Profile created by: Bill Pierce

Length: 60 minutes

Profile objective: Anaerobic endurance, VO2 max, and mental strength

This profile enables riders to enhance VO2 max while also improving their confidence to tolerate the strong discomfort felt when riding above threshold. It's based on the group fitness cliché that "You can do anything for a minute." If something is humanly possible, even if it is very hard, it can quite often be done for a minute...maybe. The intent of this profile is to instill the belief in your riders that if something is realistically achievable, they can do it. This will encourage your participants to set challenging yet attainable goals. High-intensity intervals—working at and slightly above threshold for 30 to 90 seconds—are really hard but achievable. On the other hand, constant all-out sprinting for 30 to 90 seconds isn't realistic or attainable for even the fittest individuals.

I introduce this profile by writing the letters "HIIT" on a mirror or whiteboard and explain the acronym for "high-intensity interval training." I don't do this intensity often in my classes, so I want riders to understand they will be pushing a very high intensity for short durations and that it will be extremely hard. I don't dwell on the technical aspects. I ask if they have heard the saying "You can do anything for a minute." I respond, "Well, I'm not sure that you CAN do anything for a minute but you're going to try!"

The ride consists of 4 sets of high-intensity intervals where either the work or the recovery is 1 minute. The work intervals are all Zone 4 (90% to 104% of FTP) to Zone 5 (105% to 120% of FTP), and the recovery between intervals is Zone 1 (< 55% of FTP). To keep it simple, cadence remains constant for the intervals within each set and only varies slightly between sets. There is no suggested terrain, no hills or flats. Positions aren't specified—riders can sit or stand as they prefer. This keeps the focus where it should be—on effort, intensity, and power.

The zones listed are power zones based on FTP, but you can use an RPE of 7–9 (hard to very hard) for the intervals and 2–3 (very easy) for the recovery. It is not advisable to prescribe heart rate zones for such high-intensity work since the intervals are so short and the heart rate will not respond in time.

1. Warm-up	Zone 1 to 3	81 rpm
Secret Life, Psykosonic	4:23	110 bpm
Empty Room, Arcade Fire	2:51	162 bpm

Warm up behind the beat for the first song. Increase resistance and bring cadence to 81 rpm for the second song. Gradually bring intensity to Zone 3 by the end of the second song. Approaching the end of warm-up, write: "SET 1: 1:00 + 1:30 rec x 5" on the whiteboard. Explain that the first set will be 1 minute of work just above breathless, followed by 1.5 minutes of recovery at "very easy." Just before beginning the first set, proclaim to your riders, "You can do anything for a minute...maybe."

2. First Set	Low Zone 5 / Zone 1	75 rpm
The Wolf, Mumford & Sons	3:41	151 bpm
The Crippled Jazzer, Marnie Stern	4:19	151 bpm
Any Minute Now, Soulwax	3:07	150 bpm

The first set is 1 minute at Zone 4 or low Zone 5 with 1.5 minutes of easy recovery in Zone 1. They should maintain a steady 75 rpm cadence, adding a significant amount of resistance for the work interval and removing it for the recovery. Advise riders that if they don't feel sufficiently warmed up to start this set, they may perform the first one or two work intervals at high Zone 3 or low Zone 4.

3. Recovery	Zone 1 or 2	N/A
Despite The Weather, Kaytranada	2:02	108 bpm

Riders should dissociate rpm from bpm during this recovery and focus on bringing heart rate down and restoring their breath. During this time, tell them, "You just proved that you can do anything for a minute...possibly." Preview set 2 by writing "SET 2: 1:30 + 1:00 rec x 5" on the whiteboard. Ask them to recall the resistance and power they achieved in set 1. Set 2 will be slightly lower resistance and slightly higher cadence to produce the same amount of watts. The biggest difference is that they'll be working 30 seconds longer and recovering for 30 seconds less. Let the riders know that with a work-to-recovery ratio of less than 1:1, their heart rates may still be elevated before starting the next interval but they will have more time to fully recover at the completion of this set.

4. Second Set	nd Set Low Zone 5 / Zone 1	
Get Older, Dan Deacon	6:30	160 bpm
Optimistic, Radiohead	5:15	158 bpm

The second set is 1.5 minutes at Zone 4 or low Zone 5 with 1 minute of easy recovery in Zone 1. Riders should maintain a steady 79–80 rpm cadence, adding a significant amount of resistance for the work interval and removing it for the recovery.

