



# CONICAL FERMENTER PRO

## INSTRUCTIONS



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# CONTENTS

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<b>Safety information</b>	<b>3</b>
<b>Anatomy diagram &amp; parts list</b>	<b>4</b>
<b>Assembly</b>	<b>5</b>
<b>Connecting the Glycol Chiller or Cooling Pump Kit</b>	<b>6</b>
<b>The Conical Fermenter Pro Controller</b>	<b>6</b>
<b>Wireless control &amp; app integration</b>	<b>7</b>
<b>How to use</b>	<b>9</b>
<b>Setting up automatic fermentation</b>	<b>9</b>
<b>Connecting fermentation tracking devices</b>	<b>10</b>
<b>Advice for cleaning &amp; storage</b>	<b>11</b>
<b>Top tips</b>	<b>11</b>
<b>Heating time guide</b>	<b>12</b>

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# THANK YOU FOR CHOOSING THE GRAINFATHER CONICAL FERMENTER PRO

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Get your equipment ready by following these quick and easy steps, and you'll be ready to ferment up to 27 L of beer in no time. We recommend reading the following safety information before use. Please also find enclosed, instructions for connecting the Glycol Chiller or Cooling Pump Kit to your Conical Fermenter Pro. Plus, how to set up automatic fermentation and connect fermentation tracking devices, such as Tilt and Plaato, as well as advice for cleaning and storage, and top tips.

## SAFETY INFORMATION

1. Read all instructions before use.
2. Do not touch hot surfaces. Use handles or knobs.
3. To protect against fire, electric shock and injury to persons, do not immerse cord or plugs in water or other liquid.
4. Close supervision is necessary when any appliance is used by or near children.
5. Unplug from outlet when not in use and before cleaning. Allow to cool before putting on or taking off parts, and before cleaning the appliance.
6. Do not operate any appliance if:
  - It has a damaged cord or plug
  - The appliance malfunctions
  - It has been damaged in any matterReturn appliance to your nearest retail service provider for examination, repair or adjustment.
7. The use of accessory attachments is not recommended by the appliance manufacturer as it may result in fire, electric shock, or injury to persons.
8. Do not use outdoors.
9. Do not let the cord hang over the edge of a table or counter and do not let it touch hot surfaces.
10. Do not place on or near a hot gas or electric burner, or a heated oven.
11. Do not use the appliance for anything other than the intended use.
12. Ensure that the main power supply to the controller contains overload protection (maximum load: 230V/16A) in accordance with the related national and/or local codes.

**NOTE:** *Not following the safety information above may void your warranty.*

# ANATOMY DIAGRAM & PARTS LIST

## TECHNICAL SPECIFICATIONS

<b>Volume:</b>	30 L
<b>Heater power:</b>	30W
<b>Controller voltage:</b>	12V d.c.
<b>Power adapter frequency:</b>	50Hz/60Hz

1. Airlock
2. Rubber Bung
3. Fermenter Lid
4. Fermenter Body
5. 5 Cm (2") Tri Clamp
6. Cone Plug Seal
7. Liquid Inlet
8. Dual Valve Tap
9. Silicone Transfer Hose (10 mm (0.4") inner diameter)
10. Conical Fermenter Pro Controller

### ALSO INCLUDES:

- Power adapter and wall plug
- 2 m (6.5 ft) m12-3pin power cord



## ASSEMBLY

### INSTALL THE DUAL VALVE TAP

1. Unpack the fermenter and all its parts. Remove all the protective packaging and then assemble the dual valve tap.

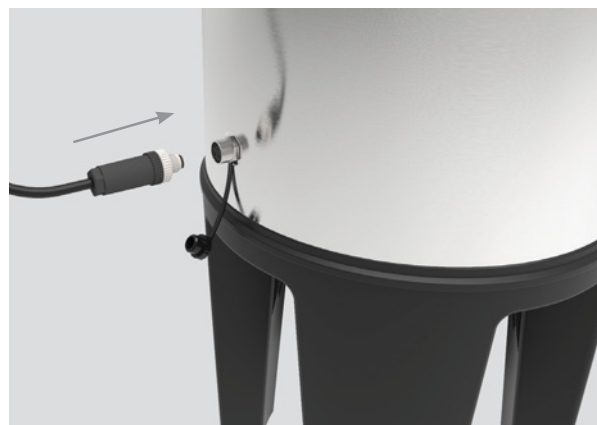


2. Attach the valve to the bottom of the fermenter by inserting the cone plug seal. Then use the tri clamp to tighten it and secure it in place.



