 2017-11-03, by Wen P ⟩ :: ⟨ Merge branch 'master' of https://github.com/Dwight-Englewood-Robotics/0207-Relic-Recovery ⟩
\c \mid \c \mid \c \in Ce687d2 \c \mid :: \c \mid 2017-11-03, by Rob A \c \mid :: \c \mid idk \c \mid
Н
\downarrow \langle ff04520 \rangle :: \langle 2017-11-03, by Rob A \rangle :: \langle asd \rangle

ightharpoonup \langle 8922528 \rangle :: \langle 2017-11-03, by Wen P \rangle :: \langle chjanged arm extendy values to make them work \rangle
\downarrow \langle 4347415 \rangle :: \langle 2017-11-03, by Rob A \rangle :: \langle k \rangle
\downarrow \langle fc14508 \rangle :: \langle 2017-11-03, by Rob A \rangle :: \langle Minor fix to gyro turns \rangle
```

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▶ < 95a13fd > :: < 2017-11-05, by Rob A > :: 
\downarrow < 12b75b4 > :: < 2017-11-05, by Wen P > :: < lots of natural log from today from rob/wen >
├ 〈 a06109d 〉 :: 〈 2017-11-06, by Wen P 〉 :: 〈 renamed ServoTest teleops made in competition, made them more readable 〉
├ < 65994f9 > :: < 2017-11-06, by Wen P > :: < added intellij templates - must be manually added to intellij, allows for super easy new teleop/auton creation
\downarrow < e6dbe58 > :: < 2017-11-08, by Wen P > :: < Removed Useless comment and added a newline to readme >
├ 〈 32c3e3c 〉 :: 〈 2017-11-09, by Rob A 〉 :: 〈 Finished the test bench code. Began adding new servos to the bot class for the flipper and two release servos
(now tested). TODO: find equilibrium distance for two release servos, find correct points for release and flip actions.
├ 〈 6c68edf 〉 :: 〈 2017-11-09, by Rob A 〉 :: 〈 Commented out end game servos from bot class and teleop. 〉
├ 〈 4e0d78f 〉 :: 〈 2017-11-09, by Rob A 〉 :: 〈 Cleaned up different opmodes into respective packages (Auton, Teleop, Testing, etc.) for cleanliness 〉
├ < 69b994a > :: < 2017-11-09, by Rob A > :: < cleaned the bot class by removing unnecessary comments and adding functions for things that could be automated.
▶ < 977d79d > :: < 2017-11-09, by Rob A > :: < Moved hardware mapping to the bot class constructor to make loading times faster when pressing init on the
drivers station. >
🗜 < 905902e > :: < 2017-11-09, by Rob A > :: < Changed the inputs to the constructor of the bot class to take over the role of setting hardwaremap references
to motor, servo, sensor etc objects. Also moved telemetry to the bot class. Each of these now have references within the bot class to eleviate the need for
passing them in the future for other methods. This has the additional effect of making our init function faster (Also removed the second unnecessary init).
├ 〈 23819de 〉 :: 〈 2017-11-10, by Rob A 〉 :: 〈 Added an invert drive mode to the bot class' tank drive function. 〉

ightharpoonup \langle b6265f9 \rangle :: \langle 2017-11-10, by Rob A \rangle :: \langle Minor change to ordering of declarations in bot class to make more sense. \rangle
├ 〈 7ab27f4 〉 :: 〈 2017-11-13, by Rob A 〉 :: 〈 Renamed wen's wip bot class for confusion reasons. Also added the Enderbot's closable vuforia localizer so
that we can use both vuforia and OpenCV in our code. >
restart the app. \rangle
```

 $\begin{tabular}{l} $ \sqsubseteq$ [HEAD]$ $-[master]$ $-[mast$