5. Recovery Between Sets 2 and 3	Zone 1 or 2	N/A
Calvary Scars, Deerhunter	1:37	106 bpm

In the previous song, "Optimistic," there is a music drop at 4:52; you can begin your recovery at that point. Combined w this song, that's a total of 2 minutes of recovery. Riders should dissociate rpm from bpm and focus on bringing heart rates down and restoring their breath. During this time, remind them, "You just proved that you can do anything for a minute...probably. But the next set is even more challenging because it's higher intensity." Preview set 3 by writing "SET 3: 0:30 + 1:00 rec x 5" on the whiteboard. Ask them to recall the resistance and power they achieved in set 2. Set 3 will be at a measurably higher resistance and slightly lower cadence to produce noticeably more (+5% to 10%) watts. To account for the higher intensity, the duration will be decreased and the recovery period will be twice the work period.

6. Third Set	Hi Zone 5 / Zone 1	74 rpm
Resurrection, PPK	7:27	148 bpm

The third set is the highest intensity yet, but the duration is only 30 seconds. They should strive to reach an RPE of 9 (very hard) followed by 1 minute of easy recovery in Zone 1. Riders should maintain a steady 74 rpm cadence, adding a significant amount of resistance for the work interval and removing it for the recovery.

7. Recovery Between Sets 3 and 4	Zone 1 or 2	N/A
Intro, The xx	2:07	100 bpm

In the previous song, "Resurrection," the music fades at 6:30; you can begin your recovery at that point, providing just over 3 total minutes of recovery with this song. Riders should dissociate rpm from bpm during the recovery and focus on bringing heart rates down and restoring their breath. During this time, once again remind them, "You just proved that you can do anything for 30 seconds, but can you do it for a minute? The final set will determine that. You've already figured out what it will be." Write "SET 4: 1:00 + 0:30 rec x 5" on the whiteboard. Ask them to recall the resistance and power they achieved in set 3. Set 4 will be slightly lower resistance and slightly higher cadence to produce the same amount of watts. The biggest difference will be that they'll be working 30 seconds longer and recovering for 30 seconds less. Let the riders know that with a work-to-recovery ratio of less than 1:1, their heart rates may still be elevated before starting the next interval but they will be able to fully recover after this final set during cool-down.

8. Fourth Set	Hi Zone 5 / Zone 1	80 rpm
Paint It Black, The Rolling Stones	3:22	159 bpm
My God Is The Sun, Queens of the Stone Age	3:55	160 bpm

The fourth set is the hardest yet, but make sure to add the caveat that they do not have to do all of the intervals in this set. The goal is 1 minute in Zone 5 (RPE very hard) with 30 seconds of easy recovery in Zone 1. Advise riders that if their power diminishes and Zone 5 isn't attainable, they should recover and then skip the next work interval. After the longer recovery, they can try to achieve Zone 5 again. If it still isn't possible, that means their body has had enough. Let them know they're done for the day and should still feel great about their effort.

The set begins 9 seconds into "Paint It Black" as the music kicks in and ends at the 3:37 mark of "My God Is The Sun" after the last guitar blast. Riders should maintain a steady 80 rpm cadence, adding a significant amount of resistance for the work interval and removing it for the recovery. You should consider coaching this set off of the bike.

11. Cool-down	Zone 1	N/A
Ends Of The Earth, Lord Huron	4:44	121 bpm
Time To Run, Lord Huron	5:24	110 bpm

After the final set concludes, allow riders to catch their breath and recover. As they reflect on their accomplishments, congratulate them. They have not only proved that they could do "anything for a minute," they have proved that they could do "anything," period. Encourage them to feel great about their effort, and guide them through a restorative cool-down and stretch.

MUSIC RESOURCES:

Length	Title	Artist	Album	ВРМ	Source
4:23	Secret Life	Psykosonic	Unlearn	110	iTunes, Spotify
2:51	Empty Room	Arcade Fire	The Suburbs	162	iTunes, Spotify
3:41	The Wolf	Mumford & Sons	Wilder Mind	151	iTunes, Spotify
4:19	The Crippled Jazzer	Marnie Stern	This Is It and I Am It and You Are It and So Is That and He Is It and She Is It and It Is It and That Is That	151	iTunes, Spotify
3:07	Any Minute Now	Soulwax	Any Minute Now	150	iTunes, Spotify
2:02	Despite The Weather	Kaytranada	99.9%	108	iTunes, Spotify
6:30	Get Older	Dan Deacon	Bromst	160	iTunes, Spotify
5:15	Optimistic	Radiohead	Kid A	158	iTunes, Spotify
1:37	Calvary Scars	Deerhunter	Microcastle	106	iTunes, Spotify
7:27	Resurrection	PPK	Perfecto Presents: The Club	148	Spotify
2:07	Intro	The xx	xx	100	iTunes, Spotify
3:22	Paint It Black	The Rolling Stones	Aftermath	159	iTunes, Spotify
3:55	My God Is The Sun	Queens of the Stone Age	Like Clockwork	160	iTunes, Spotify
4:44	Ends Of The Earth	Lord Huron	Lonesome Dreams	121	iTunes, Spotify
5:24	Time To Run	Lord Huron	Lonesome Dreams	110	iTunes, Spotify