

# **Auto Controller Manual - brianuuuSonic 2020**

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## Before You Start

Please watch the following video before you start anything!!!

[https://www.youtube.com/watch?v=y2xFf7e\\_KSU&list=PLrAfKLfOSiGFy6w.joh1EXQqYjEIoB0kfX](https://www.youtube.com/watch?v=y2xFf7e_KSU&list=PLrAfKLfOSiGFy6w.joh1EXQqYjEIoB0kfX)

You should watch the following timestamp of the video, you can skip the others:

- 0:00 - 3:07 Hardwares you will need to buy (Arduino/Teensy/Knockoffs)
- 3:07 - 3:47 Software required for the hardware you are using (WindAVR/Flip/TeensyLoader)
- 5:58 - 8:02 How to load .hex into your microcontroller

## Y-Comm Link Battle Day Spoofing Glitch

1. Connect to the internet
2. Do a y-comm link battle (Single/Double)
3. Wait until “An opposing trainer has been found” dialog shows up
4. DC from the server with the follow methods:  
Handheld mode:
  - a. Hold down HOME button to bring up quick menu
  - b. Turn on Airplane mode, then turn it off after DC error message show up



Docked (wired connection):

- a. Simply take the Switch out from the dock and put it back in

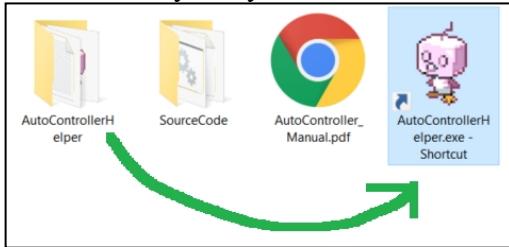
Docked (Wi-Fi connection):

- a. Goto HOME menu and goto any profile
  - b. Goto Add Friend -> Search for Local Users
  - c. Confirm disconnecting from the current internet connection
  - d. Go back to game
5. Day spoofing glitch is now active, goto Pokemon Center to prevent crashing
  6. This glitch works locally with 2 Switches as well

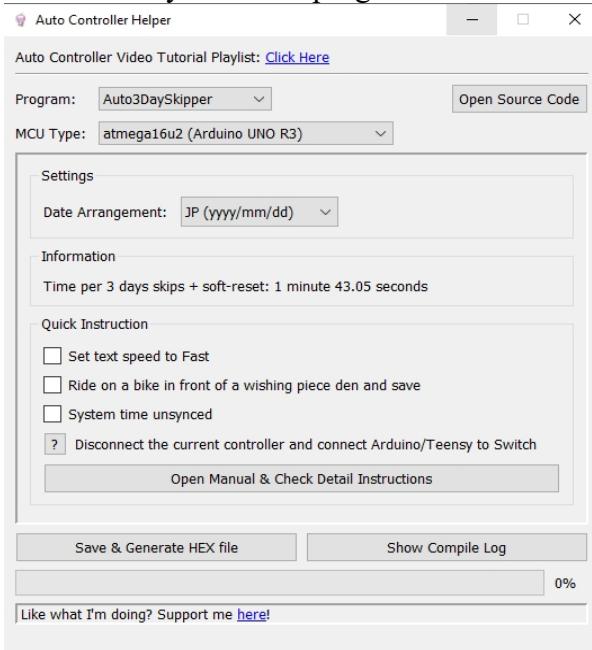
# Program Instructions

## General Use of AutoControllerHelper

Before using the program, you are advised to pin the program or create a shortcut of **AutoControllerHelper.exe** from **AutoControllerHelper** folder to the root folder, this is not mandatory but you should avoid changing anything in the two sub folders.



Here's the layout of the program:



- **Auto Controller Video Tutorial Playlist:** Videos for individual programs
- **Program:** Select available programs here
- **MCU Type:** Change it base on your board (Arduino/Teensy etc.)
- **Open Source Code:** Direct to the source code of the current program (Do NOT edit them unless timing of button presses needs to be changed)
- **Settings:** Settings of the current program
- **Information:** Tells you estimate time the program will take, error messages or any additional information user needs to know
- **Quick Instruction:** quick checklist of what you have to do before running the program (Check Detail Instruction redirects to this manual)
- **Save & Generate HEX file:** Generate .hex file with the current settings to load into your board, the .hex file will be located at the folder you create the shortcut
- **Show Compile Log:** Show success/fail compile log

## **Auto3DaySkipper**

This program rows 3 days forward to a random pokemon in a wishing piece den and repeats, this is useful if you are rolling for a specific pokemon (e.g. 5% 5\* G-max).

### **Settings**



- **Date Arrangement:** Match with your system's current settings, check it at  
“System Settings > Settings > Date and Time > Date and Time”  
yyyy/mm/dd = JP, dd/mm/yyyy = EU, mm/dd/yyyy = US

### **Instructions**

1. Goto Options, set Text Speed to Fast
2. Ride on a bike in front of the wishing piece den
3. Save the game
4. Unsync system clock, go back to the game
5. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

### **What does the Program do?**

1. Sync and Unsync clock and reset date to current date
2. Skip 3 days (years) forward using invite glitch
3. Rings the bike bell to notify user to check if the pokemon is the one they want
4. If yes, unplug the board, if no, leave it alone and it will restart the game and start at 1. again

### **Config.h Detail**

- **m\_JP\_EU\_US:** 0 = JP (yyyy/mm/dd), 1 = EU (dd/mm/yyyy), 2 = US (mm/dd/yyyy)

## **AutoBattleTower**

This program automatically does battle tower in Wyndon and grinds BP. This is very useful if you need BP to buy mints and ability capsules. Credit goes to sug@r for the button sequence (check credits for reference).

### **Settings**

N/A

### **Instructions**

1. Goto Options, set Text Speed to Fast, set Battle Effects to Off
2. Goto VS -> Battle Stadium -> Rental Teams (You will need **Nintendo Switch Online** for this, if not you will need to build the team yourself, you can refer to Appendix 3 to check how to maximize the power of the Pokemon)
3. Rent the team with ID “0000-0006-15Y4-3R”, the team includes:

#### **Zacian @ Rusted Sword**

Ability: Intrepid Sword  
EVs: 252 Atk / 4 Def / 252 Spe  
Adamant Nature  
- Iron Head (Max PP Up)

#### **Eternatus @ Choice Specs**

Ability: Pressure  
EVs: 4 Def / 252 SpA / 252 Spe  
Modest Nature  
- Dynamax Cannon (Max PP Up)

#### **Dracovish @ Choice Scarf**

Ability: Water Absorb  
EVs: 252 Atk / 4 Def / 252 Spe  
Adamant Nature  
- Fishious Rend (Max PP Up)

4. Join Single Battle on Battle Tower, choose the team above and Zacian in the front, wait until you can press Fight on the first battle
5. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

### **What does the Program do?**

It loops Battle Tower forever, it is able to switch Pokemon. It is also able to re-enter Battle Tower when losing, pausing midway or after winning.

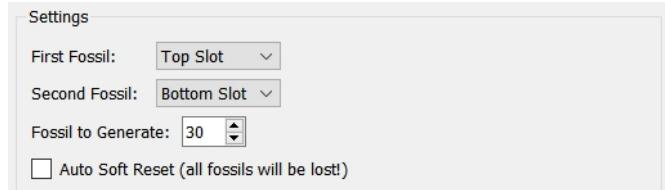
### **Config.h Detail**

N/A

## AutoFossil

This program automatically talks to Cara Liss and generate fossils, this is perfect if you are hunting for shiny fossils, as they cannot be bred and not available in raids.