### CONNECT THE POWER CORD

3. Plug the 2 m (6.5 ft) power cord into the back of the fermenter.



4. Then plug the other end of this cord into the power adapter. Do not plug this into a wall and switch on the power until you are ready to heat the fermenter.

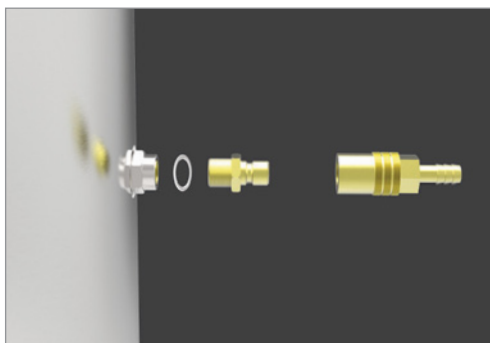
### ATTACH THE BUNG, AIRLOCK & LID

5. Push the rubber bung into the hole in the fermenter lid. Once fitted, push the airlock into the hole of the rubber bung. The airlock stops anything from entering the fermenter during fermentation, helping to keep your brew safe.

**NOTE:** Clean the unit as per the cleaning instructions before use.

## CONNECTING THE GLYCOL CHILLER OR COOLING PUMP KIT

1. A cooling connection kit is included with both the Glycol Chiller and Cooling Pump Kit. This consists of brass couplers, seals, and hoses.
2. To connect the couplers to the fermenter, place the white seal inside the threaded hole on the side of the fermenter.
3. Take the threaded section of the coupler and screw it onto the same side of the fermenter where you placed the seal. Ensure that it's screwed on tightly. Use a spanner if necessary but do not over tighten.
4. Connect the other end of the coupler to the section you just assembled, by pushing the spring-loaded sleeve back and sliding it over.
5. Repeat these steps on the other side of the fermenter. Ensure that the hot/red hose is connected via the higher point on the fermenter and the cold/blue hose is connected via the lower position.



**NOTE:** You can measure and cut the hoses to make them shorter if needed. This will also increase maximum cooling efficiency. Ensure that you use a minimum of 15 L when pumping liquid through the cooling sleeve.

## THE CONICAL FERMENTER PRO CONTROLLER

### CONNECTION SETUP

When you first turn on the controller, you will be greeted with the connection setup screen. Press 'set' to go to the main default screen.



### MAIN DEFAULT

The main default screen shows the current and target temperatures, unit symbol (Celsius or Fahrenheit), current temperature control status (heating/cooling/tracking) and if there is a fermentation running using managed mode, it displays all the information from the current session.



Use the up/down buttons to change the target temperature. Hold the 'set' button to pause or resume the cooling and/or heating signal. This may be useful when transferring your beer out of the fermenter. To enter the controller settings press the 'set' button, then navigate using the up/down buttons and press the 'set' button to select an option.

## MAIN MENU

This screen displays the main menu options:

- Network config
- Settings
- About



## NETWORK CONFIG

On this screen, you can add a new wireless network and connect your fermenter. If you've previously connected your fermenter to other networks, you can also clear these here.



## SETTINGS

This screen displays the main settings:

- Change temp control (to disable heating or cooling).
- Change units (Celsius or Fahrenheit).
- Hysteresis (the margin of temperature variation from the set temperature allowed before the temperature control turns back on): 0.1-2.0°C (0.22-4°F).
- Lower temp limit (default setting: 6°C (43°F)). We do not recommend changing as lower temperatures may result in an uneven temperature distribution.
- Calibrate temperature (we do not recommend changing this setting).

