

DAFTAR PUSTAKA

- [1] JPNN.com, “Penyandang Disabilitas Tunanetra di RI Capai 4 Juta, Baru 1 Persen yang Bekerja di Sektor Formal,” *JPNN.com*, Oct. 06, 2024. [Online]. Available: <https://m.jpnn.com/news/penyandang-disabilitas-tunanetra-di-ri-capai-4-juta-baru-1-persen-yang-bekerja-di-sektor-formal>
- [2] H. Hafiar, I. N. Adhilarso, and A. D. Saputra, “Blind Code pada Uang Kertas Rupiah: Pesan Komunikasi dan Komunikasi Pesan kepada Publik Disabilitas Netra,” *J. Kawistara*, vol. 10, no. 3, pp. 251–262, 2020, [Online]. Available: <https://jurnal.ugm.ac.id/kawistara/article/view/48865>
- [3] S. S. Raju, “Identification of Fake Indian Currency Using Deep Learning Techniques,” in *Proceedings of IEEE TEMSCON-ASPAC*, 2023. doi: 10.1109/temscon-aspac59527.2023.10531450.
- [4] R. A. Simanjuntak, “Pengalaman Sedih Tunanetra, Ditipu dengan Nominal Uang Tak Sesuai,” *Sindonews*, Nov. 16, 2018. [Online]. Available: <https://nasional.sindonews.com/berita/1355383/15/pengalaman-sedih-tunanetra-ditipu-dengan-nominal-uang-tak-sesuai>
- [5] A. Pujiyanto, D. Arpianto, and A. H. Fitri, “Identifikasi Nominal Uang Kertas untuk Tunanetra Menggunakan Sensor Warna TCS230 dengan Output Suara,” *J. Elektron. Energi, Telekomun. dan Kontrol*, vol. 2, no. 2, pp. 64–72, 2020, [Online]. Available: <https://ejournal.unuja.ac.id/index.php/jeccom/article/viewFile/1303/pdf>
- [6] M. D. Yoni and D. Yendri, “Audio-Based Assistive Device for Boxed Product Detection for the Visually Impaired,” *CHIPSET J. Comput. Hardware, Signal Process. Embed. Syst. Netw.*, vol. 6, no. 1, pp. 68–75, 2025, doi: 10.25077/chipset.6.01.68-75.2025.
- [7] R. Nisa, “Sistem Pengenalan Nominal Uang Rupiah Menggunakan Template

Matching,” Universitas Andalas, 2023.

- [8] A. M. Mersal, N. N. Asteita, M. S. Gabriel, S. M. Elkawafi, and H. Abubakr, “Libyan Currency Recognition System to Assist the Blind Community with Machine Learning Techniques,” in *Proceedings of the IEEE 11th International Conference on Systems and Control (ICSC), Sousse, Tunisia*, 2023, pp. 288–293. doi: 10.1109/ICSC58660.2023.10449806.
- [9] A. Anandika, “Hand Gesture to Control Virtual Keyboard Using Neural Network,” *JITCE (Journal Inf. Technol. Comput. Eng.*, vol. 7, no. 1, pp. 40–48, 2023, doi: 10.25077/jitce.7.01.40-48.2023.
- [10] B. Indonesia, “Gambar Uang,” Sep. 23, 2025. [Online]. Available: <https://www.bi.go.id/id/rupiah/gambar-uang/Default.aspx>
- [11] M. A. Sabara, B. Niam, and R. Darpono, “Alat Deteksi Nominal Uang Kertas untuk Penyandang Tuna Netra dengan Metode Deteksi Warna,” *J. Ris. Rekayasa Elektro*, vol. 5, no. 2, pp. 129–136, 2023.
- [12] A. Bahri and Harmadi, “Sistem Pendeteksi Keaslian dan Nominal Uang untuk Penyandang Tunanetra Menggunakan Sensor UV GYML 8511 dan TCS3200,” *J. Fis. Unand*, vol. 12, no. 2, pp. 316–321, 2023, doi: 10.25077/jfu.12.2.316-321.2023.
- [13] Bahar, R. D. Y. Raban, and R. Arnie, “Model Pendeteksi Nominal Uang Kertas Rupiah Menggunakan Teknologi Optical Character Recognition,” *J. TICOM Technol. Inf. Commun.*, vol. 12, no. 1, pp. 8–13, 2023.
- [14] G. Khoharja, Liliana, and A. N. Purbowo, “Aplikasi Deteksi Nilai Uang pada Mata Uang Indonesia dengan Metode Feature Matching,” *J. Infra*, vol. 5, no. 1, pp. 51–55, 2019.
- [15] D. Akhiyar, Tukino, and S. Defit, “Implementation Of Deep Learning Using