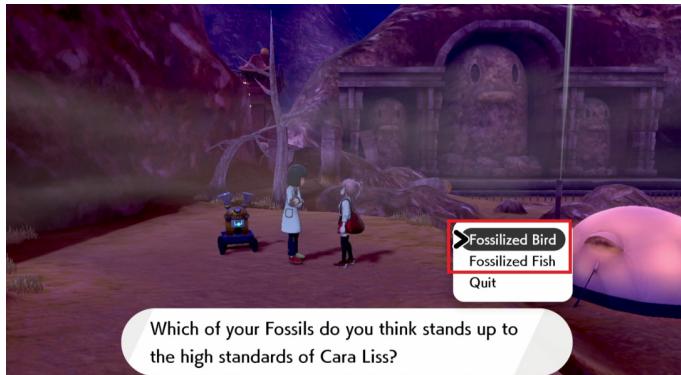
## Settings



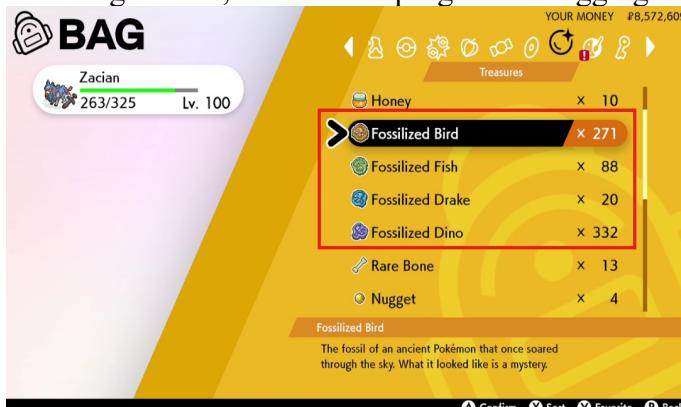
- **First Fossil:** The 1<sup>st</sup> fossil selection when you talk to Cara Liss (Top/Bottom)
- **Second Fossil:** The 2<sup>nd</sup> fossil selection when you talk to Cara Liss (Top/Bottom)
- **Fossil to Generate:** how many fossil you want to generate before restarting
- **Auto Soft Reset:** Automatically restart the game when you get enough fossils

## Instructions

1. Goto Options, set Text Speed to Fast, set Give Nicknames to Don't give
2. Fly to route 6 and save in front of Cara Liss
3. Create the fossil at least once to register it in the Pokédex
4. Talk to Cara Liss, check whether your fossil is on the top slot or the bottom slot for both fossils



5. Check whether you have enough number for both fossils in your inventory, if you want to get more, use TurboA program on digging duos



6. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

## What does the Program do?

The program will keep talking to Cara Liss until you get enough number of fossils, if you didn't check "**Auto Soft Reset**", the program will stop at the home menu signaling it is finished. Otherwise it will soft-reset immediately, you will have to pay attention every time you get a fossil and check whether it is a shiny, generally this is not recommended.

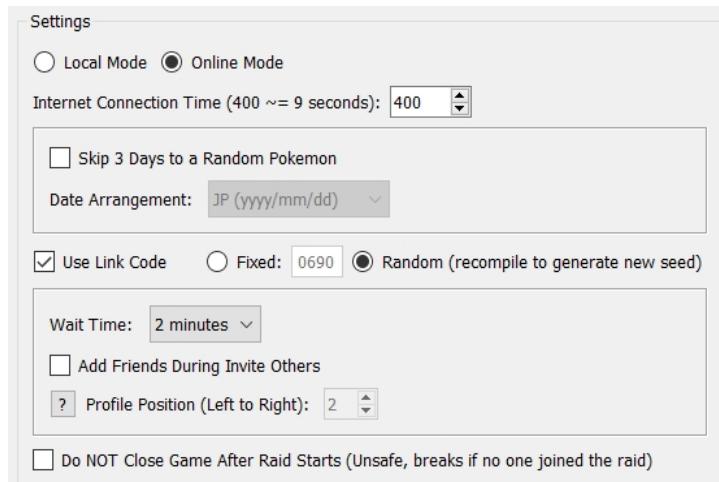
## Config.h Detail

- **m\_firstFossilTopSlot:** true = top slot, false = bottom slot
- **m\_secondFossilTopSlot:** true = top slot, false = bottom slot
- **m\_timesBeforeSR:** Number of fossils to generate
- **m\_autoSoftReset:** true = SR when enough fossile, false = otherwise

## AutoHost

This program automatically host raid, with a lot of different settings user can set, including skipping to the 4<sup>th</sup> day for random pokemon, customize link code, add friend during waiting etc.

## Settings



- **Local/Online Mode:** Set between hosting locally or online
- **Internet Connection Time:** Change this base on the time it takes for your game to connect to the internet, 400 ~= 9 seconds, you are advised to use wired connection to have faster and stable connection
- **Skip 3 Days to a Random Pokemon:** Checking this will roll 3 days to a random pokemon before hosting a raid
- **Date Arrangement:** Match with your system's current settings, check it at "System Settings > Settings > Date and Time > Date and Time" yyyy/mm/dd = JP, dd/mm/yyyy = EU, mm/dd/yyyy = US
- **Use Link Code:** Checking this will set a link code before starting a raid
  - Fixed:** Use the same link code for all raids
  - Random:** Generate a pseudo random link code for each raid, the sequence will be the same every time you unplug and replug the board, to change to a different random sequence, recompile the program
- **Wait Time:** 2 minutes (until 1:00 mark) or 1 minute (until 2:00 mark), the client must be ready before the timer, otherwise the raid will fail or break the program
- **Add Friend During Invite Others:** Checking this will add friends while waiting for client to join the raid
- **Profile Position (Left to Right):** Only used when you check above, at home menu, the profiles on the top from left to right, pick the one you which to add friend on
- **Do NOT Close Game After Raid Starts:** Checking this will keep the same raid without restarting the game, this is **unsafe** since if clients are not ready before the timer hits or no one joins the raid, the program will softlock inside a raid, so user should monitor the program. This is not available if "**Skip 3 Days to a Random Pokemon**" is checked, if you which to do that, please use Auto3DaySkipper before using this program.

## Instructions

1. Goto Options, set Text Speed to Fast
2. Stand in front of the wishing piece den and save
3. Disconnect from the internet in y-comm
4. If “**Skip 3 Days to a Random Pokemon**” is checked, you must unsync system clock
5. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

## What does the Program do?

1. If “**Skip 3 Days to a Random Pokemon**” is not checked, skip to next step, otherwise it does the same thing as Auto3DaySkipper
2. Connect to internet at y-comm
3. Talk to the den, if “**Use Link Code**” is checked, it will set your fixed or random link code then start the raid
4. While waiting for clients to join, if “**Add Friend During Invite Others**” is checked, it will goto the profile number you picked and spam A at Add Friends
5. Start raid after it waited for “**Wait Time**”, and wait until you can see the pokemon
6. If “**Do NOT Close Game After Raid Starts**” is checked, it will goto the first profile and search for local friend, this will DC from the raid but keeping the same raid, then restart from 2., otherwise it will close the game and start from 1. Again (note that restarting game will result client’s side freezing for 10-15 seconds)

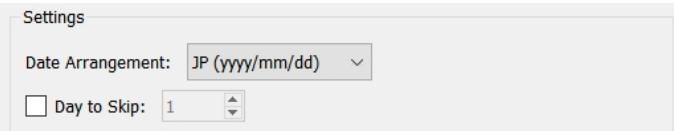
## Config.h Detail

- **m\_localMode:** false = host locally, true = host online
- **m\_internetTime:** Time to connect to internet (400 ≈ 9 seconds)
- **m\_JP\_EU\_US:** 0 = JP (yyyy/mm/dd), 1 = EU (dd/mm/yyyy), 2 = US (mm/dd/yyyy)
- **m\_skip3Days:** Skip 3 days before starting a raid
- **m\_unsafeDC:** true = use invite local friend to DC from raid, false = restart game
- **m\_useLinkCode:** true = set link code for raid, false = otherwise
- **m\_useRandomCode:** true = Generate pseudo random link code base on **m\_seed**, **m\_useLinkCode** must be set to true to use this
- **m\_seed:** 0 to 255, a seed to generate different pseudo random link code sequence
- **m\_linkCode[]:** set your fixed link code here, 1234 = {1,2,3,4}; etc., **m\_useLinkCode** must be set to true and **m\_useRandomCode** set to false to use this
- **m\_waitTime:** 0 = wait 1 minute until 2:00 mark, 1 = wait 2 minutes until 1:00 mark
- **m\_addFriends:** true = add friends while waiting for clients to join raid
- **m\_profile:** 1 to 10, the profiles on the top at home screen from left to right,

## AutoLoto

This program grinds loto for rewards like PP Up, PP Max and Master Balls! Before you use this program you should have at least a few surprise trade boxes so they all have different trainer ID to maximize your chance of getting better rewards. If you want to do surprise trade automatically, use EggCollector and EggHatcher to hatch boxes of Magikarps and use BoxSurpriseTrade to trade them all.