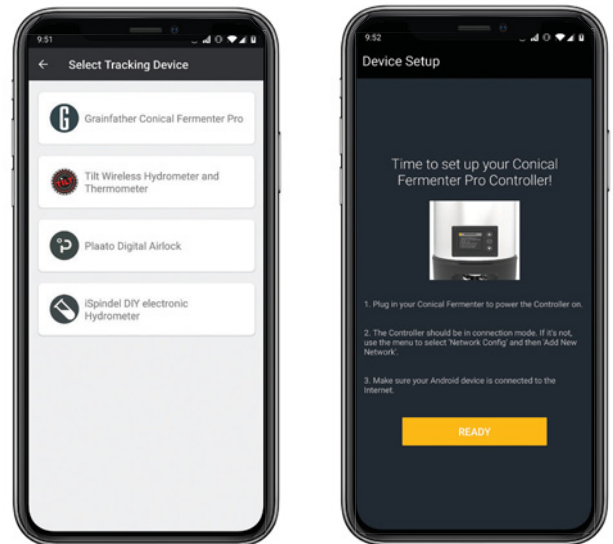


## WIRELESS CONTROL & APP INTEGRATION

### CONNECTING THE CONTROLLER TO THE APP

1. Turn on the controller to view the connection setup screen. If you do not see this screen, then you can press the 'set' button on the controller and go to Network Config > Add New Network. Once on the connection setup screen, you will need to open the Grainfather Community App on your mobile device.
2. Within the app, navigate to the equipment screen. The equipment screen shows all the brewing and fermenting equipment that you have already set up on your account.
3. To add a new device, tap the + icon on the bottom right of the screen and select fermentation tracking equipment.
4. Select 'Grainfather Conical Fermenter Pro' on the list of equipment and once on the device setup screen, tap 'ready'.
5. Depending on your mobile device, you may be asked to request certain permission(s) required to connect with the controller. Accept all requests.

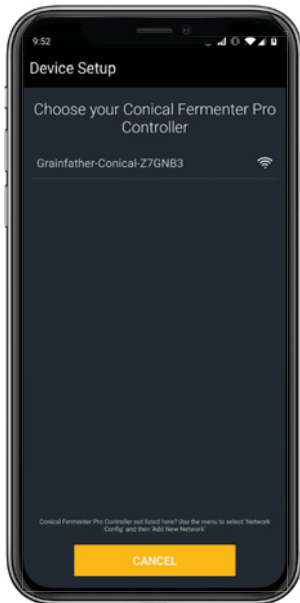
**NOTE:** The following steps vary for Android and iOS users. Please follow the relevant steps for your mobile device.



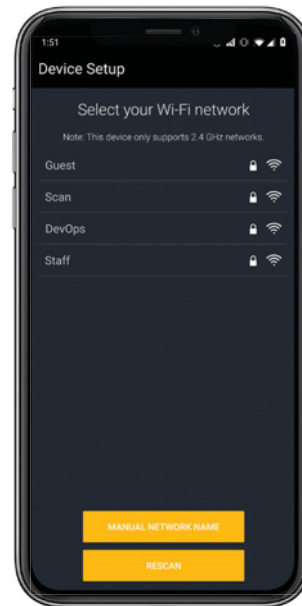
## WIRELESS CONTROL & APP INTEGRATION CONT.

### ANDROID

6. If setting up the controller via an Android device, choose your controller in the list.  
(See step 8 next)

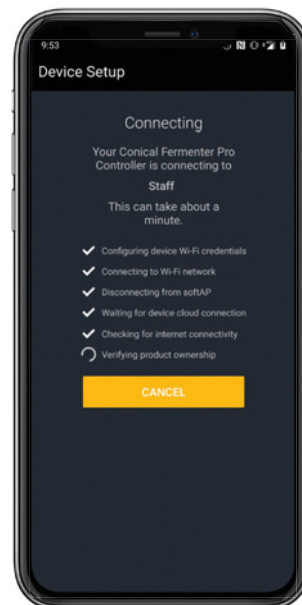


8. After your phone has successfully connected to the controller (Android and iOS), select your wireless network from the list and enter in your network password and then tap 'connect'. Once completed, your Grainfather Conical Fermenter Pro is connected to the internet.