Convolutional Neural Network Method In A Rupiah Banknote Detection System For Those With Low Vision,” *Ilk. J. Ilm.*, vol. 17, no. 1, pp. 34–43, 2025, doi: 10.33096/ilkom.v17i1.2253.34-43.(diakses: 14 Nov. 2025).

- [16] N. Lailatulfath, M. Rahmah, W. Sutanto, and V. Nadhira, “Prototipe Alat Penyortir Telur Berdasarkan Warna dan Ukuran,” *Jurnal Otomasi Kontrol dan Instrumentasi*, vol. 13, no. 2, pp. 93–100, Oct. 2021, doi: 10.5614/joki.2021.13.2.4. (diakses: 14 Nov. 2025).
- [17] D. Harjunowibowo, S. Hartati, and A. Budianto, “A Counterfeit Paper Currency Recognition System Using LVQ based on UV Light,” *IJID (International J. Informatics Dev.*, vol. 1, no. 2, p. 9, 2012, doi: 10.14421/ijid.2012.01202. (diakses: 14 Nov. 2025).
- [18] Raspberry Pi, “Camera – Raspberry Pi Documentation,” [Online]. Available: <https://www.raspberrypi.com/documentation/accessories/camera.html> (diakses: 14 Nov. 2025).
- [19] Manuals+, “Logitech C920 HD Pro Webcam – Panduan Kamera,” Manuals+, [Online]. Available: <https://manuals.plus/id/logitech/c920-hd-pro-webpanduan-kamera> (diakses: 14 Nov. 2025).
- [20] Arducam, “8MP IMX219 – Arducam Wiki (Native Raspberry Pi Camera),” [Online]. Available: <https://docs.arducam.com/Raspberry-Pi-Camera/Native-camera/8MP-IMX219/> (diakses: 14 Nov. 2025).
- [21] Vrabocry, “LED Light Strip USB Powered 1m 5V 60 SMD2835 LEDs 395–405nm Ultraviolet Blacklight,” Amazon, 2023. [Online]. Available: <https://www.amazon.com/dp/B09V7N9Y6Y> (diakses: 14 Nov. 2025).
- [22] Lumixtar, “3W UV 365nm High Power LED,” Lumixtar Official Website, 2020. [Online]. Available: <https://www.lumixtar.com/3w-uv-365nm-high-power-led.html> (diakses: 14 Nov. 2025).

- [23] Lumixtar, “SMD2835 0.2W 0.5W 365nm Custom UV LED for UV Curing and Adhesive Bonding,” Lumixtar Official Website, 2020. [Online]. Available: <https://www.lumixtar.com/smd2835-0-2w-0-5w-365nm-custom-uv-led-for-uv-curing-adhesive-bonding.html> (diakses: 14 Nov. 2025).
- [24] Raspberry Pi, “Raspberry Pi 4 Model B Specifications,” Raspberry Pi Products, [Online]. Available: <https://www.raspberrypi.com/products/raspberry-pi-4-model-b/specifications/> (diakses: 14 Nov. 2025).
- [25] Shopee, “Halaman produk Shopee (ID produk 1471671831/27335839819),” Shopee, [Online]. Available: <https://shopee.co.id/product/1471671831/27335839819> (diakses: 14 Nov. 2025).
- [26] NVIDIA, “NVIDIA Jetson Nano Developer Kit – Datasheet,” NVIDIA (PDF via SparkFun), [Online]. Available: <https://cdn.sparkfun.com/assets/0/7/f/9/d/jetson-nano-devkit-datasheet-updates-us-v3.pdf> (diakses: 14 Nov. 2025).
- [27] Tokopedia, “Halaman rekomendasi produk Tssokopedia (recomProdId 5154615870),” Tokopedia, [Online]. Available: <https://www.tokopedia.com/discovery/rekomendasi?recomProdId=5154615870> (diakses: 14 Nov. 2025).
- [28] Coral, “Coral Dev Board Datasheet,” Coral Documentation, [Online]. Available: <https://www.coral.ai/docs/dev-board/datasheet/> (diakses: 14 Nov. 2025).
- [29] Tokopedia, “Coral Dev Board 4GB RAM – Halaman Produk Tokopedia,” Tokopedia, [Online]. Available: <https://www.tokopedia.com/rosesana/coral-dev-board-4gb-ram> (diakses: 14 Nov. 2025).
- [30] Components101, “PAM8403 Stereo Audio Amplifier Module Pinout, Features, Specs & Datasheet,” 26 Mei 2020. [Online]. Available: <https://components101.com/modules/pam8403-stereo-audio-amplifier-module>