## Settings



- **Date Arrangement:** Match with your system's current settings, check it at “System Settings > Settings > Date and Time > Date and Time”  
yyyy/mm/dd = JP, dd/mm/yyyy = EU, mm/dd/yyyy = US  
\*\*\*You are recommended to use **Japanese** date arrangement since it skips day the fastest, to do so, goto System Settings > System > Language, change it to **日本語** (remember where to change this if you can't read Japanese and wish to change the language back later)
- **Day to Skip:** Optional, the program will stop after skipping specified days, so you can grind loto and also skipping days for your shiny den at the same time

## Instructions

1. Goto Options, set Text Speed to Fast
2. Stand in front of a Rotom PC
3. Unsync system clock, go back to the game
4. Activate y-comm glitch
5. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

## What does the Program do?

1. Sync and Unsync clock and reset date to current date
2. Skip 1 day (year) forward
3. Get reward from loto, repeat 1., if optional day to skip is set, the program will stop at the home menu signaling it is finished

## Config.h Detail

- **m\_JP\_EU\_US:** 0 = JP (yyyy/mm/dd), 1 = EU (dd/mm/yyyy), 2 = US (mm/dd/yyyy)
- **m\_dayToSkip:** 0 = infinite, otherwise the number of days before the program stops

## **AutoTournament**

This program automatically does tournament in Wyndon stadium and grinds items from Ball Guy (he's awful). This is useful if you need rare items like Flame Orb, Toxic Orb or Kurt Balls that you can only get via tournament. Credit goes to 甘木まぎ@makinng for the button sequence (check credits for reference).

## **Settings**

N/A

## **Instructions**

1. Goto Options, set Text Speed to Fast, set Battle Effects to Off
2. Have only Zacian in your team with the following set (please refer to Appendix 3 to check how to maximize the power of the Pokemon):

### **Zacian (lv100) @ Rusted Sword**

Ability: Intrepid Sword

EVs: 252 Atk, Optional: 4 Def / 252 Spe

Adamant Nature

- Iron Head (Max PP Up)

3. If you don't have Zacian then you can try to use one of the Pokemon below, but all of them are significantly worse than Zacian and each one can have opponent that is impossible to beat (sorry Shield players, good luck):

### **Galarian Darmanitan (lv100) @ Choice Band**

Ability: Gorilla Tactics

EVs: 252 Atk / >32 Spe / the rest on Def

Adamant Nature

- Ice Punch/Icicle Crash (Max PP Up)

### **Trainers Can't Beat:**

- Hop (Zacian)
- Nessa (Drednaw)
- Kabu (Centiskorch)

\*Icicle Crash can beat everything (if the move hits with 90% accuracy)

### **Tyranitar (lv100) @ Choice Band**

Ability: Sand Stream

EVs: 252 Atk / >220 Spe / the rest on Def

Jolly Nature

- Crunch (Max PP Up)

### **Trainers Can't Beat:**

- Hop (Zacian)
- Marnie (Scrafty & Grimmsnarl)

### **Crawdaunt (lv100) @ Choice Band**

Ability: Adaptability (Hidden)

EVs: 252 Atk / 252 Spe / 4 Def

Adamant Nature

- Crunch (Max PP Up)

#### **Trainers Can't Beat:**

- Hop (Zacian)
- Marnie (Grimmsnarl) \*within range

### **Sirfetch'd (lv100) @ Choice Band**

Ability: Scrappy (Hidden)

EVs: 252 Atk / >180 Spe / the rest on any

Jolly Nature

- Close Combat (Max PP Up)

#### **Trainers Can't Beat:**

- Allister (Runerigus) \*ability got replaced
- Bede (Hatterene)
- Leon (Charizard)

### **Dracovish (lv100) @ Choice Band**

Ability: Strong Jaw

EVs: 252 Atk / 252 Spe / 4 Def

Adamant Nature

- Fishious Rend (Max PP Up)

#### **Trainers Can't Beat:**

- Marnie (Toxicroak) \*Dry Skin
- Leon (Seismitoad) \*Water Absorb, only if you picked Gookey as your starter
- Gym Challenger Corvin (Lanturn) \*Water Absorb
- Gym Challenger Terry (Dracovish) \*Water Absorb

4. Stand in front of Wyndon Stadium receptionist

5. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

## **What does the Program do?**

It loops Wyndon Stadium tournament forever, collect reward from Ball Guy when it is over and rejoin the tournament, it is also able to rejoin if you lose.

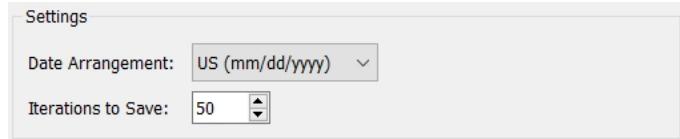
## **Config.h Detail**

N/A

## BerryFarmer

This program farms the same berry tree forever, you can use this to farm leftovers, Sitrus berry for competitive, or berries that increase happiness of your pokémon etc.!

## Settings



- **Date Arrangement:** Match with your system's current settings, check it at "System Settings > Settings > Date and Time > Date and Time"  
yyyy/mm/dd = JP, dd/mm/yyyy = EU, mm/dd/yyyy = US
- **Iterations to Save:** Save every that amount of loops has been run, since there's a small chance the game will crash if you are using this in Wild Area

## Instructions

1. Goto Options, set Text Speed to Fast
2. Stand in front of the berry tree you want to farm (check Serebii.net for what berries it one can drop)
3. Stay away from any wild pokemon that can run into you (Greedent/Sneasel etc.)
4. Unsync system clock, go back to the game
5. Activate y-comm glitch
6. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

## What does the Program do?

1. Sync and Unsync clock and reset date to current date
2. Skip 1 day (year) forward
3. Talk and shake the berry tree only once
4. If number of iteration matches "**Iterations to Save**" the game will be saved, otherwise it will repeat from 1.

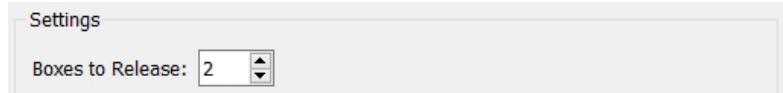
## Config.h Detail

- **m\_JP\_EU\_US:** 0 = JP (yyyy/mm/dd), 1 = EU (dd/mm/yyyy), 2 = US (mm/dd/yyyy)
- **m\_saveAt:** number of iterations to save, 0 = never saves (not recommended)

## BoxRelease

This program releases all pokemon in one or multiple boxes, if you have a lot of breed rejects you can use this to get rid of them very fast.

### Settings



- **Boxes to Release:** number of boxes of pokemon you wish to release

### Instructions

1. Save the game first in case anything goes wrong
2. Goto Options, set Text Speed to Fast
3. Make sure all release boxes are adjacent to each other, they should NOT have any eggs or empty spaces (the last rightmost box is allowed to have empty spaces, but the pokemon must be arranged from left to right, top to bottom, the program will also start to do weird things after releasing all pokemon, so it is best to monitor it)



4. Set the cursor to Select mode (red) and move it to the first leftmost box's top left
5. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

### What does the Program do?

The program releases pokemon in a box from left to right, top to bottom, when it finished releasing the boxes user has set, the program will stop at the home menu signaling it is finished.

### Config.h Detail

- **m\_boxCount:** number of boxes of pokemon you wish to release

## BoxSurpriseTrade

This program automatically do surprise trade with the Pokemon in your PC, this is useful to get a lot of pokemon with different trainer ID to farm Master Balls from loto, you can use AutoLoto for that.

