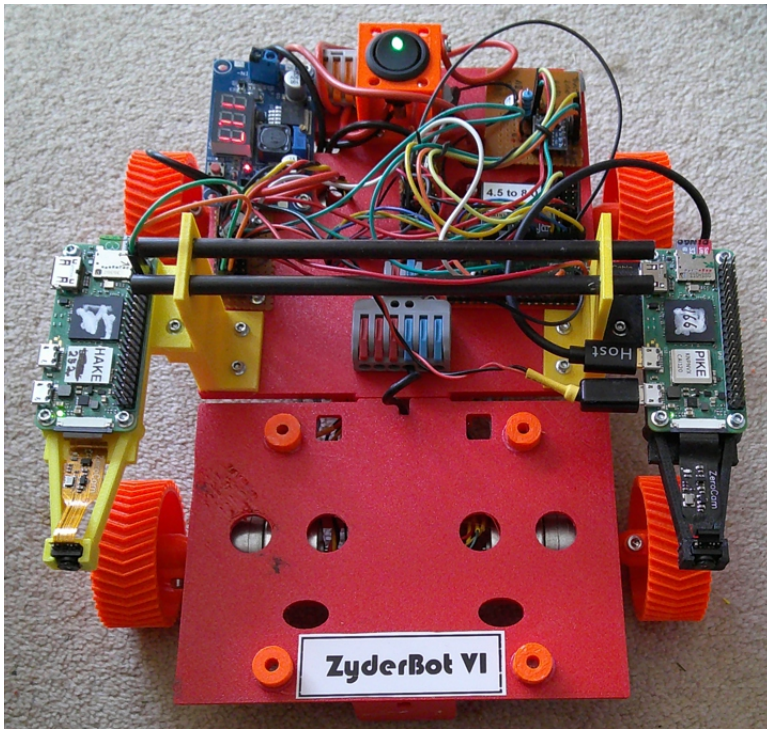


East Devon Pirates - Pi Wars 2024

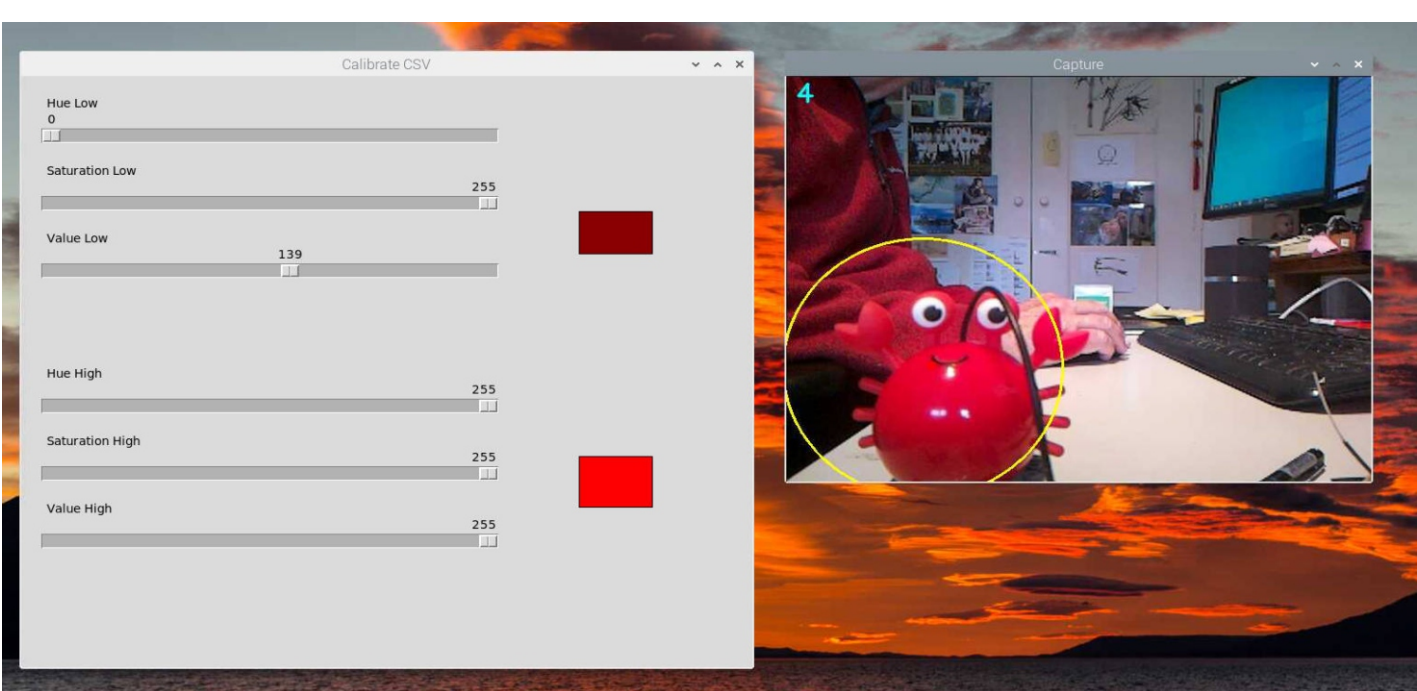
The basis for our 2024 entry is the 2022 entry. This has already been tidied up with more wiring underneath, so the top is less cluttered, though you might not think so from this picture! The basic structure, with an articulated attachment platform worked well, so we are keeping it.



The robot can be remote controlled with just the Pico, so the Pi Zeros can be removed if not required (they are rather vulnerable to knocks)

The stereo Pi Zeros actually worked to some extent for the 2022 challenge, but the level of accuracy we asked of them was unobtainable. For 2024 we are just doing object identification (including line following) which is a lot simpler than SLAM, so we expect good results.

As an example of our approach, we have started work on object identification, and have created a utility for visualising colours in HSV (we are more used to RGB). This lets you play around with the OpenCV parameters in real time. In the picture I am trying to select the red crab against a complex background, with some success. Incidentally, this involves running OpenCV under the control of TKinter on a Pi Zero! You never know what's possible until you try.



We have given robot demonstrations to local schools and groups (e.g. Scouts), which went down well, but have not managed to get them interested in following our Pi Wars journey. We will try again this year, and could mentor a local group if any kids nearby have entered.

We hope to have a busy and productive winter, and see you all in Cambridge