(diakses: 14 Nov. 2025).

- [31] Techtonics, “3W 4Ohm Speaker 4070 – 40mm Speaker,” Product Specifications, 2024. [Online]. Available: <https://techtonics.in/product/3w-4ohm-speaker-4070/> (diakses: 14 Nov. 2025).
- [32] Jedel, “USB Powered Mini PC Speakers CK4 (3W × 2),” Product Specs, 2024. [Online]. Available: <https://www.justop.com/jedel-usb-powered-mini-pc-speakers-wired-6w-rms> (diakses: 14 Nov. 2025).
- [33] Xiaomi, “Mi Compact Bluetooth Speaker 2 – Specifications,” 2024. [Online]. Available: <https://www.mi.com/uk/mi-compact-bluetooth-speaker-2/specs/> (diakses: 14 Nov. 2025).
- [34] LiPoBattery, “3.7V Li Po Battery 5000mAh+,” LiPoBattery.us, [Online]. Available: <https://www.lipobattery.us/li-po-batteries-5000mah/> (diakses: 14 Nov. 2025).
- [35] TP-Link, “TL-PB10000 | 10000mAh Li-Polymer Power Bank,” TP-Link Official Website, [Online]. Available: <https://www.tp-link.com/id/home-networking/power-bank/tl-pb10000/> (diakses: 14 Nov. 2025).
- [36] Alibaba, “18650 2S2P 7.4V 5000mAh Lithium-Ion Battery Pack – Halaman Produk Alibaba,” Alibaba.com, [Online]. Available: https://www.alibaba.com/product-detail/18650-2S2P-7-4V-5000mAh-Li_1601613118015.html (diakses: 14 Nov. 2025).
- [37] A. F. Habibah, “BI: Uang Rupiah TE 2022 hasil evaluasi dari yang telah beredar,” *ANTARA News*, Aug. 18, 2022. Accessed: Jan. 7, 2026. [Online]. Available: <https://www.antaranews.com/berita/3066057/bi-uang-rupiah-te-2022-hasil-evaluasi-dari-yang-telah-beredar>

- [38] H. Hafiar, Y. Setianti, P. Subekti, and A. Sani, "Blind Code pada Uang Kertas Rupiah Pesan Komunikasi dan Komunikasi Pesan kepada Publik Disabilitas Netra," *Jurnal Kawistara*, vol. 10, no. 3, pp. 328–342, Dec. 2020, doi: 10.22146/kawistara.48865.
- [39] Sementom Electronic Co., Ltd., "What Are The Disadvantages Of Money Counting Machine?," *Sementom*, Oct. 15, 2024. [Online]. Available: <https://www.semtom.com/news/what-are-the-disadvantages-of-money-counting-m-81539618.html>
- [40] N. S. Hidayatullah and D. Irawan, "Sistem Penghitung Uang Kotak Amal Otomatis Berbasis Telegram," *Jurnal Informatika dan Teknik Elektro Terapan (JITET)*, vol. 13, no. 2, pp. 982–988, Apr. 2025, doi:10.23960/jitet.v13i2.6387.
- [41] J. Akbar, "Rancang Bangun Alat Pendeteksi Nominal Uang Kertas untuk Penyandang Tuna Netra," Tugas Akhir, Program Studi Otomasi Sistem Permesinan, Politeknik ATI Makassar, Makassar, 2020. [Online]. Available: https://lib.atim.ac.id/uploaded_files/temporary/DigitalCollection/NGU0Yjg0NTUwMmMq1Y2U3ZTdYjcXZWZiNWU5Y2JIN2RjYzBmNjQ1Yw==.pdf.
- [42] M. D. A. Fitra and A. Fadli, "Detection of Fuel Purity Using the TCS3200 Sensor Using the Euclidean Distance Function," *Buletin Ilmiah Sarjana Teknik Elektro*, vol. 5, no. 3, pp. 312–322, Jul. 2023, doi: 10.12928/biste.v5i3.8260.
- [43] S. Muhamad and T. N. Ahmed, "Image-based processing of paper currency recognition and fake identification: A review," *Technium – Soc. Sci. J.*, vol. 3, no. 7, pp. 46–63, 2021.
- [44] M. Aminullah, "Deteksi keaslian uang kertas berdasarkan watermark dan warna menggunakan metode Canny dan Euclidean Distance," **COREAI: J. Kecerdasan Buatan, Komputasi dan Teknologi Informasi**, vol. 5, no. 1, 2024, doi:10.33650/coreai.v5i1.6544