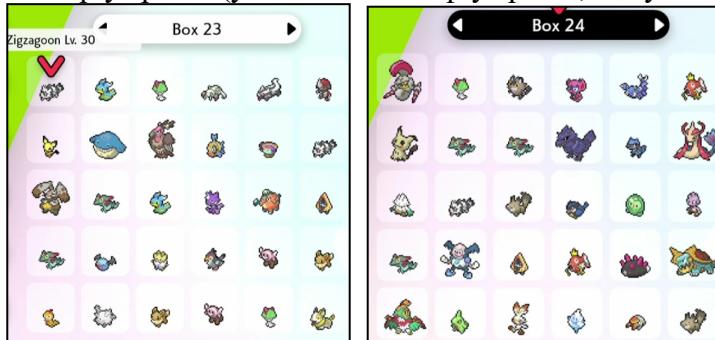
### Settings



- **Boxes to Trade:** number of boxes to do surprise trade
- **Completed PokeDex:** Check this if you have completed your pokedex, this saves a few seconds per trade

### Instructions

1. Goto Options, set Text Speed to Fast
2. Fly to any places that is not Wild Area, this will reduce lag
3. Do not stand in front of any NPCs to prevent talking to them
4. Make sure all trade boxes are adjacent to each other, they should NOT have any eggs or empty spaces (you can have empty spaces, but you will be just wasting time)



5. Goto PC, scroll the box view to the first leftmost box (Box 23 on the above example) and exit, this will make sure when the program starts, it will start on that box
6. Connect to the internet in y-comm
7. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

### What does the Program do?

The program do surprise trade of your selected boxes from left to right, top to bottom. It will wait 30 seconds then finish the trade. There are cases where the **next trade will fail**:

- Unable to find current trade in 30 seconds
- Current trade contains a trade evolution (Machoke, Haunter etc.)
- User has checked “**Completed PokeDex**” in settings but receives a new dex entry

This does not break the program, only skips the next trade. However, if the current trade is the last pokemon in a box, it will not be able to goto the next box and continue trading with the same box, to prevent that, the last trade has a wait time of 1 minute, but trade evolution will still break this, it is recommended to monitor near the end of each box.

When all the boxes have finished trading, the program will stop at the home menu signaling it is finished.

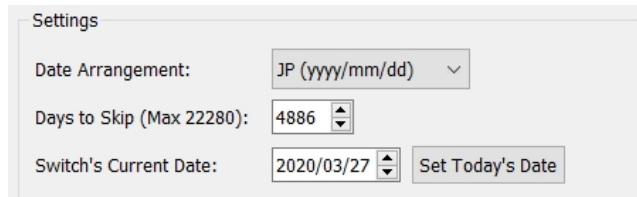
### **Config.h Detail**

- **m\_boxesToTrade:** number of boxes to do surprise trade
- **m\_completeDex:** true = skip a few seconds after every trade, false = extra A button presses after each trade

## DaySkipper

This program advances days automatically. This is mainly used to shiny hunting to skip thousands of days without doing it manually and breaks your finger. There are two version of this program, DaySkipper and DaySkipper\_Unlimited, if you wish to know the exact date the program will end at, use this, but this has a limit of skipping 22280 days.

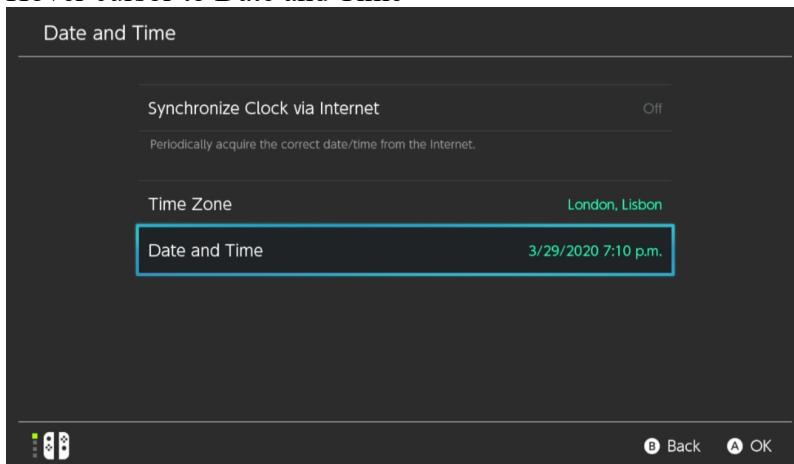
## Settings



- **Date Arrangement:** Match with your system's current settings, check it at “System Settings > Settings > Date and Time > Date and Time”  
yyyy/mm/dd = JP, dd/mm/yyyy = EU, mm/dd/yyyy = US  
\*\*\*You are recommended to use **Japanese** date arrangement since it skips day the fastest, to do so, goto System Settings > System > Language, change it to **日本語** (remember where to change this if you can't read Japanese and wish to change the language back later)
- **Days to Skip:** number of days to skip, maximum is 22280, due to Switch's max date is 31<sup>st</sup> December 2060.
- **Switch's Current Date:** Match this with your console's date, you will have to change the date if the number of skips exceed the maximum date

## Instructions

1. Unsync system clock, make sure the time is not between daylight saving (1am - 3am), if you are using Japanese date arrangement, you don't have to worry about this
2. Go back to the game and activate y-comm glitch
3. Goto Pokemon Center to prevent game from crashing
4. Hover cursor to Date and Time



5. Connect Arduino/Teensy to your Switch (there's no need to unsync current controller)

## **What does the Program do?**

The program will advance date one by one, it is able to tell when to skip day/month/year and skip leap years correctly. When the program reaches the end date (which should match the end date in Information in the helper tool), it will go back to the game signaling it is finished.

## **Config.h Detail**

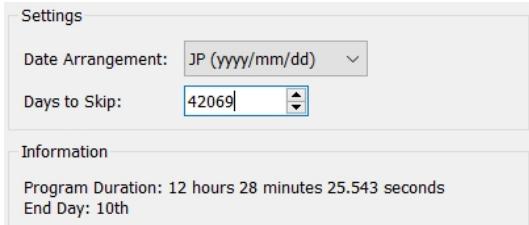
- **m\_JP\_EU\_US:** 0 = JP (yyyy/mm/dd), 1 = EU (dd/mm/yyyy), 2 = US (mm/dd/yyyy)
- **m\_day:** Console's current day (1 - 31)
- **m\_month:** Console's current month (1 - 12)
- **m\_year:** Console's current year (2000 - 2060)
- **m\_dayToSkip:** days to advance

If you are doing this manually and wish to know the end date, use the following link to check: <https://www.timeanddate.com/date/dateadd.html>

## ***DaySkipper\_Unlimited***

This program advances days automatically. Unlike DaySkipper, this has a limit of **2-billion** skips, this is way more than enough for doing long skips for rare shinies. The only drawback of this is you will not be able to know the end date, but the program will tell to the estimate duration of the program and the end day (1-31).

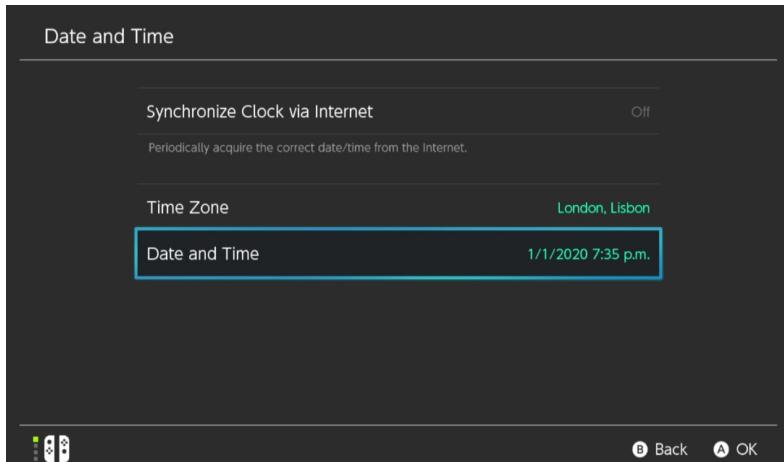
### **Settings**



- **Date Arrangement:** Match with your system's current settings, check it at "System Settings > Settings > Date and Time > Date and Time" yyyy/mm/dd = JP, dd/mm/yyyy = EU, mm/dd/yyyy = US  
\*\*\*You are recommended to use **Japanese** date arrangement since it skips day the fastest, to do so, goto System Settings > System > Language, change it to **日本語** (remember where to change this if you can't read Japanese and wish to change the language back later)
- **Date to Skip:** Limit is 2147483647 (real limit is 4294967295, but 2 billion skips already takes 69 years to skip and you are probably dead lol)

### **Instructions**

1. Unsync system clock, set the current date the 1<sup>st</sup> of any month with 31 days (January, March, May etc.)
2. Go back to the game and activate y-comm glitch
3. Goto Pokemon Center to prevent game from crashing
4. Hover cursor to Date and Time



5. Connect Arduino/Teensy to your Switch (there's no need to unsync current controller)

## **What does the Program do?**

The program will advance day one by one, it will ONLY advance day and this is normal, when the day changes from 31 to 1, no skip is registered but the program knows that and will continue skipping. When the program finishes (the end day should match Information in the helper tool), it will go back to the game signaling it is finished.