### IOS

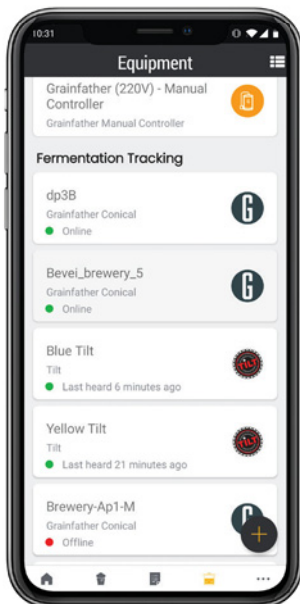
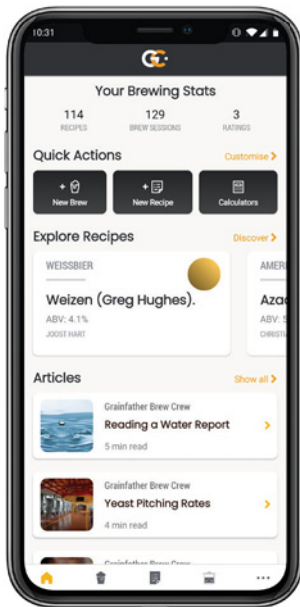
7. If setting up using an iOS mobile device, follow the instructions on the screen and connect your mobile device to the controller. Once the connection is established, you will receive a notification on your mobile device. Tap the notification to return to the Grainfather Community App. You will automatically return to the device setup screen.





## HOW TO USE

1. Fill your fermenter by syphon or a counter flow wort chiller if using a Grainfather brewing system. Ensure that the volume is at least 15 L.
2. Secure the lid. Ensure that the rubber bung and airlock are still tightly in place.
3. Plug the fermenter into a power socket and turn on (heating only). For cooling capabilities, purchase either the Grainfather Glycol Chiller or Cooling Pump Kit.
4. You can now use the controller manually or via the connection on the Grainfather App on your mobile device. By using the app and your mobile device, you can monitor your fermentation remotely with automatic alerts and notifications.

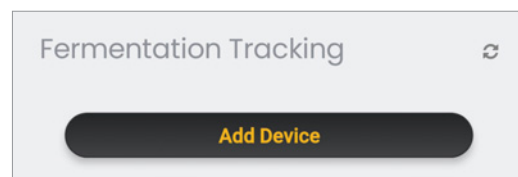


## SETTING UP AUTOMATIC FERMENTATION

5. Before starting your brew session, ensure that the recipe you have chosen has a fermentation profile on the Grainfather App.



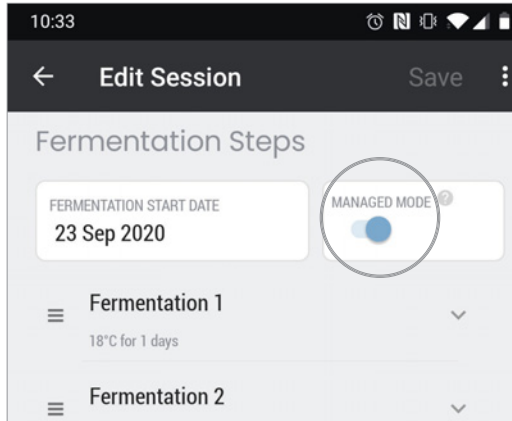
6. Once you have finished brewing on the Grainfather App, go to the fermentation section. Under fermentation tracking, add a new device by selecting 'add device' and choose your Conical Fermenter Pro Controller.



7. After selecting your controller, a device setup page will display. You can exit this page by pressing cancel in the top left corner.

## HOW TO USE CONT.

- To allow the Grainfather App to manage fermentation as per your profile, go to the fermentation steps and drag the toggle under managed mode.



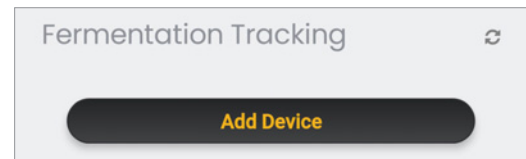
- The Conical Fermenter Pro Controller, in conjunction with the Cooling Pump Kit/Glycol Chiller, will now automatically maintain and change the fermentation temperature based on your profile. Under fermentation tracking, you can view a graph that monitors the progress of your fermentation.