- [45] Adafruit, “IR Break Beam Sensors – Product Guide,” Adafruit Learning System, 19 Jan. 2018. [Online]. Available: https://cdn-learn.adafruit.com/downloads/pdf/ir-breakbeam_sensors.pdf. [Accessed: 14-Nov-2025]
- [46] OmniVision Technologies, “OV5647 5.0 MP Image Sensor – Full Datasheet,” [Online]. Available: https://cdn.sparkfun.com/datasheets/Dev/RaspberryPi/ov5647_full.pdf. [Accessed: 14-Nov-2025].
- [47] “Raspberry Pi Camera Module – Product Description,” RS Components, Document 775 7731, OmniVision 5647 sensor, RS Online, [Online]. Available: <https://docs.rs-online.com/2888/0900766b8127db0a.pdf>. [Accessed: 14-Nov-2025]
- [48] Digi-Key Corporation, “114992262 – IMX219-130 8 MP Camera Module Specification,” Digi-Key, [Online]. Available: https://mm.digikey.com/Volume0/opasdata/d220001/medias/docus/4008/114992262_Web.pdf. [Accessed: 14-Nov-2025].
- [49] İLKER ELEKTRONİK, “3528 SMD LED – Data Sheet (Codes 4001-4005-4024-4025), Version 2,” İLKER Elektronik / İLED, [Online]. Available: <https://www.iled.com/class/INNOVAEditor/assets/YeniDatasheets/4001-4005-4024-4025.pdf>. [Accessed: 14-Nov-2025]
- [50] Octa Electronics, “5730 SMD LED – Data Sheet, Version 1.4,” Octa Electronics, [Online]. Available: https://octa-electronics.com/web/files/product_groups/27/files/Data%20Sheet%205730%20V1.4.pdf. [Accessed: 14-Nov-2025].
- [51] COB LED 3W, 13×13 mm, AMPUL SYSTEM s.r.o., “Product Specification,” AMPUL.eu. Accessed: 15-Nov-2025. [Online]. Available: https://ampul.eu/en/module/producttopdf/view?id_product=3427

- [52] DFR0602, “3-Wheeled Mobile Robot Platform,” DFRobot. [Online]. Available: <https://media.digikey.com/pdf/Data%20Sheets/DFRobot%20PDFs/DFR0602Web.pdf>
- [53] Raspberry Pi Ltd., “Raspberry Pi Zero 2 W – Product Brief,” [Online]. Available: <https://datasheets.raspberrypi.com/rpizero2/raspberry-pi-zero-2-w-product-brief.pdf>. [Accessed: 14-Nov-2025].
- [54] Raspberry Pi 4 Model B Datasheet, Raspberry Pi (Trading) Ltd.. [Online]. Available: <https://datasheets.raspberrypi.com/rpi4/raspberry-pi-4-datasheet.pdf>
- [55] ACMIC, “ACMIC MINIMAX 10000mAh Powerbank Mini 22.5W Fast Charging Type C,” *ACMIC*. [Online]. Available: <https://acmic.id/products/acmic-minimax-supermini-10000mah-aicharge-power-bank-qc4-pd-vooc>. [Accessed: Aug. 2, 2026]
- [56] P. P. Urone and R. Hinrichs, *College Physics 2e*. Houston, TX, USA: OpenStax, 2022, ch. 20. [Accessed: Aug. 2, 2026]
- [57] Scikit-learn Developers, “Metrics and scoring: Quantifying the quality of predictions,” *scikit-learn User Guide* [Accessed: Aug. 2, 2026]