## **Config.h Detail**

- **m\_JP\_EU\_US:** 0 = JP (yyyy/mm/dd), 1 = EU (dd/mm/yyyy), 2 = US (mm/dd/yyyy)
- **m\_dayToSkip:** days to advance (1 - 4294967295)

## EggCollector

This is Part 1 of 2 of shiny hunting via hatching eggs. This program automatically collect egg from Route 5 nursery. This also make use of Rotom Bike's turbo boost, increasing the chance of getting an egg, making it much more efficient than other programs.

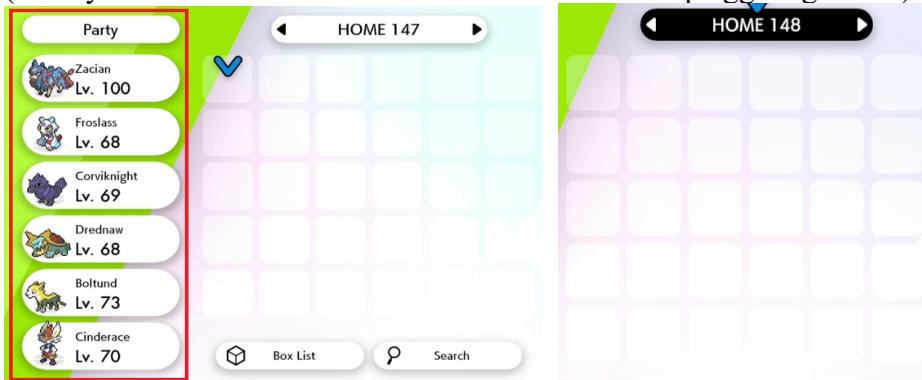
## Settings



- **Target No. of Eggs:** number of iterations (if you follow all the instructions below, you should be getting about 80% number of eggs), you can set 0 to do this indefinitely, but running out of box space is untested, use at your own risk

## Instructions

1. Goto Options, set Text Speed to Fast, set Send to Boxes to Automatic
2. You must have a full party without any eggs, and have plenty of space in your PC (ideally the boxes should be next to each other to keep eggs organized)



3. Scroll to the first leftmost box and exit
4. Have a full upgraded Rotom Bike (use WattFarmer if you don't have enough watts, then talk to any watt traders to upgrade your bike)
5. Goto Route 5 nursery and charge up **Rotom Bike turbo boost**
6. Cycle from the left side of the nursery worker, and towards her until you get stuck



7. (Optional) Defeat GAME FREAK's Morimoto to get Oval Charm, this is increase the chance of getting an egg
8. (Optional) The two pokemon in nursery have different trainer ID (e.g. someone else's Ditto + your pokemon), this will also increase the chance of getting eggs

9. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

## **What does the Program do?**

1. Using turbo boost, cycle towards the right
2. Do a loop and cycle back to the left side of the nursery worker
3. Talk to nursery worker and get egg, there's a chance that you won't get an egg, but that's normal
4. Repeat from 1. until it reaches the amount user specified in settings, the program will stop at the home menu signaling it is finished.

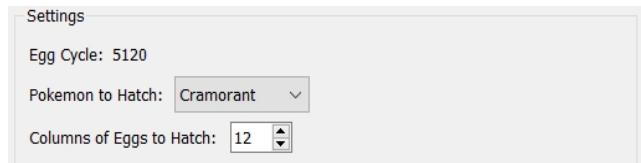
## **Config.h Detail**

- **m\_maxCycle:** number of iterations, 0 = infinite

## EggHatcher

This is Part 2 of 2 of shiny hunting via hatching eggs. This program hatches columns of eggs in your PC automatically next to Route 5 nursery. This also make use of Rotom Bike's turbo boost, making it much more efficient than other programs.

## Settings



- **Pokemon to Hatch:** a dropdown contains all pokemon, pick the one your are hatching, this will update the Egg Cycle number above
- **Columns of Eggs to Hatch:** columns of eggs in your box to be hatched, read more in the instructions

## Instructions

1. Goto Options, set Text Speed to Fast, set Give Nicknames to Don't give
2. Have only ONE pokemon with Flame Body ability in your party (Litwick, Carkol, Centiskorch etc.)

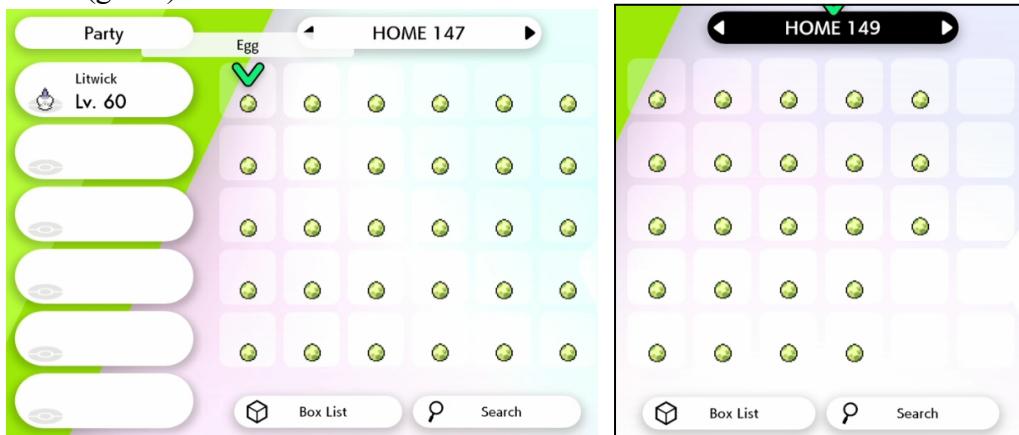


3. Have the hatching pokemon already registered in the pokedex (especially Munchlax, Budew, other baby pokemon etc.)
4. Have a full upgraded Rotom Bike (use WattFarmer if you don't have enough watts, then talk to any watt traders to upgrade your bike)
5. Goto Route 5 nursery and charge up **Rotom Bike turbo boost**
6. From outside nursery, cycle south west until your hit the first NPC on the bridge (the girl that talks about Team Yell goons)



7. Check your boxes, all columns of eggs must be adjacent to each other
8. Each column must have 5 eggs, with the exception of the last rightmost column (last column without 5 eggs will break the program, but it is the end so it doesn't matter)
9. All Eggs must have the same egg cycle at least if they are not the same pokemon
10. Move the cursor to the first leftmost column of eggs and change cursor to Multiselect

mode (green)



11. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

## What does the Program do?

1. Pick up 5 eggs from a column in the box
2. Using turbo boost, cycle towards the left
3. Do a big loop and cycle back to the left side of the NPC
4. Repeat number of big loops base on egg cycle group
5. Do small loops without using turbo boost (number varies base on egg cycle group)
6. Hatch 5 eggs
7. Cycle down then right back the the left side of the NPC
8. Put the hatched pokemon back to box and pick up the next column, repeat from 2.
9. When all columns of eggs are hatched, the program will stop at the home menu signaling it is finished.

## Config.h Detail

- **m\_eggStepGroup:** 0 = 1280 steps, 1 = 2560 steps, 2 = 3840 steps, 3 = 5120 step, 4 = 6400 steps, 5 = 7680 steps, 6 = 8960 steps, 7 = 10240 steps  
Check pokémon egg cycle here:  
[https://bulbapedia.bulbagarden.net/wiki/List\\_of\\_Pok%C3%A9mon\\_by\\_base\\_Egg\\_cycles](https://bulbapedia.bulbagarden.net/wiki/List_of_Pok%C3%A9mon_by_base_Egg_cycles)
- **m\_columnsOfEggs:** columns of eggs in your box to be hatched

## **FriendDeleteAdd**

This program deletes friends from your friend list and optionally add accept friend request afterwards. Note that this will also delete **Best Friends**, because Switch does not have any sorting method for friend list, so use this at your own risk.