**NOTE:** If you love brewing lager, check out our online guide for more information on lager fermentation profiles, and discover how you can best use the Conical Fermenter Pro to lager and crash cool: <https://grainfather.com/instructions/>

## CONNECTING FERMENTATION TRACKING DEVICES

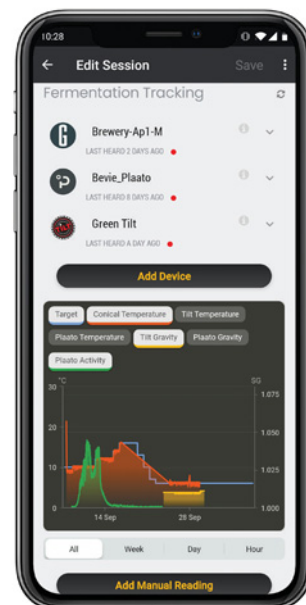
- Within the fermentation section of the Grainfather App, you can also add other tracking devices such as Tilt and Plaato.



- Select 'add device' and either follow the instructions on the app or select your fermentation device from the list presented.
- After selecting your device, a setup page will display. Follow these instructions to set up your fermentation device.



- Once set up, the app will now display your fermentation tracking on your mobile device.



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## ADVICE FOR CLEANING & STORAGE

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- After fermentation, transfer the beer to kegs or bottles.
- Always unplug your fermenter and screw on the fermenter socket cap prior to cleaning.
- Rinse out the remaining trub and fill with water.
- Fill the fermenter halfway with water and add Mangrove Jack's Cold Water Cleaner Detergent.
- Scrub the sides of the fermenter and the lid with a non-abrasive cloth and clean water. Ensure all surfaces have been scrubbed.
- Drain out the cleaning liquid using both taps on the dual valve.
- Remove, disassemble and clean the dual valve tap.
- Then clean all the equipment with Mangrove Jack's No Rinse Sanitiser.
- Reassemble, dry and store.
- The Conical Fermenter Pro Controller is splash proof to make cleaning the outside of your fermenter easy. However, do not use a high-pressure hose directly on the controller or the fermenter power socket.
- Avoid the controller and power socket (even with the cap securely in place) coming into contact with water for extended periods of time.

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## TOP TIPS

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- We recommend dumping dead yeast and dry hops every 2-3 days during fermentation. This prevents the yeast and hops from clogging the valve.
- Throughout fermentation, the beer valve can be used to collect samples and test the gravity of the beer. To do this, open the ball valve and collect the beer using an appropriate vessel.
- As well as collecting samples, the valve can also be used to transfer the beer after fermentation. Simply connect a hose (10 mm (0.4") inner diameter) to the opening and open the ball valve.
- Temperature distribution changes as it cools. Therefore, when cooling at low temperatures, a reading that's taken at the top of the fermenter with an additional probe, such as a Tilt hydrometer, may be different to a reading that's taken in the cone.
- If you're fermenting in ambient temperatures above 30°C (86°F), we recommend using the Grainfather Conical Fermenter Pro Insulation Jacket (sold separately) to improve cooling times.
- To transfer your beer easily into a keg or bottle, we recommend using our Pressure Transfer Kit. If cold crashing, you can use the Pressure Transfer Kit to prevent suck back from the airlock by applying 0.5psi of CO<sub>2</sub> and adjusting the needle valve. This adds a blanket of CO<sub>2</sub> to the top of the fermenter and stops air getting in as the beer contracts as it rapidly cools. Cooling slowly at 3°C (37.4°F) per day will allow equilibrium between the pressure in the fermenter and outside. It also stops air getting back into the fermenter as the temperature drops.

## HEATING TIME GUIDE

The Grainfather Conical Fermenter Pro has a 30W, 12V heating element inside the cavity of the fermenter. This gently heats the environment between the walls of the fermenter, allowing for an even and controlled temperature increase, which is best for the yeast.

The heating efficiency of your fermenter is dependent on your ambient room temperature; however, the Conical Fermenter Pro can achieve up to 10°C (50°F) higher than ambient room temperature. Below is a guide of expected heating times based on the starting ambient temperature.

