

Reef monitoring to go high-tech

By Melissa Maddison

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Reef researchers will use artificial intelligence to better monitor and understand the Great Barrier Reef. • [Map: Cooktown 4871](#)

A new automated, smart sensor system has been proposed to cover the whole reef, and it is hoped by the end of next year, 10 sites will be operating between Cooktown and Gladstone.

The project manager of the Great Barrier Reef Ocean Observing System, Scott Bainbridge, says the sensors will provide real time data on ocean conditions that will help them better understand emerging environmental issues.

"Particularly things like climate impacts on things like coral mass spawning, for example. Things like storm events, water run-off and so on," he said.

"These are complicated systems and we know that they're stressed by a number of factors, so being able to monitor these systems in real time is an essential part of managing them and they're available to future generations."

Mr Bainbridge says the next generation of sensors will use artificial intelligence to monitor the reef.

"That allows us to do all the remote stuff in terms of being able to program these things, but more importantly, these things are smart in their own right, so as they see events they are actually able to change the way they sample, and also to alert other stations that things have happened," he said.

"So these things become autonomous and intelligent, which is not quite where we are today, but that's the future."

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