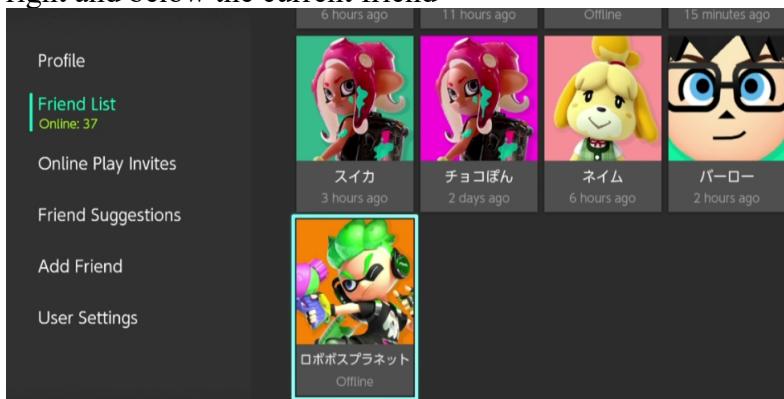
### **Settings**



- **Friends to Delete:** number of friends to delete
- **Add Friends after Delete:** what it says

### **Instructions**

1. Hover cursor on the last friend, if cursor is in the middle, it will delete friends on the right and below the current friend



2. Connect Arduino/Teensy to your Switch (there's no need to unsync current controller)

### **What does the Program do?**

The program keeps deleting the last friend in the list until the number user specified in the settings, you should have stable internet when doing this, otherwise deleting may take too long causing one deletion will be missed. After deleting friends, if "**Add Friends after Delete**" is checked, it will goto Received Friend Requests and spam A forever.

### **Config.h Detail**

- **m\_deleteCount:** number of friends to delete
- **m\_addFriend:** true = add friend after deleting, false = don't do that

## GodEggDuplication

This program automatically duplicate first pokemon in your party by collecting god egg from Route 5 nursery, I will not provide details on how to get the god egg, this require joining a hacked raid, duplicating Pokemon also risked of getting banned, so do this at your own risk!

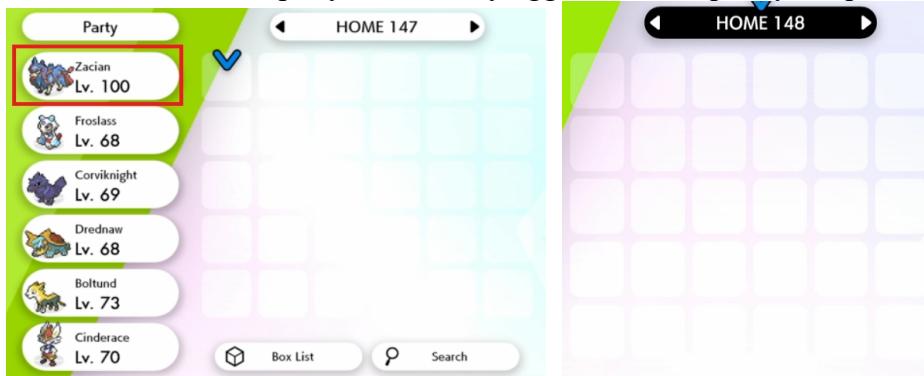
### Settings



- **Target No. of Duplication:** number of iterations (if you follow all the instructions below, you should be getting about 80% number of eggs), you can set 0 to do this indefinitely, but running out of box space is untested, use at your own risk

### Instructions

1. Goto Options, set Text Speed to Fast, set Send to Boxes to Manual
2. You must have a full party without any eggs, and have plenty of space in your PC



3. The first Pokemon in your team will be duplicated
4. Have a full upgraded Rotom Bike (use WattFarmer if you don't have enough watts, then talk to any watt traders to upgrade your bike)
5. Goto Route 5 nursery, deposite God egg and a Ditto, then charge up **Rotom Bike turbo boost**
6. Cycle from the left side of the nursery worker, and towards her until you get stuck



7. (Optional) Defeat GAME FREAK's Morimoto to get Oval Charm, this is increase the chance of getting an egg
8. (Optional) The two pokemon in nursery have different trainer ID (e.g. someone else's

- Ditto + God egg), this will also increase the chance of getting eggs
9. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

## **What does the Program do?**

1. Using turbo boost, cycle towards the right
2. Do a loop and cycle back to the left side of the nursery worker
3. Talk to nursery worker and get egg, this will replace the first slot of your party duplicating that pokemon, there's a chance that you won't get an egg, but that's normal
4. Repeat from 1. until it reaches the amount user specified in settings, the program will stop at the home menu signaling it is finished.

## **Config.h Detail**

- **m\_maxCycle:** number of iterations, 0 = infinite

## **PurpleBeamFinder**

This program helps you find a purple (rare) beam on a wishing piece den. Original program by Pleebz, modified by brianuuu.

### **Settings**

N/A

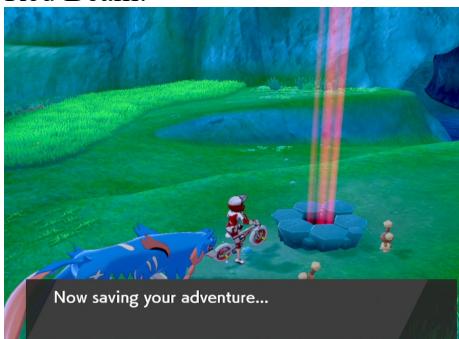
### **Instructions**

1. Set text speed to FAST (not slow)
2. You must have at least one wishing piece in your inventory
3. Ride on a bike, stand in front of an empty den, collect watts if not already, then save the game
4. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

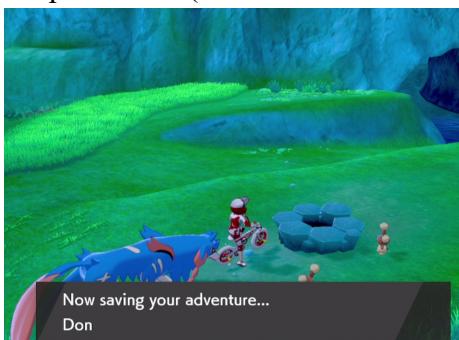
### **What does the Program do?**

The program first ring the bike bell to notify user to pay attention to the game, then it will put a wishing piece in the den, if you DON'T see any red streak coming out from the den, that means you got a purple beam, now simply unplug the board. If it has red streaks, leave the board and it will restart the game and start the process again.

Red Beam:



Purple Beam: (Before and after HOME menu)



### **Config.h Detail**

N/A

## **TurboA**

This program spams A, that's it. You can use this to farm Digging Duo, if you don't have enough watts, use WattFarmer first. You can also use this for fossil farming, but it only works for the top slot, so use AutoFossil instead.

### **Settings**

N/A

### **Instructions**

5. Stand in front of a digging duo or Cara Liss
6. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

### **What does the Program do?**

It spams A, lmao.

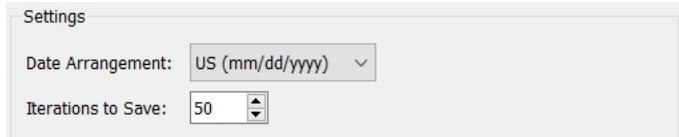
### **Config.h Detail**

N/A

## **WattFarmer**

This program farms watts forever, you can then spend the watts on buying Luxury Balls and trade for money, grind Digging Duo with TurboA etc.!

## **Settings**



- **Date Arrangement:** Match with your system's current settings, check it at "System Settings > Settings > Date and Time > Date and Time"  
yyyy/mm/dd = JP, dd/mm/yyyy = EU, mm/dd/yyyy = US
- **Iterations to Save:** Save every that amount of loops has been run, since there's a small chance the game will crash if you are using this in Wild Area

## **Instructions**

1. Goto Options, set Text Speed to Fast
2. Stand in front of a wishing piece den
3. Unsync system clock, go back to the game
4. Activate y-comm glitch
5. Compile and load the program to the board, disconnect current controller and connect Arduino/Teensy

## **What does the Program do?**

1. Sync and Unsync clock and reset date to current date
2. Skip 1 day (year) forward
3. Collect watts from den and exit
4. If number of iteration matches "**Iterations to Save**" the game will be saved, otherwise it will repeat from 1.