### AMBIENT TEMPERATURE 21°C (70°F) Humidity 50% / Volume 23 L (6 Gal)

Time (Hours)	0	1	2	3	4	5	6	7	8	9	10	11	12
Conical Fermenter Pro	18°C (64°F)	19.2°C (66.5°F)	20.1°C (68.1°F)	21°C (69.8°F)	22.2°C (71.9°F)	22.9°C (73.2°F)	24.1°C (75.3°F)	25°C (77°F)	26.2°C (79.1°F)	27.3°C (81.1°F)	28.1°C (82.5°F)	29.1°C (84.3°F)	30.4°C (86.7°F)
Conical Fermenter Pro with Insulation Jacket	18°C (64°F)	19.2°C (66.5°F)	20.1°C (68.1°F)	21°C (69.8°F)	22.2°C (71.9°F)	26.4°C (79.5°F)	27.5°C (81.5°F)	28.6°C (82.9°F)	29.7°C (85.4°F)	30.6°C (87.1°F)	32.2°C (89.9°F)	34.3°C (93.7°F)	35.5°C (95.5°F)

### AMBIENT TEMPERATURE 10°C (50°F) Humidity 50% / Volume 23 L (6 Gal)

Time (Hours)	0	1	2	3	4	5	6	7	8	9	10	11	12
Conical Fermenter Pro	10°C (50°F)	10.8°C (51.4°F)	11.7°C (53°F)	12.6°C (54.6°F)	13.7°C (56.6°F)	14.6°C (58.2°F)	15.5°C (59.9°F)	16.4°C (61.5°F)	17.5°C (63.5°F)	18.7°C (65.6°F)	19.5°C (67.1°F)	20.2°C (68.3°F)	20.2°C (68.3°F)
Conical Fermenter Pro with Insulation Jacket	10°C (50°F)	11.9°C (53.4°F)	12.9°C (55.2°F)	13.9°C (57°F)	15.1°C (59.1°F)	16.1°C (60.9°F)	17.1°C (62.8°F)	18.1°C (64.6°F)	19.3°C (66.7°F)	20.6°C (69.1°F)	21.5°C (70.7°F)	22.3°C (72.1°F)	25.3°C (77.3°F)

### AMBIENT TEMPERATURE 4°C (39°F) Humidity 50% / Volume 23 L (6 Gal)

Time (Hours)	0	1	2	3	4	5	6	7	8	9	10	11	12
Conical Fermenter Pro	4°C (39.2°F)	4.9°C (40.8°F)	5.5°C (41.9°F)	6.2°C (43.1°F)	6.8°C (44.2°F)	7.4°C (45.3°F)	8.8°C (47.8°F)	8.8°C (47.8°F)	8.8°C (47.8°F)	8.8°C (47.8°F)	8.8°C (47.8°F)	8.8°C (47.8°F)	8.8°C (47.8°F)
Conical Fermenter Pro with Insulation Jacket	4°C (39.2°F)	5.4°C (41.7°F)	6.1°C (43°F)	6.8°C (44°F)	7.5°C (45.5°F)	8.2°C (46.8°F)	9.2°C (48.6°F)	9.7°C (49.5°F)	10.5°C (50.9°F)	11°C (51.8°F)	11.9°C (53.4°F)	13°C (55.4°F)	14.4°C (57.92°F)

**NOTE:** 4°C (39.2°F) is the lowest temperature that we recommend for fermentation. Based on a 20°C (68°F) ambient temperature, 36°C (96.8°F) is the maximum temperature that you can achieve when using the Conical Fermenter Pro Insulation Jacket. Results will vary depending on ambient temperature and humidity.

## IMPORTANT SAFEGUARDS:

### READ AND FOLLOW ALL INSTRUCTIONS

- CAUTION** - Risk of fires and electric shock.
- Replace only with genuine Grainfather cord set.
  - Do not immerse in water.

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE FOR COMMERCIAL AND INDOOR USE ONLY



**RESOURCES:** Check out our YouTube Channel for helpful videos. For more information visit our FAQ's page [shop.grainfather.com/index.php/faq](https://shop.grainfather.com/index.php/faq).

### GET IN TOUCH:

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