

 PROJECT #1 PROPOSAL

**Name(s): Dylan Howe & James MacMillan**

**Technology: Live Video Feed Redbot**

**Part A: Project Ideas & Objectives**

**We would like to expand on our previous redbot build by allowing a camera mounted on the redbot to stream live video to a mobile device. We would like to do this without an internet connection. We would also like to be able to control the redbot and allow it to take photos and videos itself. Since a mobile device is currently used to control the movement of the redbot we previously made, we will be using a dualshock 4 controller to control the motors via bluetooth.**

**Part B: Electronic Resources**

<https://www.youtube.com/watch?v=E2bvU7xVn_I>

<https://www.raspberrypi.org/forums/viewtopic.php?t=67571>

<https://www.circuitsathome.com/mcu/using-usb-bluetooth-dongle-on-arduino-to-connect-to-android-phone/> (Tutorial for an entire build, going this route may make some other materials obsolete.)

**Part C: Materials, Design**

**Raspberry pi**

**redbot**

**Raspberry pi camera**

**cell phone**

**laptop**

**Dualshock 4 controller**

**USB Host board:** [**http://www.hobbytronics.co.uk/ps4-controller-bluetooth**](http://www.hobbytronics.co.uk/ps4-controller-bluetooth) **OR**

[**http://www.hobbytronics.co.uk/manufacturer-hobbytronics/usb-host-mini**](http://www.hobbytronics.co.uk/manufacturer-hobbytronics/usb-host-mini)



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