## **Config.h Detail**

- **m\_JP\_EU\_US:** 0 = JP (yyyy/mm/dd), 1 = EU (dd/mm/yyyy), 2 = US (mm/dd/yyyy)
- **m\_saveAt:** number of iterations to save, 0 = never saves (not recommended)

# Appendix

## Appendix 1: Compiling Code without AutoControllerHelper.exe

1. Edit the **Config.h** of the program you want to use
2. Goto **SourceCode** folder, open **makefile** (with notepad++)
3. Change the MCU type to match your current board
4. Change the TARGET to the program you want to use `./Bots/<name>/<name>`
5. Run **MakeProgram.bat**
6. A .hex file is created at “`SourceCode/Bots/<name>/<name>`”, load that to TeensyLoader/Flip and program it to your board
7. If you are using MAC/Linux, read here on how to program your board:  
<https://github.com/shinyquagsire23/Switch-Fightstick>

## Appendix 2: Disconnect Current Controller

Pokemon Sword/Shield only allows one main controller to play the game, a 2<sup>nd</sup> connecting controller will not connect. Before you connect your board to the Switch, you must disconnect the external controller you are playing with. To disconnect, press the sync button on the wireless controller, note that if using detached joy-cons, you have to press the sync button on both joy-cons. This process is not needed if you are playing in handheld mode.

## Appendix 3: How to IV/EV Train, Swap Ability and Change Nature

NOTE: This guide only teaches you the minimum things you need to know to max your Pokemon’s IV/EV for AutoBattleTower and AutoTournament, it will not include how to make defensive sets or how to build an actual competitive team.

### IV Training (Hyper Training)

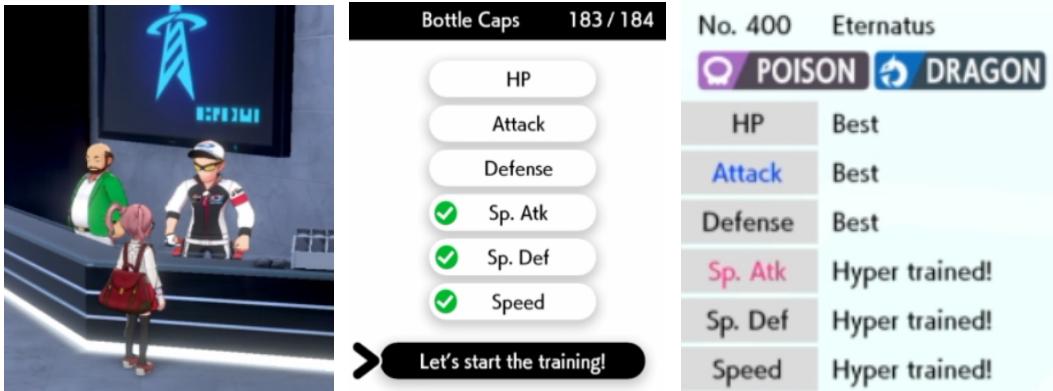
IV is Individual Values, each Pokemon has 6 IVs (HP, Atk, Def, SpAtk, SpDef, Spd) and they are determined when you first caught or hatched them. If you have the IV checker for Pokemon Box (by defeating Leon for the first time on Battle Tower), you can check them there by pressing +.

No. 120 Ralts

		PSYCHIC FAIRY
HP		Best
Attack		Pretty good
Defense		Very good
Sp. Atk		Very good
Sp. Def		Decent
Speed		Best

We are aiming for all the stats to be “Best”, to do that, first you must level up your Pokemon to lv100. The only fastest way to do this is to use **Exp. Candies** which you can get by doing a lot a LOT of raids. You will also need a **Bottle Cap** for each stat that is not “Best”, you can grind Battle Caps by using TurboA program on the left Digging Duo.

Once you have the lv100 pokemon and Battle Caps, goto the rightmost receptionist inside Battle Tower, select all the stats you need to change, this will Hyper Train your pokemon and those stats will be displayed as Hyper trained! in the IV checker.



## EV Training

Effort Values are hidden stats that your Pokemon gain by defeating other Pokemon, they can increase Pokemon's stat growth. A Pokemon can have total of 510 EVs with maximum of 252 EV per stat, all of the Pokemon used in AutoBattleTower and AutoTournament will have 252/252 spread on one of the attack (Atk/SpAtk) stat and Speed stat to maximize the power output and make sure they are faster than the opponent.

**Resetting All EVs:** EVs are all zeroes when you first caught or hatched the Pokemon, but once you bring it with you and start defeating Pokemon, they will start gaining EVs. So the Pokemon used in your playthrough will have EV spread across all the stats, if you intend to use them you will have to reset all the stats first. For that you will need berries, here are the list of berries that removes EV from your Pokemon:

- Pomeg Berry - Removes 10 HP EVs
- Kelpsy Berry - Removes 10 Attack EVs
- Qualot Berry - Removes 10 Defense EVs
- Hondew Berry - Removes 10 Special Attack EVs
- GrepBerry - Removes 10 Special Defense EVs
- Tamato Berry - Removes 10 Speed EVs

You can find these berries at the 3 trees under the bridge in the Wild Area between Bridge Field and Stony Wilderness. To reset all EVs, simply feed your Pokemon will each of those berries until it has no effect on the Pokemon.

**Maximizing EVs:** There are few ways to EV train your Pokemon, the first one is PokeJobs, you can do this once per day and you have to do it 3 times to maximize one stat, even with y-comm glitch to skip day immediately this will still be very slow. The fast method require you to have a LOT of money. To do that you can use WattFarmer and grind a lot of watts, find a Watt Trader in the Wild Area that is selling Luxury Balls, buy 999 of them and sell them all in the Pokemon Center, you will need \$520,000 to EV train one Pokemon. Now you have to buy vitamins from the shop in Pokemon Center at South part of Wyndon. Each vitamin has a different effect:

- HP Up - Adds 10 HP EVs
- Protein - Adds 10 Attack EVs
- Iron - Adds 10 Defense EVs
- Calcium - Adds 10 Special Attack EVs
- Zinc - Adds 10 Special Defense EVs
- Carbos - Adds 10 Speed EVs

Let's look at Zacian's set:

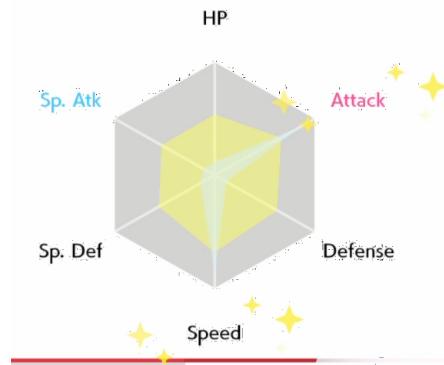
### Zacian @ Rusted Sword

Ability: Intrepid Sword

EVs: 252 Atk / 4 Def / 252 Spe

Adamant Nature

- Iron Head



We will need to buy 26 Protein and 26 Carbos, you can also buy 1 Iron for the defense stat but it will not affect the outcome very much. Now give the vitamin for 252 EV stat FIRST to your Pokemon before giving the 4 EV stat, as one vitamin worth 10 EV. When done, if you check your Pokemon's summary, check stat page and press X, you will see the maximized stat has glitters around it.

## Swapping Ability

Each Pokemon can have 2 normal ability and 1 hidden ability, you can check a Pokemon's available abilities at Serebii.Net, for example Crawdaunt's ability:

**Hyper Cutter:** Opponent cannot lower this Pokémon's Attack value. This Pokémon may still lower its own Attack value using a move of its own.  
**Shell Armor:** Opponent's moves cannot Critical Hit.

**Hidden Ability (Available):**

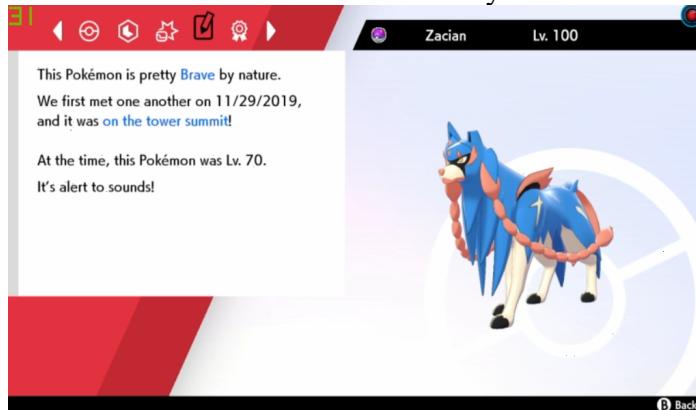
**Adaptability:** Increases the Same Type Attack Bonus from \*1.5 to \*2.

