TinyTony V1.0
idiot.io

Connections Diagram

INputs : LDR · IR
OUTputs : IR · LDR · LED · SERVO · TX
Programing : RST · SCK · MISO · MOSI

Labels: LDR1, LDR2

Pinout:
- RST (X) — pin 1
- LDR — pin 2
- IR — pin 3
- GND− — pin 4
- VCC+ — pin 8
- SCK — pin 7
- MISO — pin 6
- MOSI — pin 5
- LED — pin
- TX — pin
- SERVO — pin
- X

Internal Circuit

IR Receiver

attiny85

1 2 3 4 / 5 6 7 8

Power Bank Connector

DC Motor Connector

Calibration and Control With IR Remote
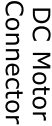
the system has an initial auto calibration, but we need to fine tune it to compensate for diffrent material and lighting

Fine Tune
cover LDR #1   press the [CH+] to set max value
cover LDR #2   press the [CH-] to set min value
uncover both LDRs   press the [CH] to set mid vallue

Trim
press [-] and [+] to subtract/add to trim value
after fine-tune you will have to trim the motor middle point
press until the motor doesn't turn or twitch in uncovered state.
usually no more then -/+10 is needed.

Store
to save settings in deep memory press the [200+] key
the setting you provide will be stored in Tinytony.

Info
if DEBUG is on you can use the [EQ] button to watch your settings
you will need a serial RX line connected to pin6 (TX)

Sensitivity
[PREV] AND [NEXT] keys set the minimal motion threshold

Remote keys: CH-, CH, CH+ [CHANNEL], PREV, NEXT, PLAY/PAUSE, VOL-, VOL+, EQ, 0, +100, +200, 1, 2, 3, 4, 5, 6, 7, 8, 9