If the Pokemon has Hidden Ability, you CANNOT change it. But if it has a normal ability, you can change it between the two by using an Ability Capsule, you CANNOT use it to get Hidden Ability, otherwise you have catch/breed a new one. You can purchase Ability Capsules in Battle Tower, they cost 50BP each.



## Changing Nature

A Pokémon's Nature affects the value of two of its stats, ultimately increasing one of its non-HP stats (Attack, Defense, Special Attack, Special Defense, or Speed) by 10% and decreasing another by 10%. Nature is determined when Pokémon is first caught or hatched, you can manipulate Pokémon's nature with Trace ability for wild Pokémon or Everstone item while breeding, but I'm not going to cover it here. You can check your Pokémon's base nature in its summery.



As you can see this Zacian doesn't have Adamant nature, to change that, we will need to buy mints, they cost 50BP each.



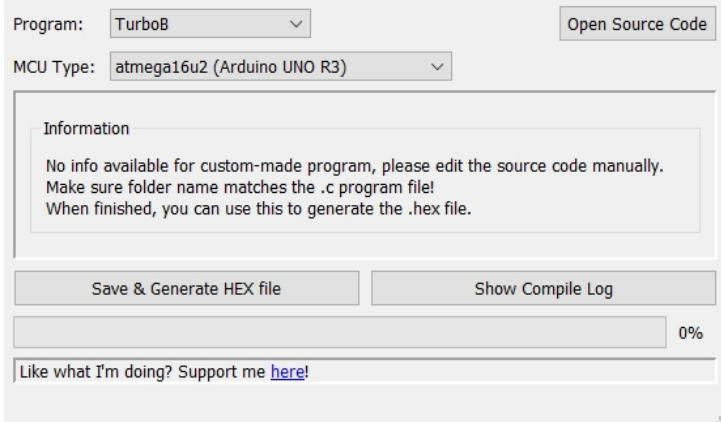
Give the mint to your Pokémon will permanently change their battle nature until you give them mint again. The base nature shown in summery will still be the nature before you change it. The only way you can tell if your Pokémon currently has the correct battle nature is by viewing it in Pokémon Box, red is increased stat and blue is decreased stat, refer the nature table on the right.

No. 398	Zacian
FAIRY	
HP	325/325
Attack	394
Defense	266
Sp. Atk	176
Sp. Def	267
Speed	375

Nature	Increased	Decreased
<b>Lonely</b>	Attack	Defense
<b>Brave</b>	Attack	Speed
<b>Adamant</b>	Attack	Sp. Attack
<b>Naughty</b>	Attack	Sp. Defense
<b>Bold</b>	Defense	Attack
<b>Relaxed</b>	Defense	Speed
<b>Impish</b>	Defense	Sp. Attack
<b>Lax</b>	Defense	Sp. Defense
<b>Timid</b>	Speed	Attack
<b>Hasty</b>	Speed	Defense
<b>Jolly</b>	Speed	Sp. Attack
<b>Naive</b>	Speed	Sp. Defense
<b>Modest</b>	Sp. Attack	Attack
<b>Mild</b>	Sp. Attack	Defense
<b>Quiet</b>	Sp. Attack	Speed
<b>Rash</b>	Sp. Attack	Sp. Defense
<b>Calm</b>	Sp. Defense	Attack
<b>Gentle</b>	Sp. Defense	Defense
<b>Sassy</b>	Sp. Defense	Speed
<b>Careful</b>	Sp. Defense	Sp. Attack

## **Appendix 4: Making Your Own Programs**

v.4.2.0 update allow users to create their own programs and use AutoControllerHelper to compile, as long as it follows the Bots folder format. The program's name must start with an alphabet and does not contain any spaces, and folder must also have the same name as the program. For example, copying TurboA folder gives TurboA - Copy, rename the folder to TurboB and rename the TurboA.c inside to TurboB.c, AutoControllerHelper will now be able to recognize it and compile it. However you will not be able to edit Config.h file with AutoControllerHelp, you must edit it manually.



## **Credits & Special Thanks**

shinyquagsire23 - Original Switch-Fightstick code

Just-Kim - Beta testing

SaxManDan - Beta testing

sug@r - Auto battle tower button sequence

([https://twitter.com/satoon\\_sugar/status/1208253657470226432](https://twitter.com/satoon_sugar/status/1208253657470226432))

甘木 まさ @maginegno - Auto tournament guide

(<http://niwaka-syndrome.blog.jp/archives/20509394.html>)

blip - Program improvement contribution

Pleebz - Program improvement contribution

## **Change Log**

### **v1.0.0:**

- US and EU Day Skipper initial release

### **v1.1.0:**

- Day Skipper optimization, added Day Skipper for Japanese region, Auto Loto initial release

### **v2.0.0:**

- No Limit Day Skipper, Auto Fossil, Auto 3 Day Skipper, Turbo A, Watt Farmer initial release

### **v2.0.1:**

- Use array in No Limit Day Skipper, now can actually go infinite

### **v2.0.2:**

- Changed HOME button press before SR in Auto Fossil and Auto 3 Day Skipper to 40

**v2.0.3:**

- Watt Farmer saves every 100,000W (50 skips)

**v2.0.4:**

- Added 10 to Auto 3 Day Skipper, Auto Loto, Watt Farmer when going HOME screen or back to game

**v2.1.0:**

- Berry Farmer initial release, added optional day to skip in Auto Loto

**v2.2.0:**

- Watt Farmer, Berry farmer now speeds up with syncing time

**v3.0.0:**

- Auto Host, Box Release initial release, increase HOME button after first time connect board from 50 to 60

**v3.1.0:**

- Added random link code for Auto Host

**v3.1.1:**

- Set link code plus button in Auto Host change from 35 to 40, ready button from 20 to 30

**v4.0.0:**

Revamp of the code, now allow to program much more then before:

- The following program has added Date Arrangement so user don't have to set specific date to make it work: Auto3DaySkipper, AutoHost, AutoLoto, BerryFarmer, WattFarmer
- Combined DaySkipper US, EU and JP into one (JP is still recommended)
- AutoHost huge changes: allow changeable internet connection time, allow skipping 3 days to a random pokemon, allow adding friends during inviting others
- BoxSurpriseTrade, FriendDeleteAdd, EggCollector, EggHatcher initial release
- Added AutoControllerHelper.exe to allow least user interaction with source code

**v4.1.0:**

- Fixed inconsistency for 10280 egg group in EggHatcher
- Improvement on DaySkipper and DaySkipper\_Unlimited, JP can do 4687 skips per hour vs previously 3484, US and EU can do 3515 skips per hour vs previously 2540
- Added warning for people who didn't install WinAVR correctly

**v4.2.0:**

- Added local mode in auto host
- Even faster DaySkipper and DaySkipper\_Unlimited, JP can now do 6716 skips per hour, while US/EU can do 5172 skips per hour
- AutoBattleTower, AutoTournament and GodEggDuplication initial release
- Allow user made programs to be compiled via AutoControllerHelper

**v4.2.1**

- Changed all programs to use B button to connect (except for TurboA)
- PurpleBeamFinder first release

Bug fixes for DLC update:

- Auto3DaySkipper: Changed first time talk to den will not collect watts, account for Pokemon that can't be caught, adjusted game restart time for DLC update
- AutoBattleTower: Added missing A press, this will slightly improve the efficiency
- AutoFossil: Adjusted game restart time for DLC update

- AutoHost: Applied Auto3DaySkipper changes, fixed bug for local mode without skipping 3 days, added 8 digit link code support, changed so that adding friends during inviting others only take 30 seconds
- BerryFarmer: Fixed inconsistent timing in the Isle of Armor
- DaySkipper & DaySkipper\_Unlimited: Fixed for crashing for some people, changed delay to 14 to 16, this will make US/EU do 4945 skips per hour and JP do 6338 skips per hour
- EggHatcher: Added one more small cycle for group 5120

#### v4.2.2

- Hotfix for AutoBattleTower forgot to update m\_endIndex from 35 to 37

#### v4.2.3

- Hotfix for GodEggDuplication not working properly after DLC update (changed 70 to 82 and 94 to 104) and fixed end of the program not mesh Home over and over